EUROPEAN CENTRAL BANK

EUROSYSTEM

Discussion of "Calibrating Limits for Large Inter-bank Exposures from a System-wide Perspective" by Batiz, López, Martínez and Solórzano (all Banco de Mexico)

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Disclaimer: Any views expressed are only the speaker's own and should not be regarded as views of the ECB, the Eurosystem or the ESCB

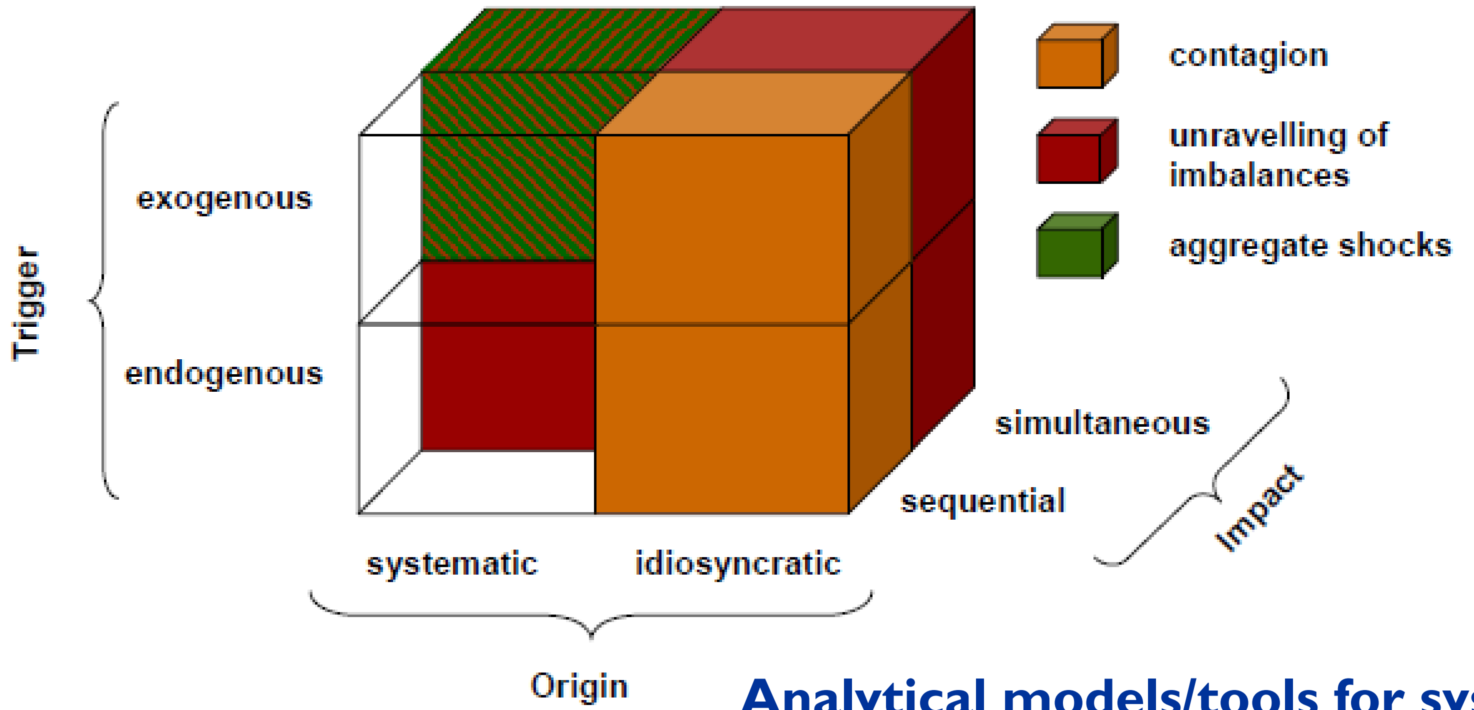
Introduction

- Very well done and "clean" application of counterfactual contagion simulations to the tightening of exposure limits in the Mexican interbank market
- Wonderful data: Daily interbank exposures (incl. securities and derivatives)
- Very well written, extremely clear
- Very nice illustration of how changes in exposure limits can be beneficial or sometimes risk increasing (non-linearity)

- Outline of the discussion
  - Concept of systemic risk, different forms and their interaction
  - Network analysis, counterfactual simulations and endogenous behaviour
  - Some policy issues
  - Other points

Forms of systemic risk and analytical approaches

The systemic risk cube:



Analytical models/tools for systemic risk:

- **SR 1: Contagion – Contagion and spillover models**
- **SR 2: Endogenous build-up and unravelling of widespread imbalances – Early warning indicators and models**
- **SR 3: Aggregate shocks – Macro stress testing models**

Source: Author based on de Bandt, Hartmann and Peydró (2009) and ECB (2010a)

Network analysis and endogenous behaviour

- "First generation" network models simulate domino effects "mechanically" (banks do not optimise reactions to a failure)
- Often limited contagion risk found, except for high loss given default (LGD)/low recovery rates
- New "second generation" models try to take various endogenous reactions into account (e.g. Karas and Schoors 2012)
  - Fire sales of assets
  - Confidence effects on funding
  - Other feedback effects
- Usually lead to amplification of estimated contagion effects and even to non-linear adjustments (closer to the "perception" of observers)
- But recently Glasserman and Young (2013): Usually, contagion "weak"
- Other interbank market problems: Adverse selection and imbalances (Cassola, Drehmann, Hartmann, Lo Duca and Scheicher, 2008)
- Paper captures reactions to policy changes by making assumptions about what banks do with funds when they reach a regulatory limit
- Acknowledges liability/funding structures and refers to future research

A simple balance-sheet exercise

Bank A → Bank B

Bank A

Assets	Liabilities
•Loans ↑	•Equity
•IB assets ↓	•Debt securities ↓
•Other assets (incl. CB) ↑	•IB liabilities ↓
	•Deposits ↓

Bank B

Assets	Liabilities
•Loans ↓	•Equity
•IB assets ↓	•Debt securities ↑
•Other assets (incl. CB) ↓	•IB liabilities ↓
	•Deposits ↑

Firms and households

•Equity	•Loans ?
•Debt securities ?	
•Deposits ?	

Some policy discussion

- Are there alternatives to quantity-based exposure regulation?
  - Granular risk weights for interbank exposures
  - Bank levy on wholesale funding
- Clarification/harmonisation of the relationship with other regulatory initiatives
  - Regulation of concentrations
  - Global liquidity standard (LCR, NSFR)
- Do we still have the overview of the overall effects of successively adding different layers of regulation? (in particular SIFIs)
- Issues regarding Basel Committee consultation on measuring and controlling large exposures (March 2013)
  - More restrictive than EU at present
  - Treatment of
    - Intra-group exposures
    - Exposures to CCPs
    - Shadow banks (and non-banks)

Other points I

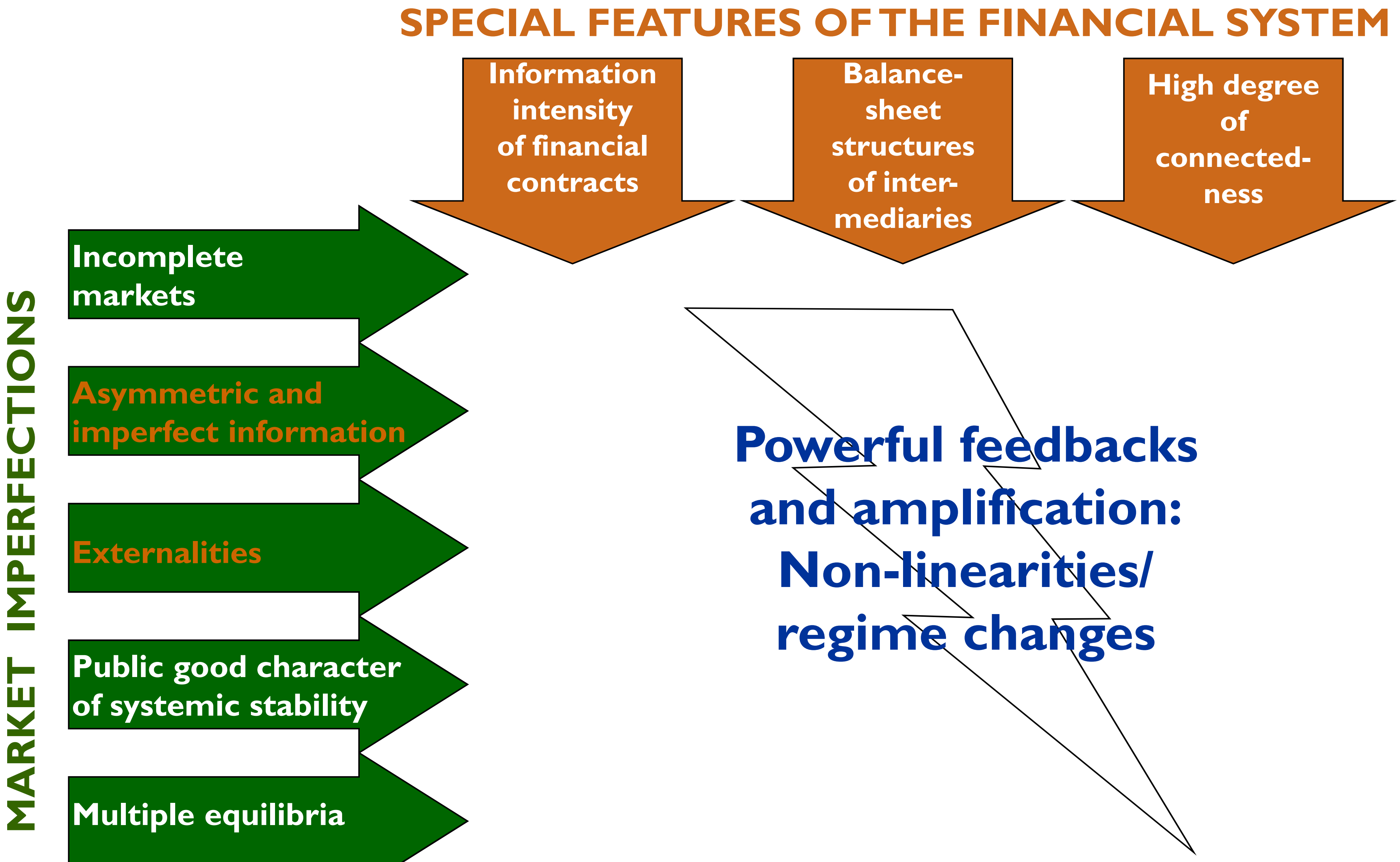
- Assumption that LGD=1:
  - Conservative
  - Do repos play a role in Mexico? Bimodal distribution of losses (Memmel, Sachs and Stein 2011)
- Potentially different maturities of exposures not mentioned
- Data between 2008-2012
  - How much was the Mexican interbank market affected by the crisis?
  - Other papers suggest that the interbank network fundamentally changes in a crisis relative to "normal" times
  - Fewer and weaker links (less dense network) contrary to price data (more dependence in a crisis)
- Funding of small banks and interbank market structure (Furfine 2003 for US Fed funds market)

Other points 2

- **Stress test: Why would banks put money in other banks that are at the minimum regulatory capital threshold?**
- **ESCB Macroprudential Research Network (MaRs): Work stream 2 assessing contagion risks**
- **Global "network of networkers" (Bundesbank, Co-Pierre Georg)**

Annex

Ultimate sources of systemic risk



Source: Author based on de Bandt and Hartmann (2000)