JVI’s Webinar on new FSIs Guide

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Overview

- The State of Play
- Factors behind the FSI Update
- FSI: Before and After
- Concentration and Distribution Measures
- Structure of new report forms
- The Migration
Stay of Play: Number of FSI reporters
Why a new FSI Guide?

The global financial crisis
- a recognition of the need to improve our tools to track macro-financial vulnerabilities

The crisis led to reforms in regulatory and accounting standards
- Regulation (Basel III Accord)
- Accounting (IFRS 9)
- And a recognition of the need for/to
  - indicators to better gauge DT buffers vs. expected and unexpected losses
  - develop new FSIs for Other Financial Corporations (shadow banking)
  - strengthen the FSIs for NonFinancial Corporations and Households
**Why a new FSI Guide?**

The G20 Data Gaps Initiative (DGI) => monitoring financial risks a priority.

- Recommendation #2:
  - called for a revision of the list of FSIs

- Recommendation #3:
  - called for the IMF to investigate CDM for selected FSIs
FSIs: Before and After
<table>
<thead>
<tr>
<th>Category</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposit-takers (DTs)</td>
<td>12 core</td>
<td>17 core</td>
</tr>
<tr>
<td></td>
<td>13 additional</td>
<td>12 additional</td>
</tr>
<tr>
<td>Other Financial Corporations (OFCs)</td>
<td>2 additional</td>
<td>2 additional</td>
</tr>
<tr>
<td>- Money market funds (MMFs)</td>
<td></td>
<td>2 additional</td>
</tr>
<tr>
<td>- Insurance corporations (ICs)</td>
<td></td>
<td>4 additional</td>
</tr>
<tr>
<td>- Pension funds (PFs)</td>
<td></td>
<td>2 additional</td>
</tr>
<tr>
<td>Nonfinancial corporations (NFCs)</td>
<td>5 additional</td>
<td>7 additional</td>
</tr>
<tr>
<td>Households (HH)</td>
<td>2 additional</td>
<td>3 additional</td>
</tr>
<tr>
<td>Real Estate Markets</td>
<td>4 additional</td>
<td>1 core</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 additional</td>
</tr>
<tr>
<td>Market Liquidity</td>
<td>2 additional</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12 core</td>
<td>18 core</td>
</tr>
<tr>
<td></td>
<td>28 additional</td>
<td>35 additional</td>
</tr>
</tbody>
</table>
FSIs for DTs: Before and After

Core FSIs for DTs

Four new FSIs
- CET1 capital to risk-weighted assets
- Provisions to nonperforming loans
- Liquidity coverage ratio
- Net stable funding ratio

One FSI moved from the additional to the core set
- Capital to assets (renamed as Tier 1 capital to asset)
FSIs for DTs: Before and After

Additional FSIs for DTs

One additional
  ▪ Credit growth to the private sector

One deletion
  ▪ Net open position in equities to capital
A Closer Look
**Income and Expense Statement**

1. Interest income
   - i. Gross interest income
   - ii. Less provisions for accrued interest on nonperforming assets
2. Interest expense
3. Net interest income (= 1 – 2)
4. Noninterest income
   - i. Fees and commissions receivable
   - ii. Gains or losses on financial instruments
   - iii. Prorated earnings
   - iv. Other income
5. Gross income (≠ 3 + 4)
6. Noninterest expenses
   - i. Personnel costs
   - ii. Other expenses
7. Provisions (net)
   - i. Loan loss provisions
   - ii. Other financial asset provisions
8. Net income before taxes (= 5 – (6 + 7))

9. Income tax
10. Net income after taxes (= 8 – 9)
11. Other comprehensive income (loss) net of tax
12. Dividends payable
13. Retained earnings (= 10 – 12)

*Income and expense statement is reported from beginning of the calendar year to the end of the reporting period.*
## Balance Sheet

14. Total assets (= 15 + 16 = 23 + 31)

15. Nonfinancial assets

16. Financial assets (= 17 through 22)

17. Currency and deposits

18. Loans (after specific provisions) (= 18.i – 18.ii)

i. Gross loans

i.i. Interbank loans

i.i.i. Resident

i.i.ii. Nonresident

i.ii. Noninterbank loans

i.ii.i. Central bank

i.ii.ii. General government

i.ii.iii. Other financial corporations

i.ii.iv. Nonfinancial corporations

i.ii.v. Other domestic sectors

i.ii.vi. Nonresidents

i. Specific provisions

19. Debt securities

20. Equity and investment fund shares

21. Financial derivatives

22. Other financial assets

23. Liabilities (= 28 + 29 + 30)

24. Currency and deposits

25. Interbank deposits

ii. Resident

ii.ii. Nonresident

ii.iii. Other currency and deposits

26. Loans

27. Other liabilities

28. Debt (= 24 through 27)

29. Financial derivatives and employee stock options

30. General and other provisions

31. Capital and reserves

32. Balance sheet total (=23 + 31 = 14)
## Memorandum Series

**Other series required to calculate FSIs:**

### Supervisory-based series

33. Tier 1 capital less corresponding supervisory deductions

34. Common Equity Tier 1 (CET1) capital less corresponding supervisory deductions

35. Additional Tier 1 (AT1) capital less corresponding supervisory deductions

36. Tier 2 capital less corresponding supervisory deductions

37. Tier 3 capital

38. Other supervisory deductions

39. Total regulatory capital (= 33 + 36+ 37 - 38)

40. Risk-weighted assets

41. Basel III total exposure measure

42. High-quality liquid assets

43. Total net cash outflows over the next 30 calendar days

44. Available amount of stable funding

45. Required amount of stable funding

46. Large exposures

**Series that provide a further analysis of the balance sheet:**

47. Liquid assets

48. Short-term liabilities

49. Nonperforming loans

50. Residential real estate loans

51. Commercial real estate loans

### Geographic distribution of loans

- (i) Domestic economy
- (ii) Advanced economies
- (iii) Emerging market and developing economies
  - (iii.1) Emerging and developing Asia
  - (iii.2) Emerging and developing Europe
  - (iii.3) Latin America and the Caribbean
  - (iii.4) Middle East and Central Asia
- (ii.5) Sub-Saharan Africa

52. Foreign currency loans

53. Foreign currency liabilities

54. Net open position in foreign currency for on-balance-sheet items

55. Total net open position in foreign currency

56. Credit to the private sector

57. Loan concentration by economic activity

58. Reference lending rates

59. Reference deposit rates

60. Highest interbank rate

61. Lowest interbank rate

**Data series for compiling FSIs: ROA and ROE**

62. Annualized net income before taxes

63. Annualized net income after taxes

64. Average total assets

65. Average capital and reserves
FSIs for DTs: Before and After

Capital Adequacy

Analytic value: a gauge of the robustness of financial institutions to withstand shocks to their balance sheets

**Basel**

- Regulatory capital to RWAs
  - Measure the capacity of regulatory capital to withstand losses

- Tier 1 capital to RWAs
  - Measure the capacity of Tier 1 capital to withstand losses

- CET1 to RWAs*
  - Capacity of Common Equity to absorb loss.

- Tier 1 Capital to Total Assets
  - Financial leverage and ability to absorb loss

**Other**

- Nonperforming loans net of provision to capital

* New FSI
## FSIs for DTs: Before and After

### Capital Adequacy: Core

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory capital to risk-weighted assets</td>
<td>Regulatory capital to risk-weighted assets</td>
<td></td>
</tr>
<tr>
<td>• Numerator: No change</td>
<td>• Denominator: No change</td>
<td></td>
</tr>
<tr>
<td>Regulatory Tier 1 capital to risk-weighted</td>
<td>Regulatory Tier 1 capital to risk-weighted</td>
<td></td>
</tr>
<tr>
<td>assets</td>
<td>assets</td>
<td></td>
</tr>
<tr>
<td>• Numerator: No change</td>
<td>• Denominator: No change</td>
<td></td>
</tr>
<tr>
<td>CET-1 capital to risk-weighted assets*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Numerator: CET1</td>
<td>• Denominator: Risk-weighted assets</td>
<td></td>
</tr>
<tr>
<td>Capital to assets</td>
<td>Tier-1 capital to assets</td>
<td></td>
</tr>
<tr>
<td>• Numerator: Tier 1 capital</td>
<td>• Denominator: Total assets or Basel III's exposure measures</td>
<td></td>
</tr>
<tr>
<td>Nonperforming loans net of provisions to</td>
<td>Nonperforming loans net of provisions to</td>
<td></td>
</tr>
<tr>
<td>capital</td>
<td>capital</td>
<td></td>
</tr>
<tr>
<td>• Numerator: Specific provisions (defined as provisions on NPLs).</td>
<td>• Denominator: Total regulatory capital</td>
<td></td>
</tr>
</tbody>
</table>

* New FSI
FSIs for DTs: Before and After

Capital Adequacy

Green indicates prescribed choice of denominator in 2019 FSI guide

- Capital Adequacy
  - Capital to assets:
    - Tier 1 capital, 36
    - Capital and reserves, 67
    - Total regulatory capital, 13
  - NPLs net of provision to capital:
    - Tier 1 capital, 10
    - Capital and reserves, 51
    - Total regulatory capital, 47

Number refers to number of countries
FSIs for DTs: Before and After

Asset Quality

Analytic value: a measure of risks to deposit takers’ solvency arising from asset quality impairment

Core

- NPLs to total gross loans
- Provisions to NPLs
- Loans concentration by economic activity

Measure assets quality of loan portfolio
Measure coverage of NPLs
Measure concentration of risk in top 3 economic sectors

Additional

- Large exposures to Tier 1 capital
- Geographical Distribution loans to Total loans
- Gross assets/liability derivatives positions to regulatory capital
- FC loans to total loans
- FC currency liability to total liability
- Credit growth to private sector

Measure impact on capital from default of large counterparts' default
Measure credit risk arising from cross border loans
Measure the risk from derivatives operations on capital
Measure the credit risk arising from FX loans
Measure the relative importance of funding in fx currencies with total assets/liabilities
Forward looking indicator that measure credit growth

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## FSIs for DTs: Before and After

### Asset Quality: Core

<table>
<thead>
<tr>
<th></th>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonperforming loans</td>
<td>Nonperforming loans to total gross loans</td>
<td>Nonperforming loans to total gross loans</td>
<td>• Numerator: No change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Denominator: No change</td>
</tr>
<tr>
<td>Provisions to NPLs</td>
<td></td>
<td></td>
<td>• Numerator: Specific provisions (defined as provisions on NPLs).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Denominator: NPLs</td>
</tr>
<tr>
<td>Sectoral distribution</td>
<td>Loan concentration by economic activity*</td>
<td></td>
<td>• Replaced FSI on loan concentration by economic activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Numerator: Loans to the top 3 economic sectors as per United Nation’s</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>International Standard Industrial Classification of All Economic Sector</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Activities (ISIC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Denominator: Gross loans to nonfinancial corporations</td>
</tr>
</tbody>
</table>

* New FSI
## FSIs for DTs: Before and After

### Asset Quality: Additional

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large exposures to capital</td>
<td>Large exposures to capital</td>
<td>• Numerator: All credit exposures to single or group of related borrowers after deduction of credit mitigants exceeding 10 percent of Tier 1 capital (as defined in the BCBS's framework)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Denominator: Tier 1 capital</td>
</tr>
<tr>
<td>Geographical distribution of loans</td>
<td>Geographical distribution of loans</td>
<td>• Numerator: [WEO regional country classification](October 2019)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Denominator: No change</td>
</tr>
<tr>
<td>Gross asset position in financial</td>
<td>Gross asset position in financial</td>
<td>• Numerator: No change</td>
</tr>
<tr>
<td>derivatives to capital</td>
<td>derivatives to capital</td>
<td>• Denominator: [Total regulatory capital]</td>
</tr>
<tr>
<td>Gross liability position in financial</td>
<td>Gross liability position in financial</td>
<td>• Numerator: No change</td>
</tr>
<tr>
<td>derivatives to capital</td>
<td>derivatives to capital</td>
<td>• Denominator: [Total regulatory capital]</td>
</tr>
</tbody>
</table>

* New FSI
# FSIs for DTs: Before and After

## Asset Quality: Additional

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
</table>
| Foreign-currency denominated loans to total loans | Foreign-currency denominated loans to total loans | • Numerator: No change  
• Denominator: No change |
| Foreign-currency denominated liabilities to total liabilities | Foreign-currency denominated liabilities to total liabilities | • Numerator: No change  
• Denominator: No change |
| Credit growth to private sector* | Credit growth to private sector* | • Credit to the private sector includes gross loans extended by DTs to the private nonfinancial sector, plus debt securities issued by private NFCs and held by DTs. The data should be compiled on a domestic consolidated basis. The private sector comprises private NFCs, HHs, and NPISHs.  
• Calculated as the 12 months growth in credit to private sector |

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FSIs for DTs: Before and After

Asset Quality

Green arrow indicates prescribed choice of denominator in 2019 FSI guide
**FSIs for DTs: Before and After**

**Earnings and profitability**

Analytic value: a measure of risks to deposit takers’ solvency arising from asset quality impairment

<table>
<thead>
<tr>
<th>Core</th>
<th>Additional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on assets</td>
<td>Trading income/Total income</td>
</tr>
<tr>
<td>Return on equity</td>
<td>Personal expenses/Non-interest expenses</td>
</tr>
<tr>
<td>Interest margin/Gross income</td>
<td>Spread between reference lending and deposit rates</td>
</tr>
<tr>
<td>Noninterest expense/Gross income</td>
<td>Spread between highest and lowest interbank rate</td>
</tr>
</tbody>
</table>

- **Core measures**
  - Return on assets: Measure efficiency in using assets
  - Return on equity: Measure efficiency in using capital
  - Interest margin/Gross income: Measure share of net interest income in gross income
  - Noninterest expense/Gross income: Measure administrative expenses in gross income

- **Additional measures**
  - Trading income/Total income: Measure reliance on market-related activity
  - Personal expenses/Non-interest expenses: Measure efficiency of operating business
  - Spread between reference lending and deposit rates: Measure intermediation margin
  - Spread between highest and lowest interbank rate: Gauge the perceived risk of lending among deposit takers
# FSIs for DTs: Before and After

## Earnings and profitability: Core

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on assets</td>
<td>Return on assets</td>
<td></td>
</tr>
</tbody>
</table>
• Extraordinary items have been phased out in the income and expense statement  
• Numerator: Annualized Net profit before tax  
• Denominator: Average total assets (No change) |
| Return on equity | Return on equity |  
• Numerator: Annualized Net profit after tax  
• Denominator: Average capital and reserves |
| Interest margin to gross income | Interest margin to gross income |  
• Numerator: No change  
• Denominator: include extraordinary profits (if any) |
| Non-interest expenses to gross income | Non-interest expenses to gross income |  
• Numerator: include extraordinary losses (if any)  
• Denominator: include extraordinary profits (if any) |
## FSIs for DTs: Before and After

### Earnings and profitability: Additional

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading income to total income</td>
<td>Trading income to total income</td>
<td>• Numerator: No change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Denominator: <strong>include extraordinary profits (if any)</strong></td>
</tr>
<tr>
<td>Personnel expenses to non-interest expenses</td>
<td>Personnel expenses to non-interest expenses</td>
<td>• Numerator: No change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Denominator: <strong>include extraordinary losses (if any)</strong></td>
</tr>
<tr>
<td>Spread between reference lending and deposit rates</td>
<td>Spread between reference lending and deposit rates</td>
<td>• No change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Both numerator and denominator need to be reported</td>
</tr>
<tr>
<td>Spread between highest and lowest interbank rate</td>
<td>Spread between highest and lowest interbank rate</td>
<td>• No change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Both numerator and denominator need to be reported</td>
</tr>
</tbody>
</table>
FSIs for DTs: Before and After

Earnings and profitability

Green is consistent with the 2019 FSI Guide

Income and expense statement

<table>
<thead>
<tr>
<th>Category</th>
<th>Cumulative Basis</th>
<th>Reporting period</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>78</td>
<td>27</td>
<td>17</td>
</tr>
</tbody>
</table>
FSIs for DTs: Before and After

Liquidity

Analytic value: a gauge of deposit takers’ ability to meet expected and unexpected demands for cash

**Core**

- **Liquid assets/Total assets**
  - Measure financial assets available to meet demand for cash

- **Liquid assets/Short term liabilities**
  - Measure liquidity mismatch between assets and liabilities

- **Basel: Liquidity coverage ratio***
  - Measure the capacity to withstand 30 days net cash outflow

- **Basel: Net stable funding ratio***
  - Measure stable funding over required funding

**Additional**

- **Customer deposits/Total deposits**
  - Measure use of “stable” funding for lending

* New FSI
## FSIs for DTs: Before and After

### Liquidity: Core

<table>
<thead>
<tr>
<th></th>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
</table>
| Liquid assets to total assets | Liquid assets to total assets for all DTs | • Numerator: Broad measure of liquidity assets (The 2019 FSI Guide does not differentiate between core and broad measure of liquidity)  
• Denominator: No change |
| Liquid assets to short term liabilities | Liquid assets to short term liabilities for all DTs | • Numerator: Broad measure of liquid assets (The 2019 FSI Guide does not differentiate between core and broad measure of liquidity)  
• Denominator: All liabilities with a maturity of not more than 90 days |
| Liquidity Coverage Ratio* | | • New indicator for DTs under Basel III  
• Numerator: High Quality Liquid Assets (HQLA)  
• Denominator: Net cash outflows |
| Net Stable funding Ratio* | | • New indicator for DTs under Basel III  
• Numerator: Available amount of stable funding  
• Denominator: Available amount of required funding |

* New FSI
## Liquidity: Additional

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
</table>
| Customer deposits total deposits | Customer deposits total deposits | • Numerator: include all deposits placed by residents or nonresidents, except those placed by (resident and nonresident) financial corporations, central governments, and central banks  
• Denominator: No change |

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FSIs for DTs: Before and After

Liquidity

Green indicates prescribed choice of denominator in 2019 FSI guide

LIQUID ASSETS/TOTAL ASSETS

- Broad: 79
- Core: 43
- Unknown: 1

LIQUID ASSETS/SHORT TERM LIABILITIES

- Broad: 76
- Core: 43
- Unknown: 1
FSIs for DTs: Before and After

Sensitivity to Market Risk

Analytic value: a measure of exposures to market risk

Core

Net open position to foreign exchange to total regulatory capital

Gauge vulnerability to foreign exchange risk

Green indicates prescribed choice of denominator in 2019 FSI guide

Net open position in foreign exchange to capital

- Tier 1 capital, 13
- Capital and reserves, 31
- Narrow capital and reserves, 1
- Total regulatory capital, 56

Number refers to number of countries
# FSIs for DTs: Before and After

## Sensitivity to Market Risk: Core

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main changes</th>
</tr>
</thead>
</table>
| Net open position in foreign exchange to capital | Net open position in foreign exchange to capital | • Numerator: No change (Preferred approach is to use on- and off-balance measure).  
• Denominator: **Total regulatory capital** |

* Deleted from the list of additional FSIs: Net open position in equity to capital
Concentration and Distribution Measures (CDMs)
**CDMs**

- **Recommendation II-3 of the Data Gaps Initiative**
  - The IMF to investigate the possibility of regular collection of CDMs for FSIs. G-20 economies to support the work of the IMF.

- **Background**
  - 2014 pilot project: confirmed feasibility of data collection
  - 2017 FSI Workshop: confirmed usefulness and countries’ support to the data provision, as additional costs are minimal assuming…
  - FI developed a data compilation tool, in response to countries’ request
  - 2017 meeting of the FSI Reference Group provided insights to the selection of FSIs for which CDMs would be reported, with an emphasis on preserving confidentiality of individual reporters
CDMs for Selected Core FSIs for DTs

- For Concentration, the Guide recommends
  - The Herfindahl Index

- Various ways to measure dispersion, including variance, standard deviation and quartiles.

- The Guide recommends

  - Weighted Quartiles
    - First Quartile (weighted)
    - Second Quartile (weighted)
    - Third Quartile (weighted)

- Weighted Standard Deviation

- Weighted Skewness

- Weighted Kurtosis
CDMs for Selected Core FSIs for DTs

- **Solvency Indicator (capital adequacy)**
  - Tier 1 capital to risk-weighted assets
  - NPLs net of specific provisions to capital

- **Asset Quality**
  - NPLs to total gross loans
  - Provisions to NPLs

- **Profitability**
  - Return on assets (ROA)
  - Return on equity (ROE)

- **Leverage**
  - Tier 1 capital to total assets

The IMF 2019 Financial Soundness Indicators Compilation Guide (2019 FSI Guide) updates the methodological guidance on the concepts and definitions, data sources and methods for the compilation and dissemination of financial soundness indicators. It includes new indicators to expand the coverage of the financial sector, including other financial intermediaries, money market funds, insurance corporations, pension funds, nonfinancial corporations, and households.

Download PDF

Concentration and Distribution Measure (CDM) Tool

DISCLAIMER:
This Concentration and Distribution Measures (CDMs) tool, for selected Financial Soundness Indicators, is provided to member countries only for their convenience. A key objective of the tool is to facilitate comparability, reproducibility and interpretability of CDMs across the membership. However, individual countries remain solely responsible for their reported CDMs. The IMF makes no representation or warranty of any kind, express or implied, about the tool’s completeness, accuracy, reliability, suitability or usability with every system.
FSIs for OFC, NFC and household sectors and real estate market: Before and after
Additional FSIs for OFCs

- OFCs’ assets to total financial assets
- OFCs’ assets to gross domestic products
- OFC breakdown:
  - Money market funds (2 new indicators),
  - Insurance Corporations (4 new indicators),
  - Pension Funds (2 new indicators), and

- Modification to the existing FSIs for OFCs:
  - "OFC assets as percent of total financial system assets":
    *This indicator will be produced for the OFC sector as a whole and for each defined subsector: (i) MMFs; (ii) ICs; and (iii) PFs.*
  - "OFC assets as percent of GDP":
    *This indicator will be produced for the OFC sector as a whole and for each defined subsector: (i) MMFs; (ii) ICs; and (iii) PFs.*
Additional FSIs for OFCs: MMFs

- **Sectoral distribution of investments**
  - Indicates the risk-profile of MMF investments by identifying different types of debtors, provides information on the exposure of these debtors to MMFs as a funding source, and captures a financial link between MMFs and DTs.
  - Moreover, changes in the distribution would also capture MMFs’ asset reallocations based on yields and/or risk perception.

- **Maturity distribution of investments**
  - Aims at assessing the level of liquidity by monitoring the asset maturity of the following time intervals: 1-30 days; 31-90 days; and more than 90 days
Additional FSIs for OFCs: Insurance Comp.

The following new indicators for ICs will be added as additional FSIs:

- Shareholders’ equity to invested assets
  - Measures the level of capital that is available to meet actual or potential losses from ICs’ investments. This is provided separately for life and non-life insurance.

- Combined ratio (non-life insurance only)
  - Measures the profitability of a given year’s insurance underwriting, calculated as the sum of net incurred losses and underwriting expenses divided by net earned premiums. For non-life insurers operating in a healthy market this ratio should be less than 100.

- Return on equity (ROE—life and non-life) and Return on assets (ROA—life only):
  - Leading indicators for solvency problems,
  - The ROE measures ICs’ efficiency in using their capital,
  - The ROA measures ICs’ efficiency in using their assets.
Additional FSIs for OFCs: Pension Funds

The following new indicators for PFs will be added as additional FSIs:

- **Liquid assets to estimated pension payments in the next year**
  - This liquidity indicator assesses the adequacy of liquid assets to cover future pension payments.

- **Return on Assets**
  - This earning and profitability indicator measures the efficiency of PFs in using their assets.
Additional FSIs for NFCs

- **Current:**
  - Debt to equity
  - Return on equity
  - Earnings to interest and principal expenses

- **Additions**
  - External debt to equity
  - Foreign currency debt to equity
  - Total NFC debt-to-GDP
  - Earnings to interest expenses

- **Deletions**
  - Net foreign exchange exposure to equity
  - Number of bankruptcy proceedings initiated
Additional FSIs for Households

- **The Rationale:**
  - The household sector is another key counterpart sector of the financial sector.

- **Addition**
  - Household debt to gross disposable income

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household debt to GDP</td>
<td>Household debt to GDP</td>
<td>• No change</td>
</tr>
<tr>
<td>Household debt service and principal payments to income</td>
<td>Household debt service and principal payments to income</td>
<td>• No change</td>
</tr>
</tbody>
</table>
| Household debt to household disposable income | New FSI  
Numerator: House debt  
Denominator: Household disposable income | • New FSI  
• Numerator: House debt  
• Denominator: Household disposable income |
FSIs for Real Estate Markets

The Rationale:

- Real estate assets are a major element of the wealth of the private sector. To support monitoring the direct exposure to risks arising from real-estate-related lending.

<table>
<thead>
<tr>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential real estate prices</td>
<td>Residential real estate prices</td>
<td>• Upgraded to the list of core FSIs</td>
</tr>
<tr>
<td>Commercial real estate prices</td>
<td>Commercial real estate prices</td>
<td>• No change</td>
</tr>
<tr>
<td>Residential real estate loans to total loans</td>
<td>Residential real estate loans to total loans</td>
<td>• No change</td>
</tr>
<tr>
<td>Commercial real estate loans to total loans</td>
<td>Commercial real estate loans to total loans</td>
<td>• No change</td>
</tr>
</tbody>
</table>
# Additional FSIs for Market Liquidity: Before and After

<table>
<thead>
<tr>
<th>Current List of FSIs</th>
<th>Updated List of FSIs</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average bid-ask spread in the securities market</td>
<td></td>
<td>Deleted</td>
</tr>
<tr>
<td>Average daily turnover ratio in the securities market</td>
<td></td>
<td>Deleted</td>
</tr>
</tbody>
</table>

**The Rationale:**

These two indicators on market liquidity are readily available from commercial sources in most countries on high frequency.
New FSI Reporting and migration
New FSI report forms

The objective is to derive the FSIs from underlying financial statements (FSIs) for all countries

New FS1 (Institutional coverage)

New FSM (Metadata)

New FS2 (Sectoral financial statements + Memorandum items)

Financial Soundness Indicators

New CDM report form for deposit-takers
The way forward

4. Implementation of the new FSI-SRs and metadata will start in December 2021/January 2022 (Beginning of the transition period)

3. Two weeks before launching date, countries will be given the opportunity to make changes to their data and metadata using the new report forms

2. Deadline for returning option form 15 September 2021 (extended to 15 October 2021)

1. Countries were informed of Implementation of new templates in July 2021
Appendix
## Additional FSIs for OFCs: Before and After

<table>
<thead>
<tr>
<th>OFC and subsectors</th>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main Changes</th>
</tr>
</thead>
</table>
| OFCs’ assets to total financial assets | OFCs’ assets to total financial assets and subsectors | • Modified  
• Numerator: Total assets of OFC and subsectors: MMF, IC and PC  
• Denominator: Total financial system assets comprising DTs, MMF, IC, PF and other OFC subsectors (that is excluding total assets of central banks) | |
| OFCs’ assets to gross domestic products | OFCs’ assets to total financial assets and subsectors | • Modified  
• Numerator: Total assets of OFC and subsectors: MMF, IC and PC  
• Denominator: GDP (No change) | |
| Money Market Funds | Sectoral distribution of investments | • New FSI  
• Numerator: sectoral distribution of investment  
• Denominator: Total investments | |
| | Maturity distribution of investments | • New FSI  
• Numerator: Maturity of investments  
• Denominator: Total investments | |
## Additional FSIs for OFCs: Before and After

|------------------------|---------------|---------------|--------------|
|                        | Shareholder equity to total invested assets | • New FSI  
• Numerator: Capital and reserves  
• Denominator: Total invested assets | |
|                        | Combined ratio, for non-life insurance | • New FSI  
• Numerator: Net claims and underwriting expenses  
• Denominator: Net premium earned | |
|                        | Return on assets, for life insurance | • New FSI  
• Numerator: Annualized Profit before tax  
• Denominator: Average total assets | |
|                        | Return on equity, for life and non-life insurance | • New FSI  
• Numerator: Annualized Profit after tax  
• Denominator: Average capital and reserves | |
## Additional FSIs for OFCs: Before and After

<table>
<thead>
<tr>
<th>Pension funds</th>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main Changes</th>
</tr>
</thead>
</table>
|               | Liquid assets to estimated pension payments in the next year | • New FSI  
• Numerator: Liquid assets  
• Denominator: Estimated pension payments in the next year | |
|               | Return on assets | • New FSI  
• Numerator: Annualized Profit before tax  
• Denominator: Average total assets | |
## Additional FSIs for NFCs: Before and After

<table>
<thead>
<tr>
<th>NFCs</th>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main Changes</th>
</tr>
</thead>
</table>
| Total debt to equity        | Total debt to equity            |                                 | • Numerator: No change  
• Denominator: No change                                                  |
| Total external debt to equity|                                 |                                 | • New FSI  
• Numerator: Total debt to nonresident  
• Denominator: Equity (Capital and reserves)                               |
| Total foreign currency debt to equity | Total foreign currency debt to equity | • New FSI  
• Numerator: Total foreign currency debt  
• Denominator: Equity (Capital and reserves)                               |
| Return on equity            | Return on equity                |                                 | • Numerator: Profit after tax  
• Denominator: No change                                                    |
| Earnings to interest and principal expenses | Earnings to interest and principal expenses | • Numerator: No change  
• Denominator: No change                                                    |
| Earnings to interest expenses |                                 |                                 | • New FSI  
• Numerator: Earnings before interest and tax (EBIT)  
• Denominator: Interest expenses                                            |
| Net foreign exchange exposure to equity |                                 |                                 | • Deleted                                                                   |
# Additional FSIs for NFCs: Before and After

<table>
<thead>
<tr>
<th>NFCs</th>
<th>2006 FSI Guide</th>
<th>2019 FSI Guide</th>
<th>Main Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net foreign exchange exposure to equity</td>
<td></td>
<td></td>
<td>• Deleted</td>
</tr>
<tr>
<td>Number of applications for protection from creditors</td>
<td></td>
<td></td>
<td>• Deleted</td>
</tr>
<tr>
<td>NFC debt to GDP</td>
<td></td>
<td></td>
<td>• New FSI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Numerator: Total debt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Denominator: GDP</td>
</tr>
</tbody>
</table>