Closing Thoughts

Hyun Song Shin
Bank for International Settlements

Fifth BIS CCA Research Conference

Bogota, 22-23 May 2014

Three Modes of Leveraging Up

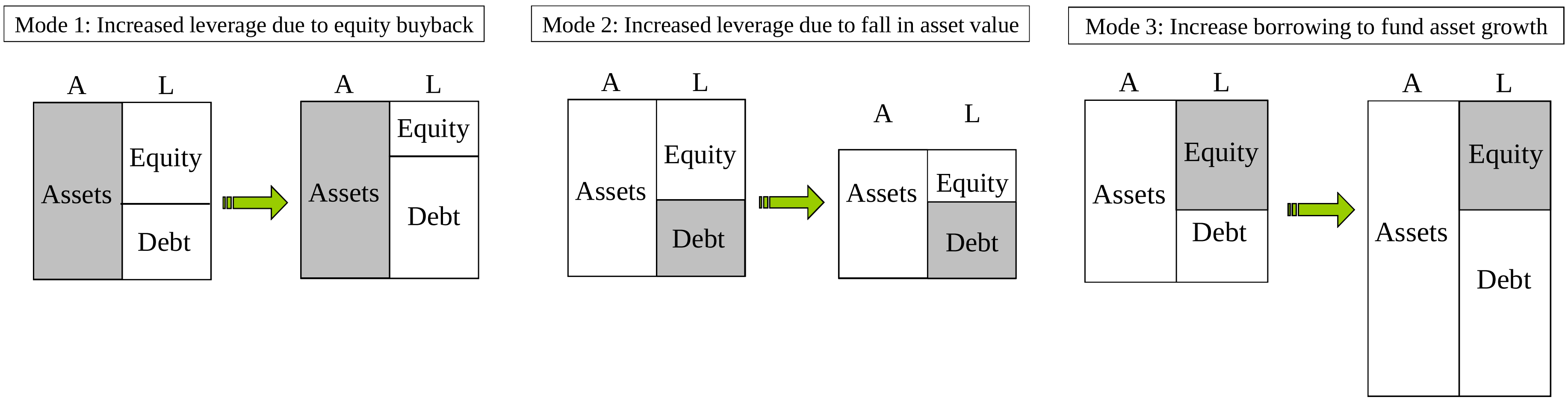


Figure 1. **Three modes of leveraging up:** Mode 1 is through an equity buyback through a debt issue. Mode 2 is through a dividend financed by asset sale. Mode 3 is through increased borrowing to fund new assets. In each case the grey area indicates balance sheet component that is held fixed

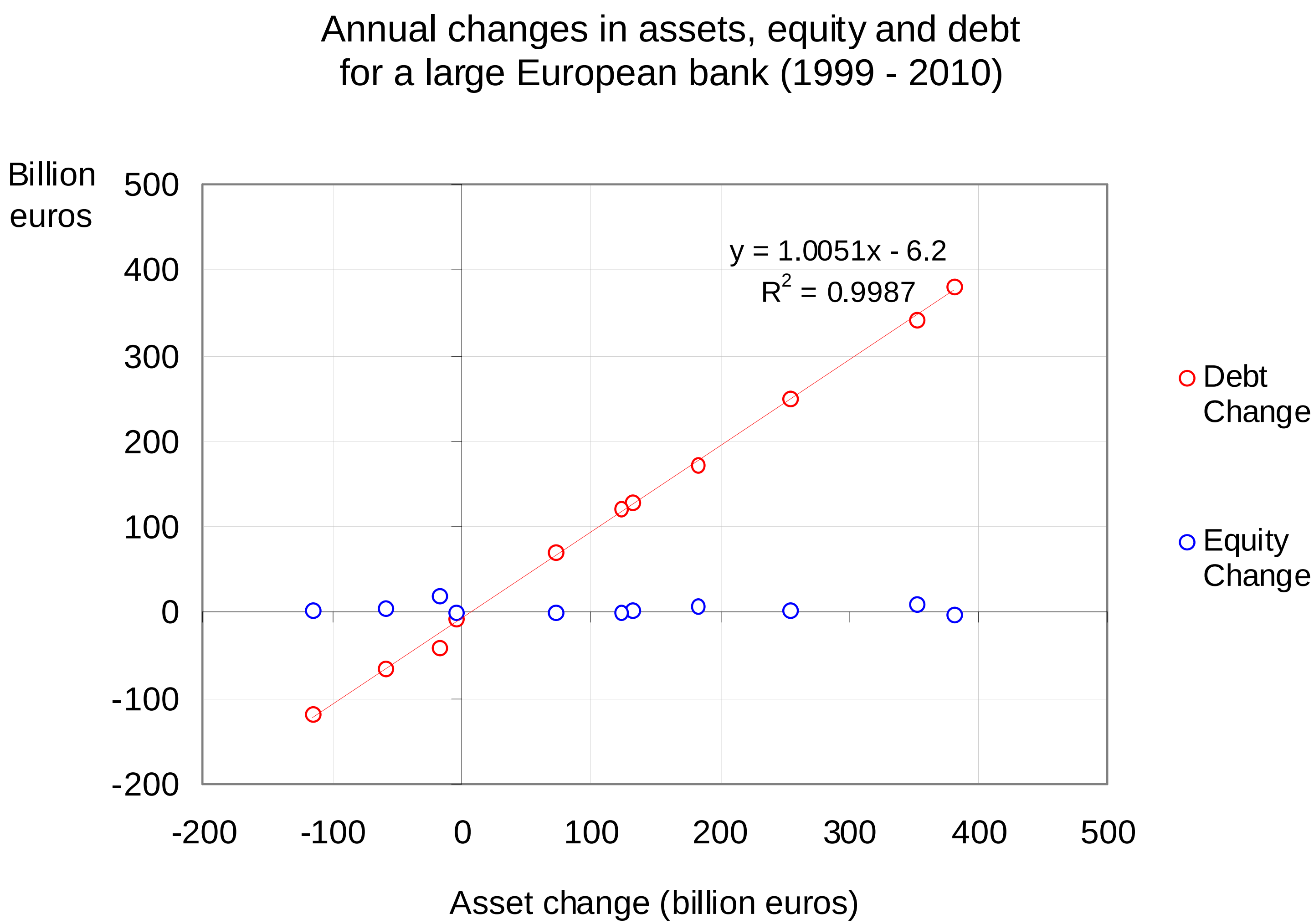


Figure 2. Scatter chart showing how much of the change in assets is accounted for by changes in debt and equity, respectively. Annual changes in billions of euros are shown for a large European bank (1999-2010)

An Analogy

- Bank equity $\longmapsto$ Foundations of building
- Bank lending $\longmapsto$ Building itself
- Leverage $\longmapsto$ Height of building relative to its foundations

During credit boom, the bank adds new floors to the building on the same foundations

Figure 3. Sutyagin House, Archangel

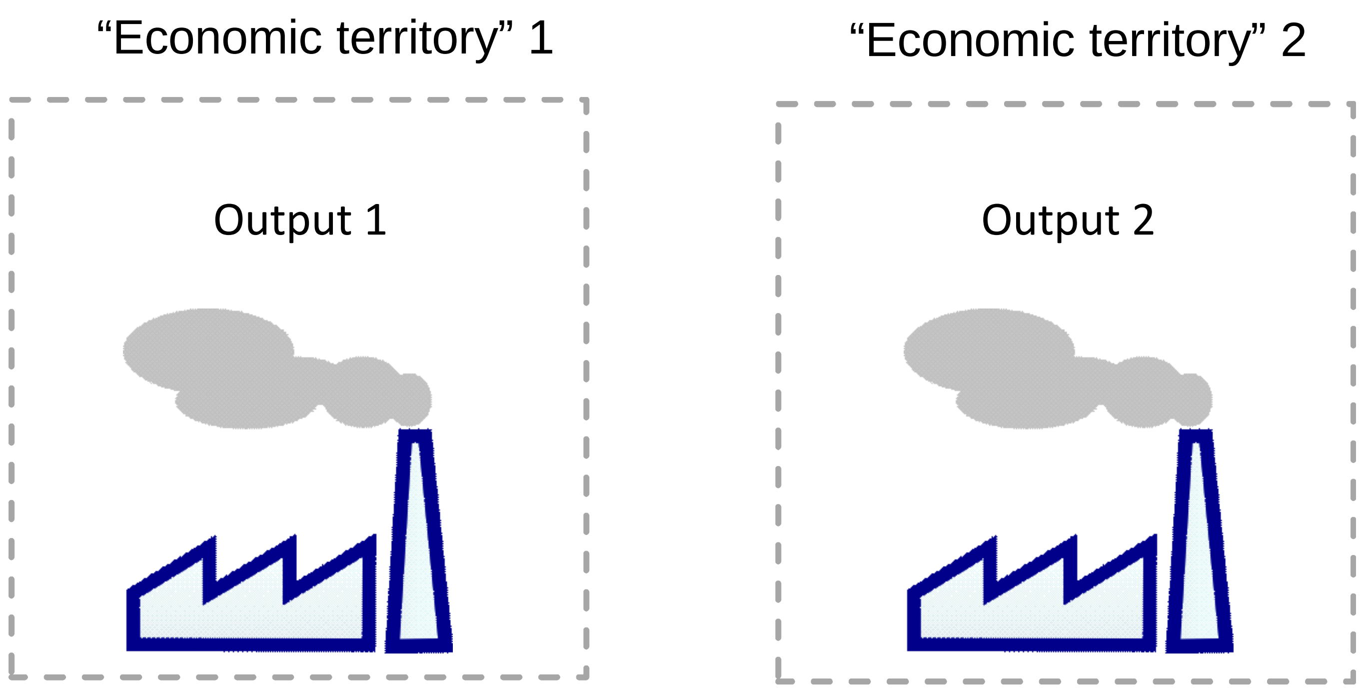


Figure 4. Boundary for national income accounting defines "economic terriroty"

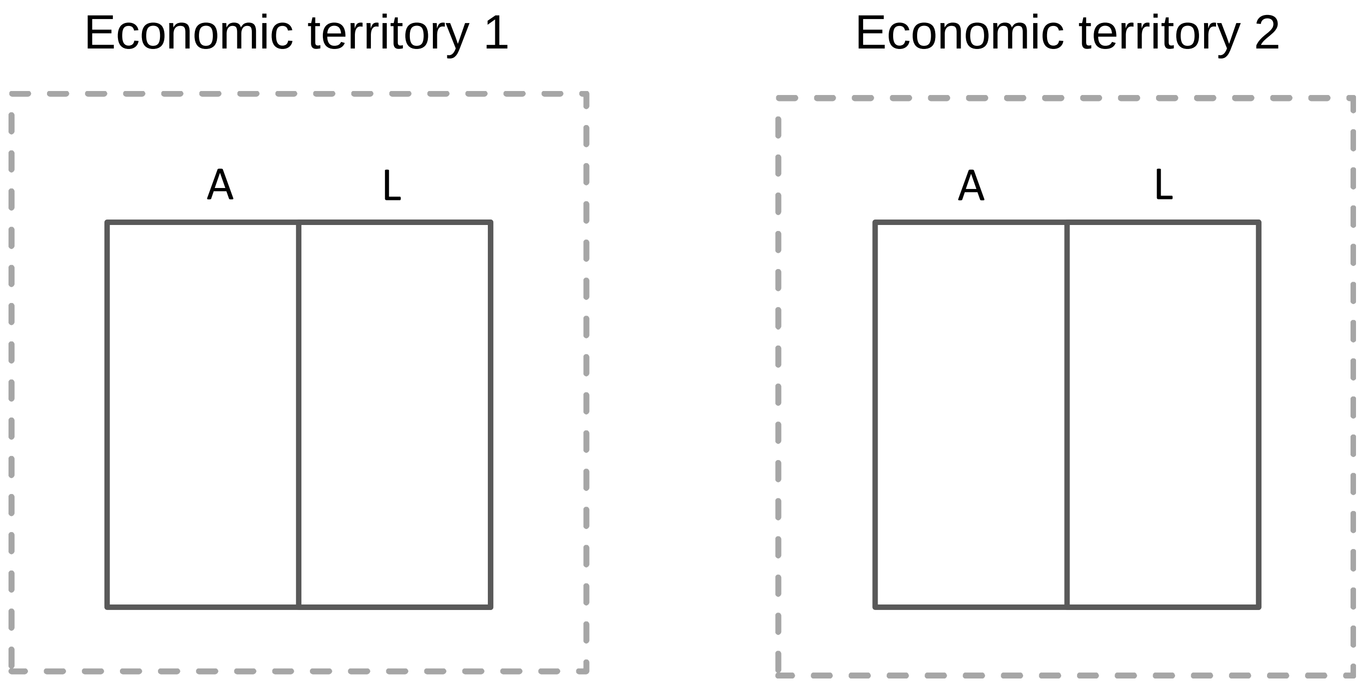


Figure 5. Boundary for national income accounting defines decision-making unit

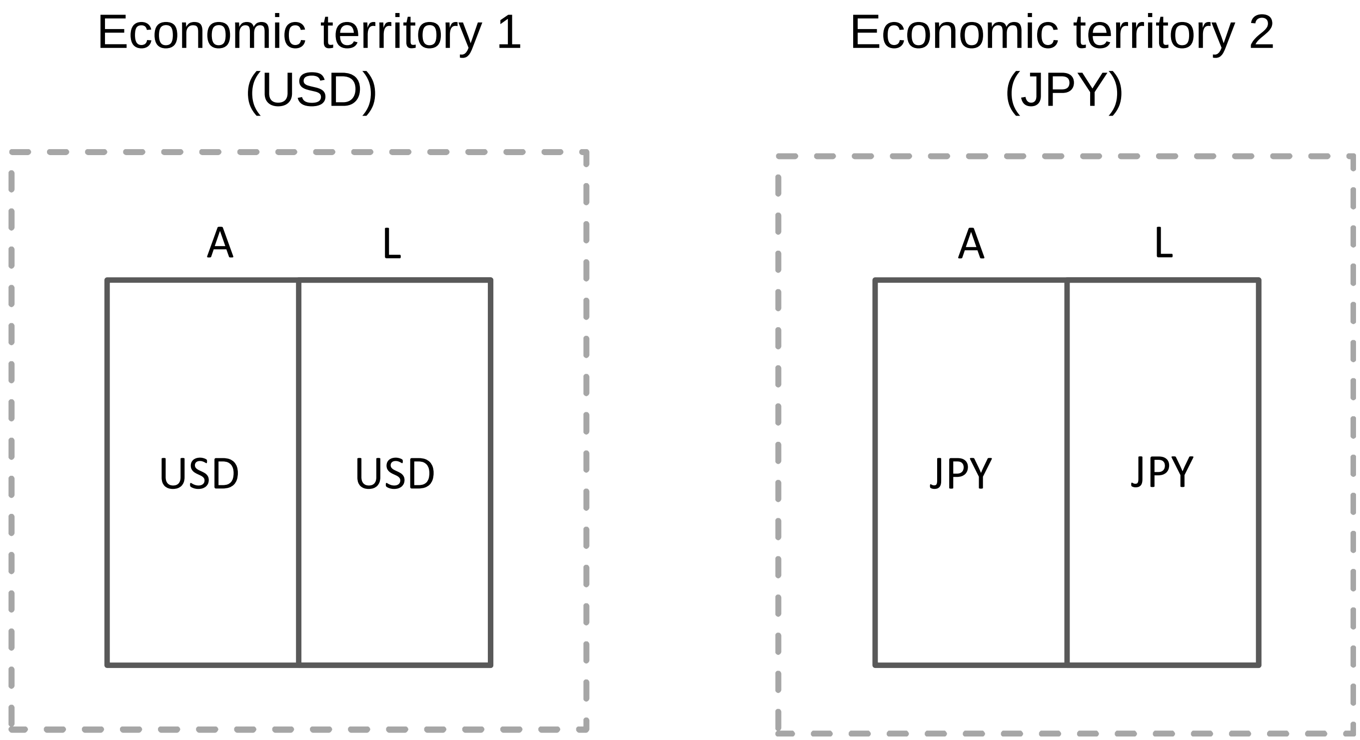


Figure 6. Boundary for national income accounting defines exchange rates as relative prices across boundary

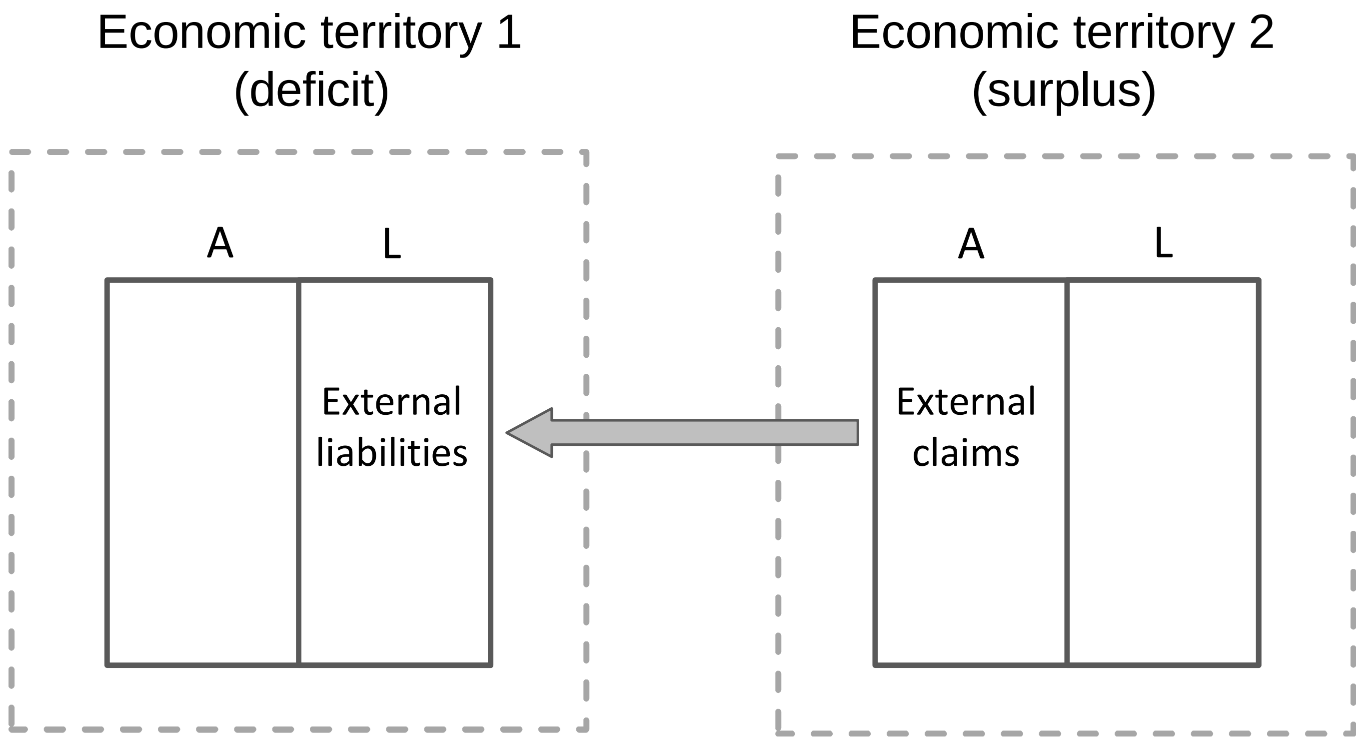


Figure 7. Boundary for national income accounting defines balance of payments and external claims/liabilities

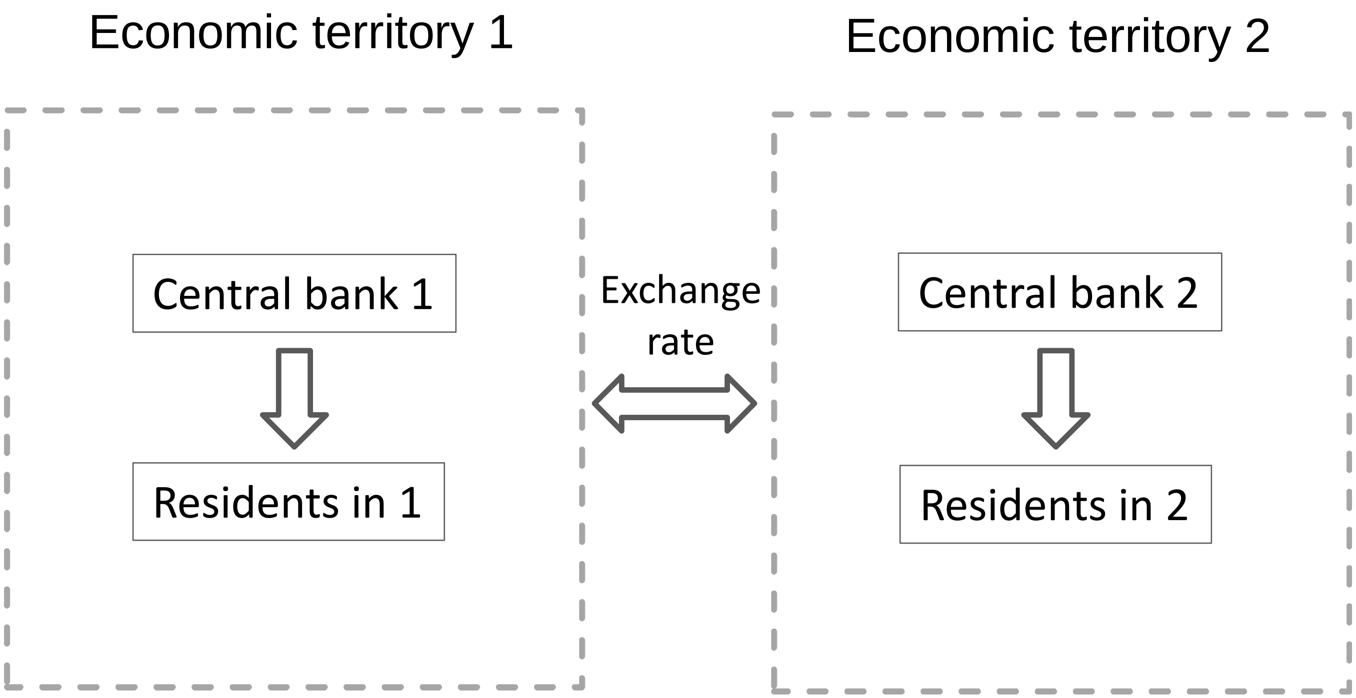


Figure 8. Boundary for national income accounting defines reach of monetary policy; floating exchange rates ensures monetary policy autonomy

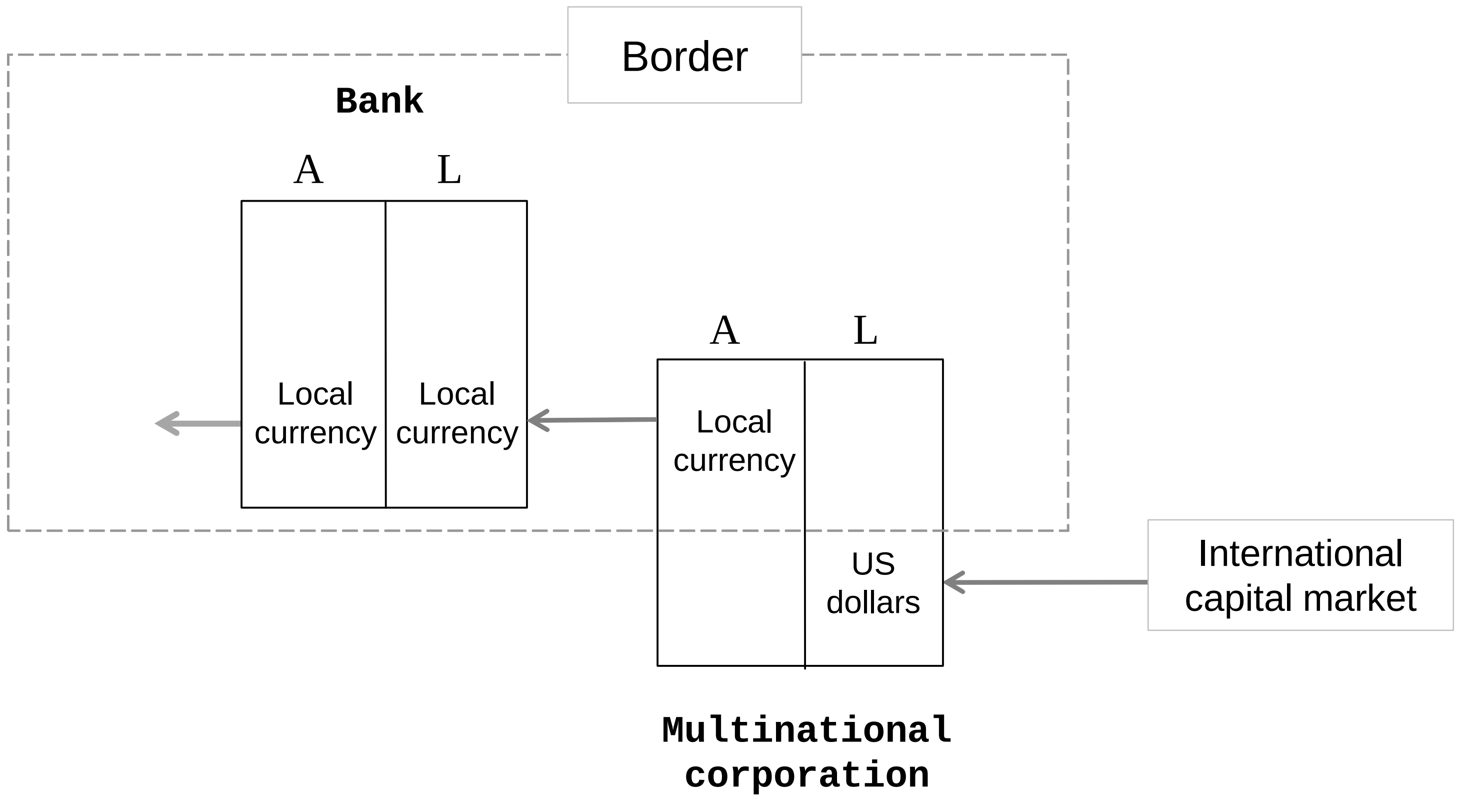


Figure 9. Offshore borrowing by multinational firm from emerging economy

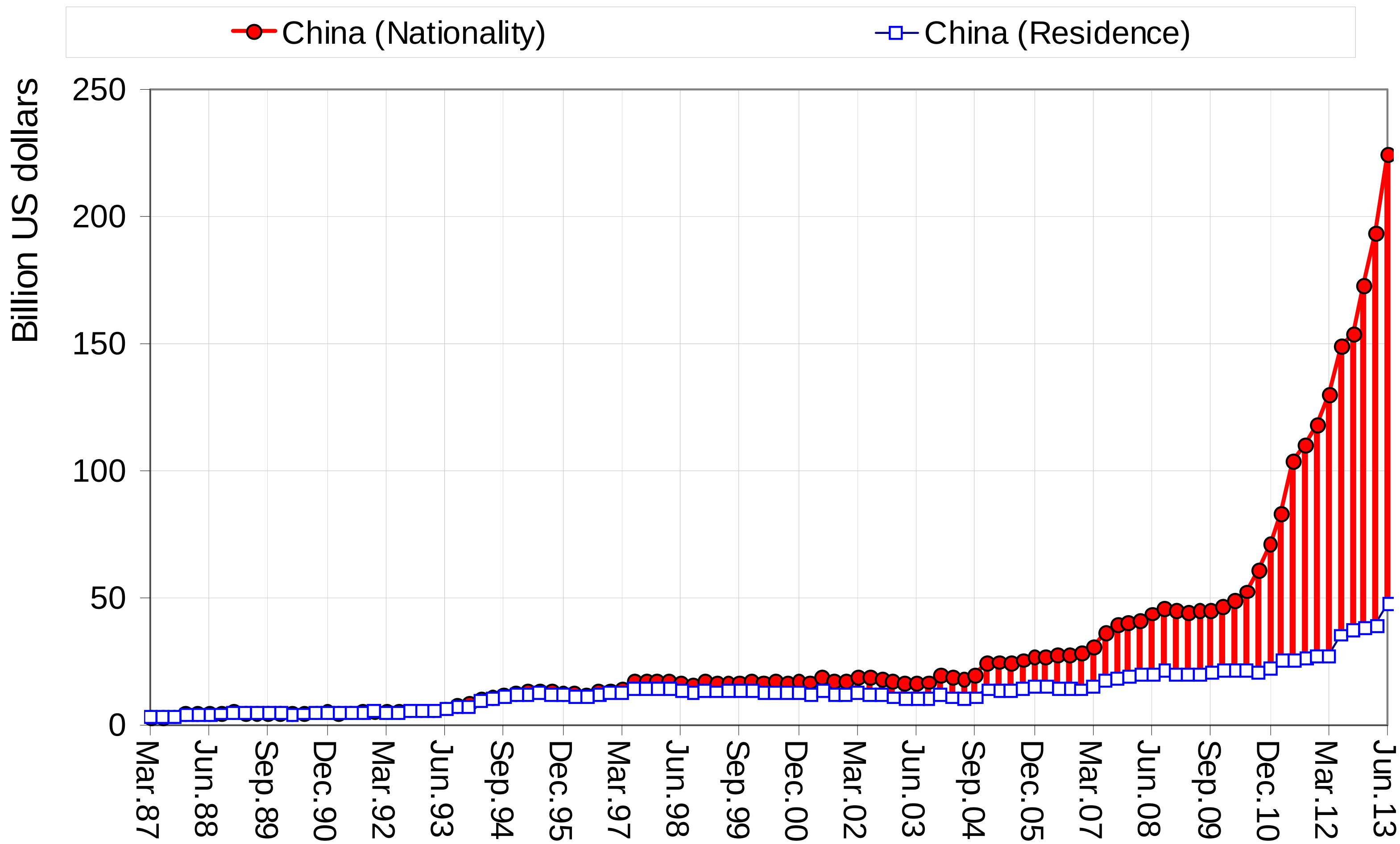


Figure 10. International debt securities outstanding (all borrowers) from China by nationality and by residence (Source: BIS Debt Securities Statistics, Table 11A and 12A)

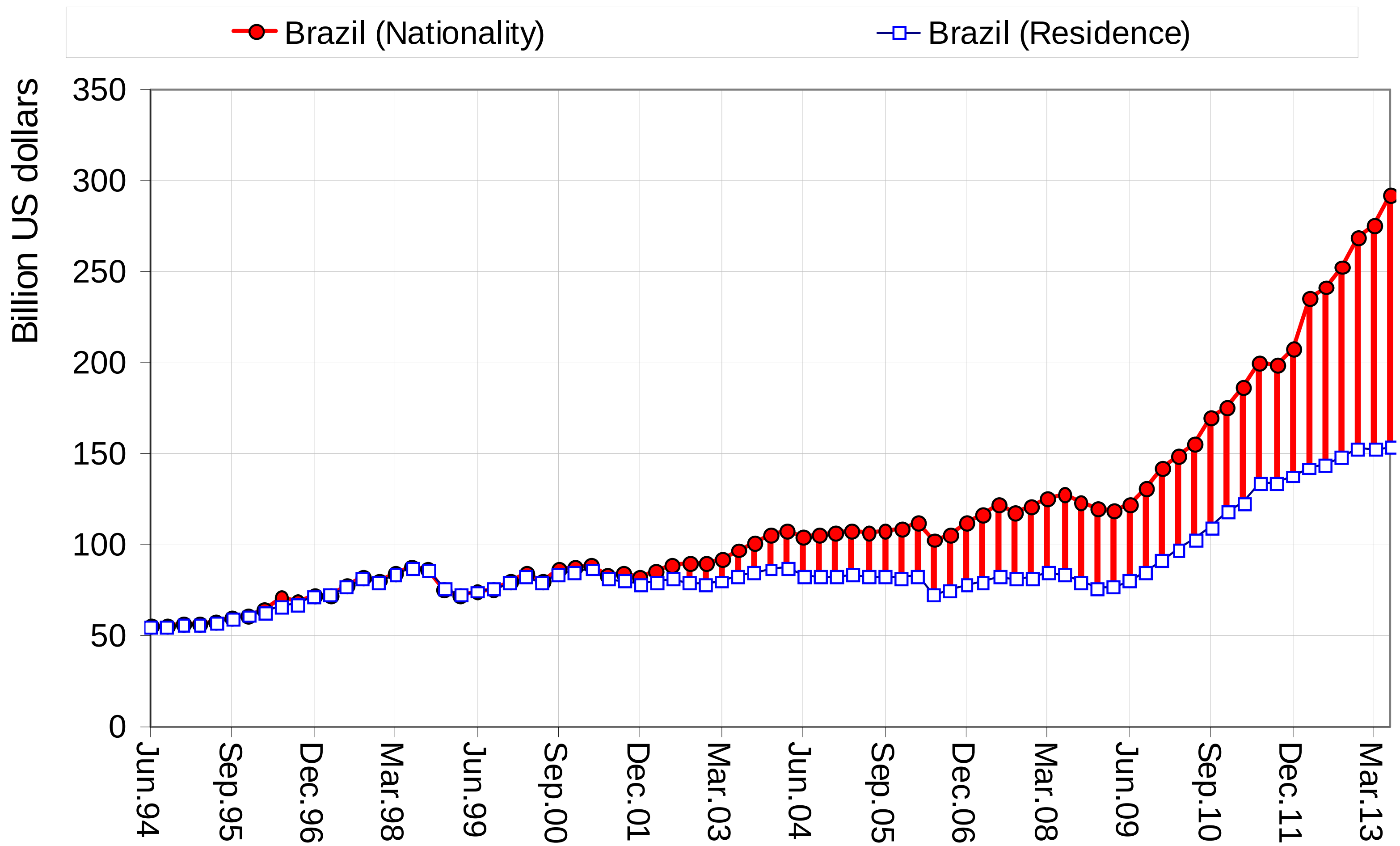


Figure 11. International debt securities outstanding (all borrowers) from Brazil by nationality and by residence (Source: BIS Debt Securities Statistics, Table 11A and 12A)

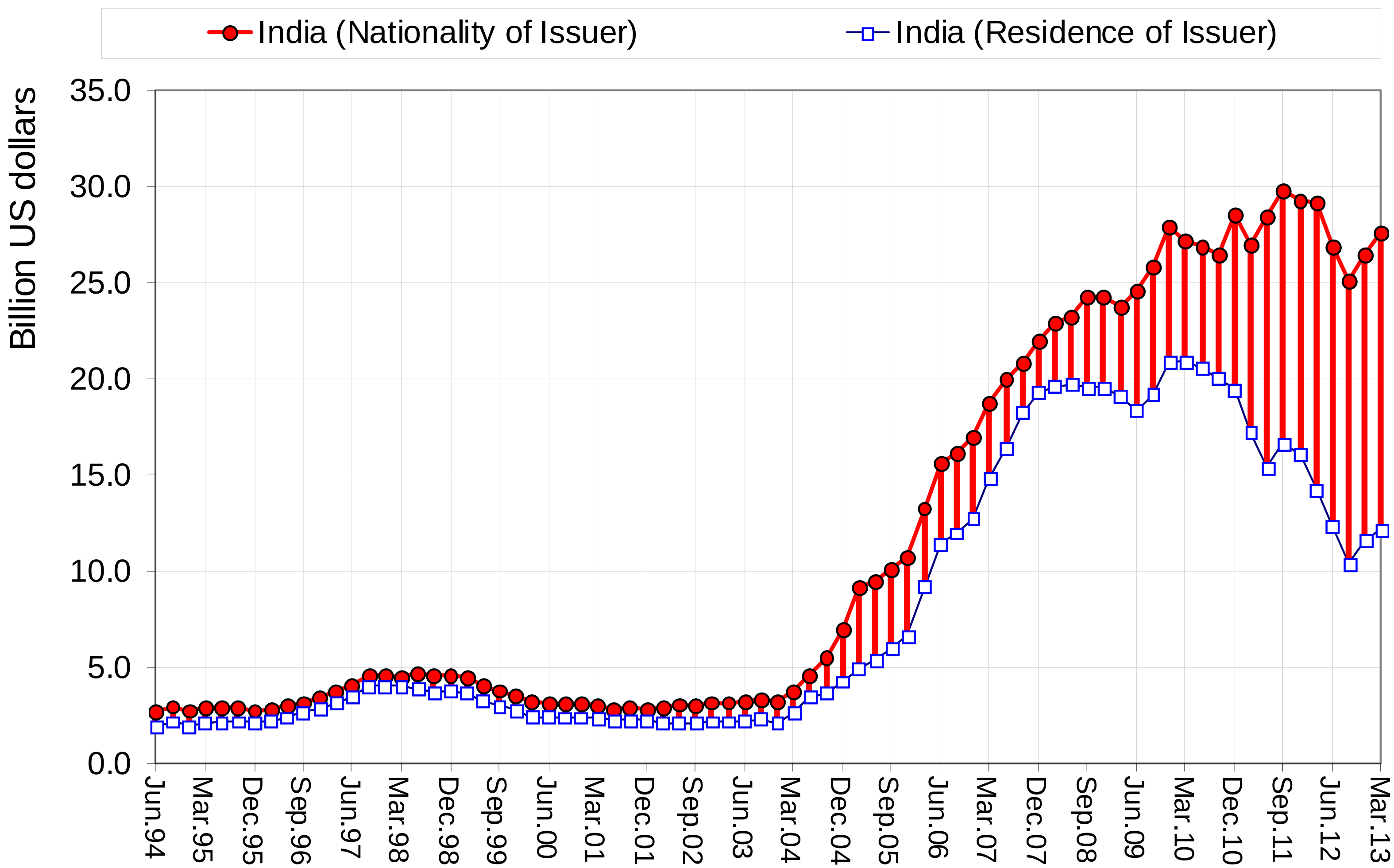


Figure 12. International debt securities outstanding for non-financial corporates from India by nationality and by residence (Source: BIS Debt Securities Statistics, Table 11D and 12D)

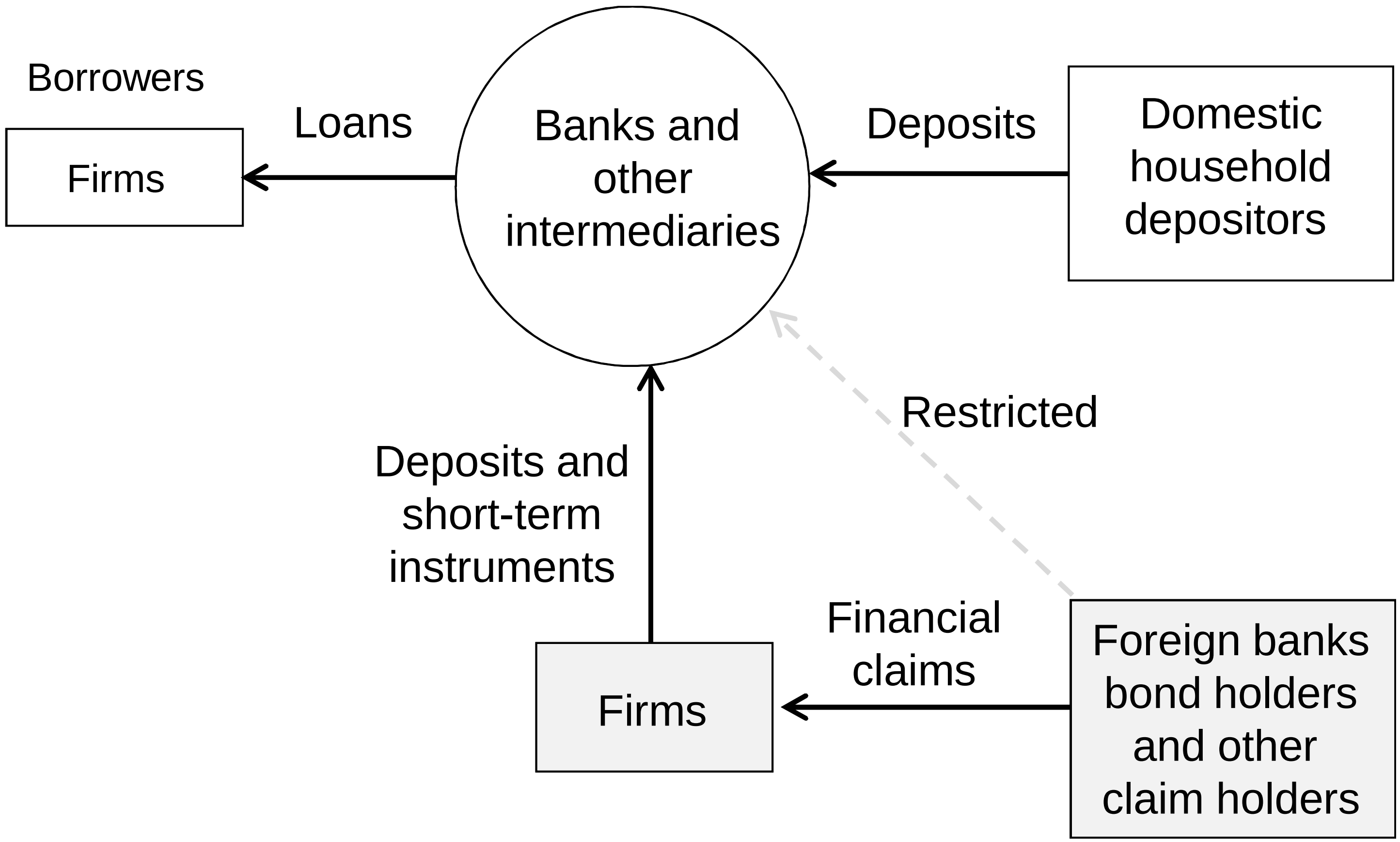


Figure 13. **Non-financial firms as intermediary.** In this diagram, firms with access to international capital markets act as an intermediary for outside funding when the banking sector has restricted access to international capital markets.

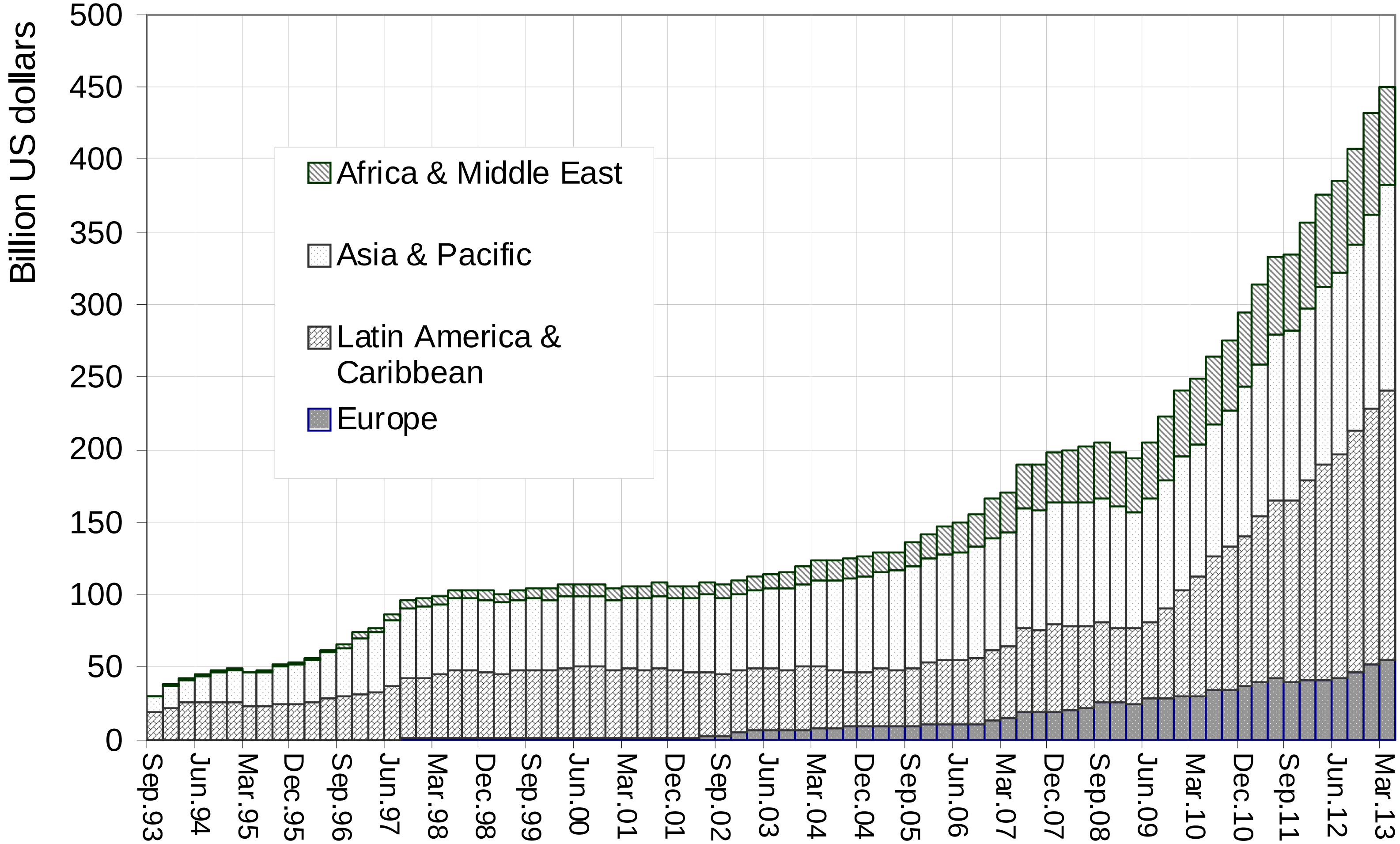
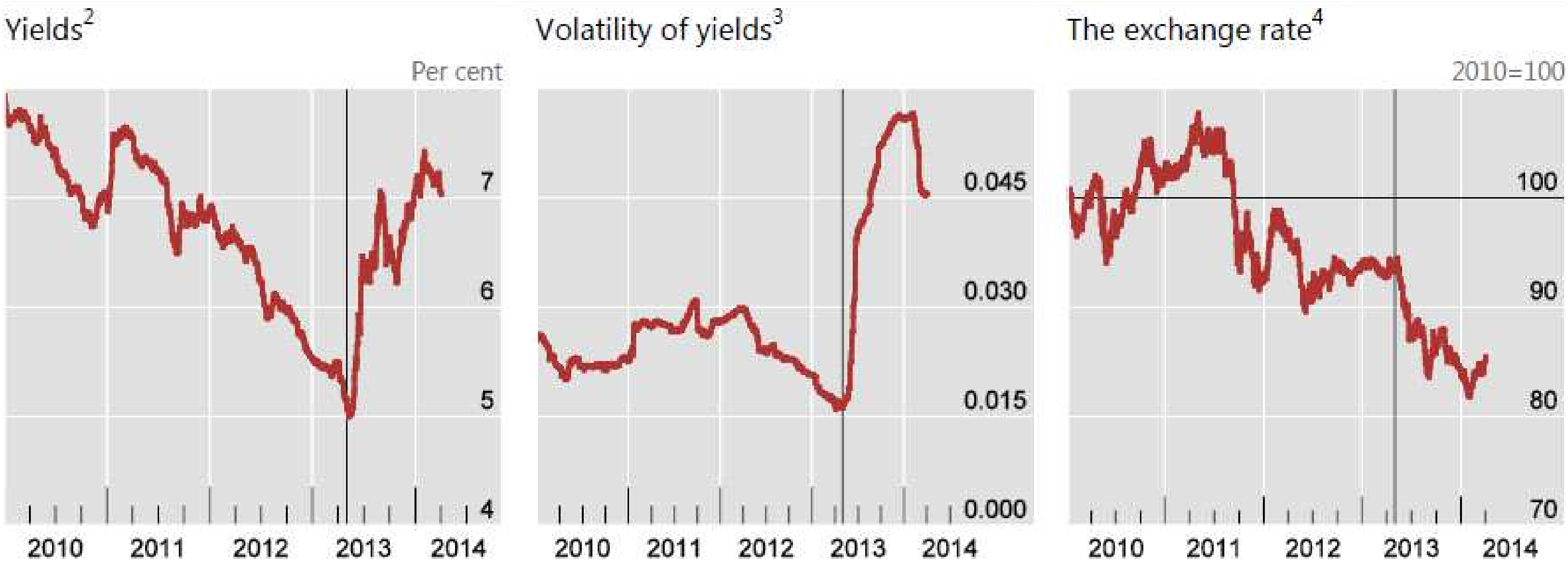


Figure 14. Non-financial corporate international debt securities outstanding for developing economies (Source: BIS debt securities statistics, Table 12D)

Yields of local EM government bonds and the exchange rates[1] Graph 2



The black vertical lines correspond to 1 May 2013 (FOMC statement changing the wording on asset purchases).

[1] All 3 graphs show the simple average of Brazil, India, Indonesia, Malaysia, Mexico, the Philippines, Poland, South Africa and Turkey. [2] Yields on 5-year local currency bonds. [3] 180-day moving standard deviation of daily changes in yields. [4] In dollars per unit of local currency.

Sources: Bloomberg; national data; BIS calculations.

Figure 15. Source: Philip Turner (2014) BIS working paper 441

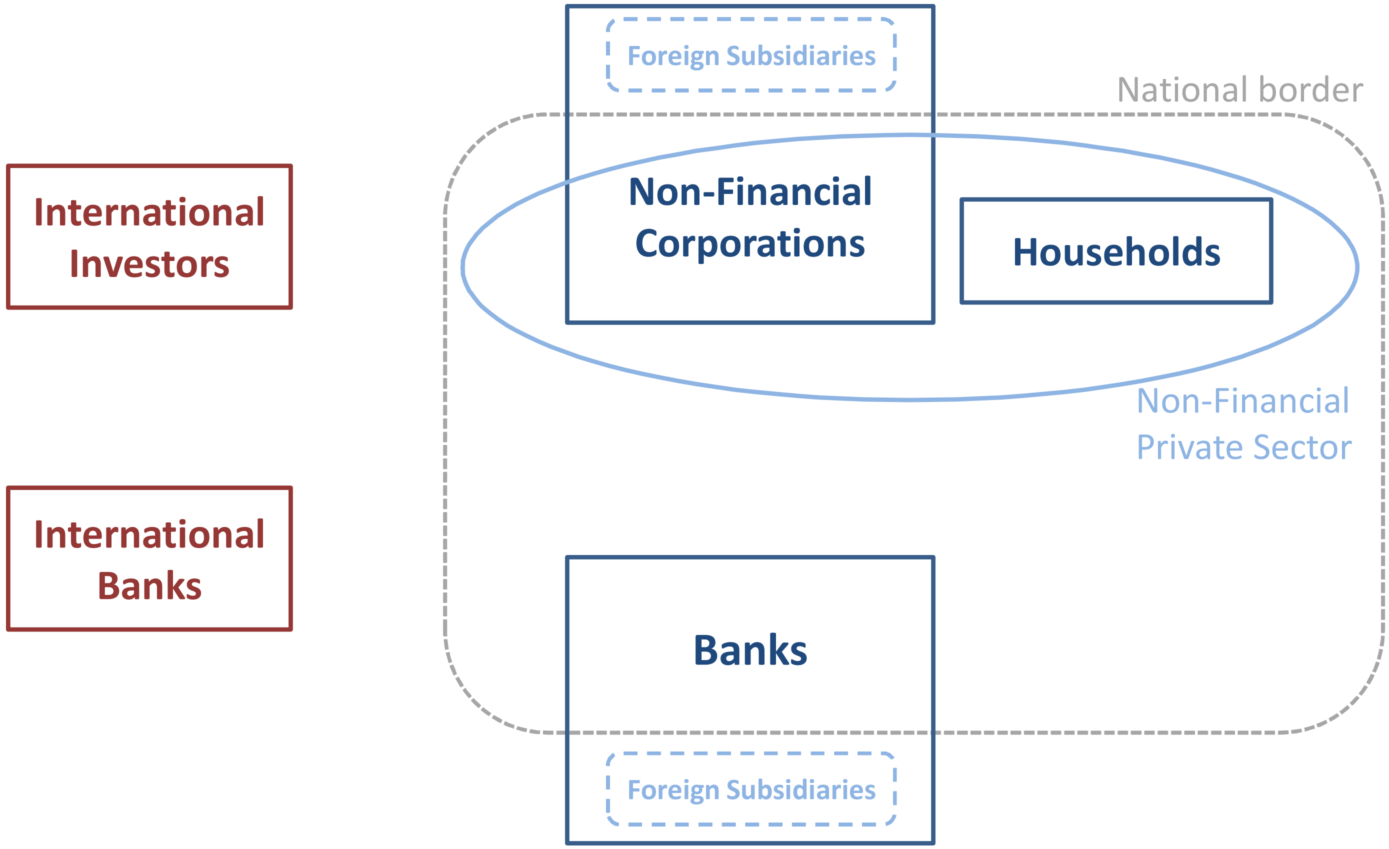


Figure 16. Flow of funds analysis for LAC4 (Brazil, Chile, Colombia, Mexico) (Source: Andrew Powell (IADB 2014))

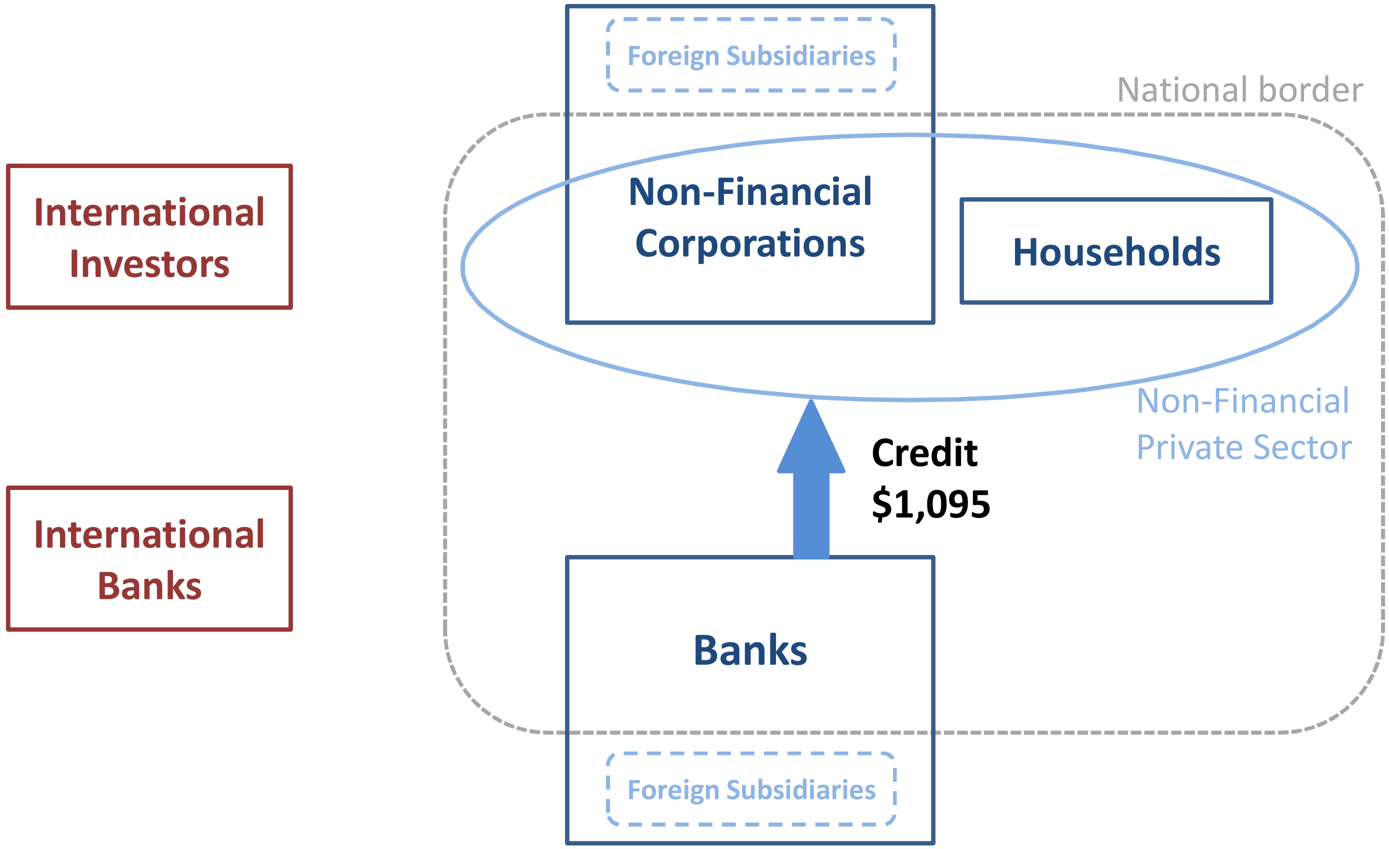


Figure 17. Credit growth in LAC4 (Brazil, Chile, Colombia, Mexico) in USD billion between December 2008 - June 2013 (Source: Andrew Powell (IADB 2014))

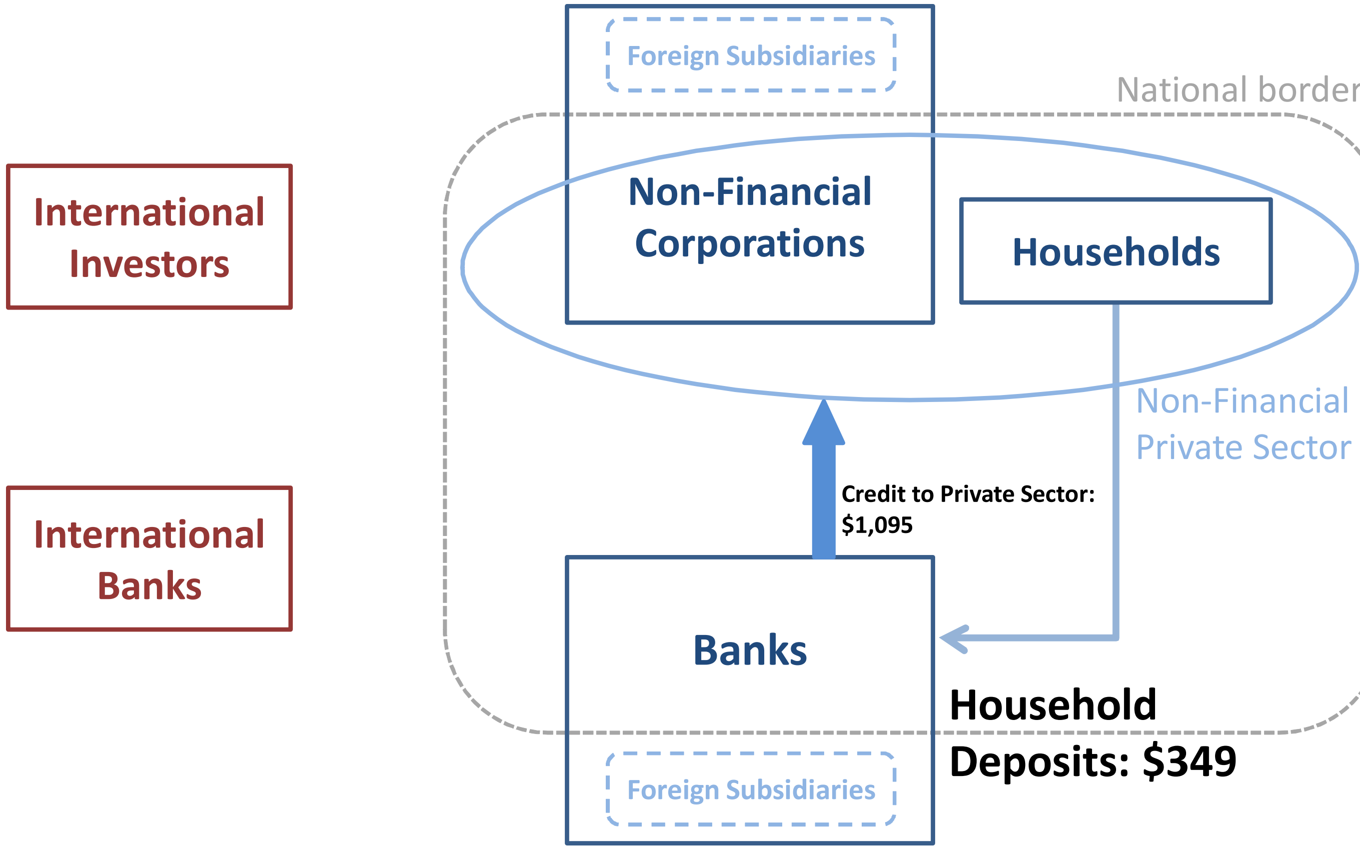


Figure 18. Financing credit growth in LAC4 (Brazil, Chile, Colombia, Mexico) in USD billion between December 2008 - June 2013 (Source: Andrew Powell (IADB 2014))

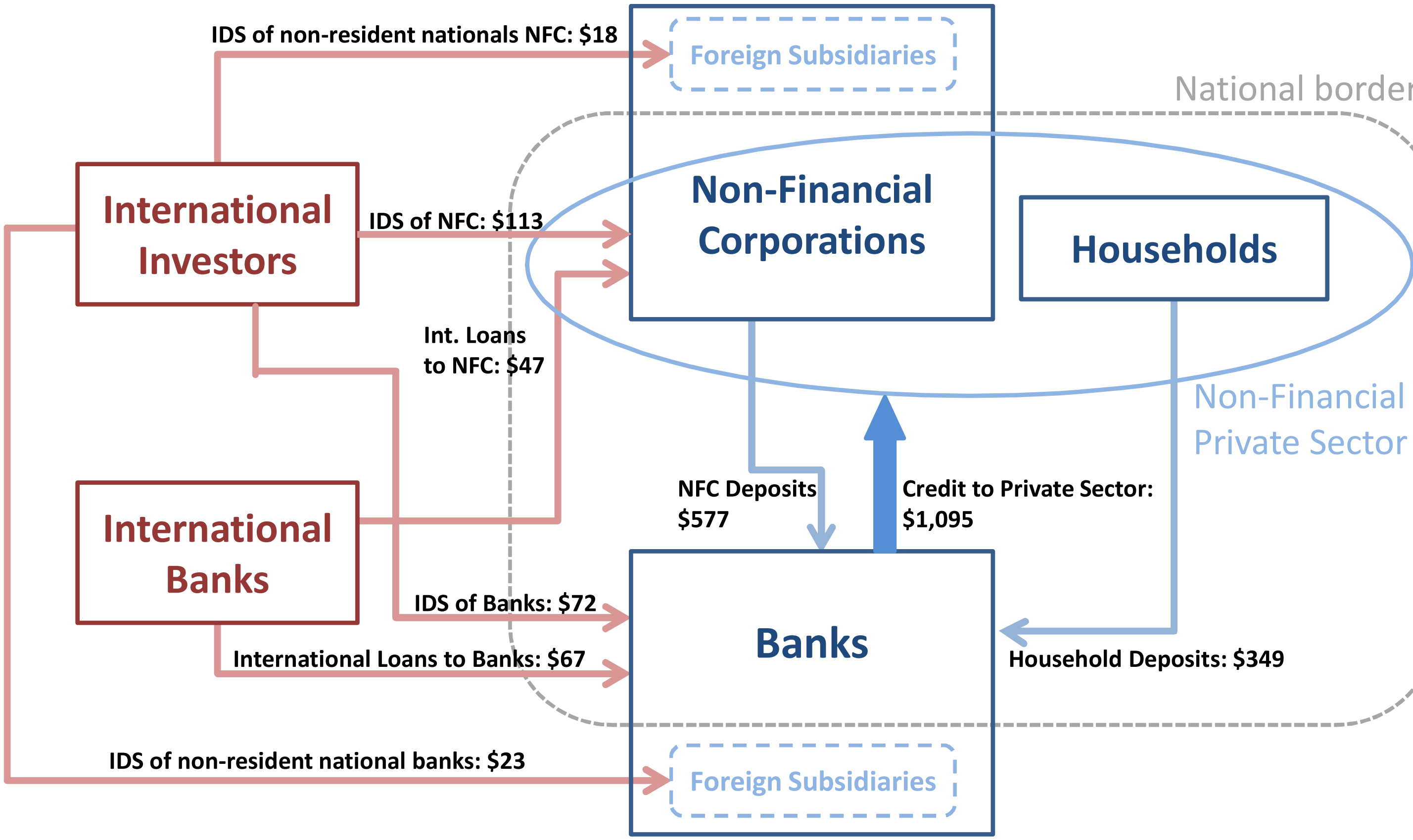


Figure 19. Financing credit growth in LAC4 (Brazil, Chile, Colombia, Mexico) in USD billion between December 2008 - June 2013 (Source: Andrew Powell (IADB 2014))

Elements in Distress Loop

1. Steepening of local currency yield curve
2. Currency depreciation, corporate distress, freeze in corporate CAPEX, slowdown in growth
3. Runs of wholesale corporate deposits from domestic banking sector
4. Asset managers cut back positions in EME corporate bonds citing slower growth in EMEs
5. Back to Step 1, and repeat...