

A Contagion through Exposures to Foreign Banks*

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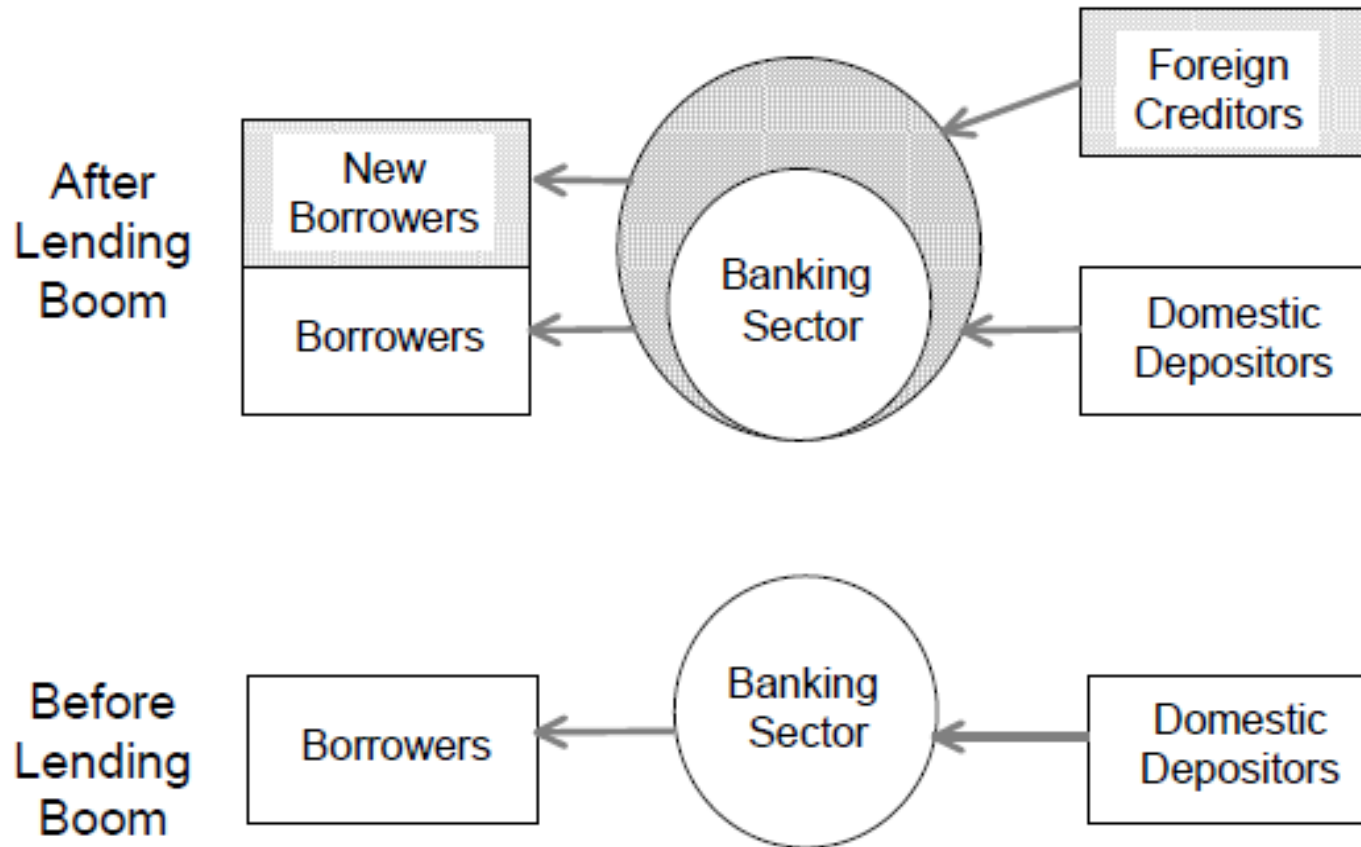
Why EMEs Suffer during the GFC?

- During the global financial crisis (GFC), shocks that originated from advanced economies (AEs) were rapidly transmitted to emerging market economies (EMEs).
 - Banks in AEs were hit directly by the deterioration of subprime loans and were forced to search for liquidity.
 - Subsequently, the market for short-term loans dried-up, and some of the troubled banks had to withdraw their funds from EMEs.
- The interconnectedness of the global financial system renders shocks in one or more financial centers to be transmitted to other economies.

Why EMEs Suffer during the GFC? (cont.)

- Short-term borrowings by banks in EMEs are susceptible to liquidity problems in foreign banks.
 - Bank borrowings are mostly dollar-denominated and do not suffer from any losses from exchange rate depreciation.
- These negative externalities from advanced countries can be disproportionately high if the troubled banks are larger and more interconnected, i.e. systemically more important.

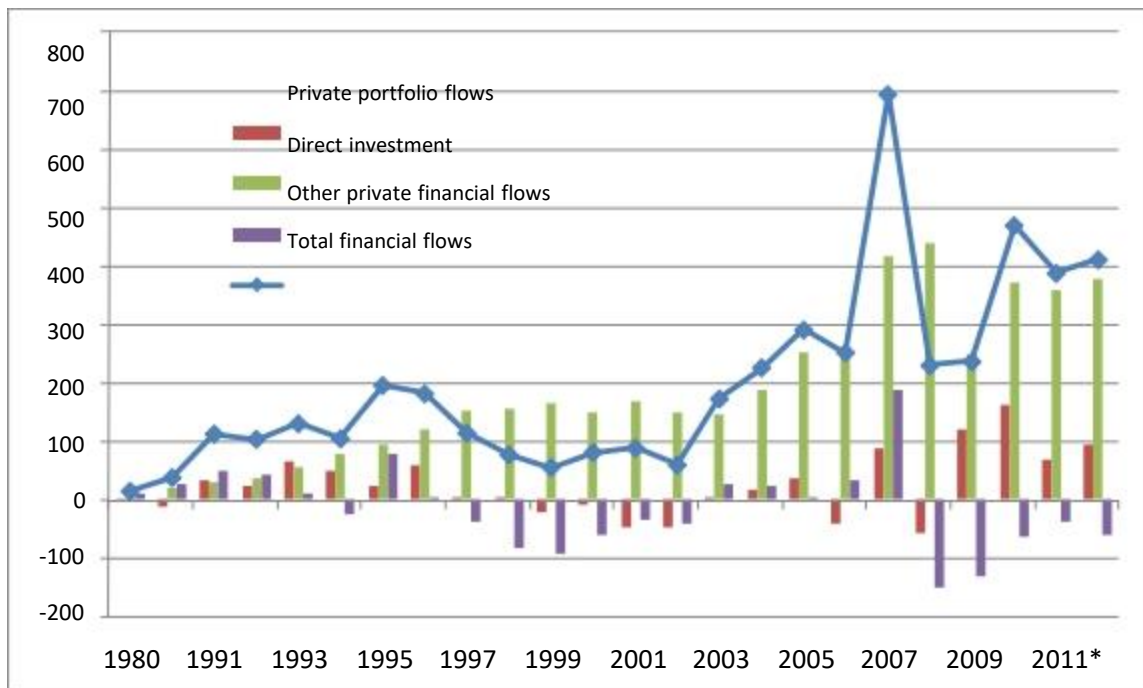
Figure: Lending Boom Financed by Foreign Creditors



Source: Hahm, Shin and Shin (2013)

Net private financial flows to EMEs

US dollar billions



Figures for 2010 and after are forecasts.

Source: IMF WEO database.

Sources: Binici and Yörükoğlu (2011)

Literature I: Importance of Exposures

- Bank runs during the GFC were driven by other financial institutions, as exemplified by the Northern Rock bank run: Hyun Shin (2009)
- Noncore liabilities, consisting mainly of foreign claims of financial institutions, act as an important indicator of EMEs' vulnerability to a crisis: Hahm, Shin and Shin (2013).
- Shim and Shin (2018) show that financial stress in AEs is a dominating source of banking outflows from EMEs.

Literature II: Regional contagion and Information Asymmetry

- Cerutti, Hale, and Minoiu (2015) find that economic proximity, that is, less information asymmetry, becomes more relevant for cross-border bank lending during crisis – A possibility of regional contagion.
- De Haas and Van Horen (2013) show that, during the crisis, banks continued to lend more to geographically close countries – the regional banking network may also provide some buffer against the spillover effects of crisis.

Park and Shin (2017, 2018)

- By utilizing bilateral bank claims between countries, we develop an empirical methodology to test the contagion effect at the country level.
- We empirically compute direct and indirect exposures of emerging economies to crisis countries.
- We show that, during the global financial crisis, these exposures affect emerging economies in the way that they suffer from more capital outflows.

Park and Shin (2017, 2018)

- We examine whether an economy can become more susceptible to capital outflows, regardless of its own bank exposures, if economies in the same region are heavily exposed to crisis countries.
- We test whether the same-region lenders tend to reduce exposures to the emerging-market borrowers less than do different-region lenders during crises.

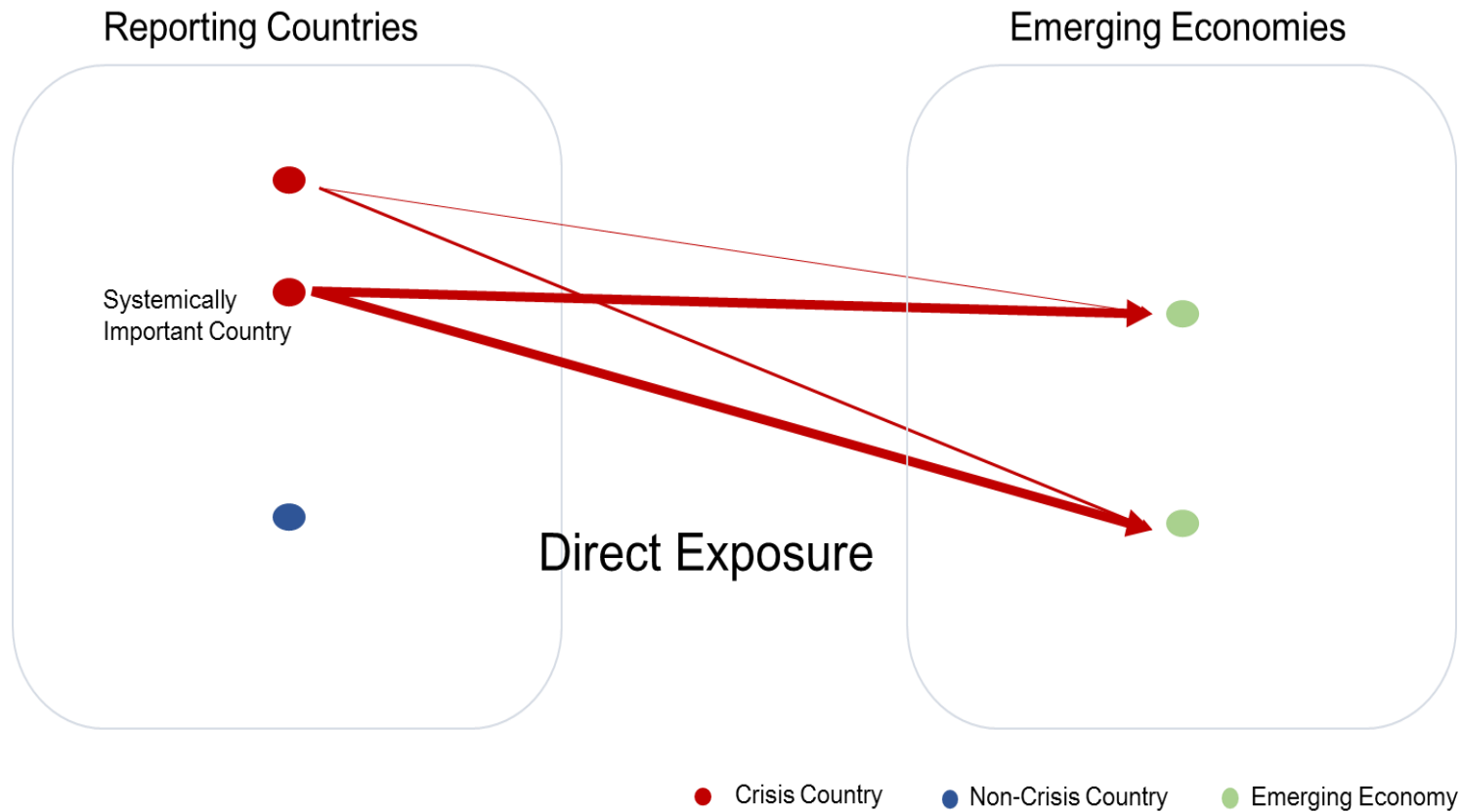
Direct Exposure

- The direct exposure is defined as the sum of shares of foreign-claims for a counterparty country i across all reporting countries j 's that experience crises.

$$DE_{i,t}^f = \sum_{j \in C_t} share_{ij,t}^f \quad \text{where} \quad share_{ij,t}^f = \frac{f^{C_{ijt}}}{\sum_{k=1}^N f^{C_{ikt}}}$$

$$C_t = \{\text{reporting countries in crisis at } t\}$$

Direct Exposure

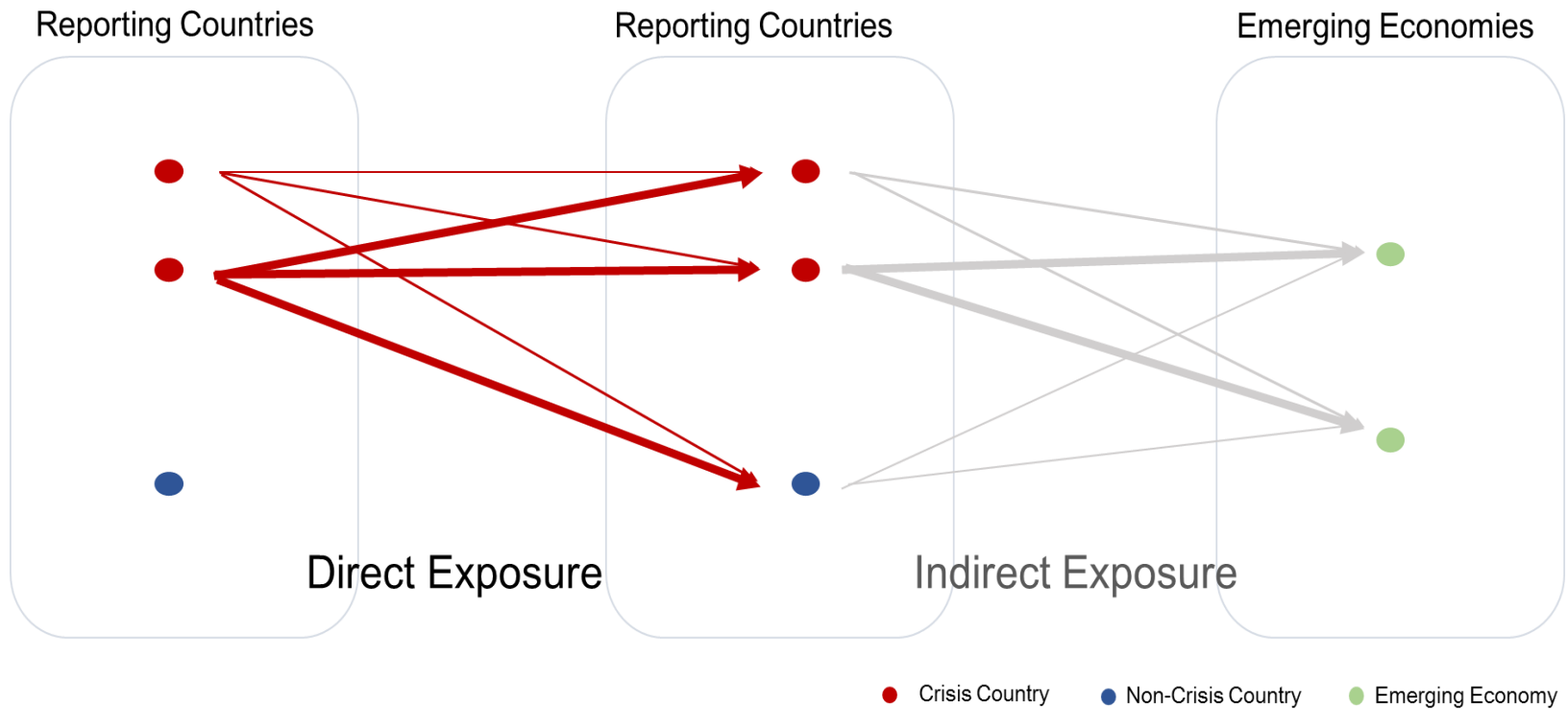


Indirect Exposure

- Even countries that do not experience crises also face some degree of liquidity problems and can affect other countries as well.
- The indirect exposure of foreign claims for country i is the weighted average of direct exposures faced by all reporting countries j 's with their shares of claims used as the weights.

$$IDE_{i,t}^f = \sum_j share_{ij,t}^f \cdot DE_{j,t}^f$$

Indirect Exposure



Findings

- The more EMEs are exposed directly and/or indirectly to crisis countries during the GFC, the higher the rate of capital outflows they suffer from.
- We find evidence of a regional contagion: direct/indirect exposures of the overall region's banking sectors to crisis-affected countries are systematically related to bank capital outflows from countries in the same region.
- We find more favorable behavior of the same region lenders towards EMEs during the GFC in the sense that they withdrew less.

Findings

- Our story emphasizes the liability side of EMEs: those that are affected through contagion are not the entities that hold claims on, but that borrowed from, troubled banks. (Čihák, Muñoz, and Scuzzarella (2011), Shin (2011))
- Shocks in AEs are transmitted to emerging economies as the credit crunch experienced by troubled banks, in turn, trigger a bank run on banks and other entities in EMEs.
- We find supporting evidence of the above story in the sense that direct/indirect exposures of the banking sector in EMEs is particularly significant in the regression.

Conclusion and Policy Implications

- The more EMEs are exposed directly and/or indirectly to crisis countries during the GFC, the higher the rate of capital outflows they suffer from.
- Exposures of the banking sector in EMEs is particularly significant in the regression.
- We found that the direct/indirect exposures of the country's own and the overall region's banking sectors to crisis-affected countries are systematically related to bank capital outflows during the GFC.
- The same-region lender exhibits more favorable behavior towards emerging economies during the crisis.

Conclusion and Policy Implications

- While it is important for each nation to continue implementing sound macroeconomic policies, crises highlight that EMEs may need capital flow managements to circumvent excessive exposures to foreign banks.
- Given that regional lenders suffer from less information asymmetry problems, EMEs need to avoid concentration risk by diversifying lender countries to increase the share of the same-region lenders.

Conclusion and Policy Implications

- Given the spillover effects of regional exposures, the region needs to deepen its financial sector coordination by supporting the region's financial regulators and policy makers to come together to deliberate on common frameworks in banking supervision and avoid potential contagion.