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Non-Bank Financial Institutions and Financial Stability in a Regional Context

Guyana – January 15-16, 2014

Insurance Financial Soundness Indicators:

Sources, uses, and limitations

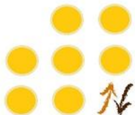
Samer Saab – Senior Partner - the hard number LLC

OUTLINE

- **Definition**
- **Sources and Uses**
- **Insurance FSIs – Core Sets**
- **Interpreting FSIs**
- **Data gaps and challenges**

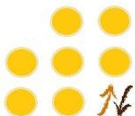
What are FSIs?

- Financial Soundness Indicators (FSIs) were developed by the IMF, together with the international community, with the aim of supporting macroprudential analysis and assessing strengths and vulnerabilities of financial systems.
- FSIs are constructed by aggregating **micro-prudential indicators** supervisors use to assess soundness of an institution.
- FSIs can detect risks to the financial system as a whole that might be missed by micro-prudential indicators.



Users of Insurance FSIs

- Central banks: monitor risk to monetary policy from financial stability
- Supervisors: assess risks to individual institutions to financial (in)stability
- Private sector: assess risks to investments from financial (in)stability
- IMF and other multilaterals: member surveillance (e.g. Art IV and FSAP) and global surveillance



Sources and Uses of FSIs

Sources

- Institutions' balance sheets and income statements
- Supervisory reporting requirements

Uses

- To show state of institution, current and historical evolution
- To identify vulnerabilities
  - Tracked over time – developing vulnerabilities for specific institutions or groups e.g. foreign vs. domestic, life vs. non-life
  - Comparisons across countries, but one needs to exercise care as regards to comparability
- Benchmark for stress testing, target assessments

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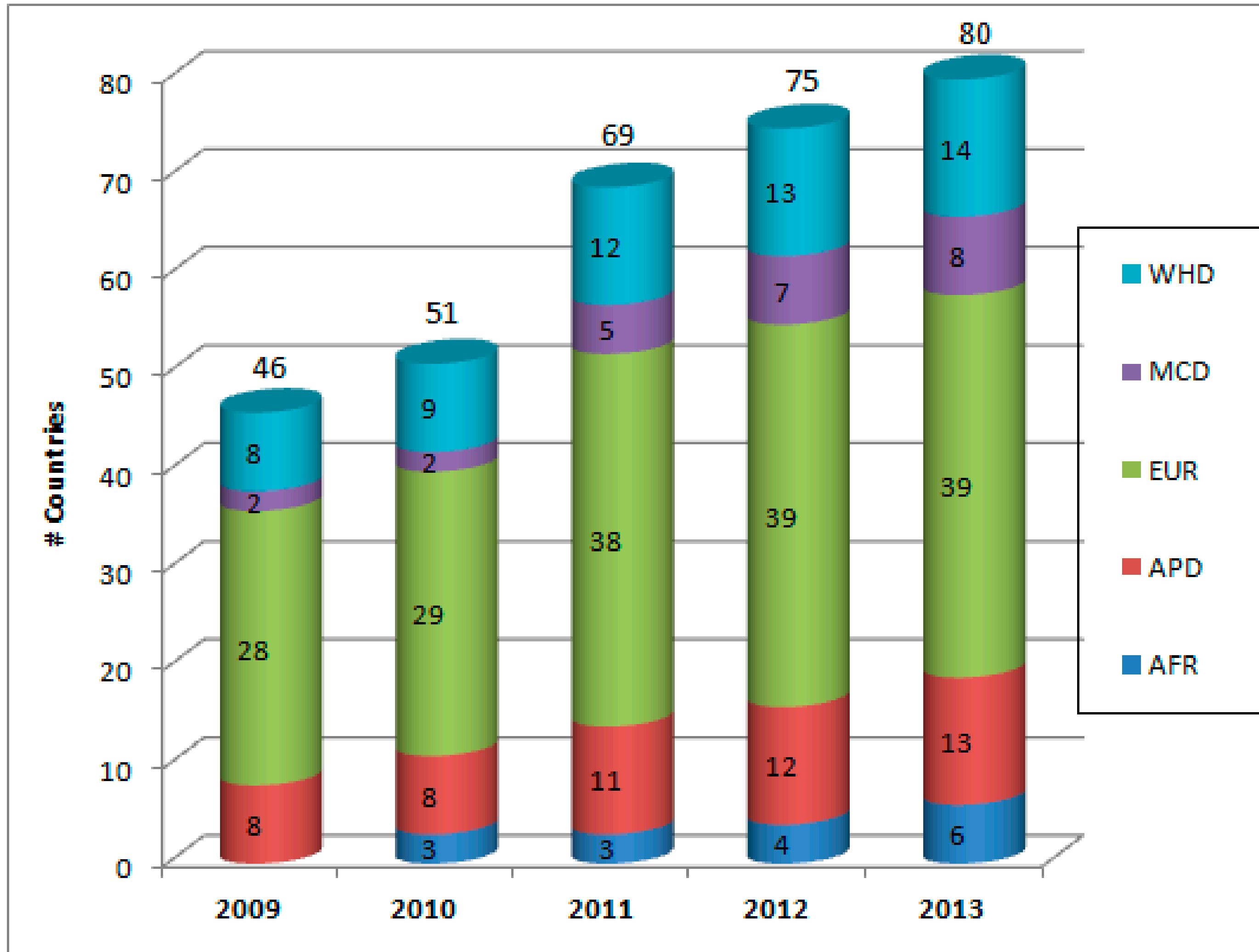

Source : IMF's Statistics Department

INSURANCE FSIs – CORE SET

Category	Indicator
Capital adequacy	Net premium/capital Capital/total assets Capital/technical reserves
Asset quality	(Real estate + unquoted equities + debtors)/total assets Debtors/(Gross premium + reinsurance recoveries) Equities/total assets Nonperforming loans to total gross loans
Reinsurance and actuarial issues	Risk retention ratio (net premium/gross premium) Net technical reserves/average of net claims paid in last three years Net technical reserves/average of net premium received in last three years

Insurance FSIs – Core Set

Management soundness	Gross premium/number of employees Assets per employee (total assets/number of employees)
Earnings and profitability	Loss ratio (net claims/net premium) Expense ratio (expenses/net premium) Combined ratio = loss ratio + expense ratio Revisions to technical reserves/technical reserves Investment income/net premium Investment income/investment assets Return on equity (ROE)
Liquidity	Liquid assets/current liabilities
Sensitivity to market risk	Net open foreign exchange position/capital Duration of assets and liabilities

New Thinking on FSIs

- changes in regulatory concepts arising from the introduction of the Basel III Accord and Solvency II;
- maintain continuity of the existing set of core FSIs;
- develop new FSIs for NBFIs to recognize the heterogeneity of this sector and its increasing importance in the financial system;
- improve the usefulness of FSIs in identifying and monitoring systemic risks by producing and disseminating concentration and distribution measures

RECENT ADDITIONS TO INSURANCE FSI LIST

- Shareholder equity to invested assets [Capital]
- Total premium income minus premium ceded by primary insurers to total premium income [Risk retention ratio]
- Return on assets [Earnings and profitability]

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INTERPRETING FSIS

- **Analyze by peer groups; size, line of business, foreign/domestic.**

The three questions;

- **What is the trend?**
  - Growth rates – net premiums written
- **What is the level?**
  - Meet regulatory norms/targets
  - Change in portfolios
- **How does is compare to peer?**
  - Does it deviate materially from other institutions?

Capital Adequacy

- It's an institutions life line to bear losses (buffer)
- Core capital (Tier 1, own funds) provides most conservative capacity
- No internationally recognized standard (yet!) RBC, Solvency I, Solvency II are geographically restricted initiatives
- Until now, fixed-ratio or risk-based indicators

Important qualitative issues to bear in mind

- Lines of business matters for non-life: for example worker's compensation vs. homeowner's insurance
- Low quality management means risk profile is higher
- What is the strategic plan going forward? i.e. a growth strategy (more risk taking) may need injection of more capital

Asset Quality

- Focus on potentially impaired assets (especially investments) and underwriting standards (credit control)
- Exposure to equities market vs. fixed income
- Valuation issues: book value or marked to market?
- Risk management tools: active hedging through derivatives?
- Bank activities? Loans quality

Actuarial Issues

- Risk retention ratio=risk bearing capacity: main underwriting strategy indicator. Also reflects portion of risk passed on to reinsurers.
- Determining the soundness of insurance liabilities is extremely difficult without detailed company-specific actuarial information.
- Adequacy of technical reserves is key for capital adequacy

EARNINGS AND PROFITABILITY

- Good stable earnings highlight efficiency of the institution's use of assets. Main source of long term capital
- What are sources of earnings? underwriting activities, investments or trading activities. Exposure to market risk (equity risk, interest rate movements etc)
- Does the institution have the ability to add capital through retained earnings? Mostly needed during growth periods or if risk is increasing
- Loss ratio (non-life) is an indicator of proper pricing policy while expense ratio relates to operational policy

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Liquidity

- Illiquidity is a major source of systemic risk (sounds familiar?)
- Timings of claims and benefits for insurance is always uncertain, and institutions are often exposed to maturity mismatches on balance sheet

Sensitivity to market risk

- This includes both interest rate and equity price risk
- Does institution have a robust policy on investments?
- Investments at book values?

Key challenges in using Insurance FSIs

- INFORMATION GAPS!!!! Small country samples, cross-border information sharing
- Assessing the level of risk associated an FSI value (benchmarking)
- Detecting vulnerabilities at an early stage
- Inadequate supervision/regulation capacity

GOING FORWARD: FILLING INFORMATION GAPS

- More empirical research on insurance failures
- Harmonized regulatory and supervisory regimes, in particular capital standards like Solvency II
- SIFIs, spillovers, and the Banks/Insurance Nexus
- Information collection and dissemination