



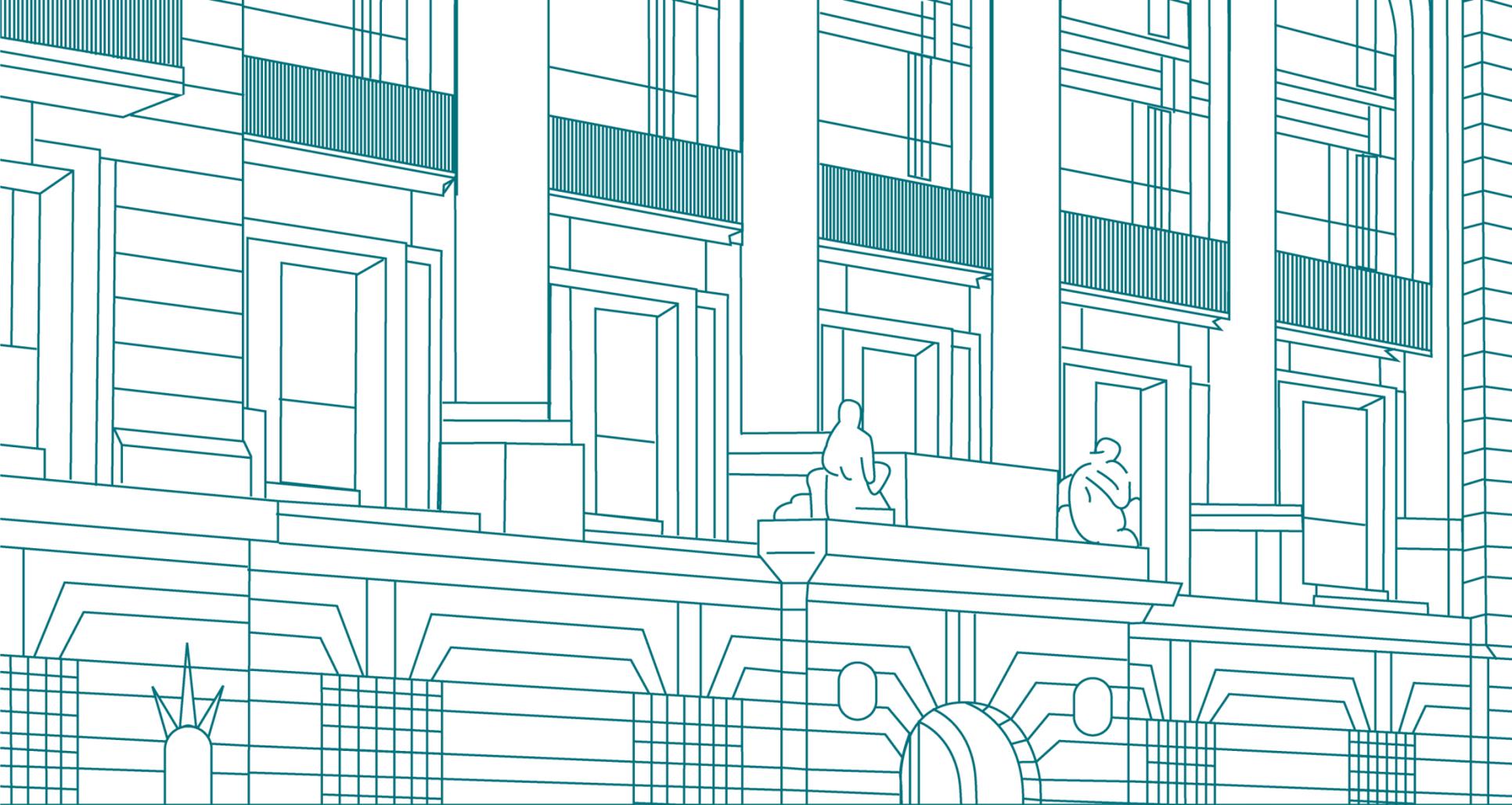
First IMF Statistical Forum
Statistics for Global Economic and Financial Stability

**Comments on
«Mapping the Shadow Banking System
through a Global Flow of Funds Analysis»**

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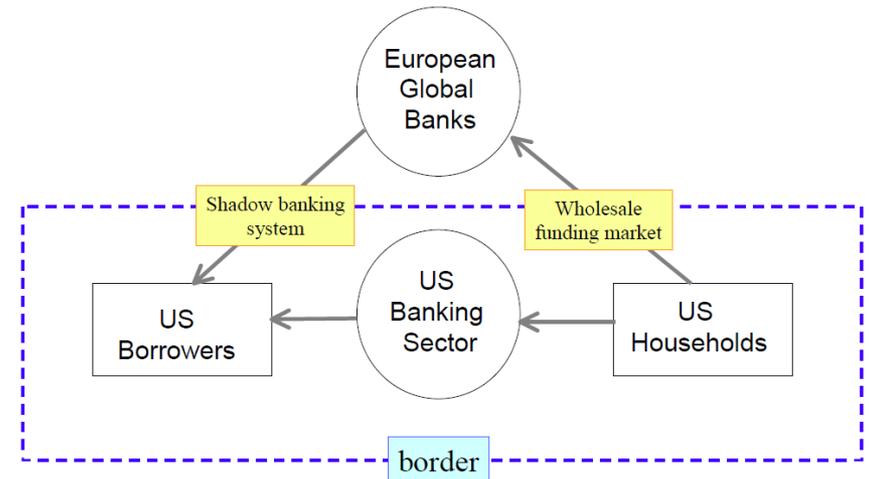
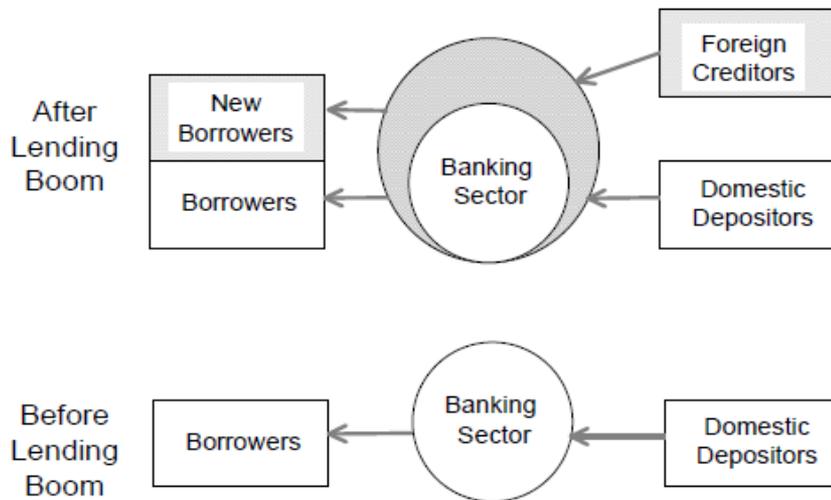
Discussion of Mapping the Shadow Banking System through a Global Flow of Funds Analysis



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Summary

- Why is it relevant to identify and monitor both the directions and the magnitudes of capital flows associated with the Shadow Banking System?
- When domestic core deposits are not enough to fuel a credit expansion, the funds might come from abroad... increasing the interconnections between economies and sectors, affecting the credit conditions and in turn increasing the possibility of contagion.



Methodology

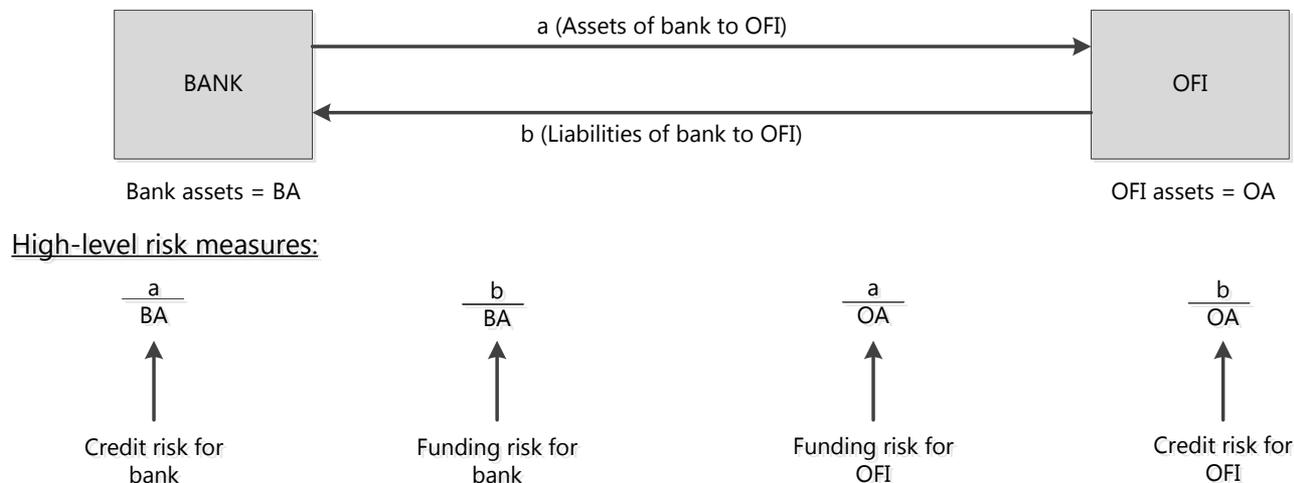
- This work represents an innovative use of an existing statistical framework (Errico, Walton, Hierro, AbuShanab and Amidzic, 2013) for an initial construction of a global flow of funds (GFF) matrix that maps the funding and lending positions of shadow banks.
- Most of the data used has been compiled for a long time by the IMF (Standardized Report Forms and, more recently, the International Investment Position) and the BIS (International Banking Statistics).
- The proposed framework could provide information to analyze: interconnectedness across borders, global liquidity flows and global financial interdependencies.
- The limitations of the exercise performed in the paper are those of the statistics: nationality, sector, transfers of risk.

Contributions

- Broadly speaking, the research question that this paper analyzes is: What role does the international context play in the fluctuations in the size of the shadow banking system?
- The main contribution of this paper is to provide a methodology for using the global flow of funds framework (GFF) to understand the shadow banking system in international capital markets and to detect trends that could yield to vulnerabilities in the financial system.

Other related initiatives

- The FSB's Global Shadow Banking Monitoring Exercise (GSBME)
 - Prime objective of monitoring the overall size of the shadow banking system; they also perform an interconnection exercise since 2012
 - The FSB's interconnection exercise performs a granular entity approach of the exposures between shadow banking entities and the banking sector
 - No requirement of detailed data for the origin of the exposures or interconnectedness with other non-shadow banking sectors
- Hence, the two efforts pursuit complementary objectives
FSB's risk analysis framework of interconnectedness between banks and SB entities



Questions ...

- How to identify the Shadow Banking sector in aggregate data?
- Does the paper have a working definition of Shadow Banking other than the FSB's? In the FSB monitoring exercise we have seen that what seems to be a shadow bank for a given country, is not for another.
- Is the current data enough to apply the methodology in the context of the capital flows to Emerging Markets?
- Can this approach be useful in cases where the shadow banking sector, as proxied by the “OFCs” (other financial corporations)?
- Is there a way of estimating the underreporting for this type of activities? How much is left out? The problems with derivatives of some Mexican corporates after Lehman's demise provide an example of underreporting....

... and other issues

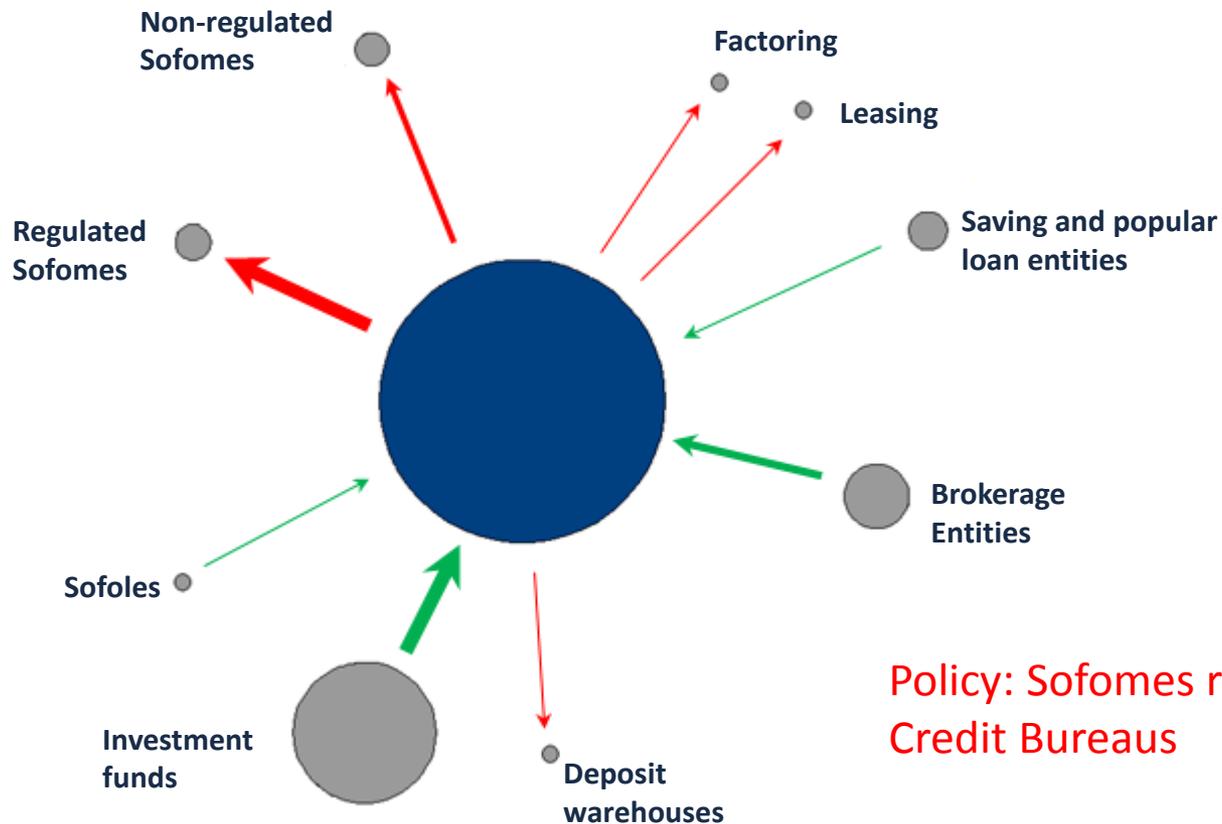
- Aggregate data might not signal leverage problems when in fact they exist (a surplus in the current account does not imply that all sectors within run surpluses). If there is uneven access to the regulated credit in a given country or if the shadow banking system is underreported and unregulated, aggregated leverage might mask over-indebtedness in certain sectors. There could be risks behind aggregate numbers that once they are shown there is a systemic problem already.
- The paper suggests that these methods could be applied in real time and enable policy makers to identify trends in real time as well: this is non-realistic. There is a lag in the availability of the data to produce the linkages that are the main output of the methodology.
- The exercise is said to be retrospective in the hope of uncovering the type of data that would have been helpful during the boom before the crisis began. However, one finishes the paper with the feeling that the analysis did not seem to be able to point a finger at any specific data, a different set of years used for the analysis could provide this data.

Using granular data...

Banks' connections with shadow banks

Banks connections with shadow banks

- Granular data allow us to measure the exposure between banks and the shadow banking sector



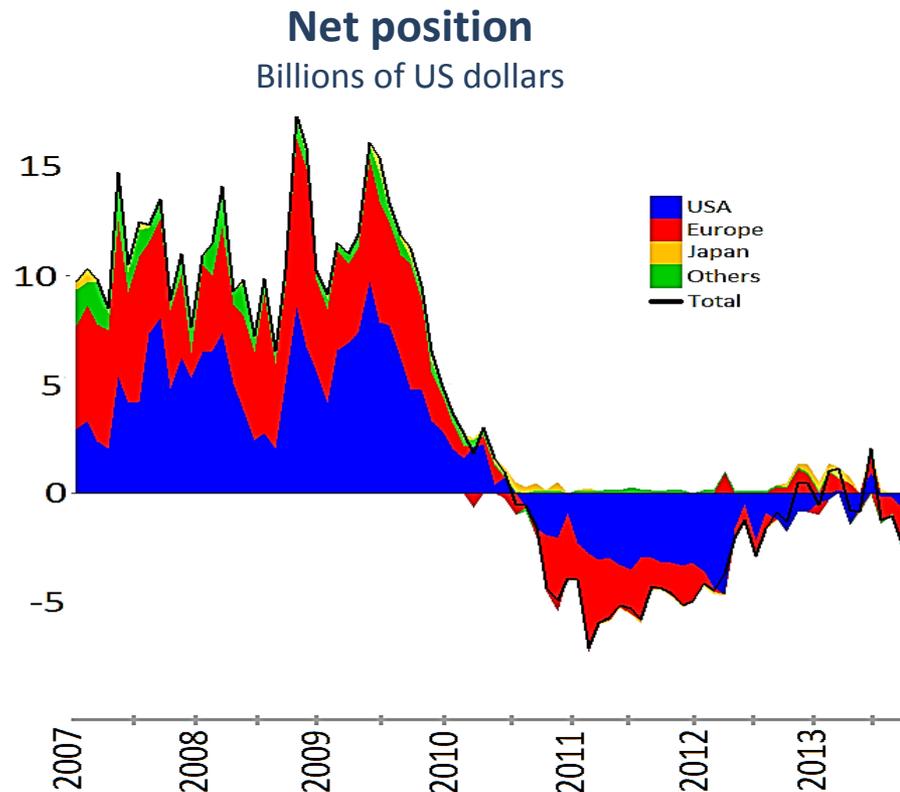
Policy: Sofomes reporting to Credit Bureaus

Using granular data...

Banks' connections with international banks

Banks connections with international banks

- Granular data allow us to measure the exposure of each bank with foreign counterparts (including exposures with parent banks)



Policy: Increase limits to related counterparties

Using granular data...

Financial System Network

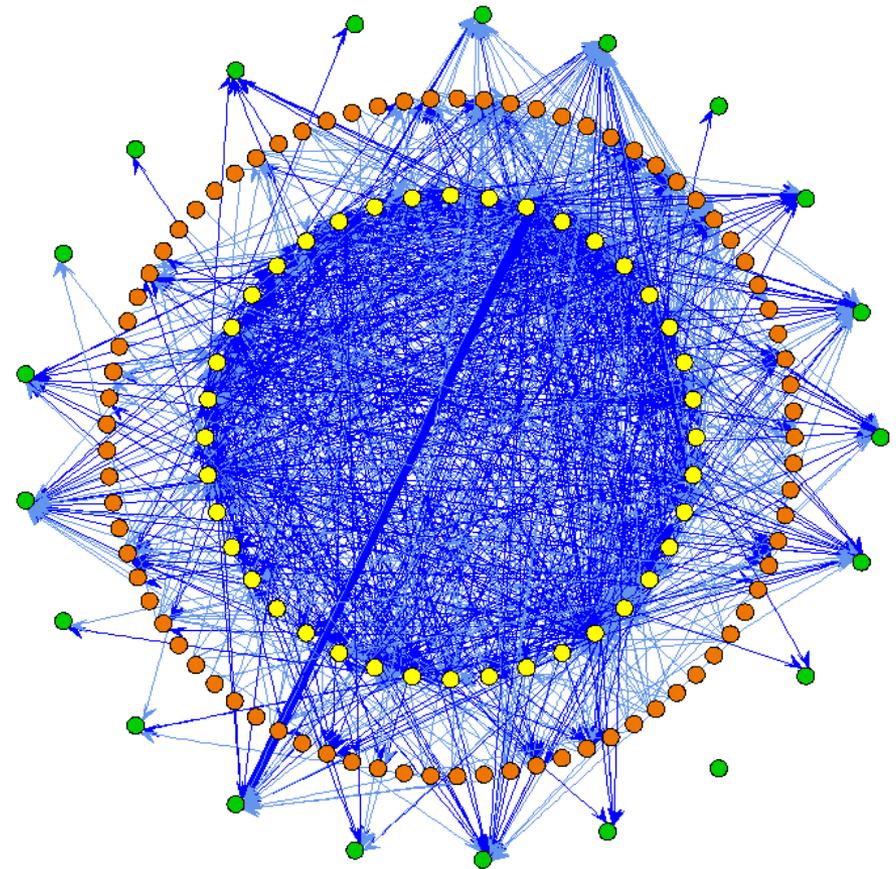
A network of exposures among financial intermediaries

- We measure interbank exposures (credits, deposits, securities, repos and derivatives)

- Inner circle: Banks
- Middle circle: Investment banks, pension funds and mutual funds
- External circle: International banks

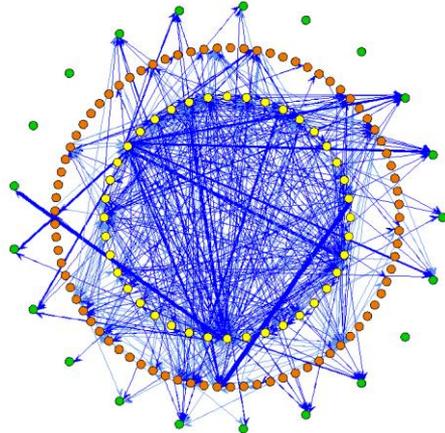
Links represent exposures between institutions

Policy: LE limits forthcoming

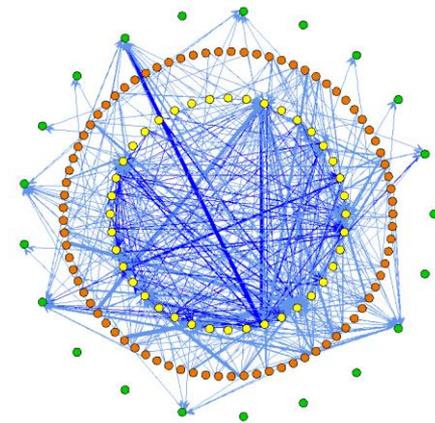


Interfinancial and international exposures of the Mexican financial system

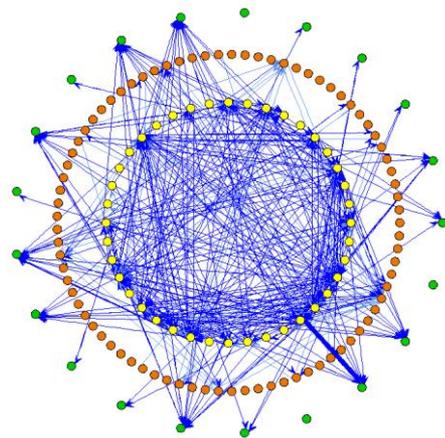
Derivatives



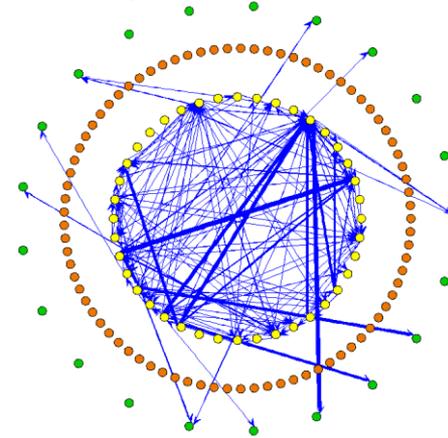
Securities



FX



Deposits & Loans



Networks represent October 31, 2013
Source: Banco de México

Conclusions and further work

- The implementation of the approach may prove to be difficult due to the enormous datawork required for this analysis. Data gaps need to be covered and closed while national authorities may need to be able to understand the full potential of the framework in order to provide feedback to identify vulnerabilities. The experience and heterogeneity of different financial systems can improve any assessment.
- In addition to the vis-à-vis positions between sectors, the identification of a set of risk factors is fundamental for a risk assessment. Although leverage has been identified as one of the most important elements for this task, the work by the FSB suggests that maturity transformation is also fundamental; how to incorporate it in this setting is still an open question.
- In summary, this paper provides great hope. It shows that some data gaps could be closed and a thorough analysis of interconnections at a granular level is feasible. It involves hard work and cooperation among national authorities under guidance of the IMF.



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