

Procyclicality in Advanced and Emerging Economies

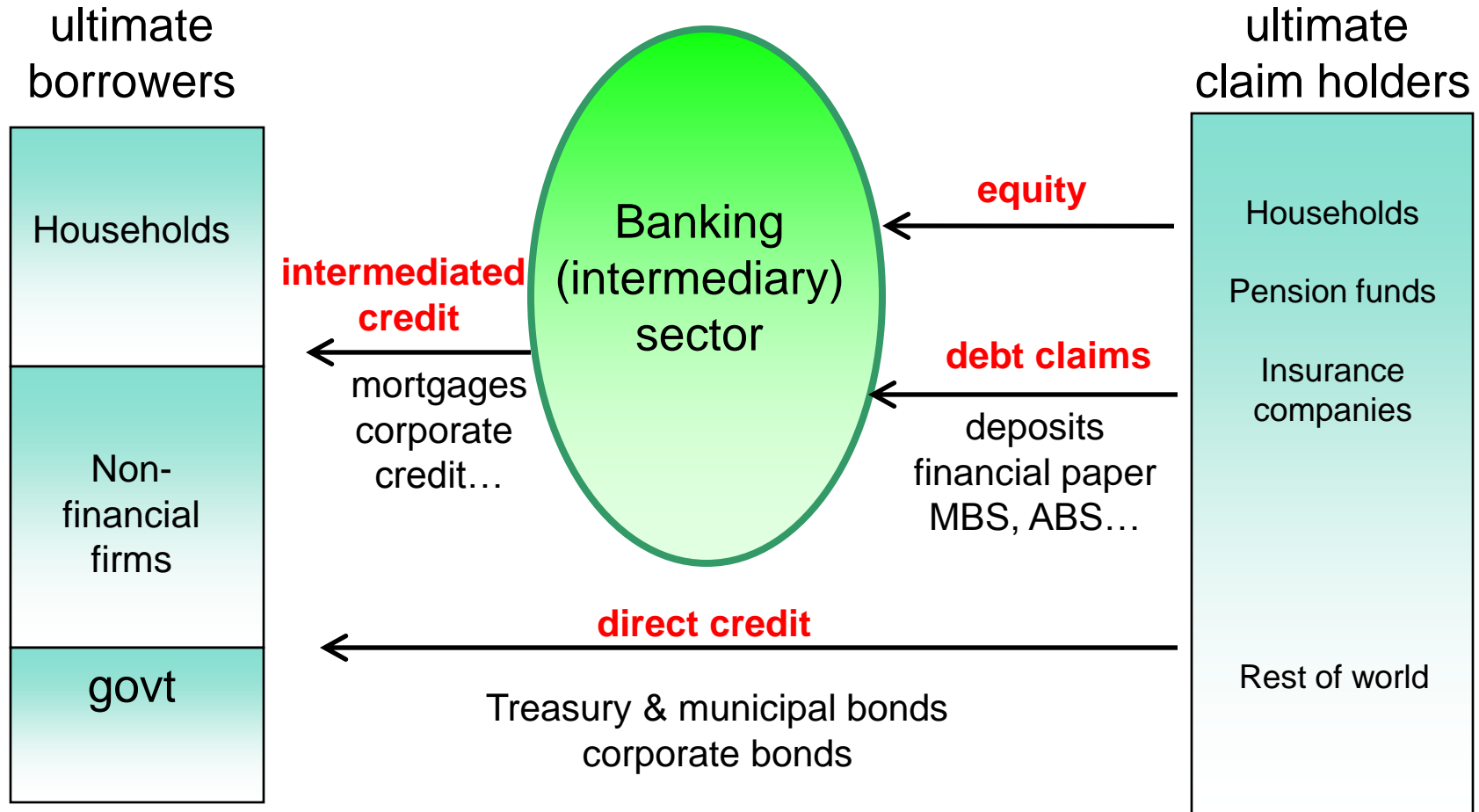
Hyun Song Shin

Korea/FSB Financial Reform Conference:
An Emerging Market Perspective

September 2-3, 2010

Seoul

Stylized Financial System

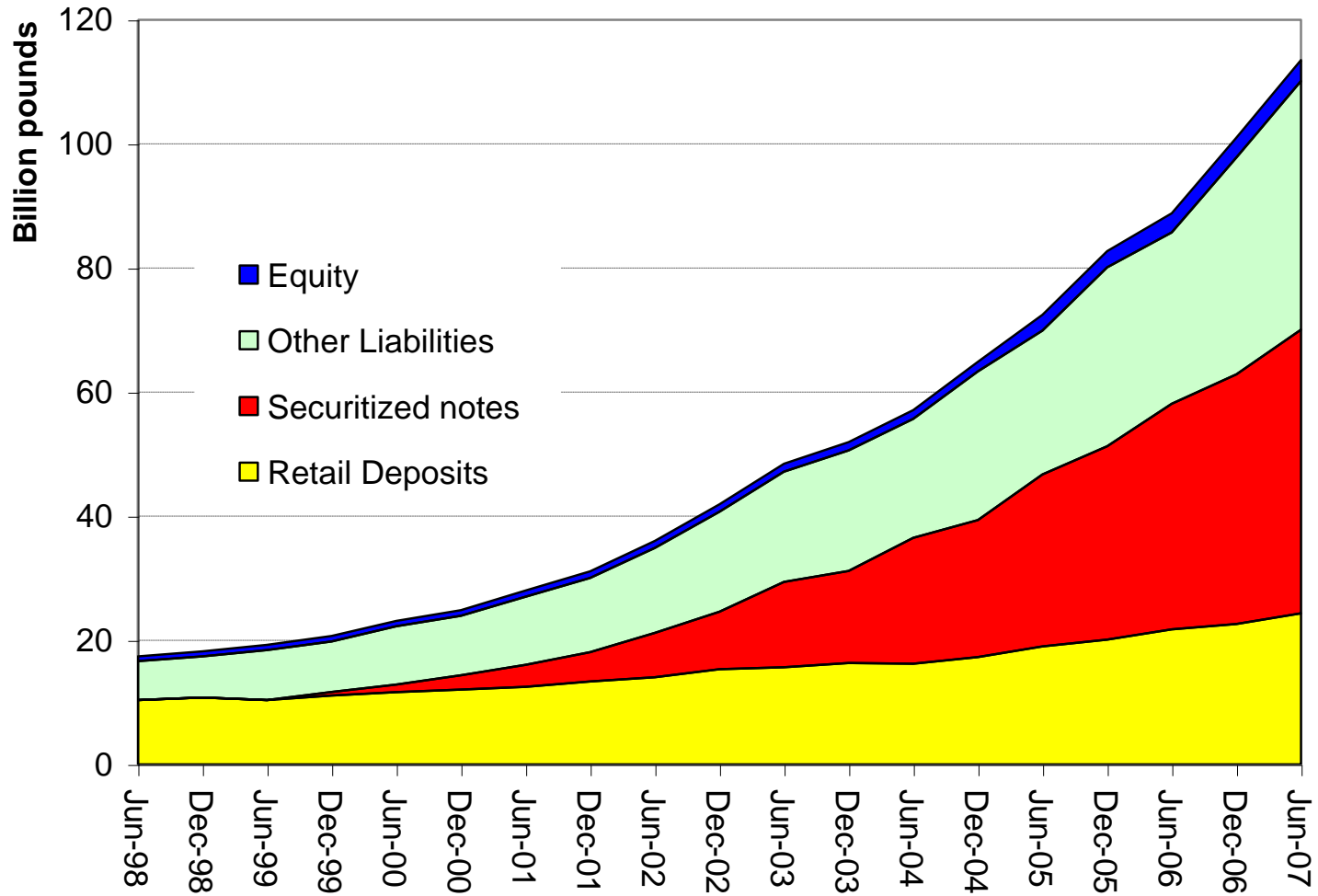


Banking (Intermediary) Sector

- Not just a passive player
 - Instead, is the *engine* that drives the financial cycle
 - Balance sheet management drives the financial cycle
- Stage of the financial cycle shows up in the composition of liabilities...

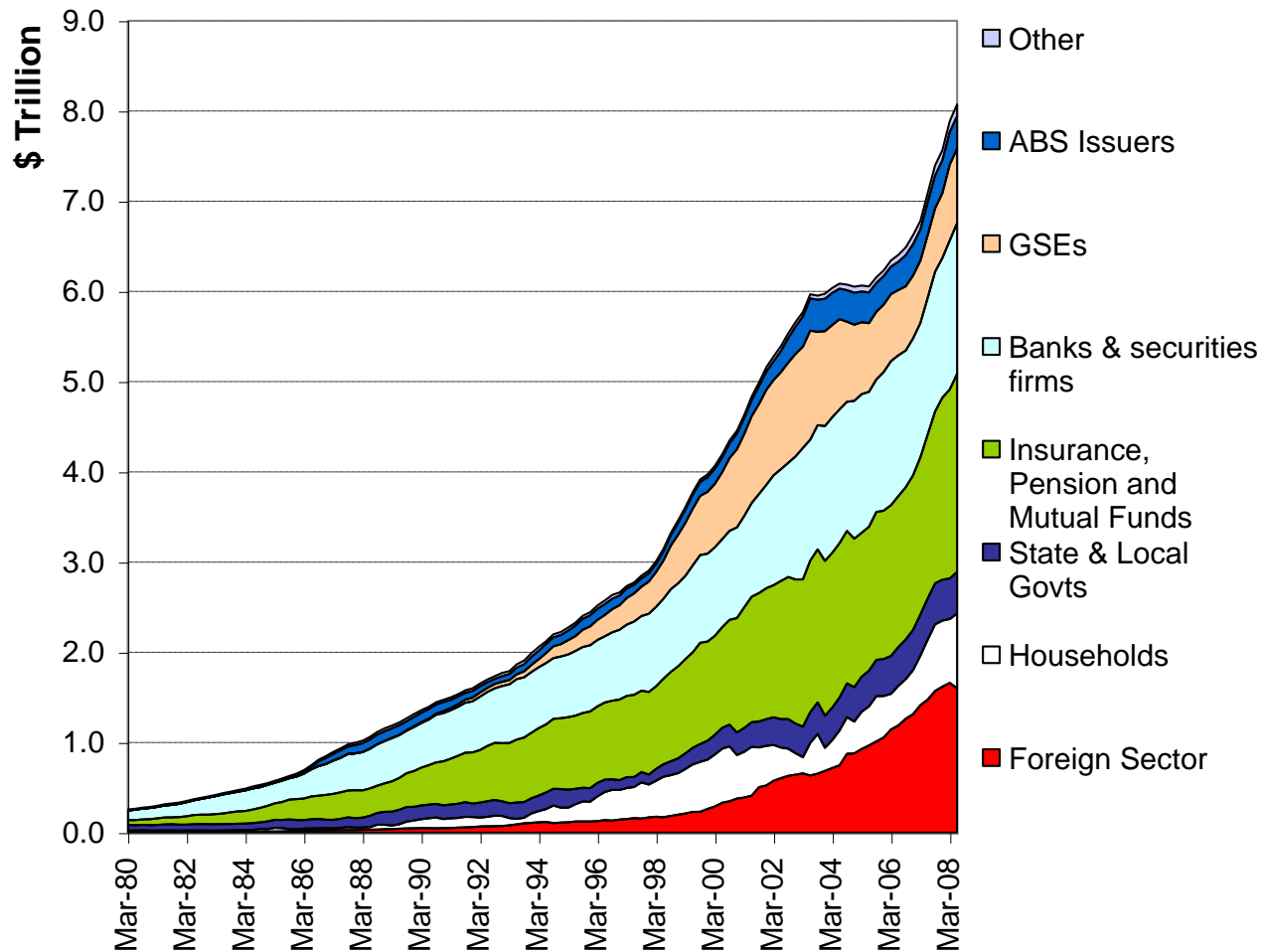
Composition of Northern Rock's Liabilities

(June 1998 - June 2007)

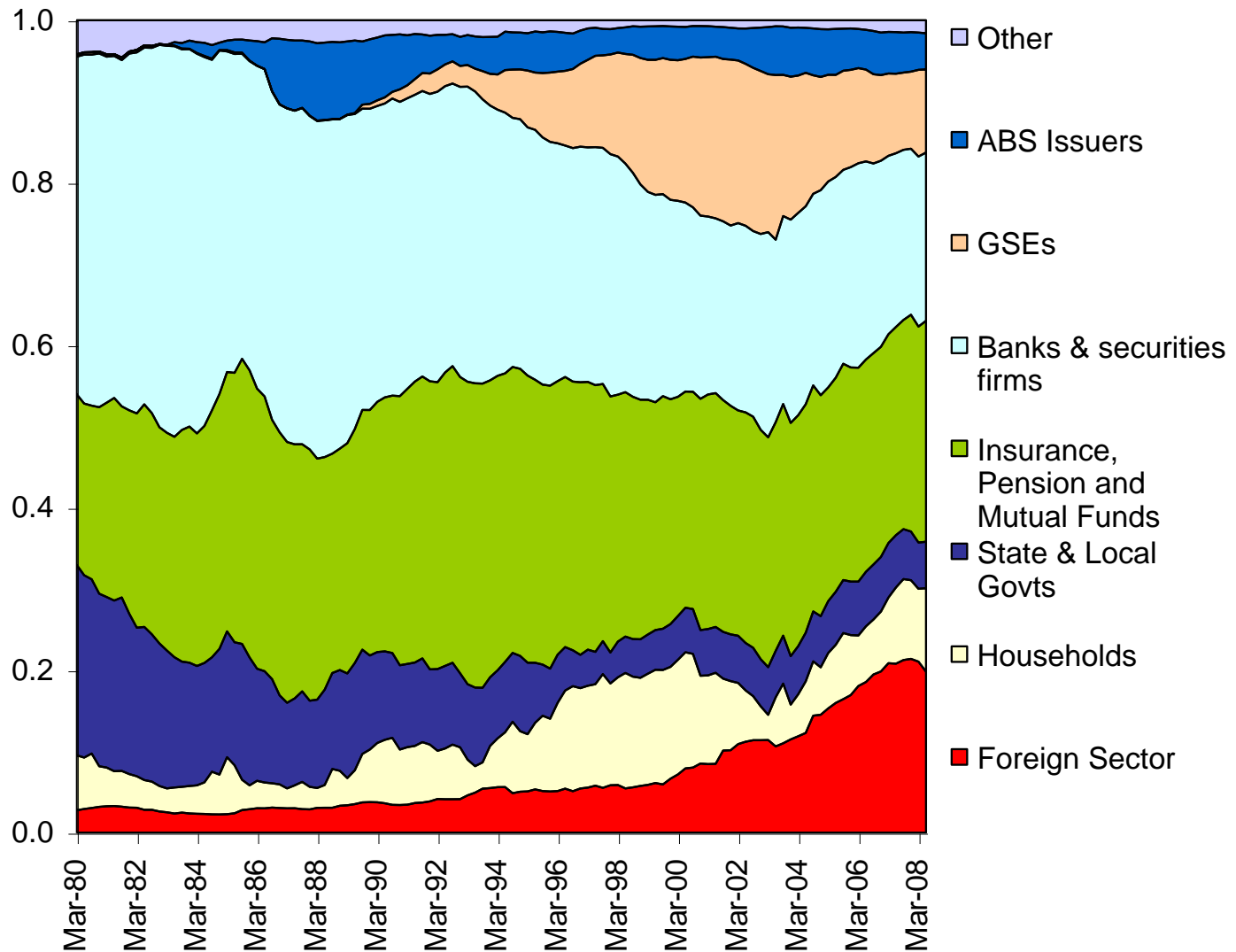


Consequence 1:
Reliance on External Funding

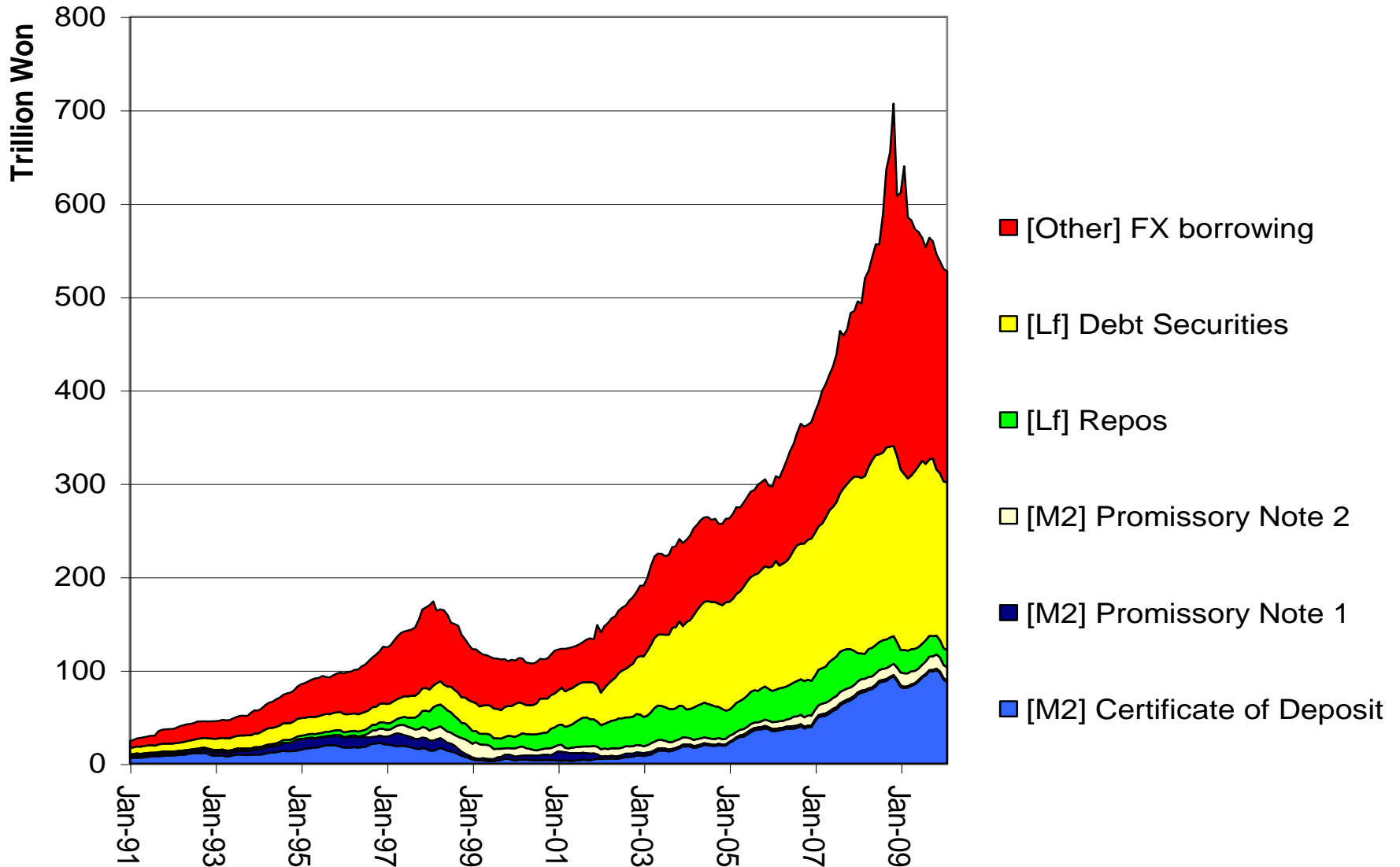
Holders of US GSE debt



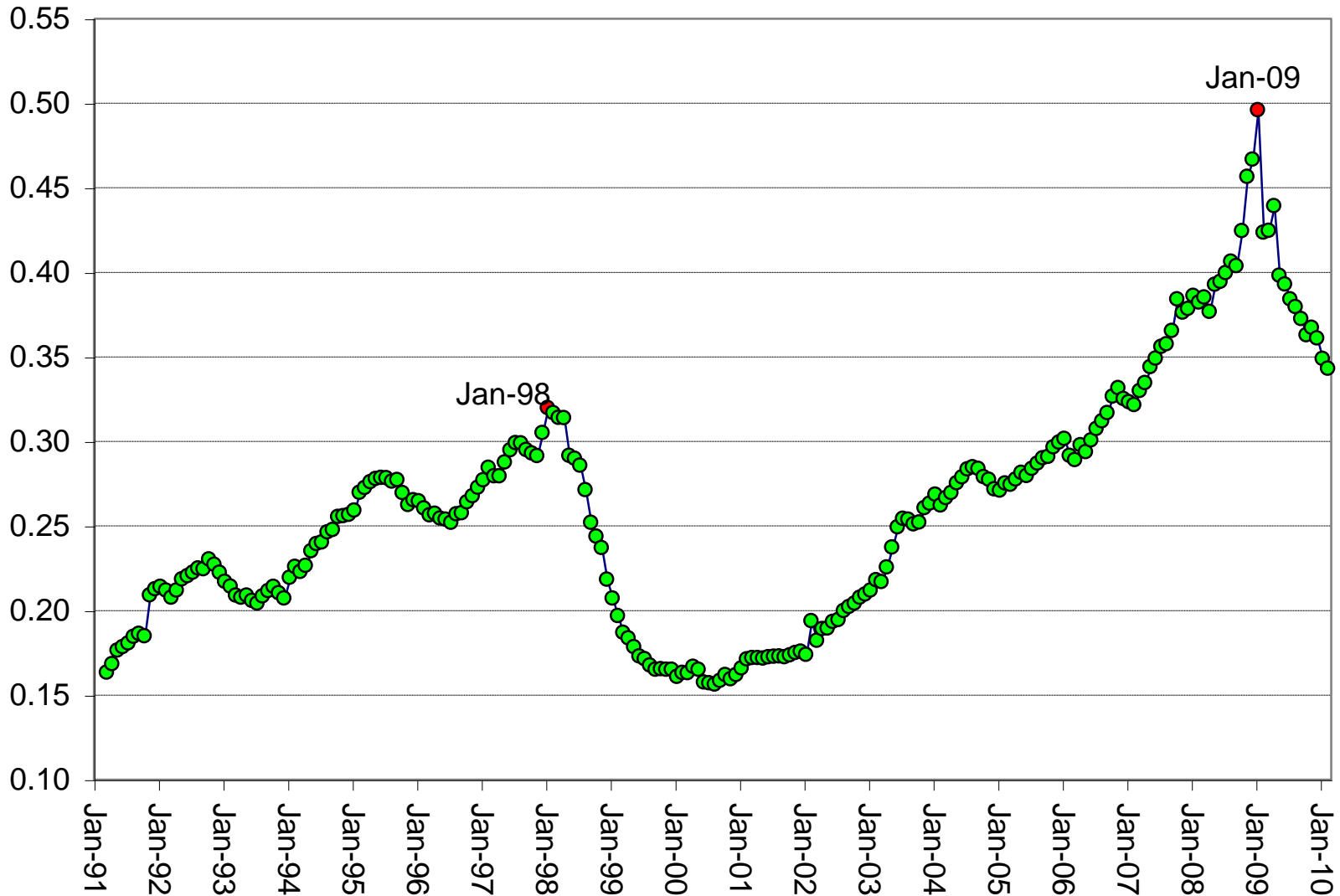
Proportional holdings



Non-Core Liabilities for Korea

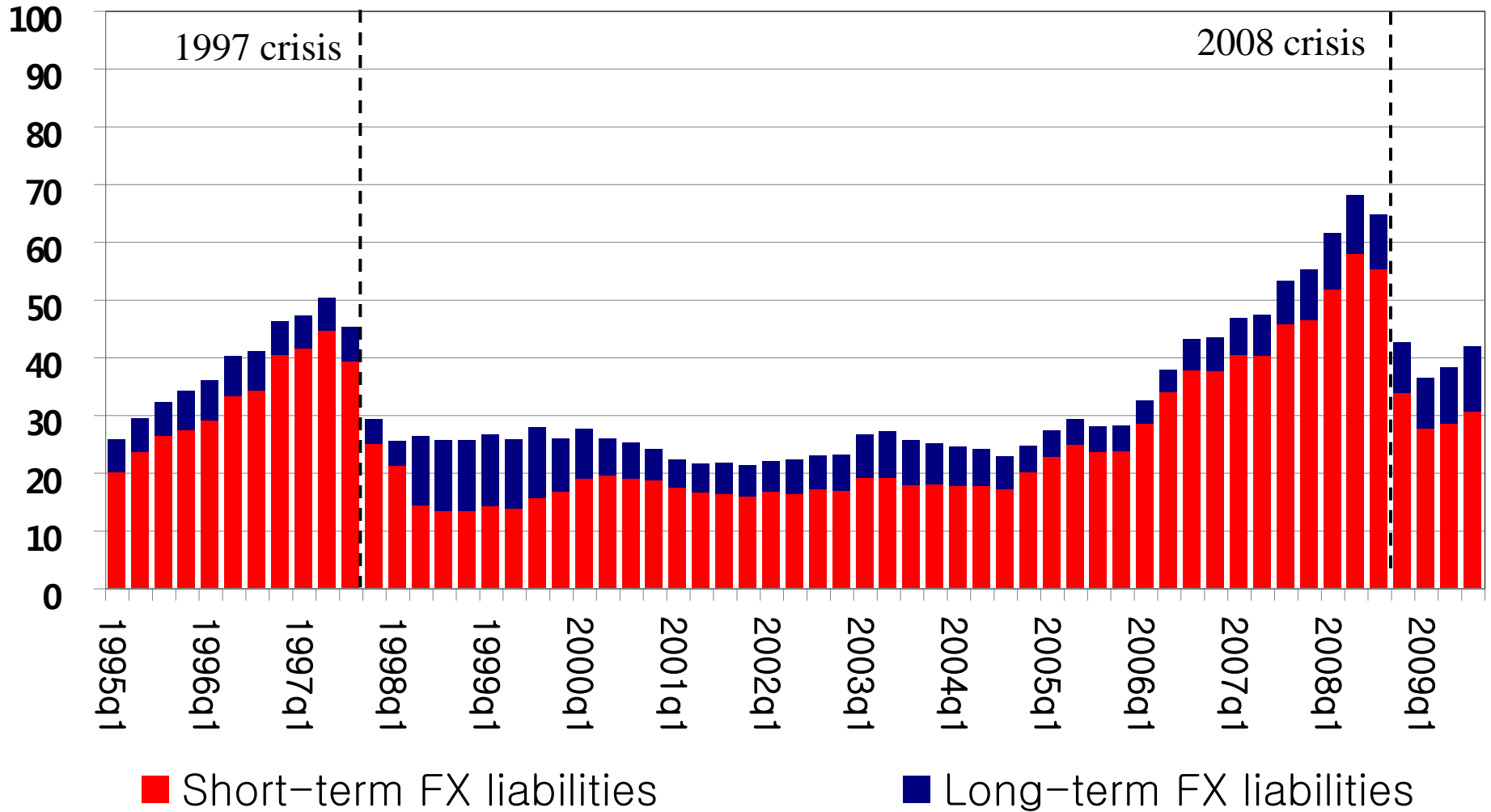


Ratio of Non-Core Liabilities to M2 in Korea



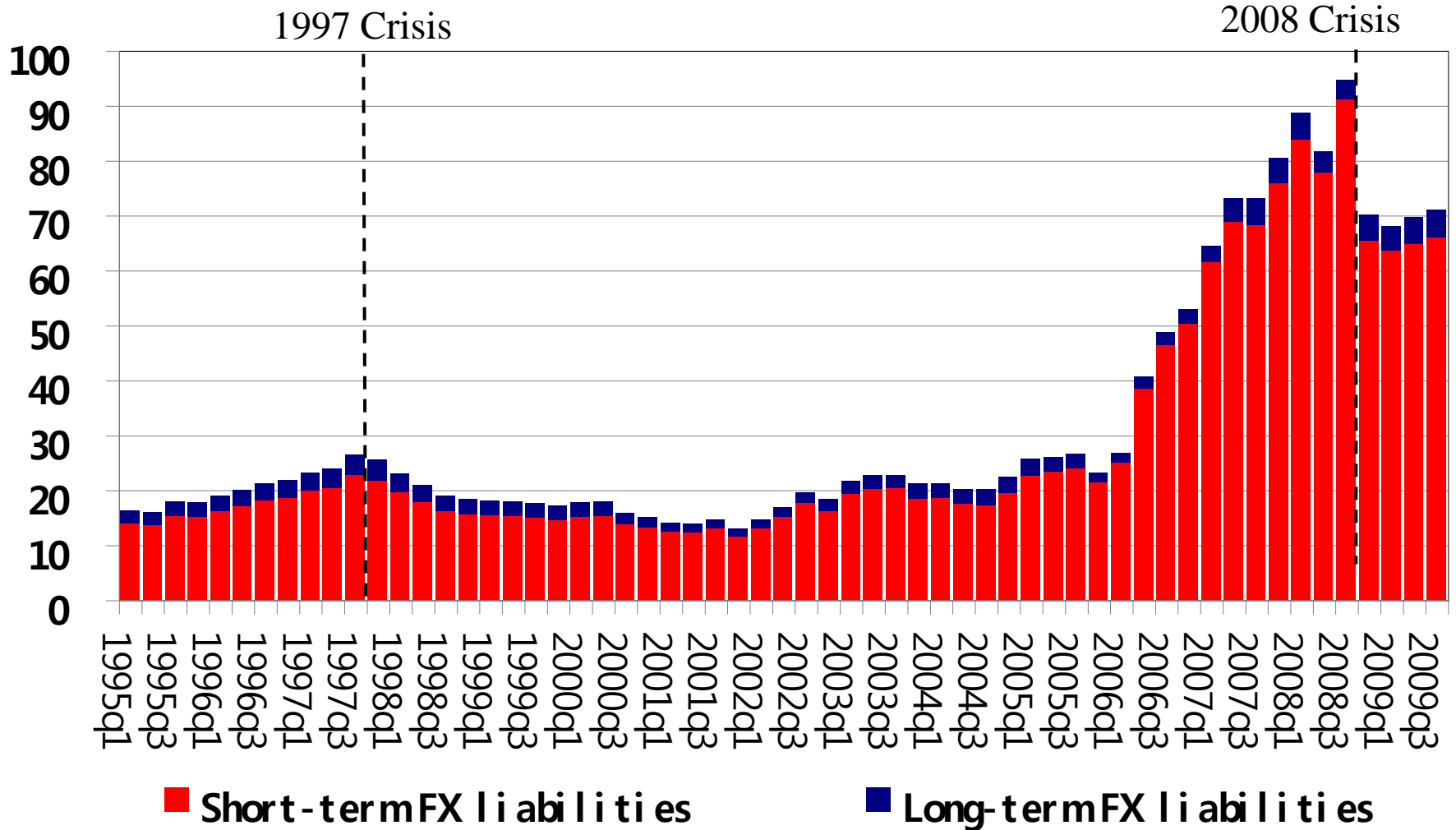
FX Liabilities (Korean Commercial Banks)

\$ Billion

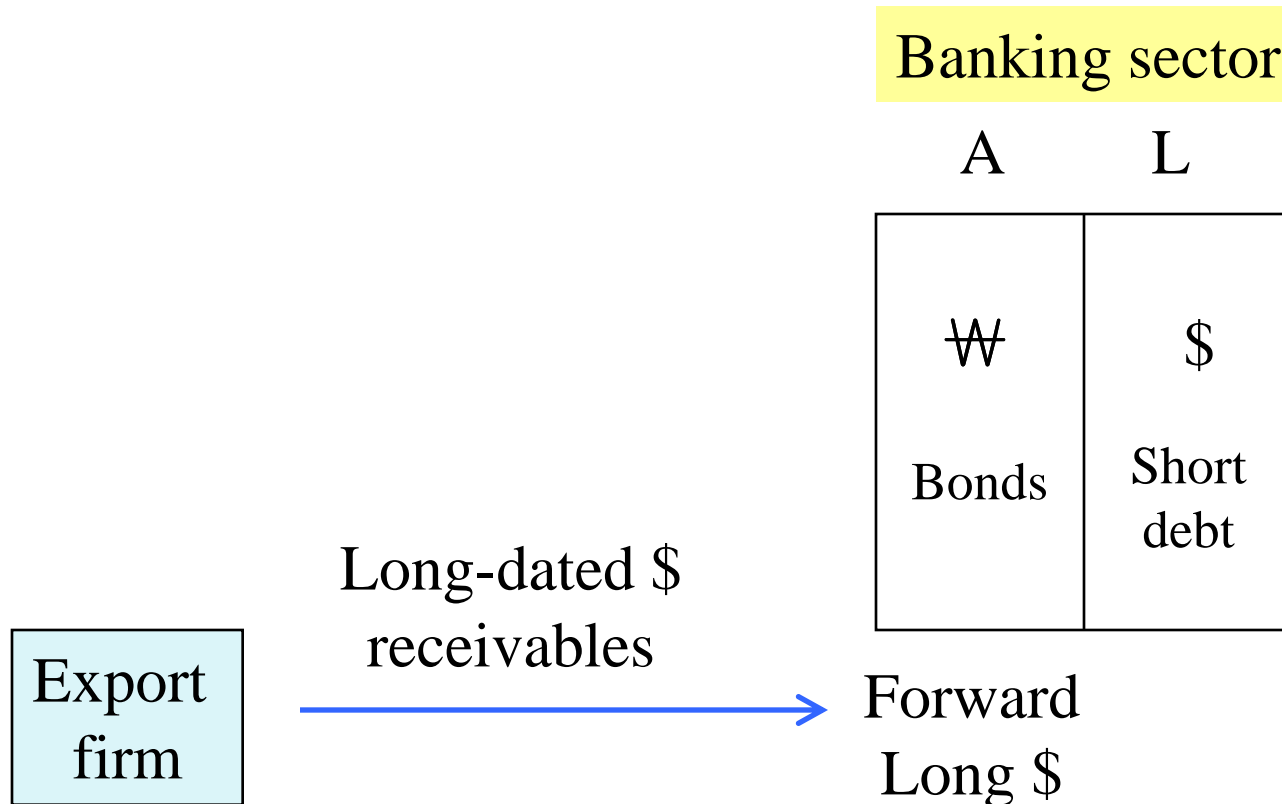


FX Liabilities (Foreign Bank Branches in Korea)

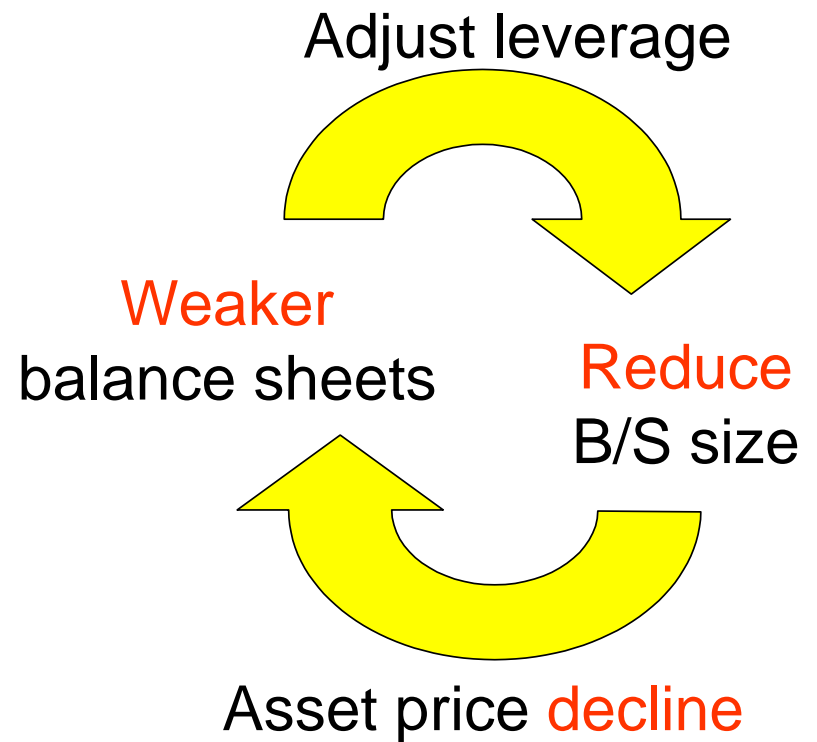
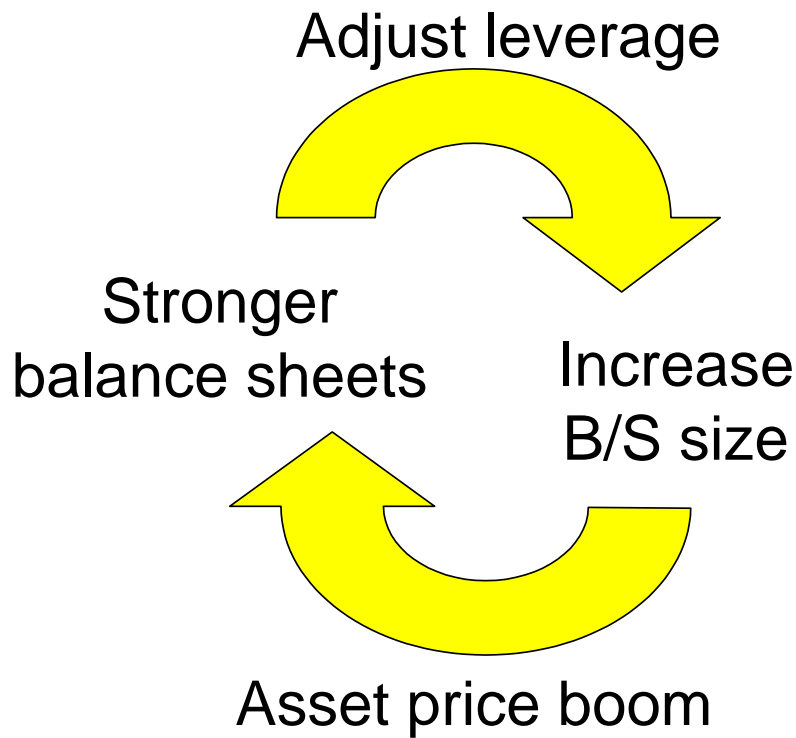
₩ Billion



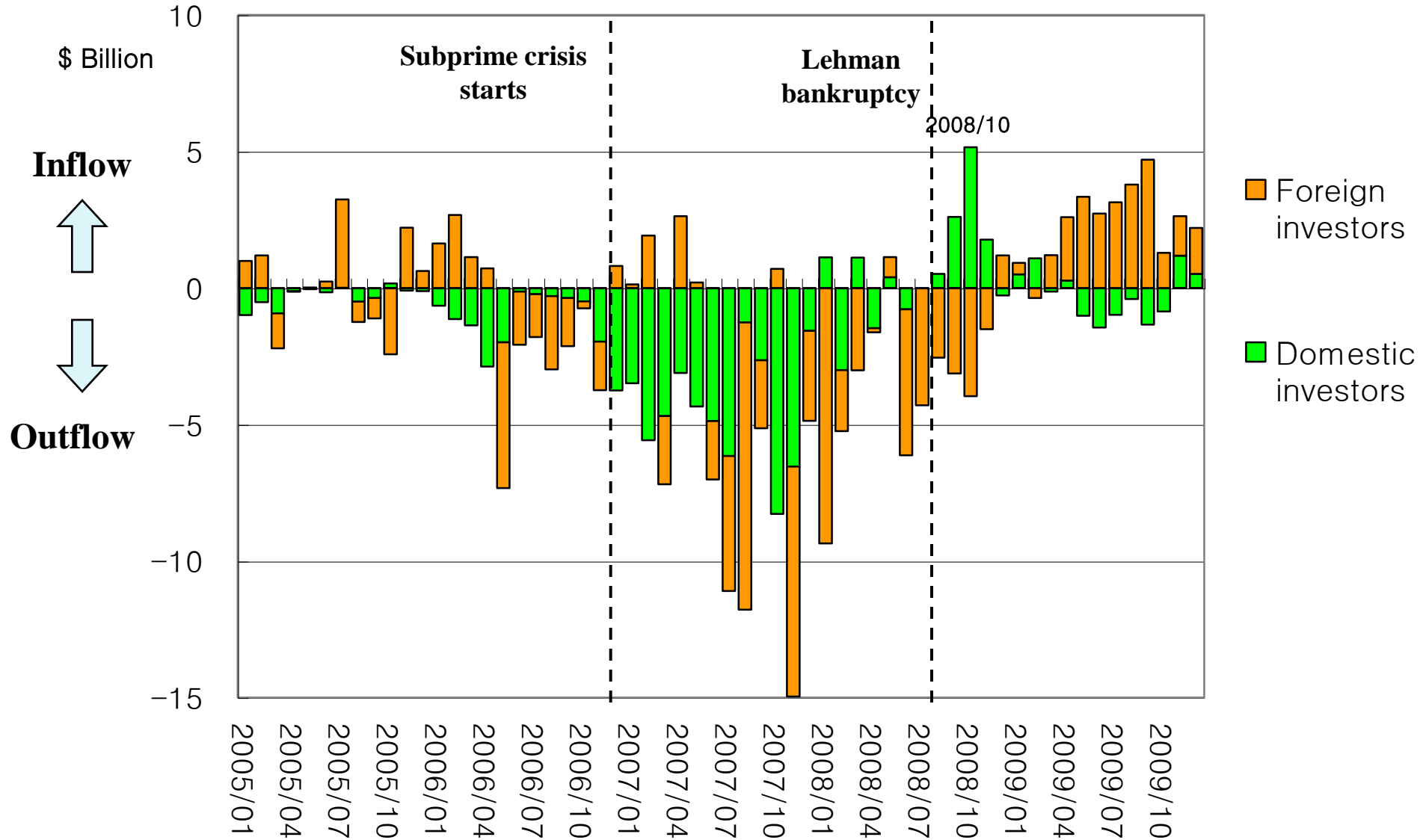
Hedging Long-dated Receivables with Short-term Liabilities



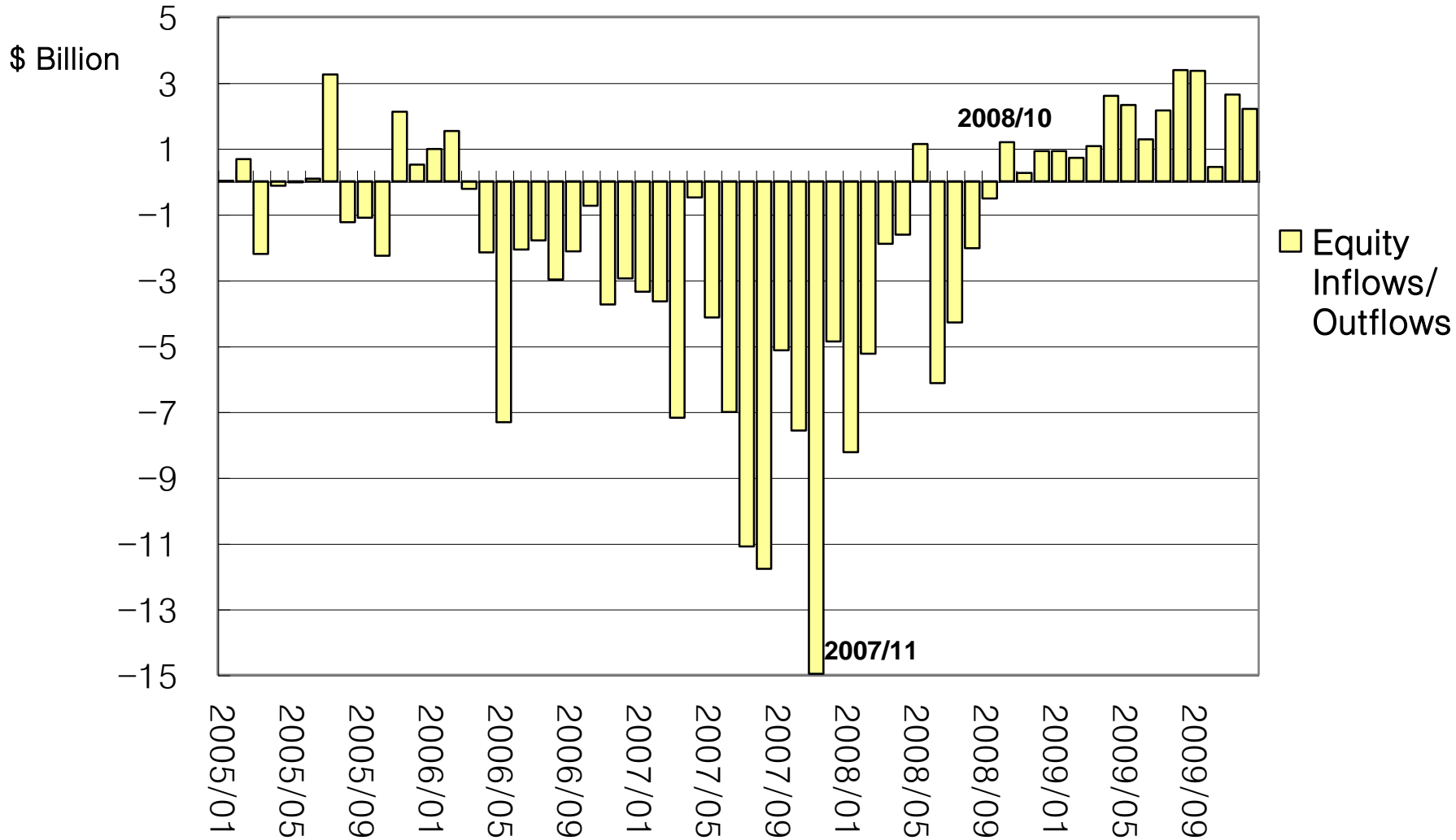
Leveraging and Deleveraging



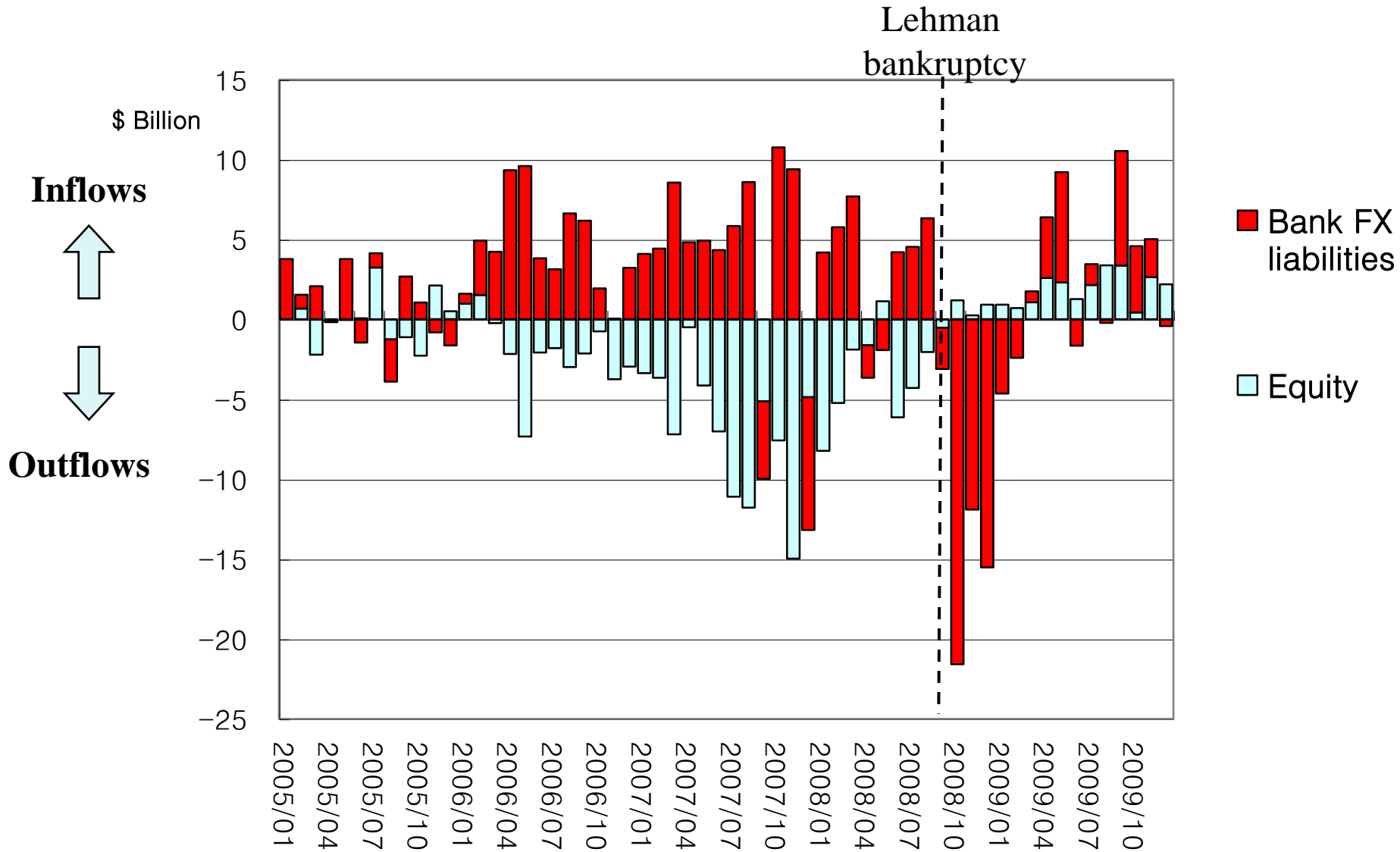
Equity Inflows/Outflows (Korea)



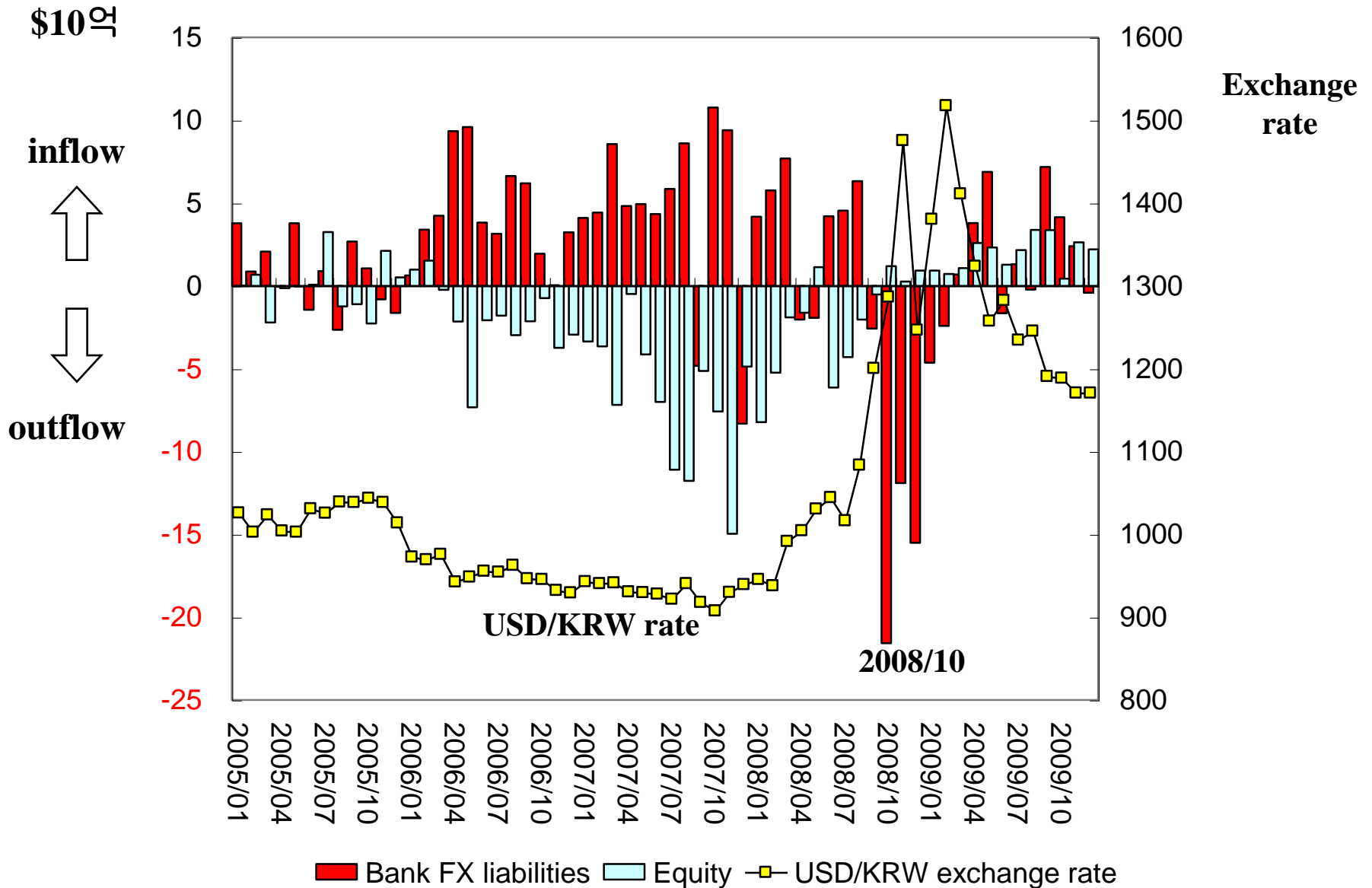
Net Equity Inflows/Outflows (Korea)



Equity and FX Bank Liability Flows (Korea)

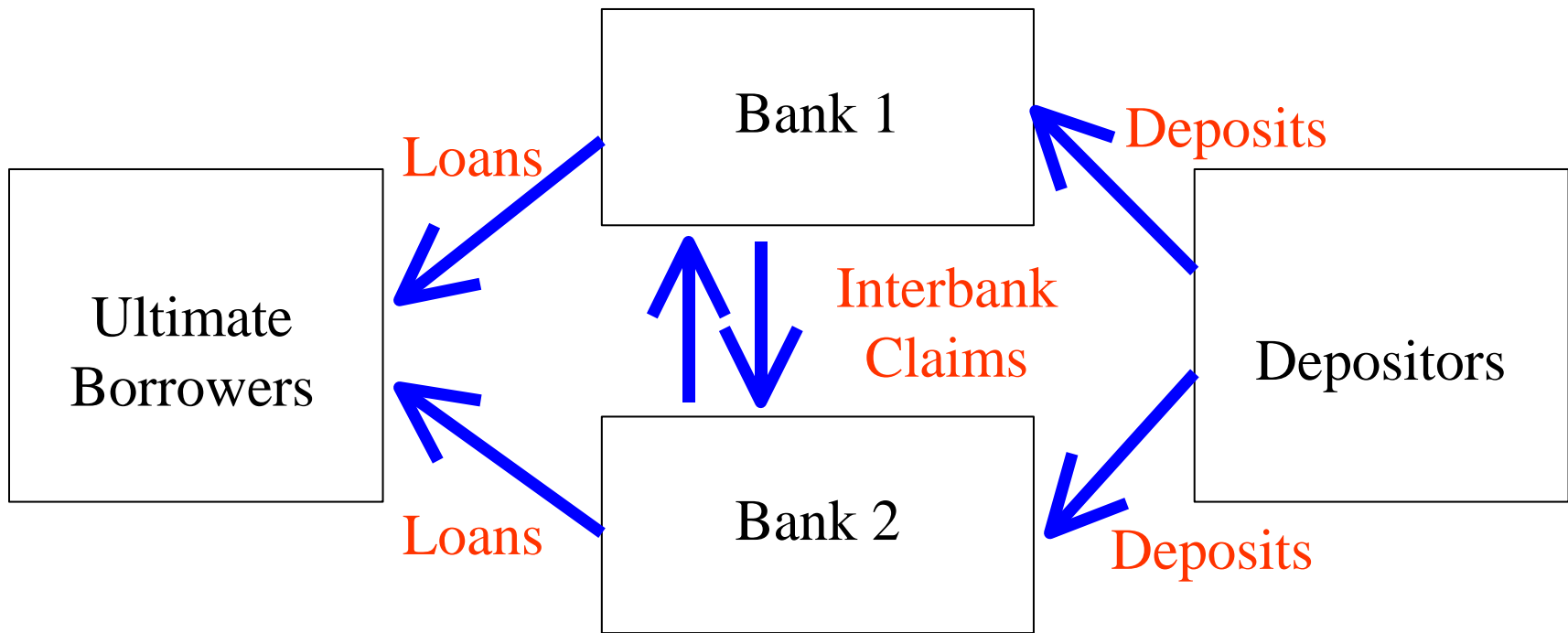


Capital Flows and USD/KRW Rate



Consequence 2:
Increased Complexity

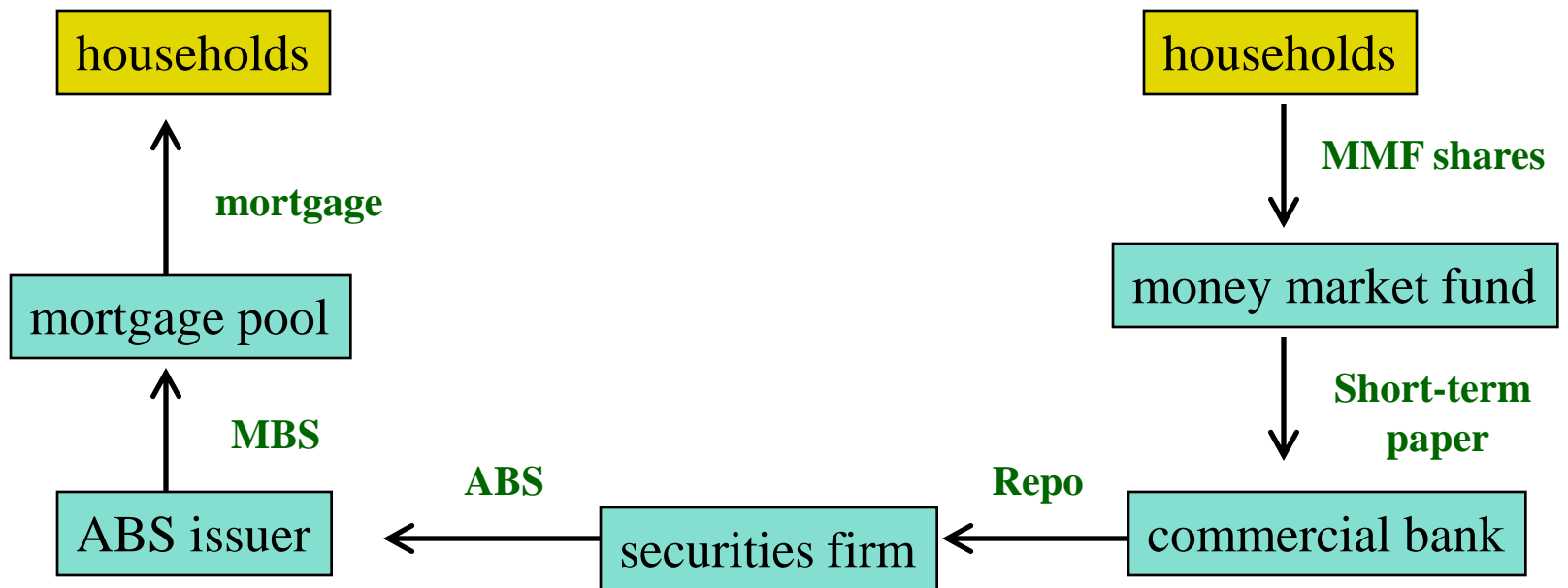
Expanding Balance Sheets Imply Greater Cross Holding



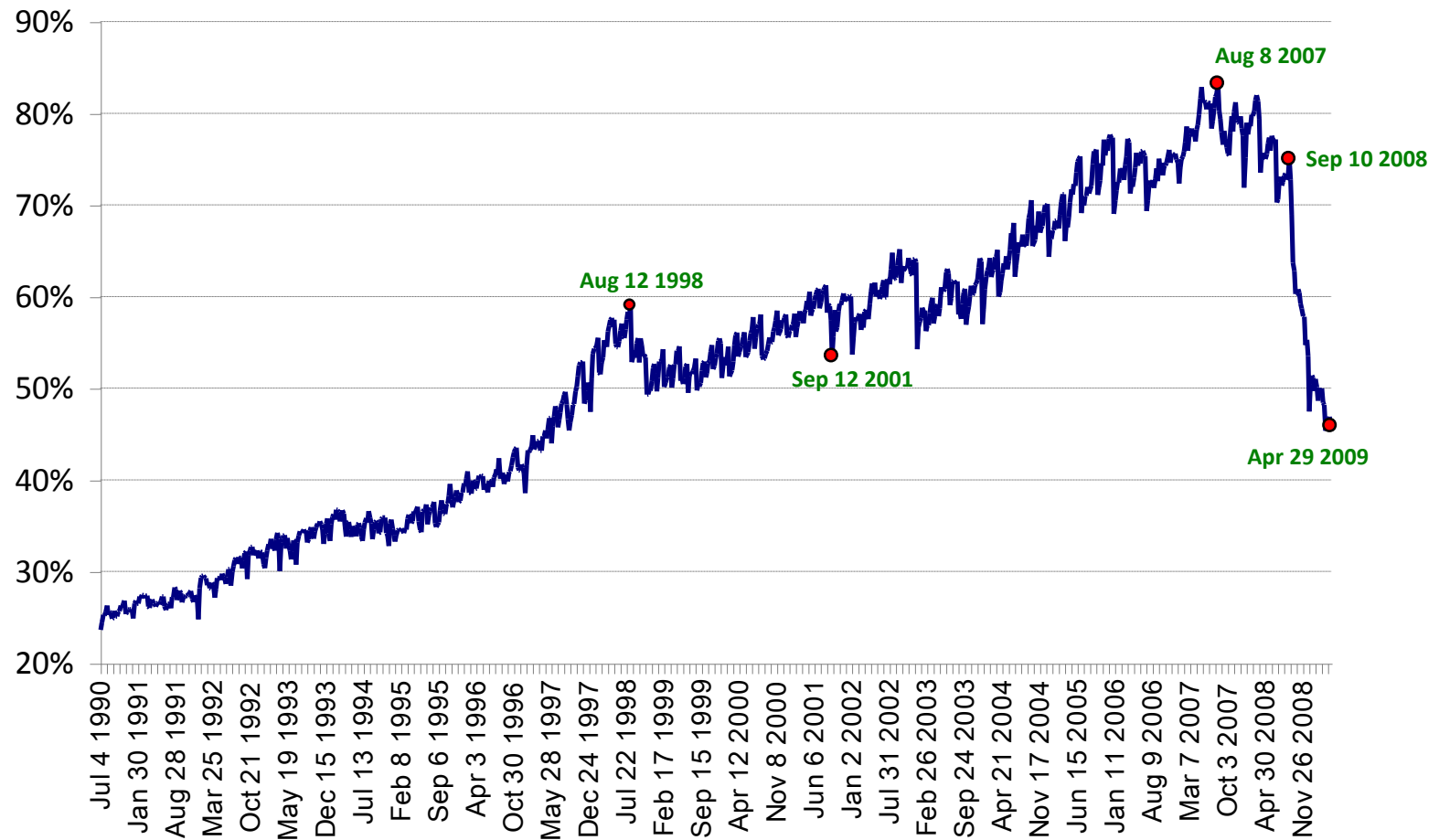
Short Intermediation Chain



Long Intermediation Chain

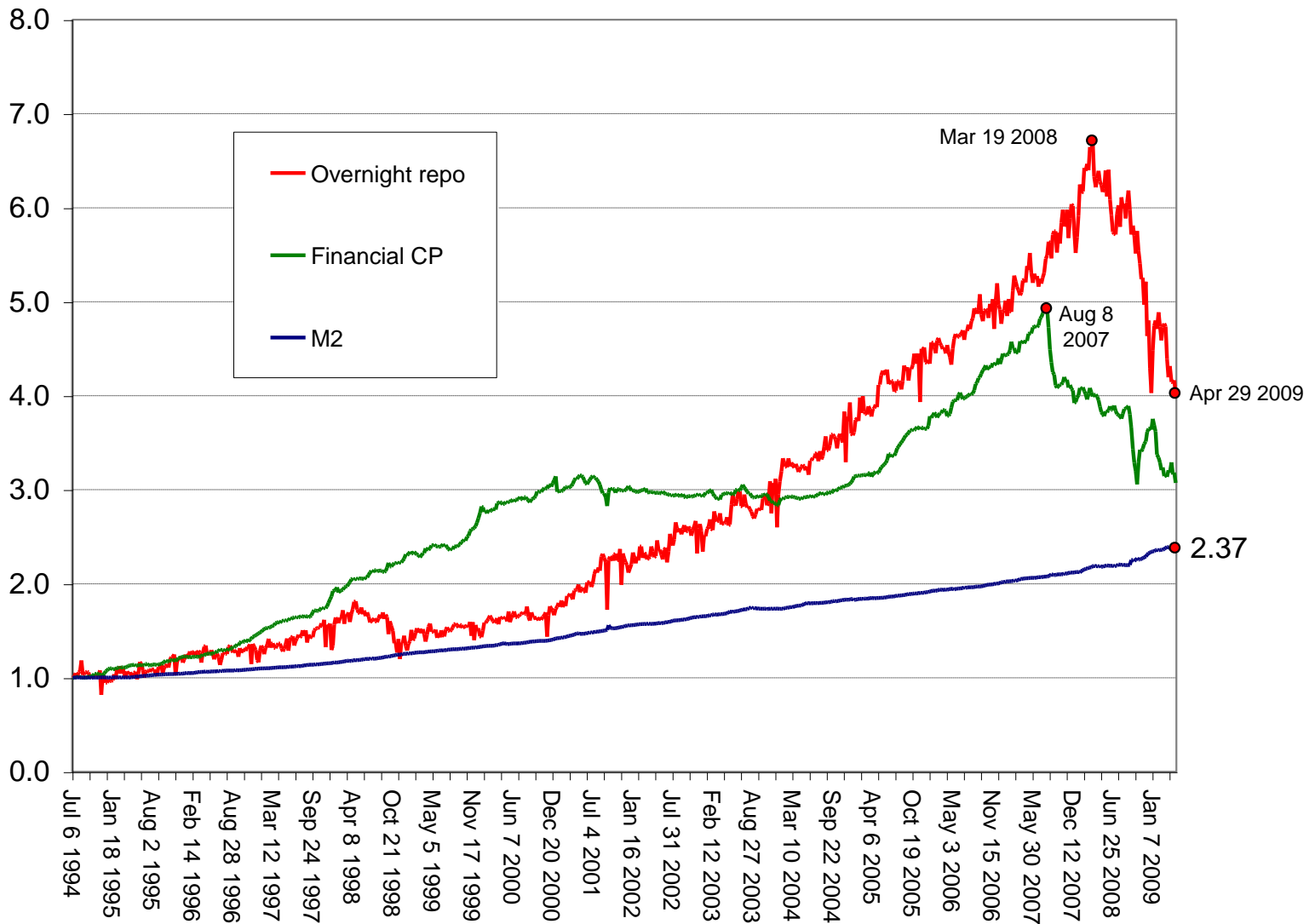


Repos and Financial CP as Fraction of M2 (weekly)



Source: Adrian and Shin (2009)

Overnight repos, Financial CP and M2 (weekly, July 6 1994 as base date)



Booms

- Higher leverage of financial intermediaries
- Larger balance sheets of intermediaries
- Greater intertwining of intermediaries
 - Longer chains
 - Maturity mismatch to sustain longer chains

Architectural Analogy

- Adding extra capacity (more rooms) to a house when constrained by limited footprint
 - The only way is to build up (like a Manhattan skyscraper)
 - Except that Manhattan skyscraper is planned ahead, as a coherent whole
 - Better analogy is adding extra floors to a building without anticipating future floors on top

Sutyagin House in Archangel



Busts

- Deleveraging
- Shrinking balance sheets
- Unraveling of interbank lending
 - Runs
 - Retrenchment

Northern Rock



Policy Response

G20 Reform Agenda for Bank Capital Regulation

- Quality, quantity of bank capital
- Procyclical capital buffer
- SIFI surcharge (for **s**ystemically **i**important **f**inancial **i**nstitutions, or “too-big-to-fail”)
- **Leverage ratio cap**

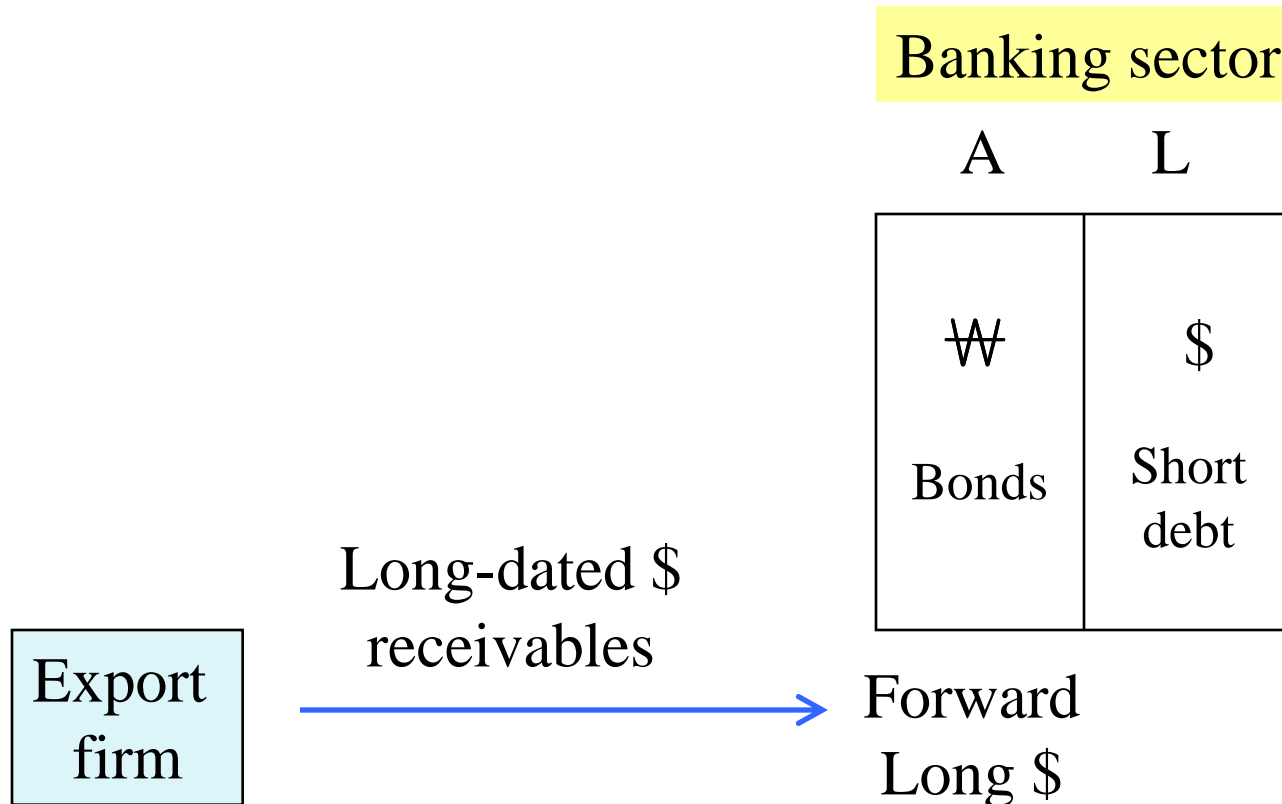
Global Financial Safety Net

- Bilateral swaps
 - Lessons from 2008
- Global Financial Safety Net
 - Pre-emptive provision of liquidity
 - FCL, PCL and the GSM
 - Complementary to
 - Bilateral swaps
 - Regional arrangements

Other Tools (1)

- June 2010 leverage cap on FX derivative positions (Korea)
 - Indirect limit on short-term foreign currency liabilities by capping forward and swap positions

Hedging Long-dated Receivables with Short-term Liabilities



Other Tools (2)

- Bank Levy as a Prudential Tool
 - IMF's Financial Stability Contribution is a levy on non-deposit liabilities
 - Leans against non-core liabilities directly
 - Automatic adjustment of burden (burden is high in bubble build-up stage)
- Macroprudential rationale, not just revenue motive

Other Tools (3)

- Non-core liabilities as monetary aggregate
- Perspective from monetary policy
 - Tracking growth of monetary aggregates
 - ... but with financial stability motive rather than as second anti-inflation pillar

Other Tools (4)

- Long-term structural reform
 - Focus on banking sector liabilities
 - Covered bonds keep assets on-balance sheet
 - Close substitute for government securities
 - Deep bond market with long-term investors
 - De-coupling domestic liquidity from (foreign) bank deleveraging

Directions for Future Financial System

- Shorter intermediation chains
 - Less volatile
 - Less maturity transformation
- With better regulatory safeguards
 - Lower market-required ROE
 - Less expensive bank capital
 - Greater weight on core liabilities