5th Research Meeting of the
Consortium for Systemic Risk Analytics (CSRA)

Lower Levels of Market Liquidity and Other Potential Risks Associated with Financial Regulatory Reform

Sonja Gibbs

Director
Capital Markets and Emerging Markets Policy Department
Institute of International Finance

MIT Sloan School of Management
December 12, 2013

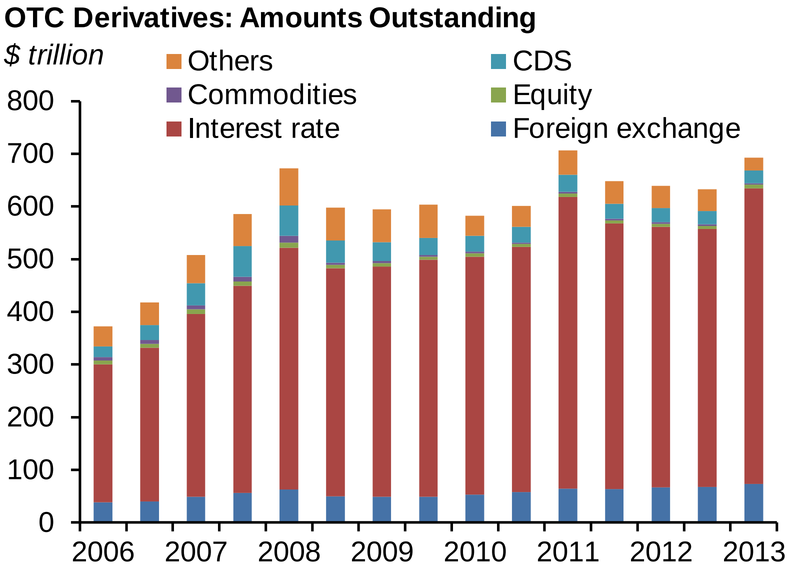
Changing Market Landscape

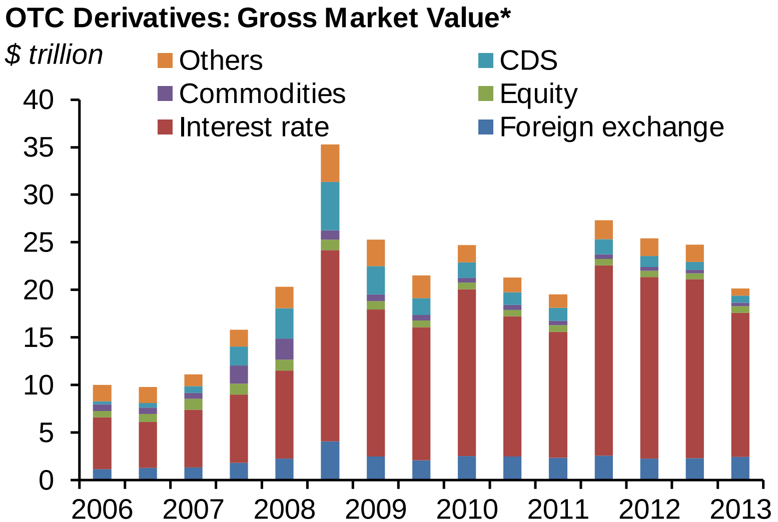
- Overall direction and goals of regulatory reform agenda broadly supported by international financial community; strong commitment to working with the official sector
- However, regulatory reform does change the landscape, including for **financial market practices and behaviors**
- Timely example: this week's approval of final regulation on s619 of Dodd-Frank ("**Volcker Rule**"), expected to have a significant impact on U.S. financial markets (and beyond).
- BoE in its November Financial Stability Report highlights the need to understand the impact of regulatory changes on markets. Key issue: the **unpredictable effects that rising interest rates could have in a market environment altered by regulatory change**.

Higher Cost of Hedging via OTC Derivatives

- Regulators aim to encourage standardization of derivatives contracts to be traded on exchanges and cleared through central counterparties (CCPs), imposing a range of requirements on non-standardized, non-centrally cleared OTC derivatives (e.g. counterparty capital provision, initial and variation margin).
- These **requirements will make OTC derivatives more costly** for end users, including firms with legitimate and specific risk management needs that cannot effectively be met by standardized contracts.
- Choices? **Imperfect hedge (basis risk), self-hedging, not undertaking the activity**. Potential consequences? More volatility, negative impact on business decisions (capex, hiring…)

OTC Derivatives

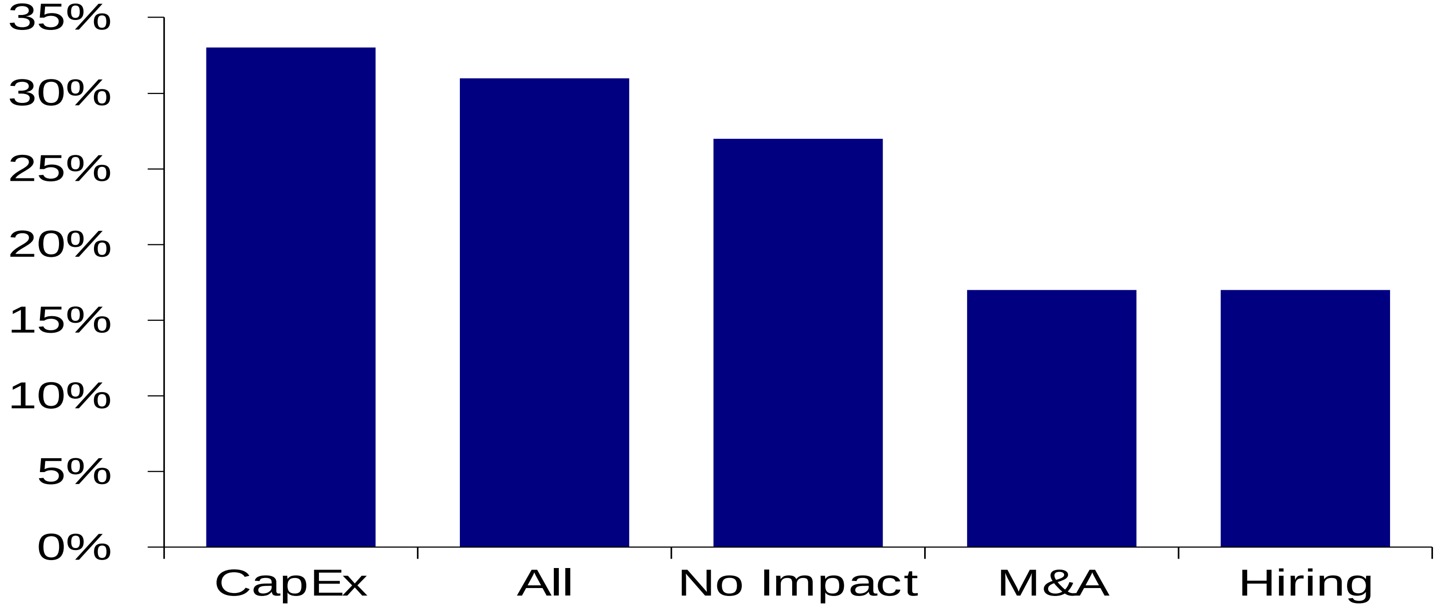




*measures the cost of replacing existing contracts

OTC Derivatives

Impact of New OTC Regulations on U.S. Corporates
percent of respondents mentioning reduction in their business activities



Assessing the cost of initial margin requirements

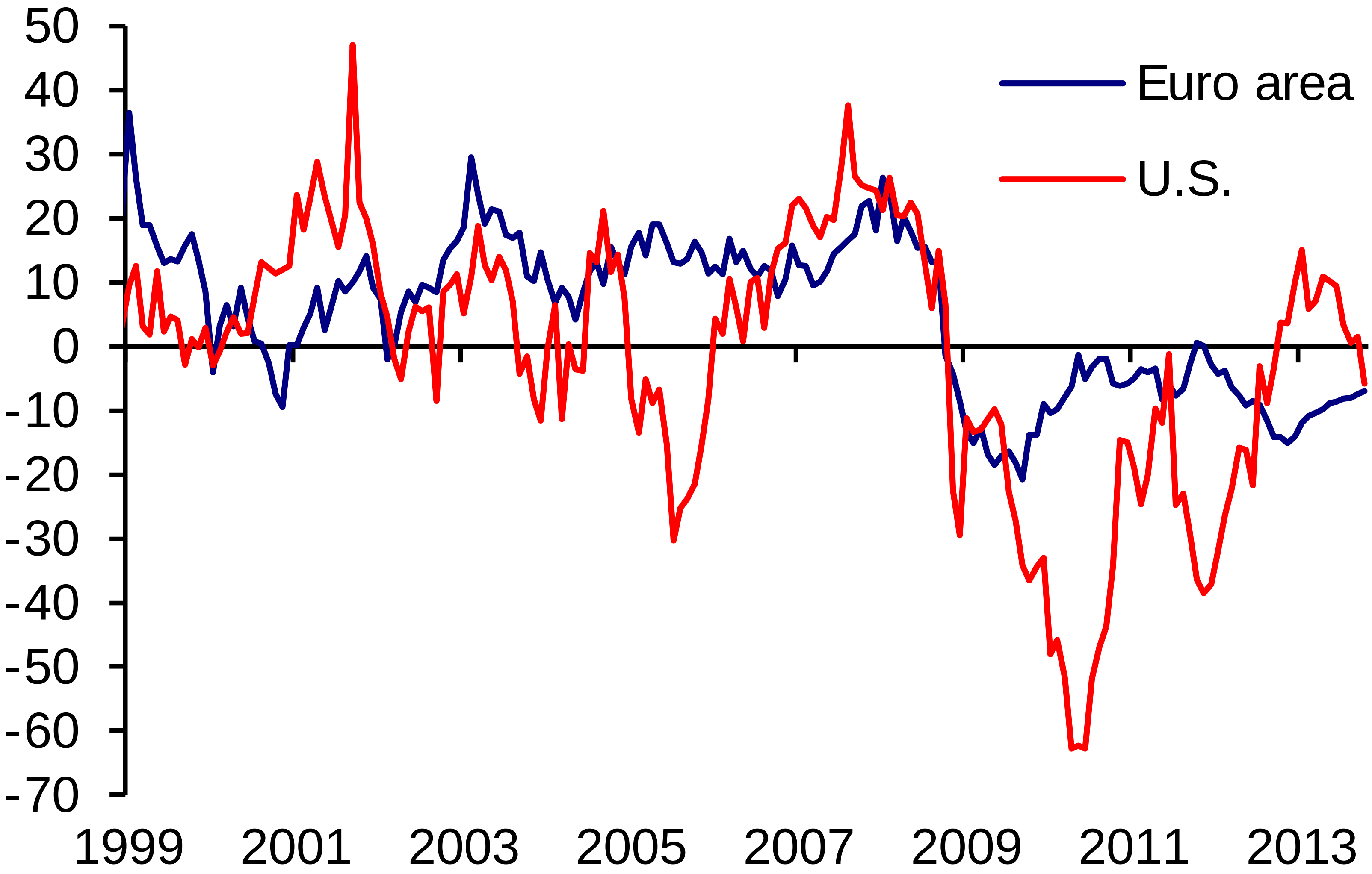
- Cost could be substantial. CGFS estimates initial margin required to collateralize exposures from non centrally-cleared trades could be some $0.95 trillion, leading to a **potential increase in funding costs of perhaps $17 billion per year** according to some market estimates—a 25% increase given the current use of collateral in OTC derivatives ($3.7 trillion).
- Moreover, these initial margin requirements are duplicative of other prudential measures, e.g. capital requirements for counterparties. Fortunately FX forwards/swaps have been exempted in final BCBS/IOSCO ruling, removing a potential impediment to local currency bond market development.
- More broadly, central clearing for derivatives creates a significant **concentration risk**, raising the issue of risk management and emergency liquidity provision for CCPs.

Collateral shortages

- Additional collateral requirements coincide with secular trend towards more secured forms of bank funding. Post-crisis, **interbank lending in Europe and U.S. has shrunk** as banks turn away from unsecured lending. Borrowing from central banks also requires HQC.
- CGFS estimates higher demand to be about $4 trillion due to LCR, OTC derivatives reforms (vs. asset base of $77 trillion for largest 209 banks. But also note higher supply (over $11 trillion in AAA/AA government and >A+ corporate/securitized bonds 2007-12), concluding no aggregate shortage (but possible local imbalances). However: how much of this is being held by central banks and other entities that don't engage in derivatives/repo transactions?
- BCBS proposal to impose floor on minimum haircuts on collateral, limits on re-hypothecation could exacerbate shortages, leading to price distortions/bubbles. **A system highly dependent on collateral may create a false sense of security in normal circumstances, but can be vulnerable in liquidity crunches or other disruptions**.

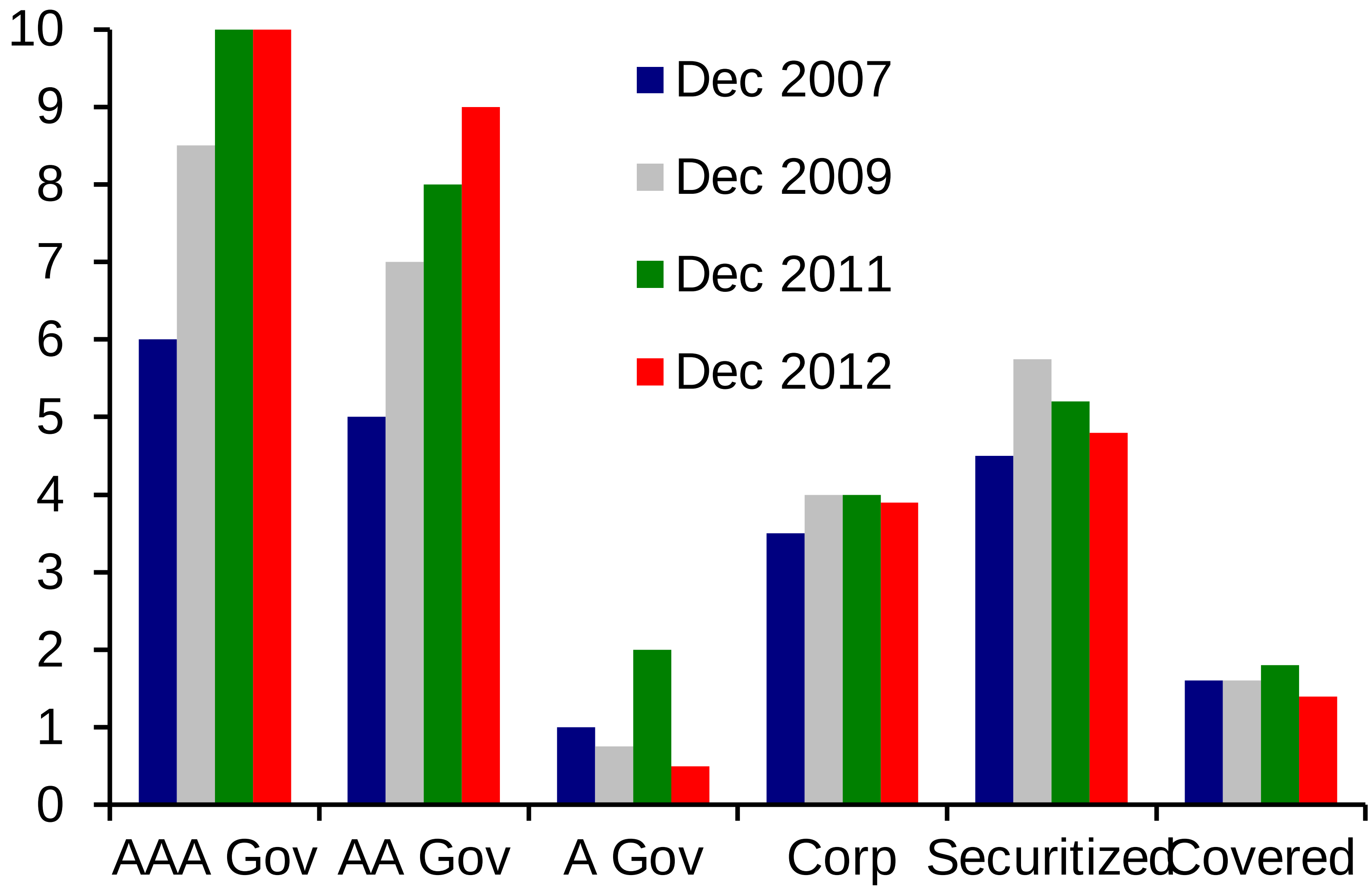
Euro Area Interbank Deposits and U.S. Interbank Lending

percent change over a year ago



Global High-Quality Debt Securities

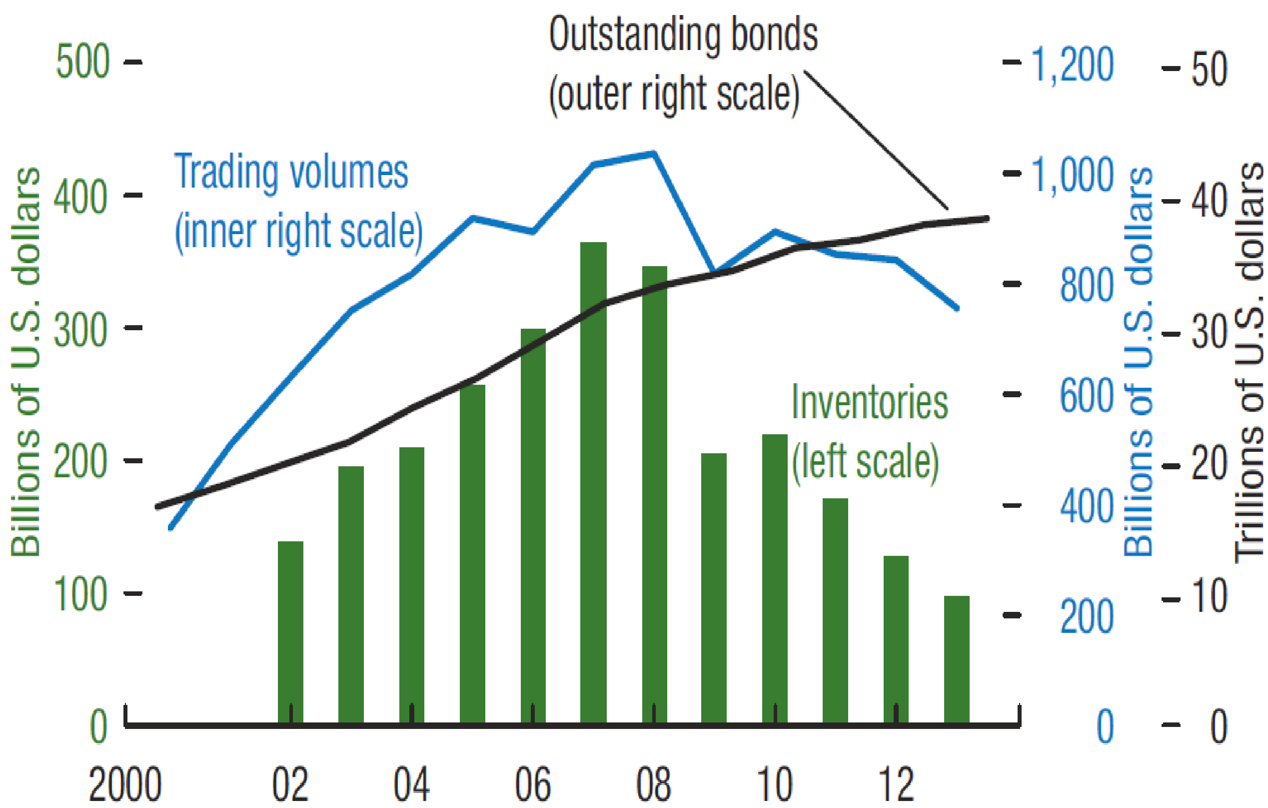
USD trillions



Secondary Market Liquidity

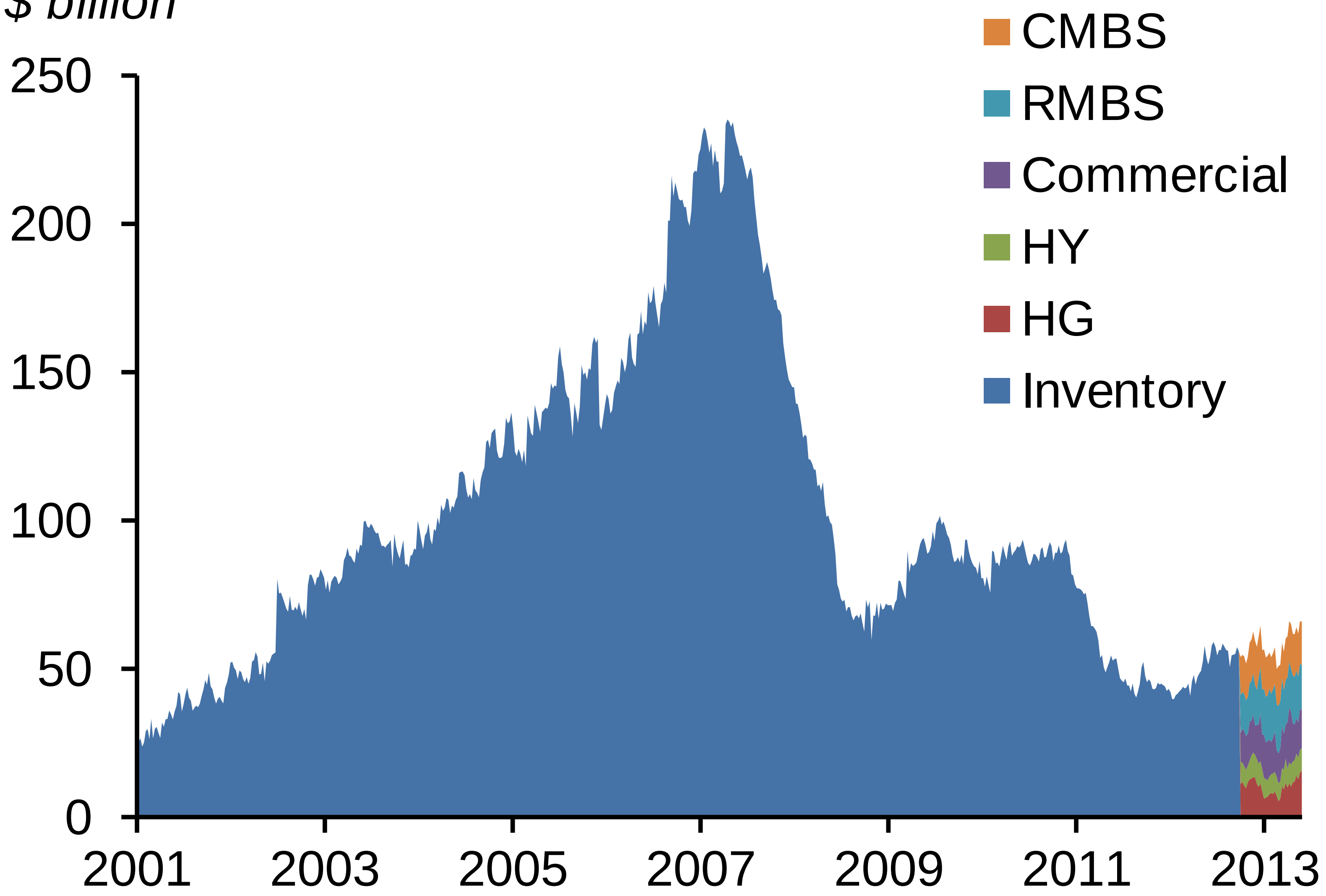
- More stringent requirements for capital, liquidity and leverage ratios have incentivized banks to reduce their market making or dealing activities in a range of securities and derivatives markets.
- As part of this trend, **many banks have cut back on securities inventories for market making** (e.g. U.S. corporate bond inventories down 80% from peak in 2007). Over that same period the size of the U.S. corporate bond market has more than doubled, to $9.3 trillion—making the liquidity effect of shrinking inventories more pronounced. Trading volumes for U.S. non-government bonds have declined some 25% from pre-crisis levels.
- As a result, secondary market liquidity across a range of securities has suffered, making it more costly to transact (especially large positions and/or less-liquid assets). **Less-liquid secondary markets could also mean more volatility at times of stress** (e.g. this past summer—outflows from EM markets).

Non-Gov't Bond Inventories, Trading Volumes, Outstandings

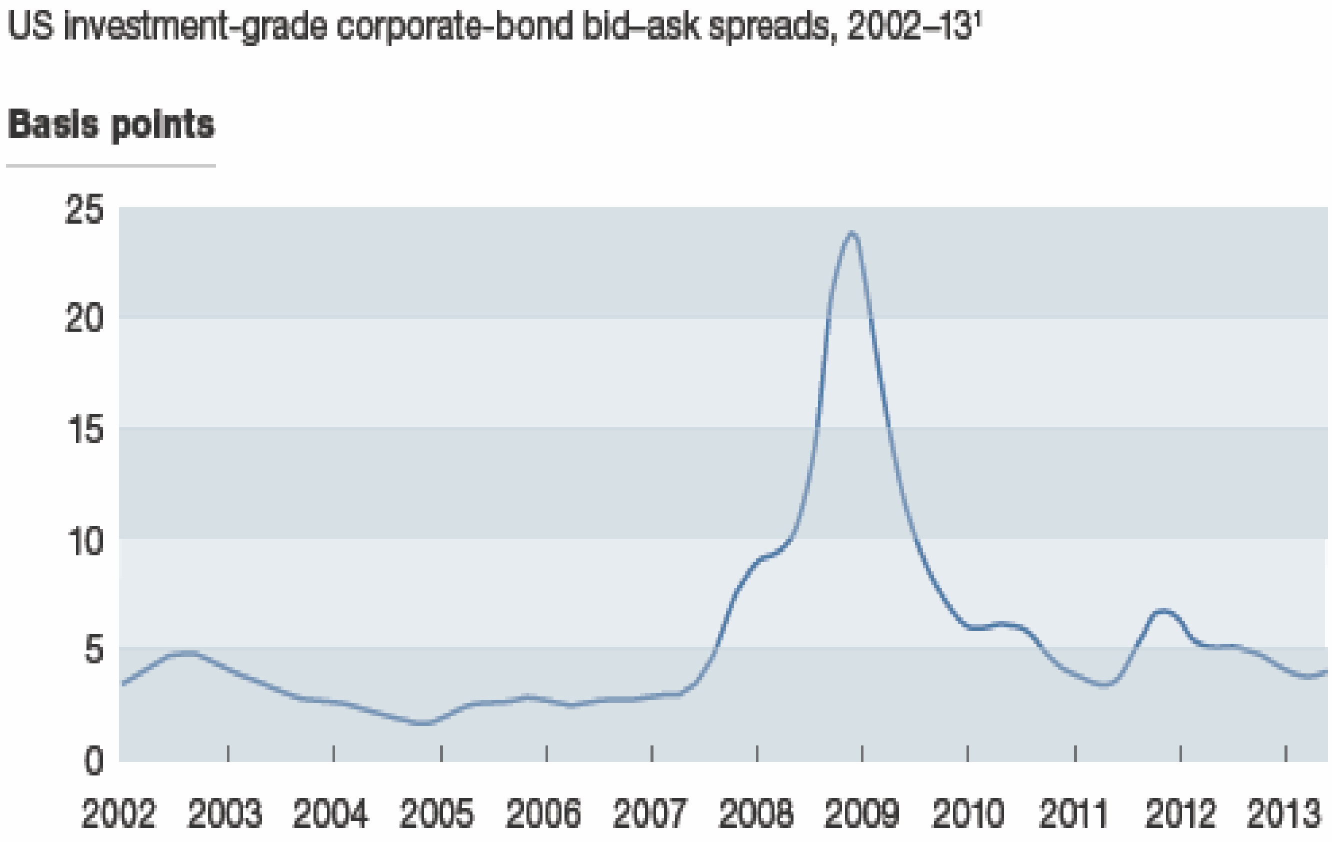


U.S. Primary Dealer Corporate Bond Inventory

$ billion

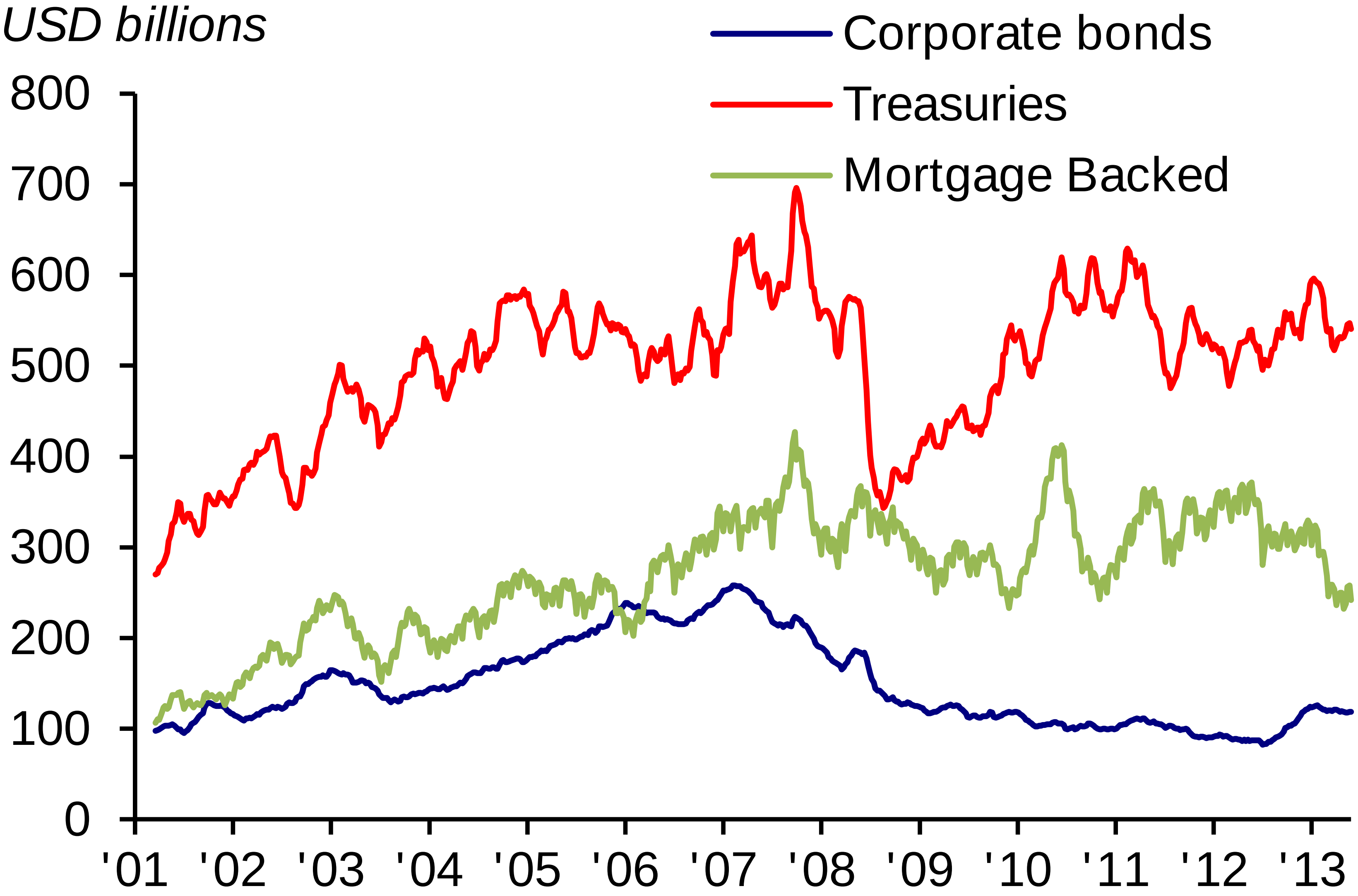


More volatility in times of stress?



U.S. Primary Dealer Daily Transactions

USD billions

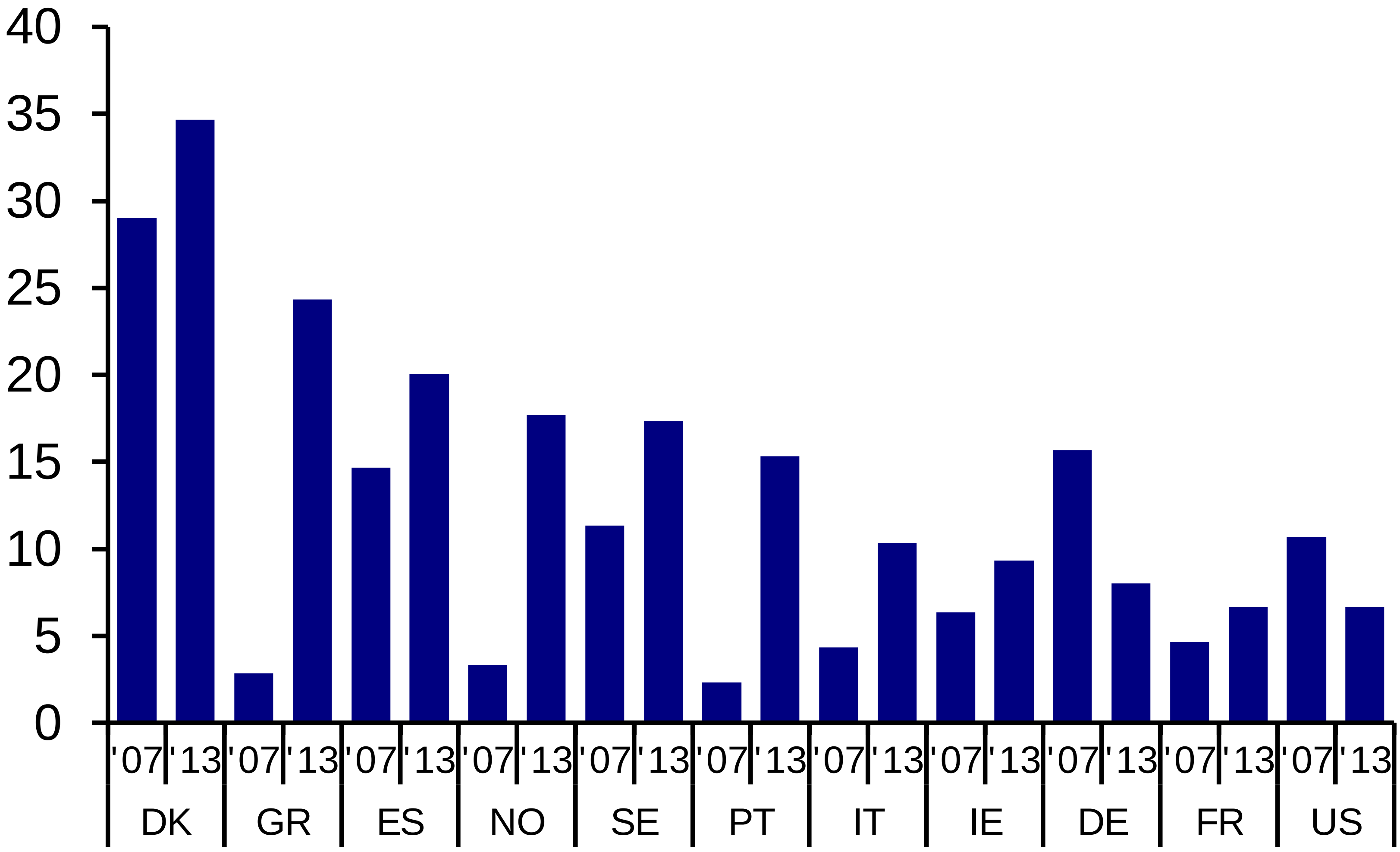


Other Potential Risks

- Greater bank asset encumbrance
- Ring fencing bank capital and liquidity
- Restrictions on indices and index providers
- Limiting the use of “dark pools”
- Distortions in the residential mortgage and MBS market
- Less securitization—less support for Europe’s SMEs
- Unpredictable effects of rising interest rates in a new regulatory environment
    - High indebtedness of some sovereigns, corporates and households
    - Collateral shortages, fire sales

Selected Banks' Asset Encumbrance

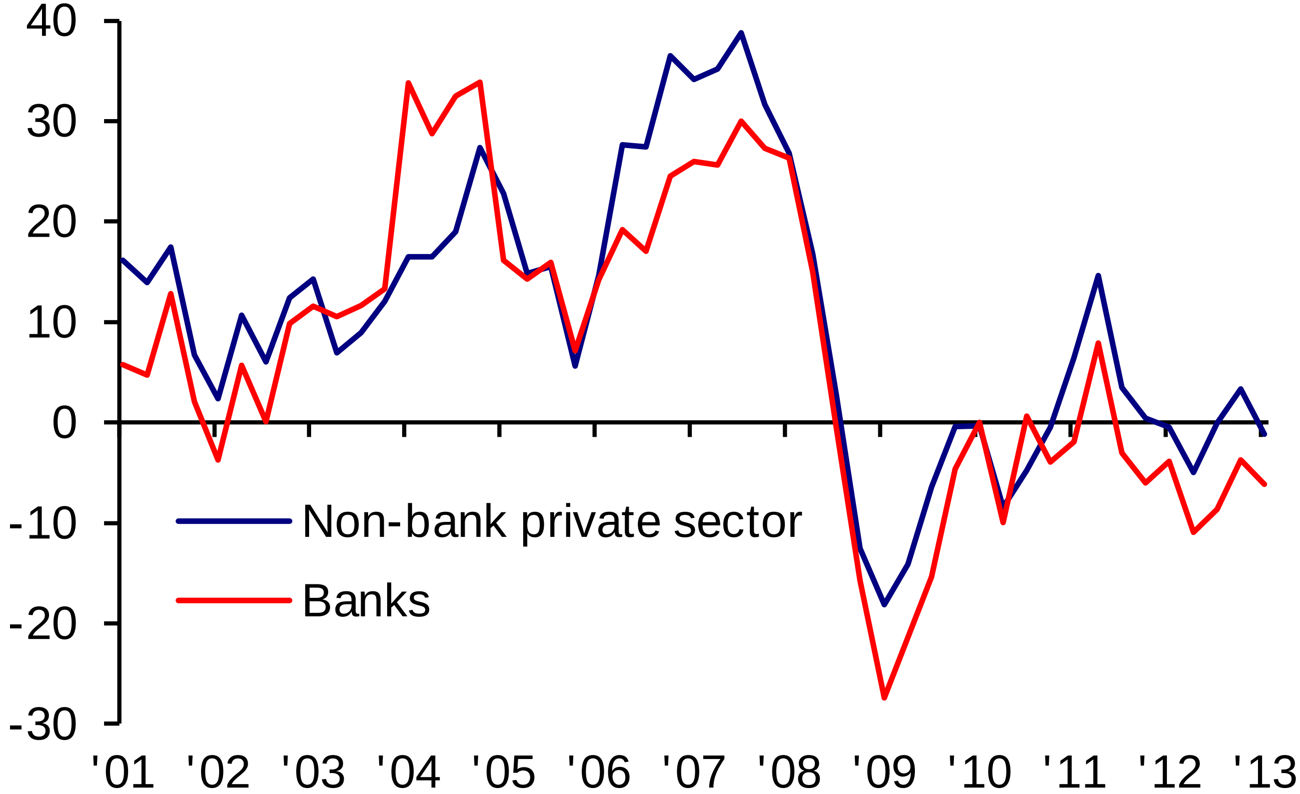
percent of total bank assets, Dec 2007 vs. Jun 2013



Potential impact of ring-fencing capital, liquidity

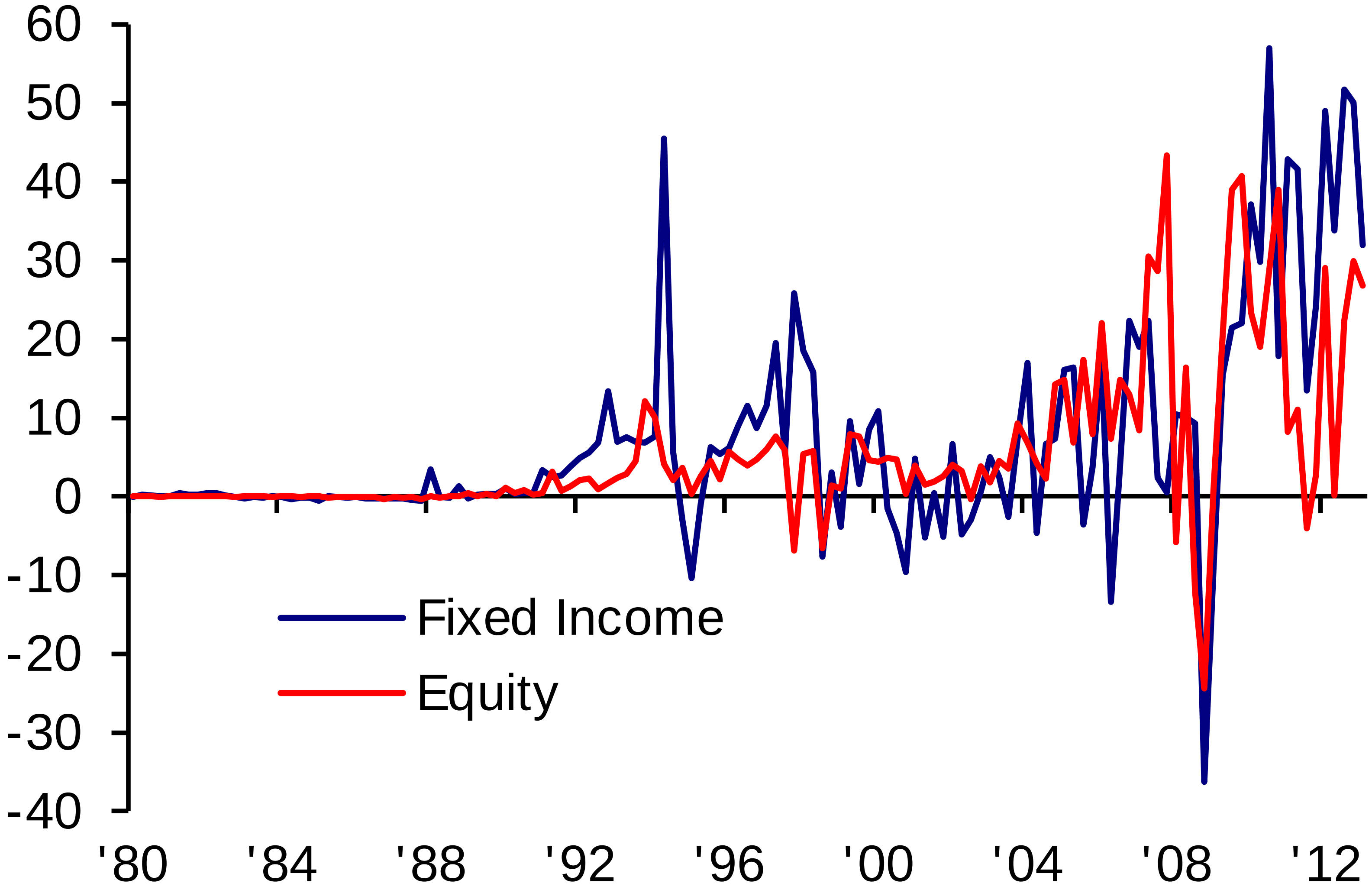
Cross-border Claims* on All Countries

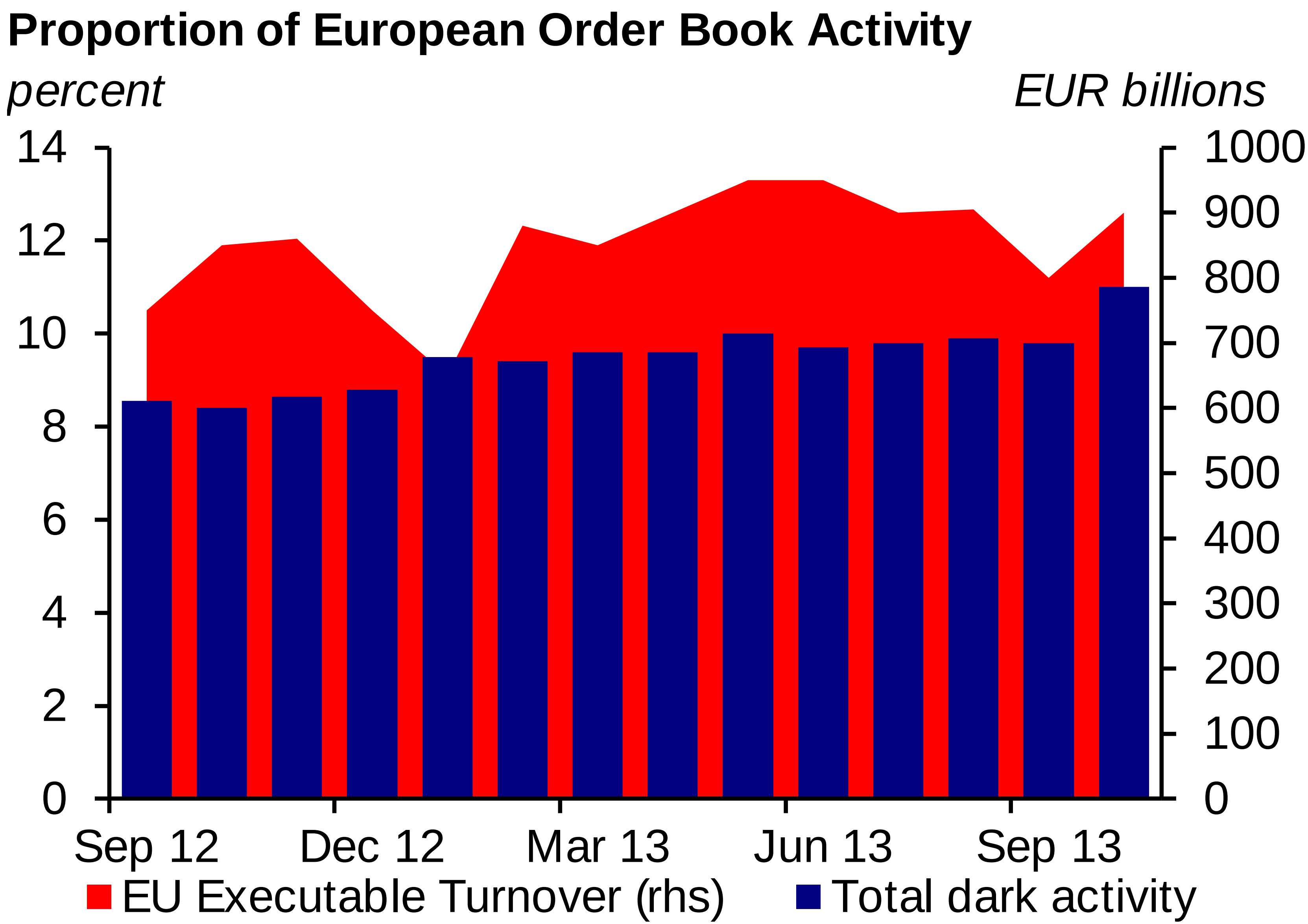
year-on-year percent change



Portfolio Flows into Emerging Markets*

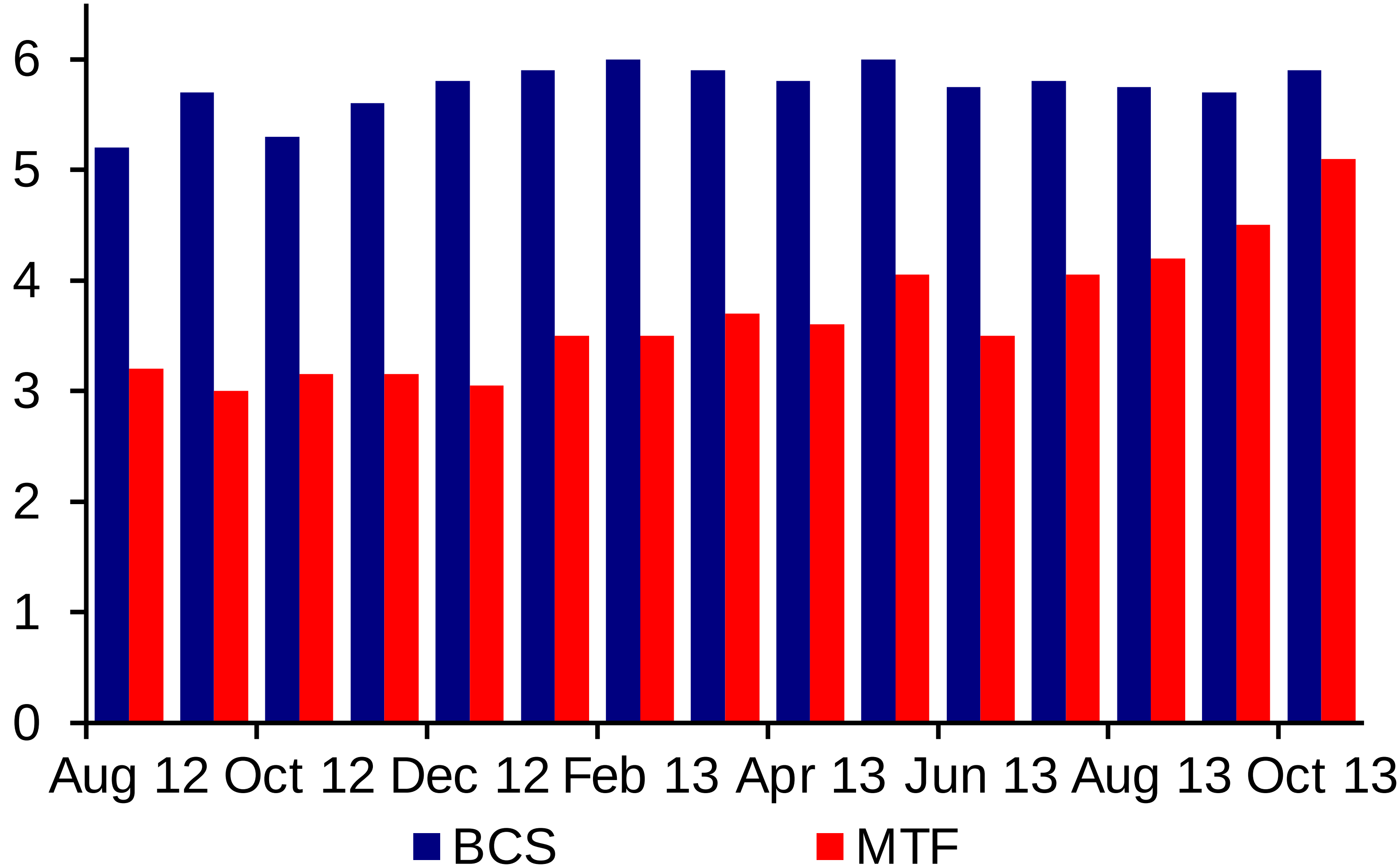
USD billions




Proportion of European Order Book Activity
percent
EUR billions
14
12
10
8
6
4
2
0
1000
900
800
700
600
500
400
300
200
100
0
Sep 12
Dec 12
Mar 13
Jun 13
Sep 13
EU Executable Turnover (rhs)
Total dark activity

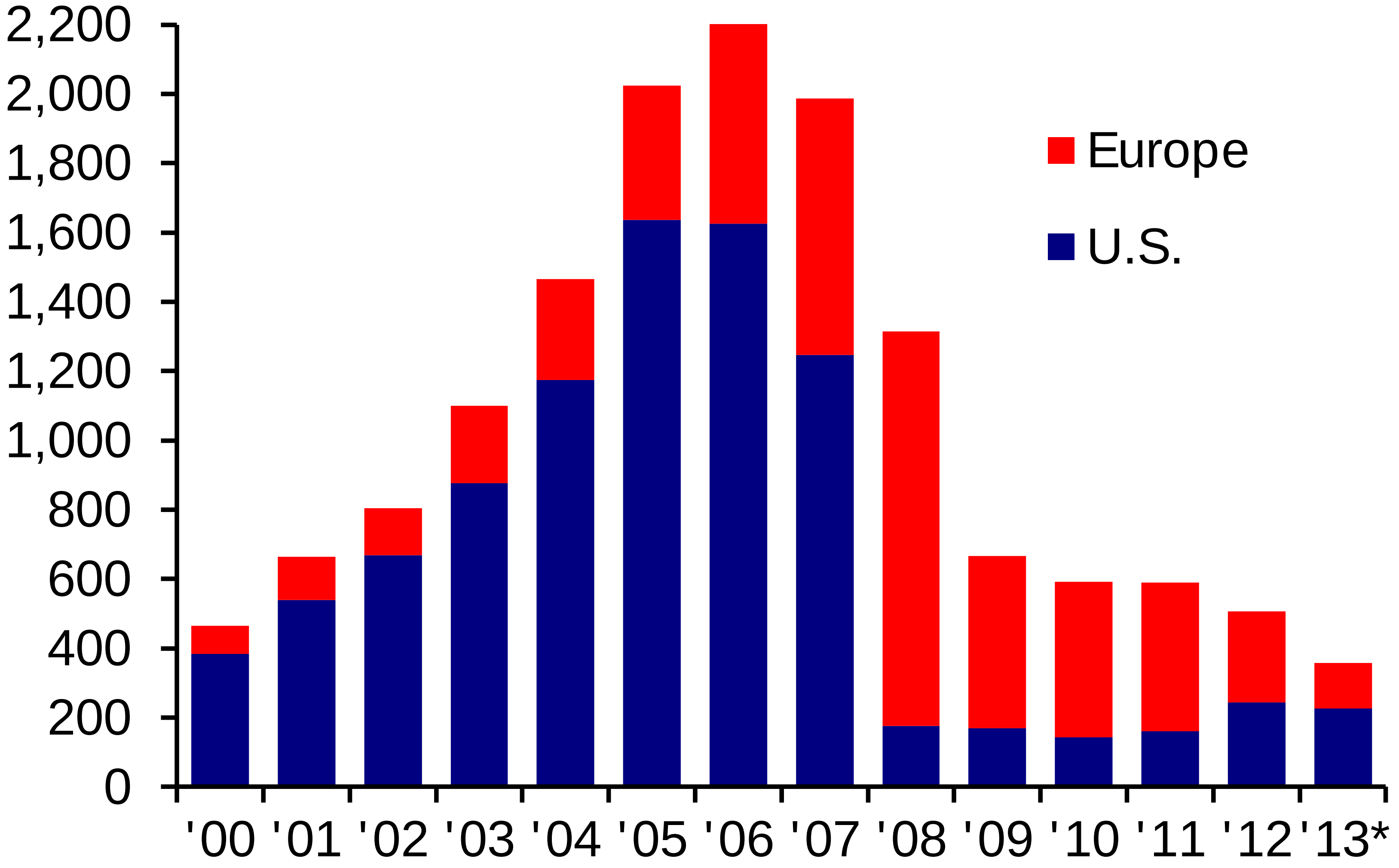
Proportion of Dark Trading Activity in Europe

percent of European executable activity



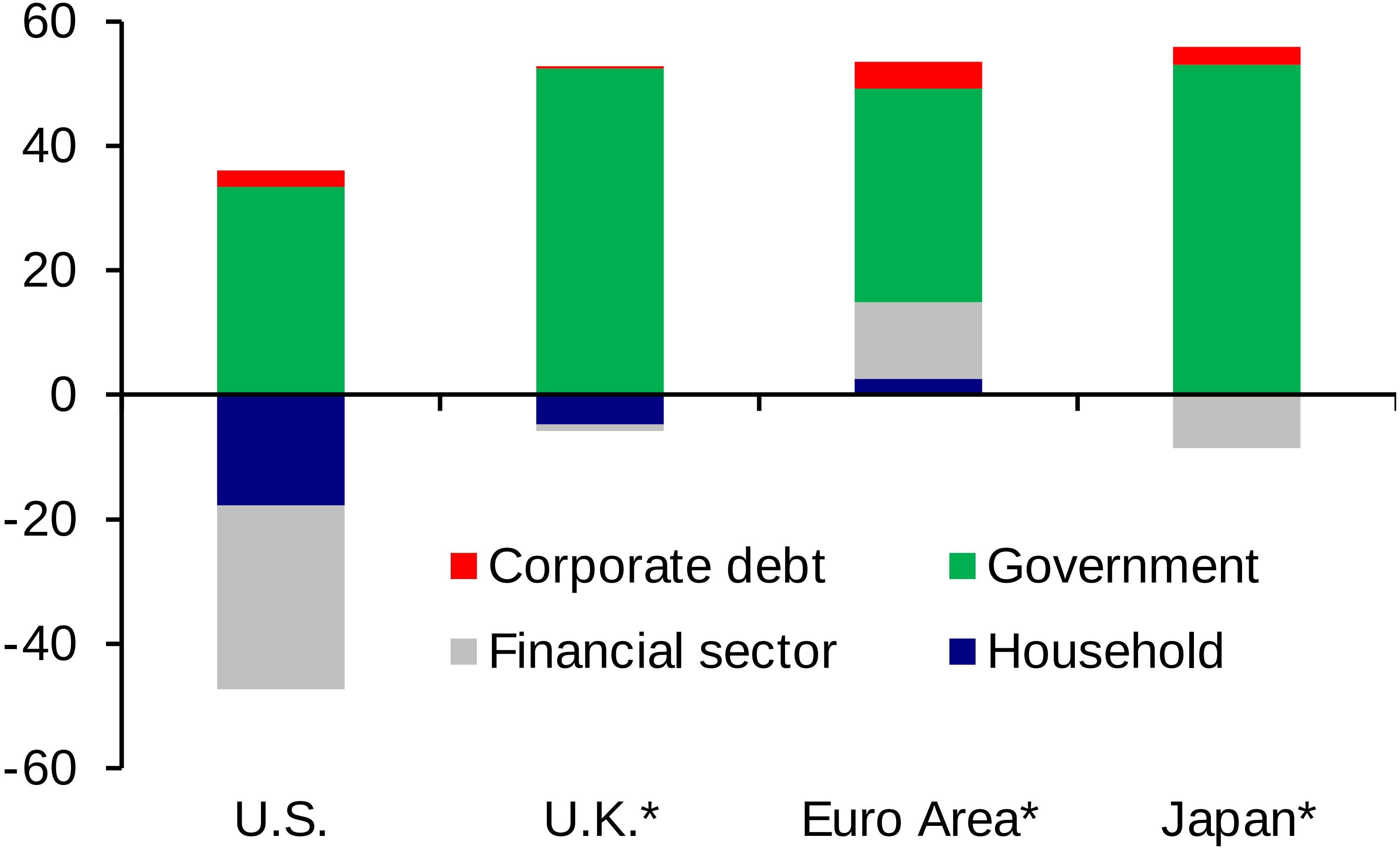
U.S. and European Securitization Issuance

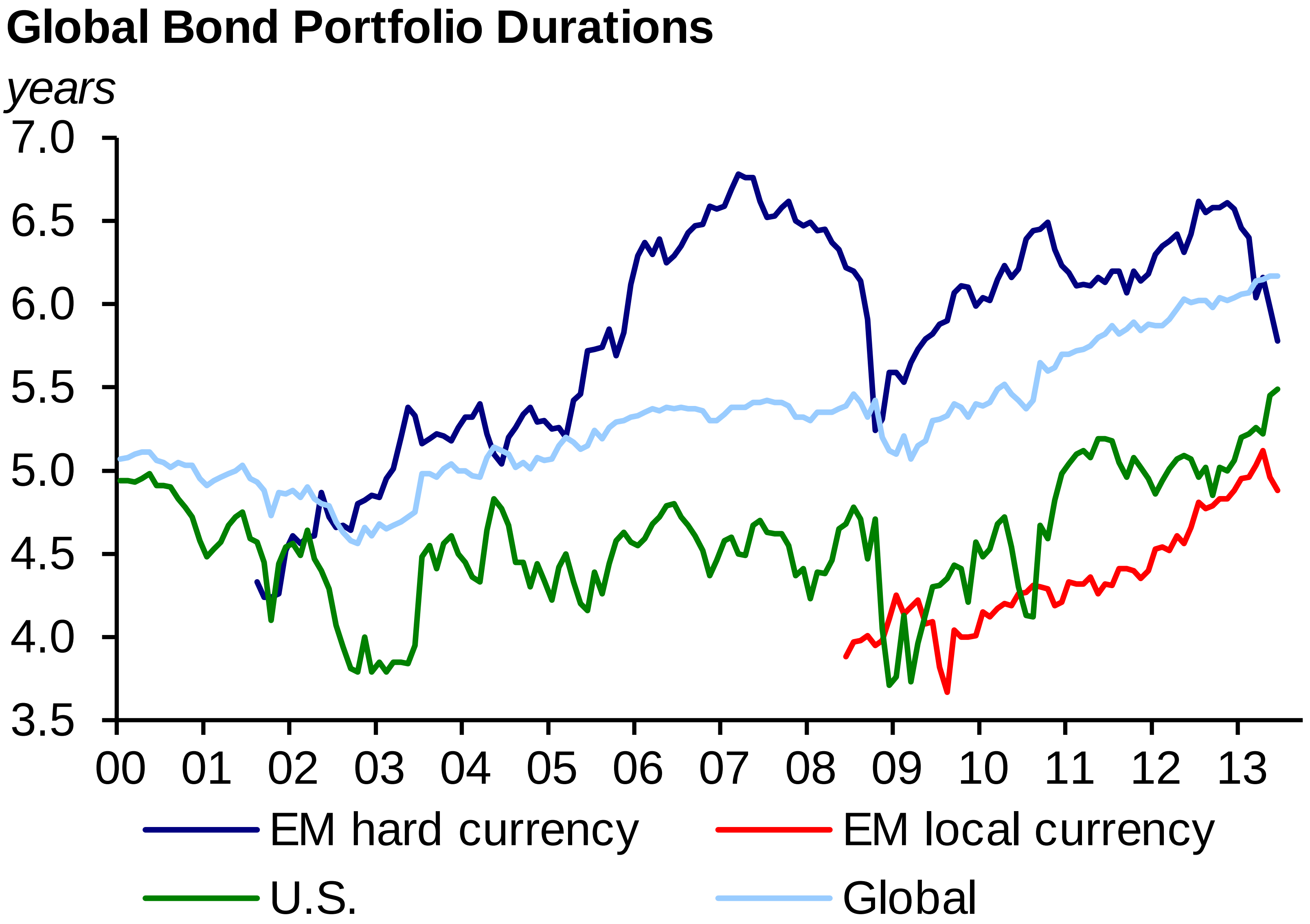
USD billion



Mature Market: Sectoral Indebtedness

percentage points, between 2008Q1 and 2013Q3 (or latest)




Global Bond Portfolio Durations
years
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
00
01
02
03
04
05
06
07
08
09
10
11
12
13
EM hard currency
EM local currency
U.S.
Global

U.S. Repo Volume

USD trillions, average daily volumes