



BANK FOR INTERNATIONAL SETTLEMENTS

Measures of macroprudential risks, including leverage and maturity mismatches

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The views expressed are those of the presenter and do not necessarily reflect those of the BIS.



Overview

- BIS and recommendation 4
- Recommendation 11: enhancing the BIS international banking statistics



Recommendation 4

- Further investigation of the measures of system-wide macroprudential risk
- BIS and IMF to complete their work on developing measures of aggregate leverage and maturity mismatches drawing on inputs from the CGFS and BCBS



Steps taken by BIS

- BIS to focus on banks and IMF (now FSB) on shadow banking
- BIS has developed measures of maturity mismatches (“funding gaps”) on banks’ international balance sheets
- These are estimates based on combining non-public elements of the International Banking Statistics
- The findings have been published in various articles in the BIS Quarterly Review and shared with central banks
- Further enhancements expected as part of enhancing IBS
- More data to be disseminated publicly in future



Enhancements to the BIS IBS: recommendation 11

- The BIS and CGFS to consider separate identification of nonbank financial institutions in the consolidated banking statistics
- Also consider information required to track funding patterns in the international financial system



The BIS International Banking Statistics

- Sponsored by the Committee on the Global Financial System (CGFS) since late 1960s
- Only publicly available data on the characteristics of the structure of the international banking system, the financial flows through it and the exposures they create
- Powerful tool for spotting new trends
- Developed gradually over time to take account of major changes in international banking
- Model for improving data on cross-border exposures of other sectors (see G20 recommendations 13 and 14)
- Experience during crisis indicates emerging gaps but also possibility build on existing reporting templates



Review and recommendations by the CGFS

- Ad-Hoc Group on Statistics set up in early 2010 to investigate options to improve IBS
- Stage 1 enhancements approved in Jan 2012, implementation in 2013 (based on existing data reporting)
- Stage 2 enhancements, which require additional data reporting approved in January 2012 with implementation in 2014
- Work included
 - Conceptual level
 - Desirability of possible enhancements from analytical perspective
 - Survey on additional reporting burden



Existing banking data: four complementary datasets

Locational banking statistics	Consolidated banking statistics
The financial flows through the international banking system	Exposure of national banking systems to country, funding and transfer risks
(1) <i>Residence basis</i> (IBLR) – international claims and liabilities of banks by residence, ie all banks in particular country	(3) <i>Immediate borrower basis</i> (CIBL-IB) – foreign claims of domestic banks from individual country on a worldwide consolidated basis
(2) <i>Nationality basis</i> (IBLN) – international claims and liabilities of banks by residence and by nationality of ownership, ie all banks in particular country split by home country banks and individual nationality of foreign banks	(4) <i>Ultimate risk basis</i> (CIBL-UR) – CIBL-IB adjusted for risk transfers and third party guarantees in order to allocate claims to country of ultimate obligor



Locational Banking Statistics

Aggregate balance sheet of banks **IN** reporting country

- All banks (by residence)
- By nationality (domestic, individual nationalities)

Assets / Claims	Liabilities
Claims on residents <ul style="list-style-type: none"> • in foreign currency Claims on non-residents	Liabilities to residents <ul style="list-style-type: none"> • in foreign currency Liabilities to non-residents
<ul style="list-style-type: none"> • by currency • by counterparty sector <ul style="list-style-type: none"> • by instrument • by counterparty residence 	<ul style="list-style-type: none"> • by currency • by counterparty sector <ul style="list-style-type: none"> • by instrument • by counterparty residence
Interoffice claims	Interoffice liabilities

Locational Banking Statistics (new)

Aggregate balance sheet of banks **IN** reporting country

- All banks (by residence)
- By nationality (domestic, individual other nationalities)
- **By type of bank (branch, subsidiary)**

Assets / Claims	Liabilities
Claims on residents <ul style="list-style-type: none"> • in domestic currency • in foreign currency Claims on non-residents	Liabilities to residents <ul style="list-style-type: none"> • in domestic currency • in foreign currency Liabilities to non-residents
<ul style="list-style-type: none"> • by counterparty residence • by instrument + for debt • by currency + CHF, GBP • by counterparty sector + for non-banks 	<ul style="list-style-type: none"> • by counterparty residence • by instrument + for debt • by currency + CHF, GBP • by counterparty sector + for non-banks
Interoffice claims	Interoffice liabilities

Consolidated Banking Statistics

Aggregate, globally consolidated balance sheet of domestic banks
 OF reporting country

- On immediate borrower basis
- On ultimate risk basis

Claims	Liabilities
Cross-border and local claims in foreign and local currency <ul style="list-style-type: none"> • by remaining maturity • by counterparty sector <ul style="list-style-type: none"> • by counterparty residence and nationality 	Local currency liabilities <ul style="list-style-type: none"> • by counterparty residence
Net risk transfer <ul style="list-style-type: none"> • inward risk transfer • outward risk transfer 	
Other exposures <ul style="list-style-type: none"> • Derivatives • Guarantees • Credit committments 	

Consolidated Banking Statistics (new)

Aggregate, globally consolidated balance sheet of domestic banks

OF reporting country

- On immediate borrower basis
- On ultimate risk basis

Claims	Liabilities
<p>Cross-border and local claims in foreign and local currency</p> <ul style="list-style-type: none"> • by remaining maturity • by counterparty sector + for non-banks • by counterparty residence and nationality (including home country) 	<p>Local currency liabilities</p> <ul style="list-style-type: none"> • by counterparty residence <p>International and domestic liabilities</p> <ul style="list-style-type: none"> • Deposits • Debt issues <ul style="list-style-type: none"> • Short-term • Long-term • Derivatives
<p>Net risk transfer</p> <ul style="list-style-type: none"> • inward risk transfer • outward risk transfer 	<ul style="list-style-type: none"> • Equity • Tier1 capital
<p>Other exposures</p> <ul style="list-style-type: none"> • Derivatives • Guarantees • Credit committments 	

Impact of enhanced IBS

- Better monitoring of credit exposures of national banking systems
- Facilitate analysis of national banks' exposures to non-bank private sector
 - non-bank financial sector (shadow banking system)
 - non-financial corporations and households (encouraged)
- See full geography of banks' international activities and thus better analyse transmission of shocks across countries through nationality of banking systems



Impact of enhanced IBS (2)

- Measure of **national** banks' total balance sheet, total equity and Tier 1 will be available
 - exposures can be scaled against total balance sheet and equity
 - basic leverage ratios for national banking system can be calculated
 - compare size of international and domestic activities of banks
 - refined sector breakdown to improve tracking of supply of credit to various types of counterparty
 - analysis of banks' sources and uses of all major currencies
- Grouping resident banks into domestic banks, foreign branches and foreign subsidiaries in IBLR will show differences in lending/funding behaviour of bank types



Impact of enhanced IBS (3)

- Combine data on mismatches in currency with those in maturity (funding mismatches)
- View on national banks' global aggregate funding by broad instrument type



Challenges to implement and use new data

- Resource intensive
- New expanded templates (ensure consistency)
- New Data Structure Definitions
- Massive increase in amount of data
- New IT application(s)
- Long transition period: many breaks in series
- Confidentiality issues
- Dissemination on web
- Analysts to prepare and conduct more research
- Educate users on (additional) complexity of datasets
- Keep planning ahead



Possible future work

- Some ideas for future expansion of IBS identified by CGFS but not pursued
 - Need more analysis and discussion
 - Could impose large reporting burdens
- Possible extensions
 - Measuring banks' maturity mismatches for their assets and liabilities by currency
 - Further granularity in counterparty sectors
- Analytical issues
 - Better align IBS (A – A) and supervisory data (I-A, I – I)
 - Harmonise the definition of bank consolidation in the IBS (best practice definition)
- Discussion in Biennial Meeting of Experts on IBFS (Nov 2013)



Conclusion

- BIS contribution to recommendation 4 basically closed
- Recommendation 11 in process of being closed by 2014, will also contribute to enhance measures of leverage
- Analytical work with IBS has moved on to measures of total credit and global liquidity, amongst others
- Cooperation with CGFS and participating reporting central banks has continued to be excellent

