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# Perspectives on Identification of SIMIs

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# Overview



- To prevent the materialization of systemic risk efficiently and effectively, it is important to:
  - ✓ assess the systemic importance of individual financial institutions/markets/instruments (IMIs),  
and
  - ✓ develop regulatory and supervisory frameworks with due consideration to each IMI's systemic importance.
- However, relying on the concept of “identifying SIMIs” could bring about the risk to financial stability.
- More realistic approach to deal with systemic importance would be needed.

# Risks associated with identifying SIMs (1)



- There still remains a lot to understand in order to appropriately measure systemic importance of individual IMIs.
  - ✓ Various factors, such as size, interconnectedness, or substitutability, are likely to affect systemic importance.
  - ✓ “Systemic importance” is considered to be a continuous concept, not binary.
  - ✓ Each IMI’s systemic importance may vary depending on the financial and economic conditions.
  - ✓ But we are not sure to what extent such factors affect systemic importance respectively, and how it develops.
- This view is supported by the fact that, in recent crises, we had not been able to foresee the channel through which systemic risk materializes.

# Risks associated with identifying SIMIs (2)



- Various channels through which systemic risk materializes
    - Domino
    - Loss spiral
    - Confidence erosion
- ← traditional view
- ← recent examples

## [Case in Japan]

- In 1997, serious disruptions in the Japanese financial system were triggered by a failure of a medium-sized securities company, Sanyo Securities, which was generally not regarded as systemically important by authorities.
- The failure of Sanyo Securities resulted in a default in the inter-bank money market for the first time in the post-war period. It caused confidence erosion among market participants as well as wider public, and led to several bank runs.

# Risks associated with identifying SIMIs (3)



- At this stage, identifying SIMIs/non-SIMIs can be misleading.
  - ✓ When assessing systemic importance of individual IMIs, some degree of error would be unavoidable, since we haven't fully understood "systemic importance" so far.
  - ✓ This means IMIs identified as systemically important by some measures might not be really systemically important (vice versa).
  - ✓ Thus, relying on regulatory/supervisory frameworks that focus on identified SIMIs may lead to overlooking the source of systemic risk.
  - ✓ Also, the list of SIMIs/non-SIMIs, if it's made public, may induce regulatory arbitrage and moral hazard.

# Realistic approach to deal with systemic importance: Be flexible



- More realistic approach would be adjusting flexibly the intensity of supervision/inspection to systemic importance of individual IMIs, while assuming some degree of error in assessing systemic importance. Creating “cliff” should be avoided.
  - number of staff in charge of supervision/inspection
  - frequency of inspections
  - coverage of risk categories in an inspection etc.
- Additional regulation should be, if necessary, applied as part of “Pillar 2” of the Basel II, not Pillar 1 (regulatory minimum standards).

# Practical issues in assessing systemic importance (1)



## ✧ Indicator-based approach

## ✧ Model-based approach

- Both approaches have advantages/drawbacks respectively.
  - ✓ Indicator-based approach
    - + easy to obtain some clues related to systemic importance.
    - + can incorporate wide range of aspects of systemic importance.
    - difficult to obtain an overall assessment of systemic importance.
  - ✓ Model-based approach
    - + can obtain an overall assessment of systemic risk (both macro and micro level).
    - large operational costs in preparing/updating comprehensive dataset.
    - rely heavily on the assumptions.
- At this point, indicator-based approach seems preferable.

# Practical issues in assessing systemic importance (2)



- As for the drawback of indicator-based approach: it may not be really a drawback.
  - ✓ With indicator-based approach, it is difficult to obtain overall assessments of individual IMIs' systemic importance. It requires a method to weight various indicators' systemic relevance.
  - ✓ However, assuming that we are not to calibrate regulations based solely on systemic importance of individual IMIs, an overall assessment would not be necessary.
  - ✓ It might rather be desirable not to have an overall assessment, since focusing on an “overall assessment” with a lot of uncertainty could pose greater risk to overlook the source of the next crisis.



# Practical issues in assessing systemic importance (3)



- Model-based approach has some potential.
  - ✓ It is very attractive for supervisory/regulatory authorities and central banks to have a tool to follow the development of macro systemic risk as well as each institution's contribution to it.
- However, model-based approach is still at an early stage.
  - ✓ Outputs can fluctuate largely depending on the assumptions regarding distribution and future development of risk.
- Further examination would be needed before hard-wiring it into regulatory/supervisory frameworks.

# Practical issues in assessing systemic importance (4)



- Within BOJ, we put indicator-based approaches into practice in a way as follows:

## (1) Risk-based monitoring

- ✓ Adjust the intensity of on-site/off-site monitoring on individual institutions based on the assessment from two perspectives:
  - Systemic importance
  - Probability of default
- ✓ In assessing systemic importance, we refer some indicators that are selected taking into account the difference of business models among institutions.

# Practical issues in assessing systemic importance (5)



## (2) Periodical and comprehensive check

- ✓ Periodically check whether there is any institution whose systemic implication might have changed considerably, through examining a range of indicators associated with “size,” “interconnectedness,” and “substitutability” for all financial institutions having current accounts at BOJ.

## (3) Detailed monitoring on a detected institution

- ✓ If unusual signal is observed regarding any institution through the comprehensive check, more detailed monitoring on the institution shall be conducted to see if its systemic importance really changes and more intensive supervision is warranted.

# Practical issues in assessing systemic importance (6)



- Japan's financial system has some features:
  - ✓ Dominant role of commercial banks mainly relying on deposit-taking and lending
  - ✓ Similarities in business model among banks
- In this light, useful indicators for assessing systemic importance tend to be those from B/S data.

(as of March 2009, Tril. yen)

Deposit		Repo		Loan	
BTMU	100.2	BTMU	8.7	BTMU	56.9
SMBC	69.5	SMBC	8.3	SMBC	50.0
Mizuho	55.4	Nochu	5.1	Mizuho	30.2
Nochu	37.5	Mizuho CB	4.5	Mizuho CB	20.5
Mizuho CB	19.6	Mizuho	1.4	Resona	17.4

# Conclusions (1)



- It is important to make efforts in assessing IMIs' systemic importance appropriately and reflecting the results onto regulatory/supervisory frameworks.
- At the same time, we need to be aware that our knowledge regarding systemic importance is limited.
- Thus, identifying SIMIs and relying on regulatory/supervisory frameworks that focus on identified SIMIs may lead to overlooking the source of the next crisis.
- More realistic approach would be adjusting flexibly the intensity of supervision/inspection to systemic importance. Creating “cliff” should be avoided.

## Conclusions (2)



- Model-based approach has some potential, but is still at an early stage. Further examination would be needed before hard-wiring it into regulatory/supervisory frameworks.
- Indicator-based approach is useful especially when we are not to calibrate regulations based solely on systemic importance of individual IMIs, and overall assessments are not necessary.
- Currently BOJ adopts some form of indicator-based approach into its on-site/off-site monitoring framework, but is open to any refinement.
- Better understanding of the method to measure systemic importance would be a key to maintain financial stability.

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-Thank you for your attention-

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