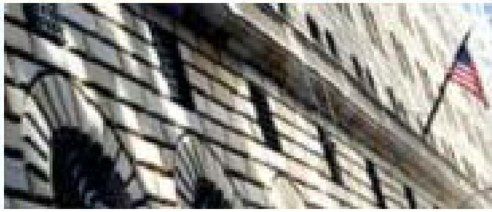
Why do CCP's play such a small role in the U.S. repo market and why that might change?

Antoine Martin
Federal Reserve Bank of New York



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Agenda

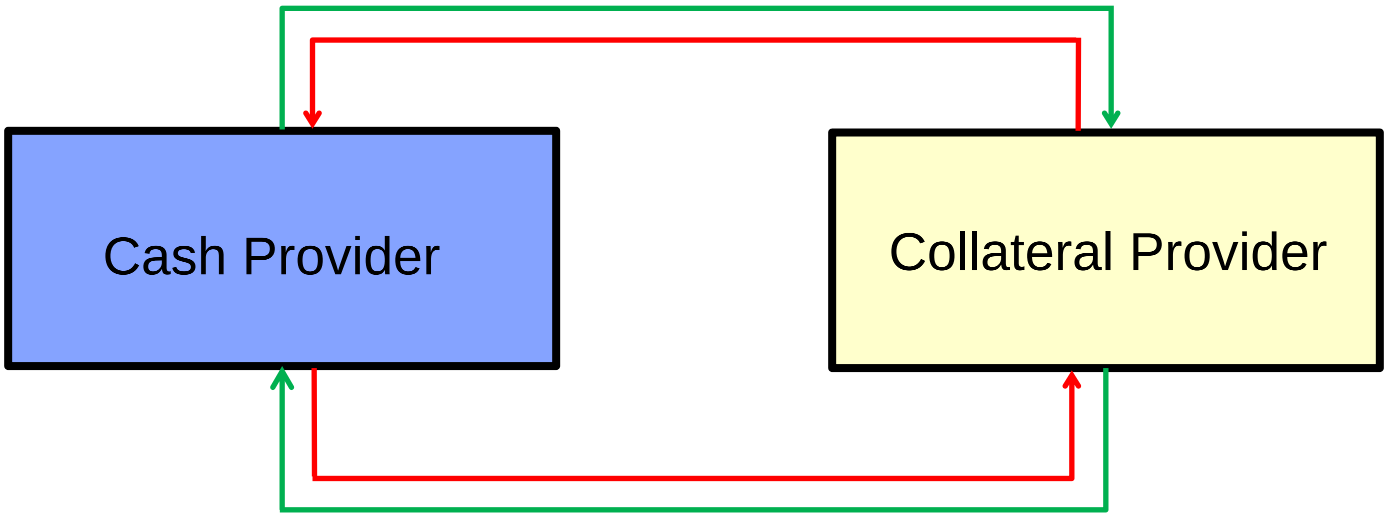
- Overview of the US Repo Market
- Why do CCP's play such a small role in the U.S. repo market?
  - Main economic functions of CCPs
- Why that might change?
  - Unintended effects of regulatory reform on the repo market
  - Balance sheet netting without exposure netting

Overview of the U.S. repo market

What is a repo?

- A repo is the sale of a security, coupled with the promise to repurchase the security at a specific future date

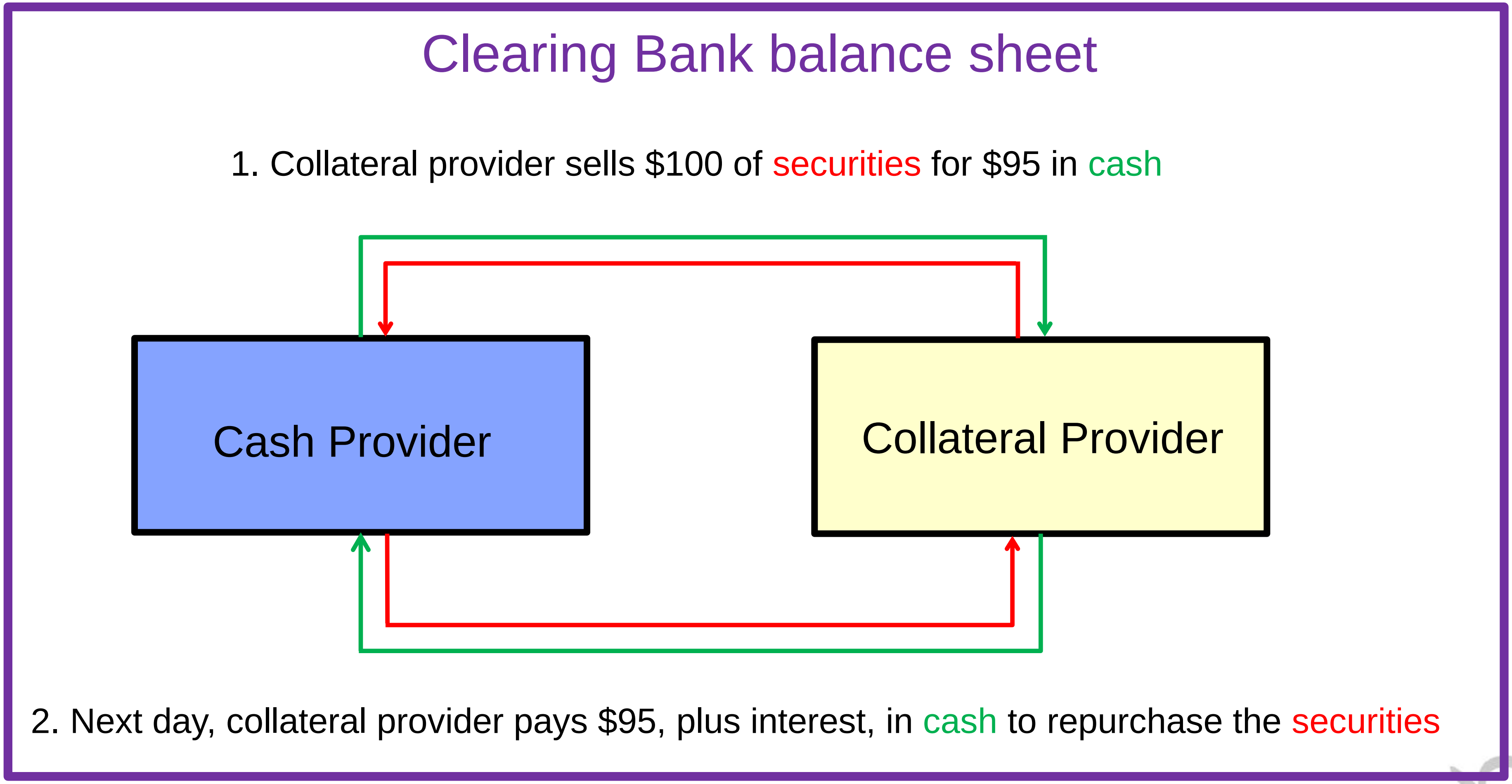
1. Collateral provider sells $100 of securities for $95 in cash



2. Next day, collateral provider pays $95, plus “interest”, in cash to repurchase the securities

What is a tri-party repo?

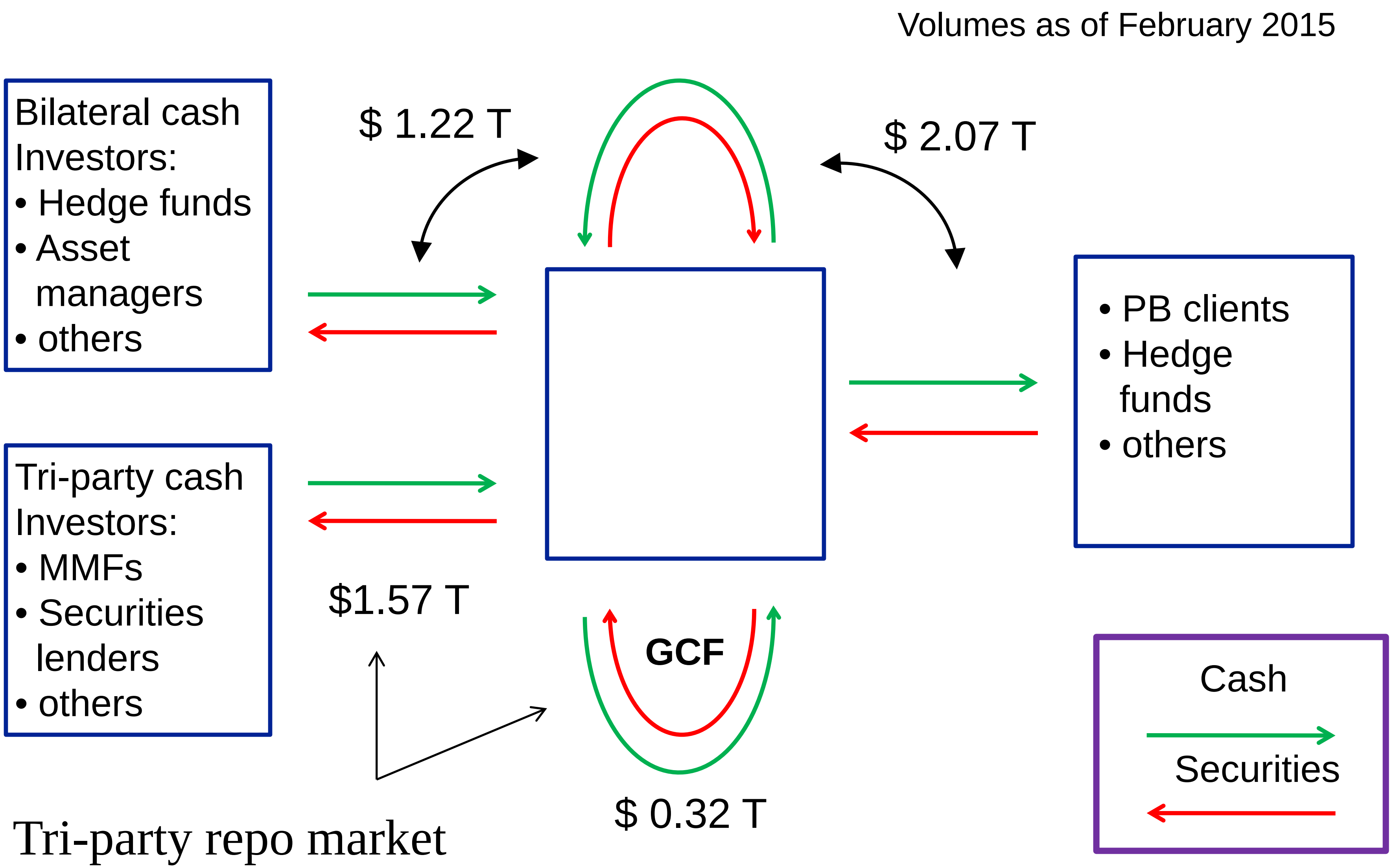
- In a tri-party repo, a third party called the clearing bank provides clearing, settlement, and financing services



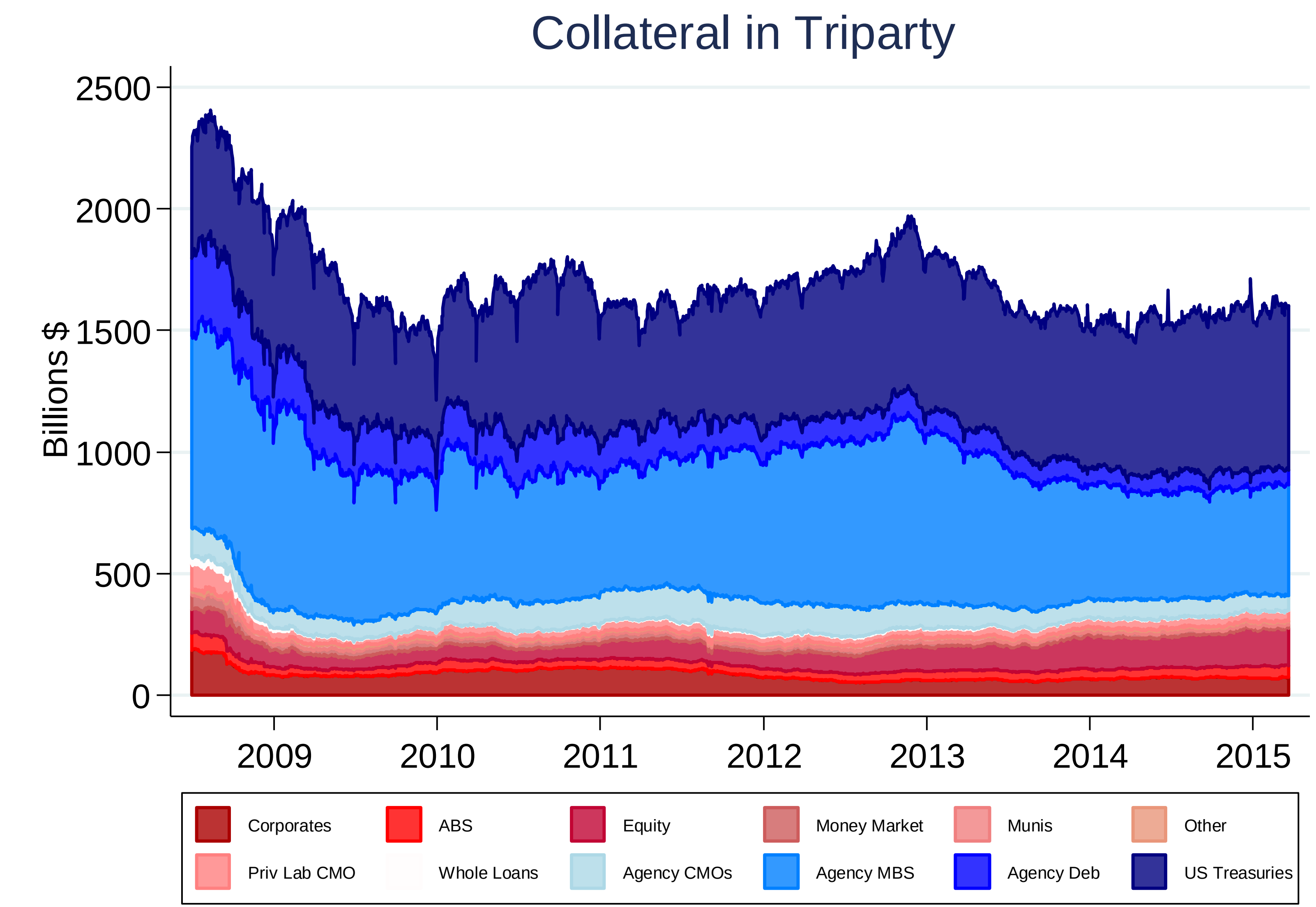
Europe vs. U.S. repo markets

- In Europe, the repo market is mainly interbank
  - Market participants are more homogeneous and tend to trade on both sides of the market
  - CCPs play an important role
  - Substitution between secured (repo) and unsecured interbank market
- In the U.S., the repo market is a key funding market for securities dealers (non-banks)
  - Market participants are heterogeneous and tend to trade on one side of the market.
  - Dealers fund their inventories
  - They also intermediate between their clients and cash investors—Matched books

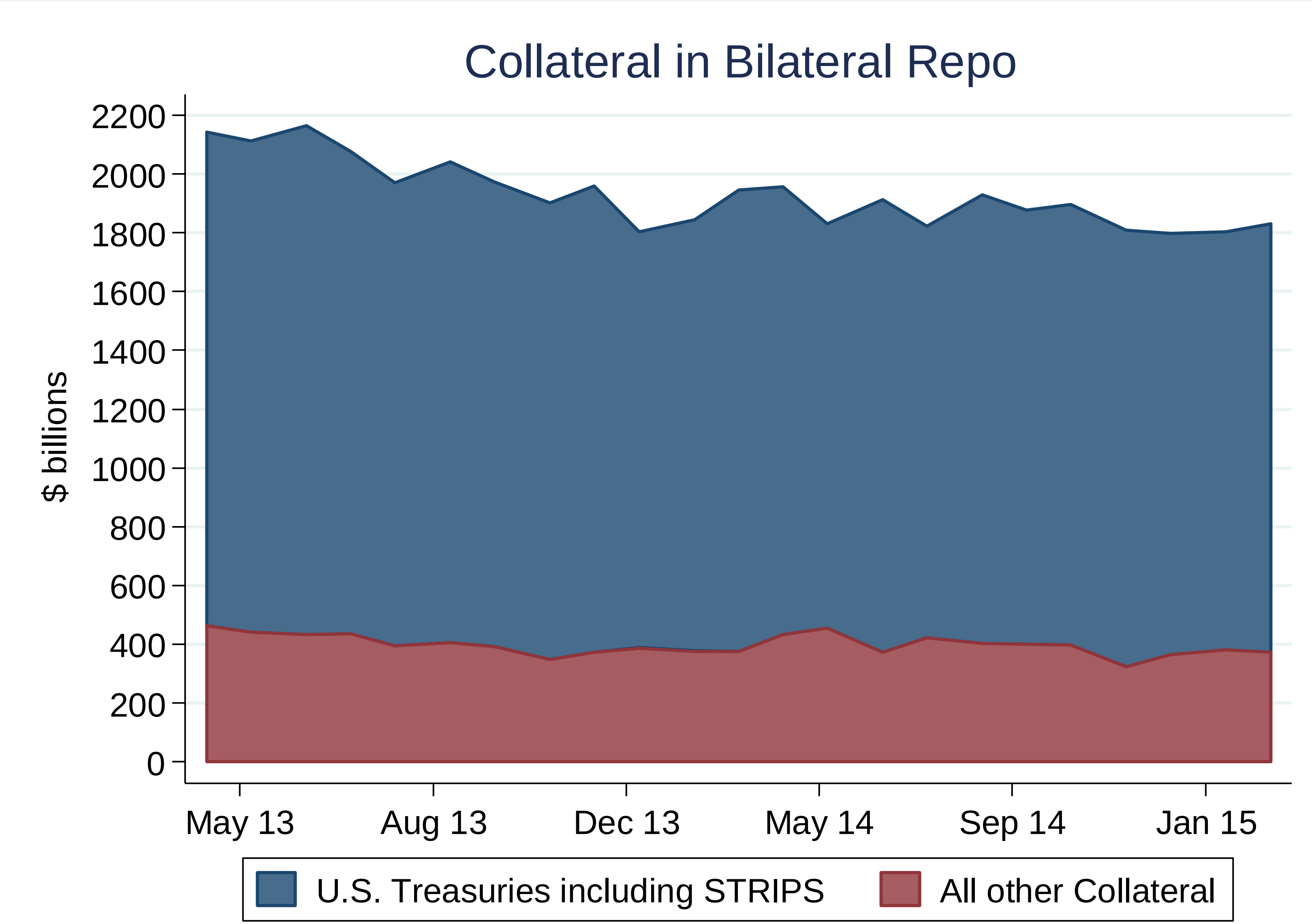
Segments of the U.S. repo market



Collateral in tri-party repo



Collateral in bilateral repo



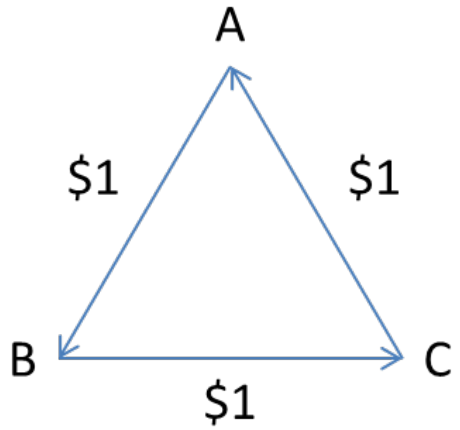
Why do CCP's play such a small role in the U.S. repo market?

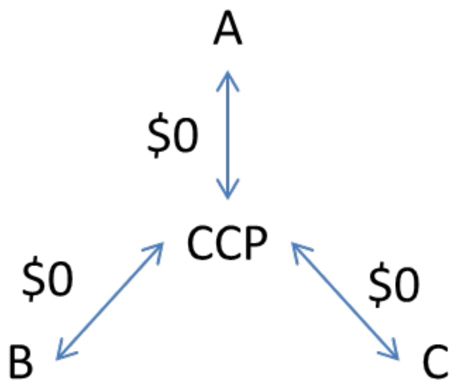
Main economic functions of CCPs

- Netting of exposures
- Orderly liquidation
  - Reduces fire-sale risk
- Risk sharing
- Transparency and Reduction in operational risk

Netting exposures with cycles

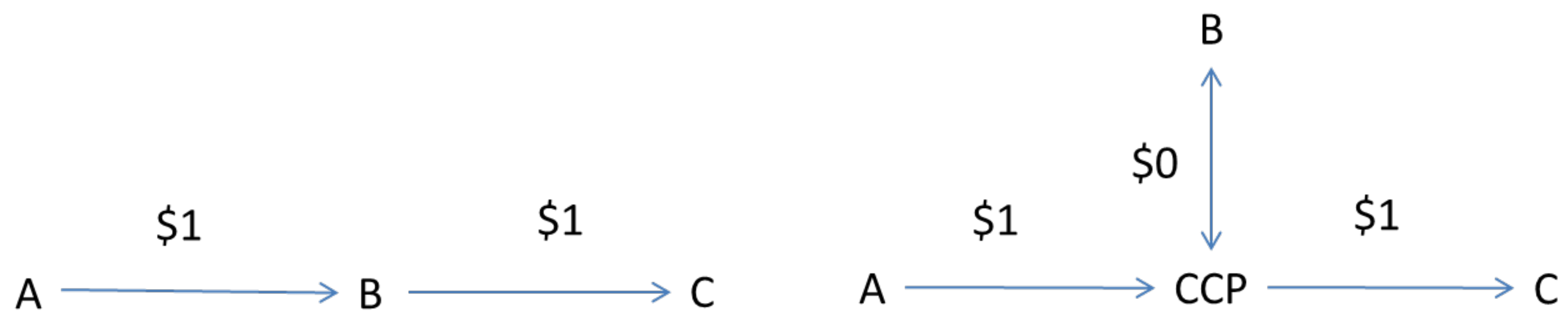
- Multilateral netting example
- Exposures and collateral needed when no CCP
- No exposures and no collateral needed with CCP





Netting with no cycles

- B does matched book trades
- W/O CCP: B is exposed to C, A exposed to B
- With CCP: Risk is reduced along the chain
  - If CCP is less risky than B
  - The CCP can shorten the length of the chain
- CCP does not reduce collateral needs



Where are repo CCPs most useful?

- Repo CCPs appear to already exist in markets where they are most useful, because there are opportunities for multilateral netting
  - European repo market
  - GCF repo in the U.S.

- One exception: U.S. bilateral interdealer market does not have a CCP
  - Perhaps because of limitations related to the clearing and settlement of specific collateral

Why might CCPs play a larger role in the U.S. repo market?

What has changed?

- New regulation, notably the Supplementary Leverage Ratio (SLR) has been having an important effect on the US repo market
- The SLR is like a tax on intermediation activity that is proportional to the size of an intermediary's balance sheet

What should we expect?

- A tax is expected to discourage activity being taxed

  ➔ We should see a decrease in tri-party repo volumes

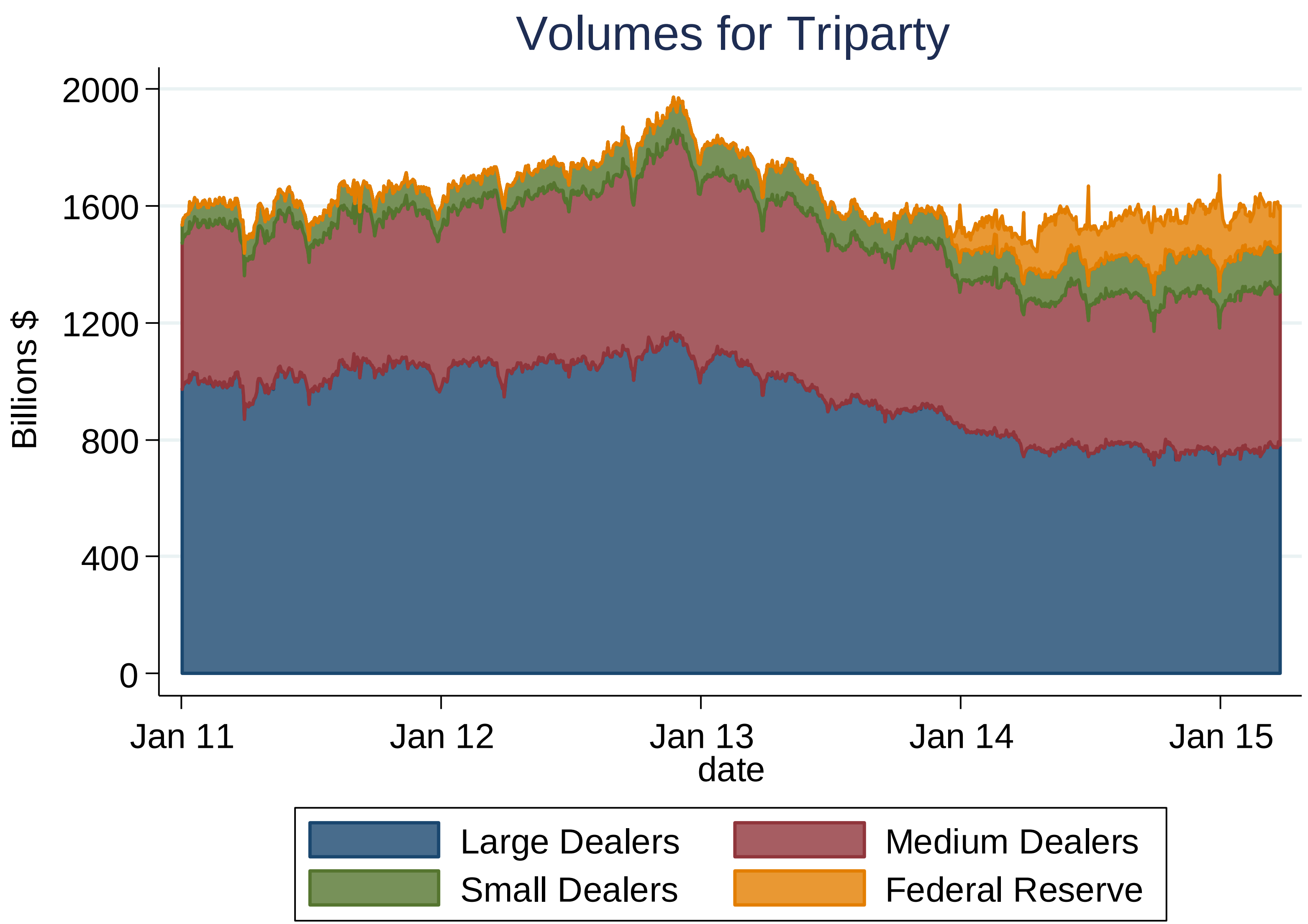
  ➔ The effect should be more pronounced for institutions for which SLR is likely to be binding

- The tax is not risk-weighted

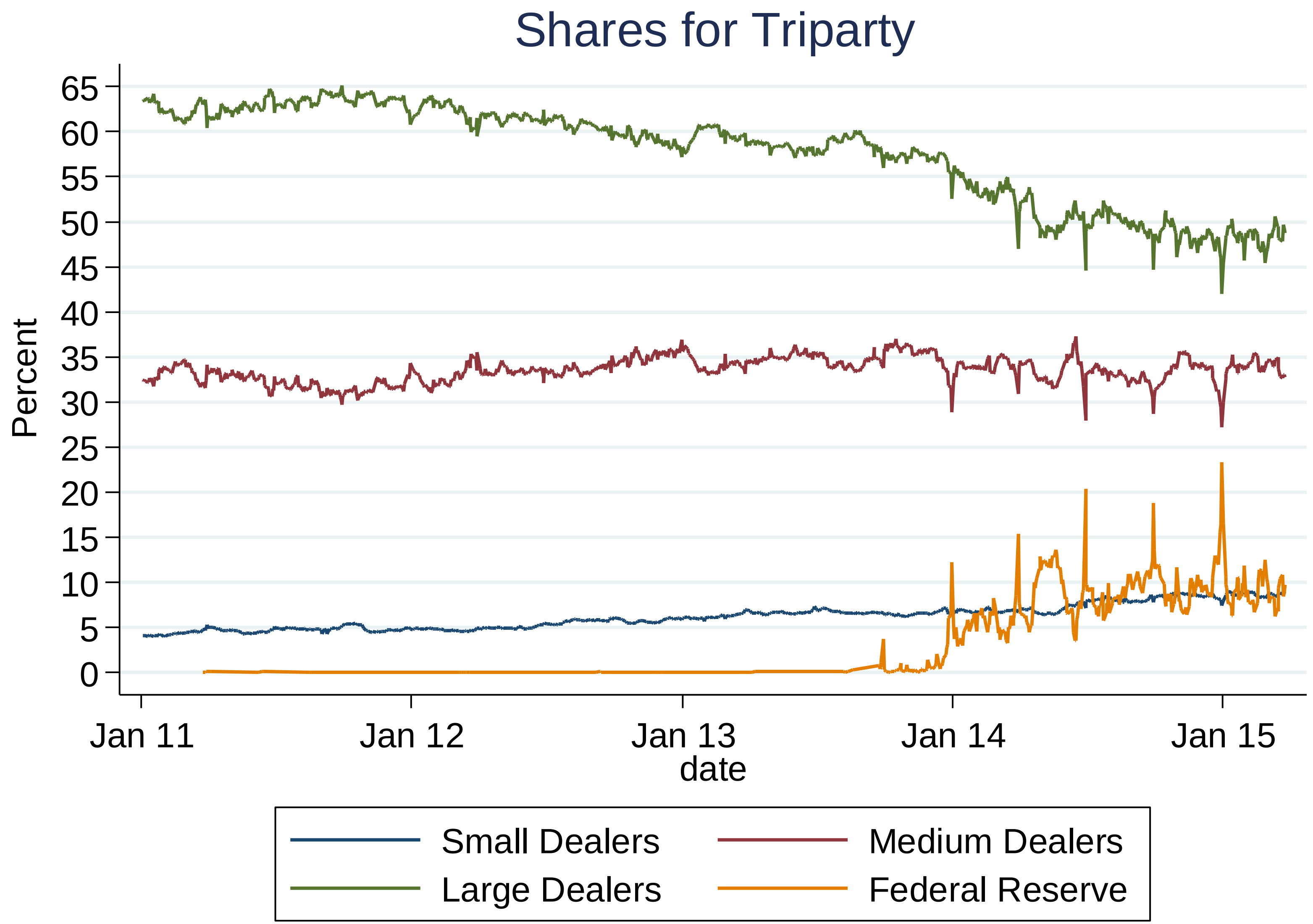
  ➔ The impact should be more pronounced for safe than risk assets

- If cost of intermediation has increased, intermediation spreads should increase

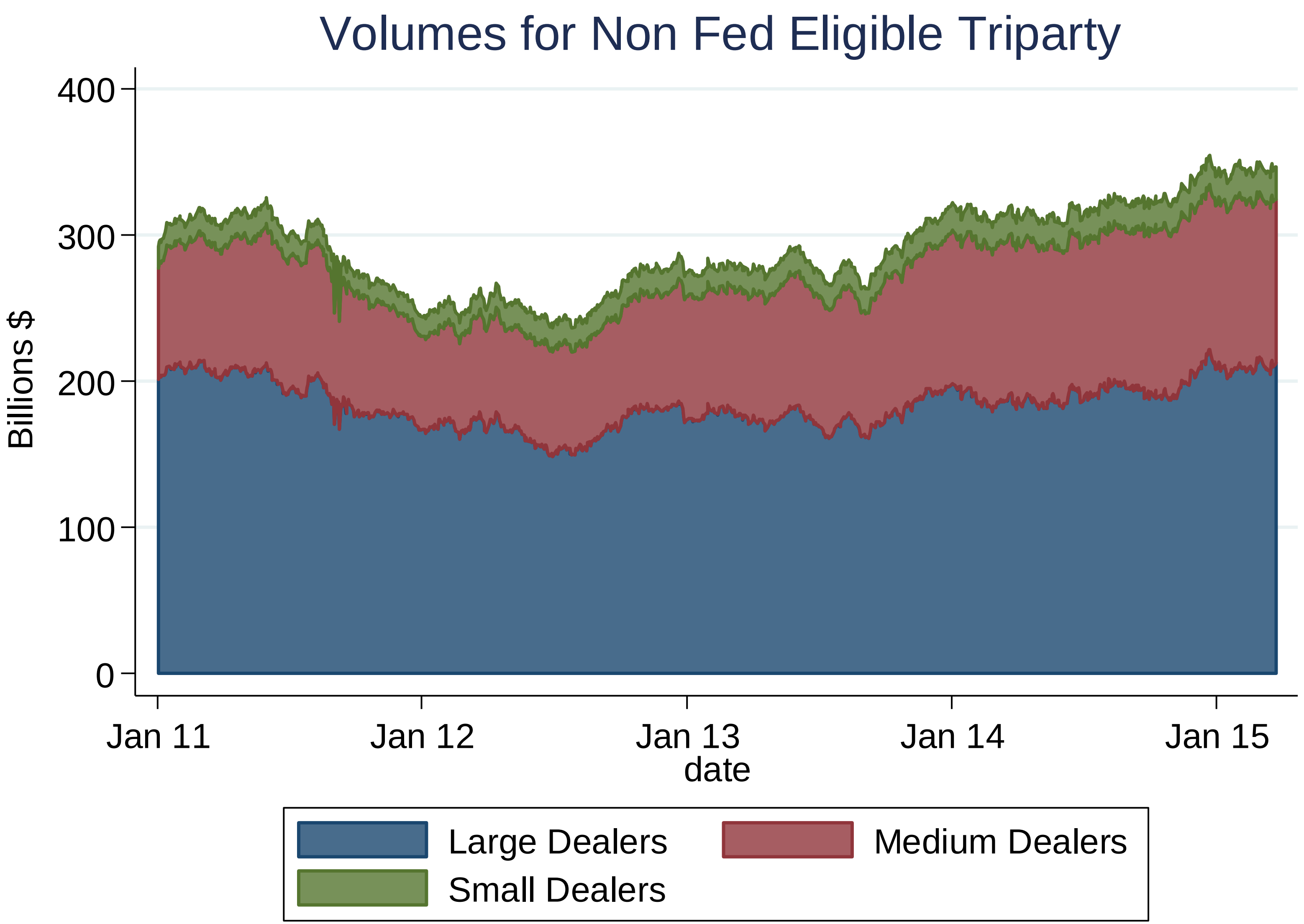
Volume in TPR market has decreased



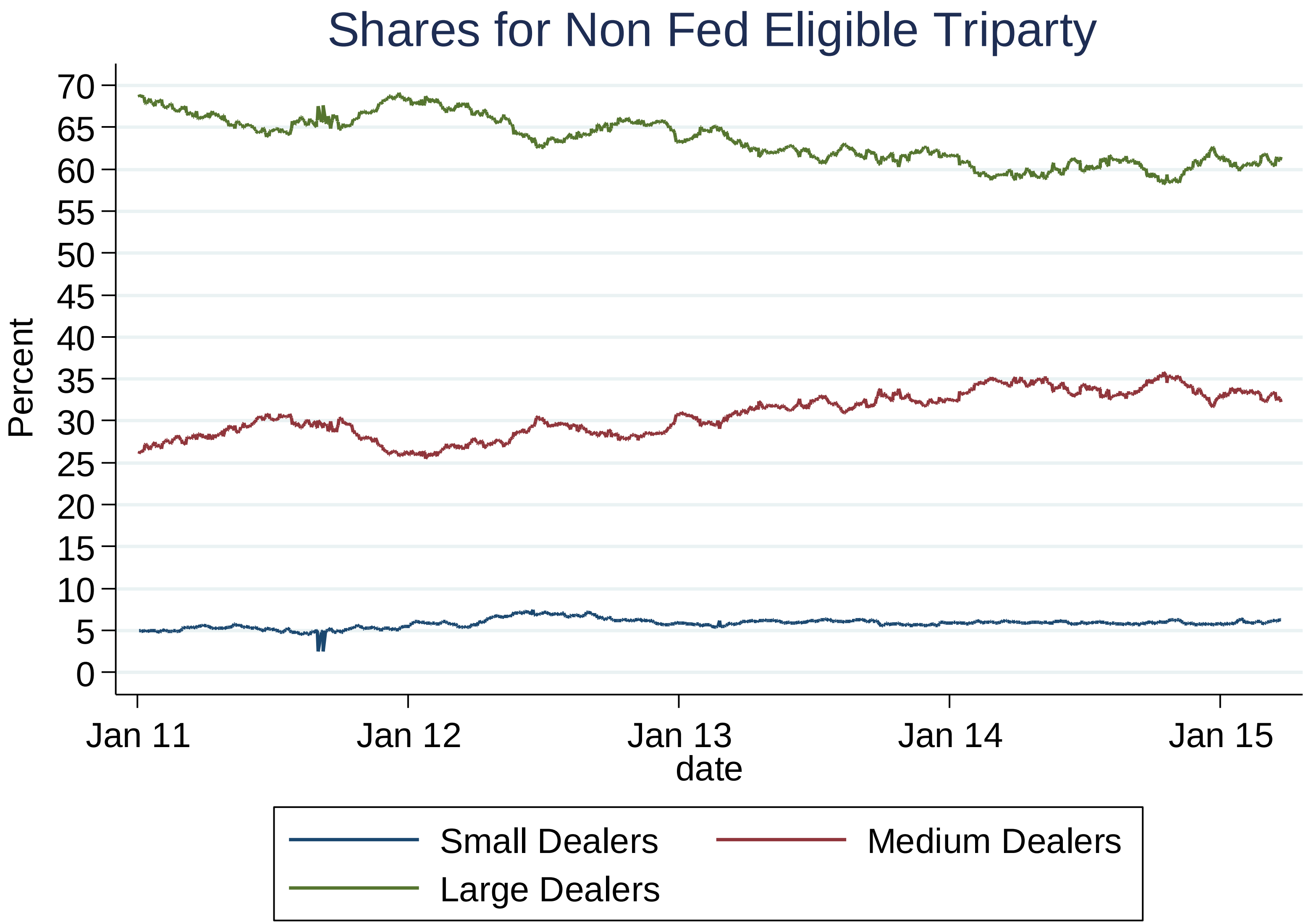
Share of large dealers has decreased



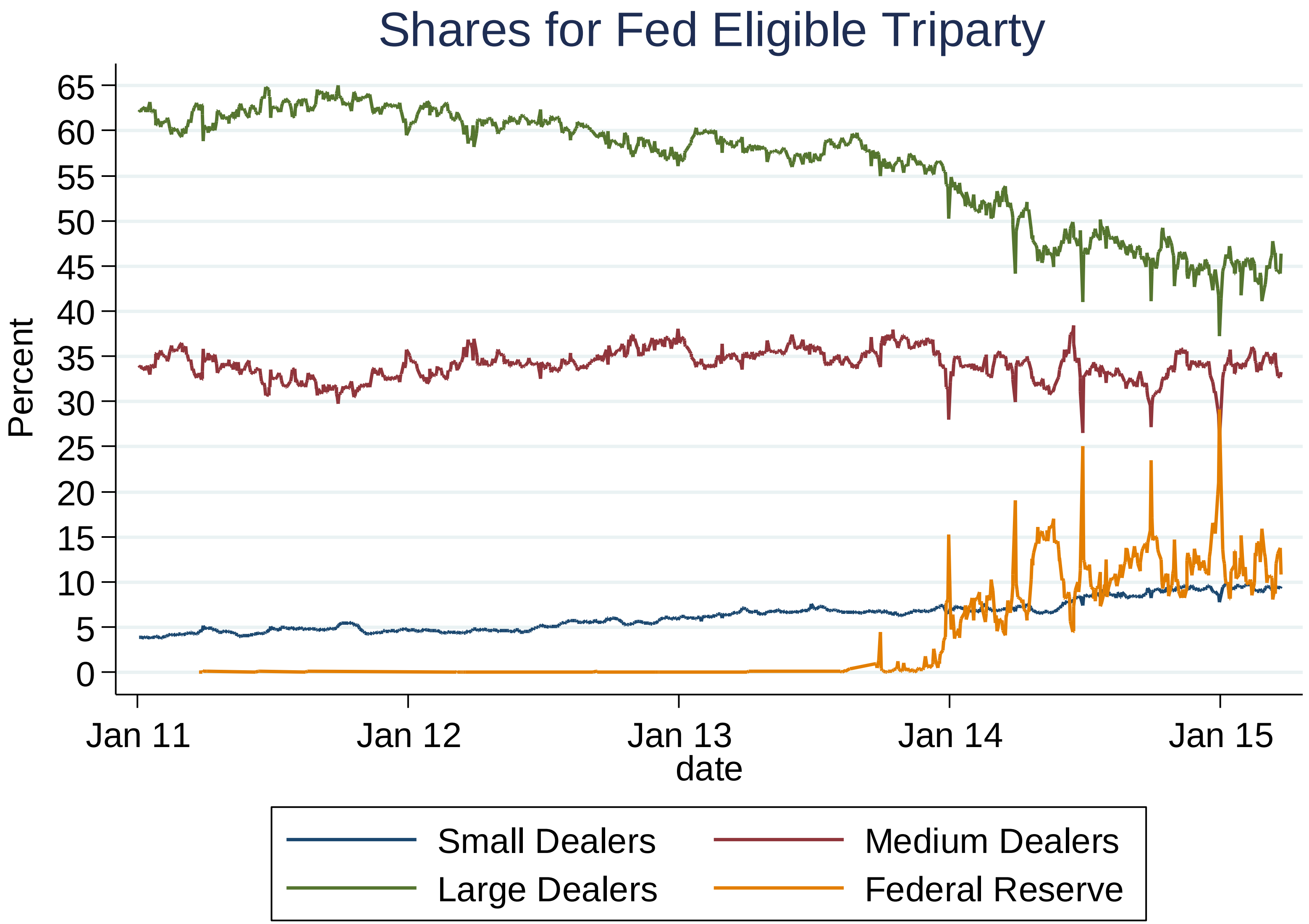
Volume of risk assets has increased



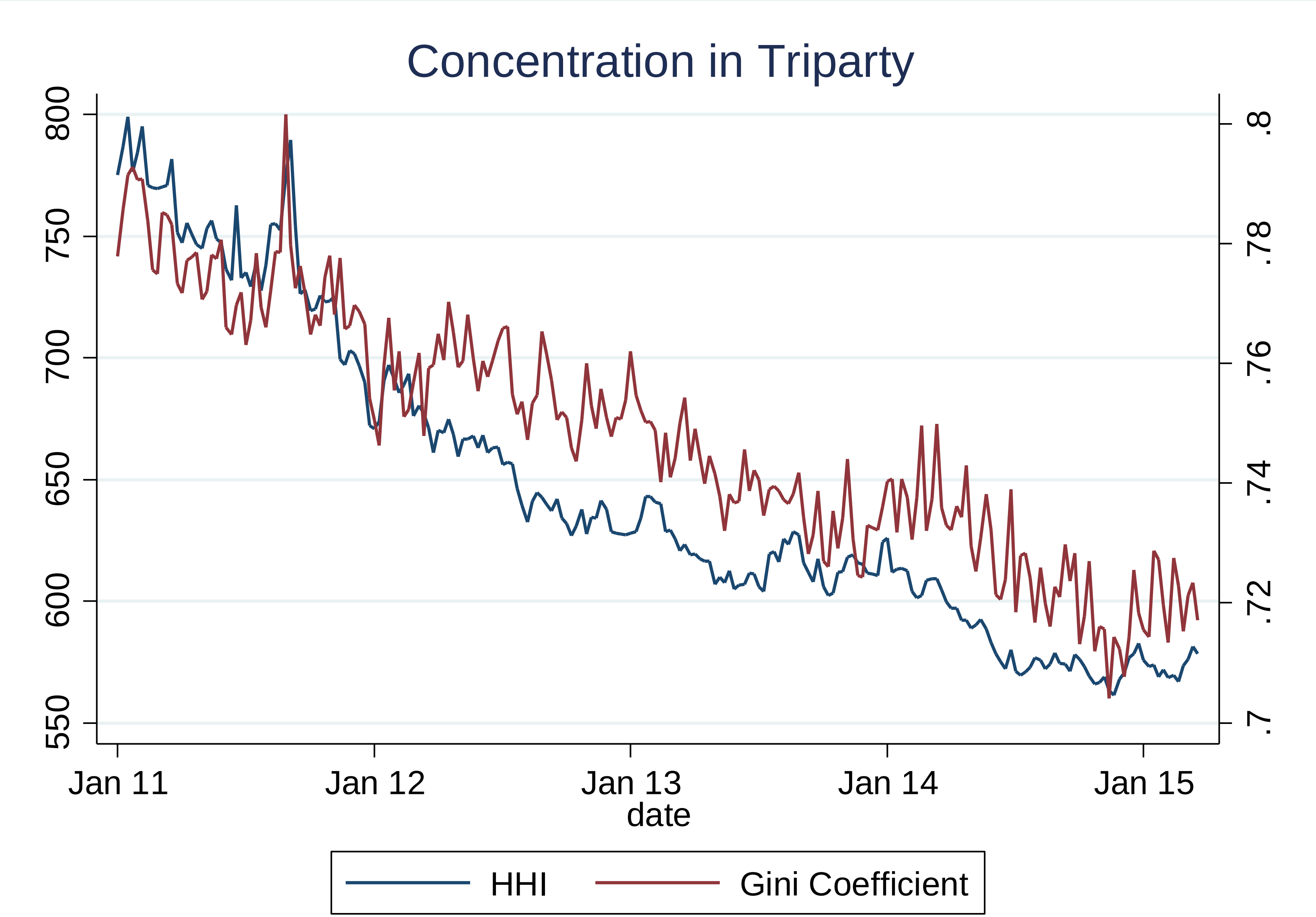
Little change in shares of risk assets



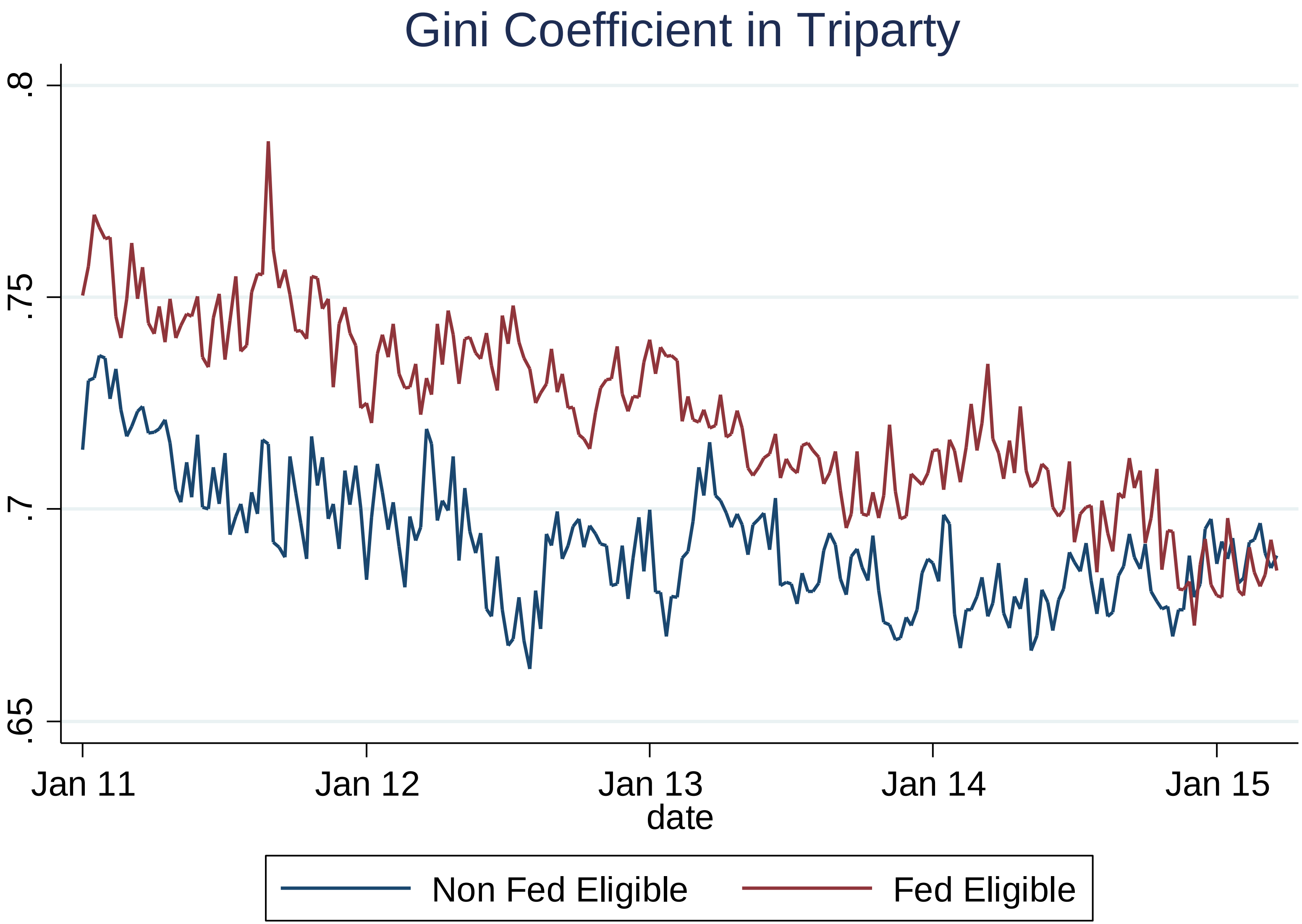
Big change in shares of safer assets



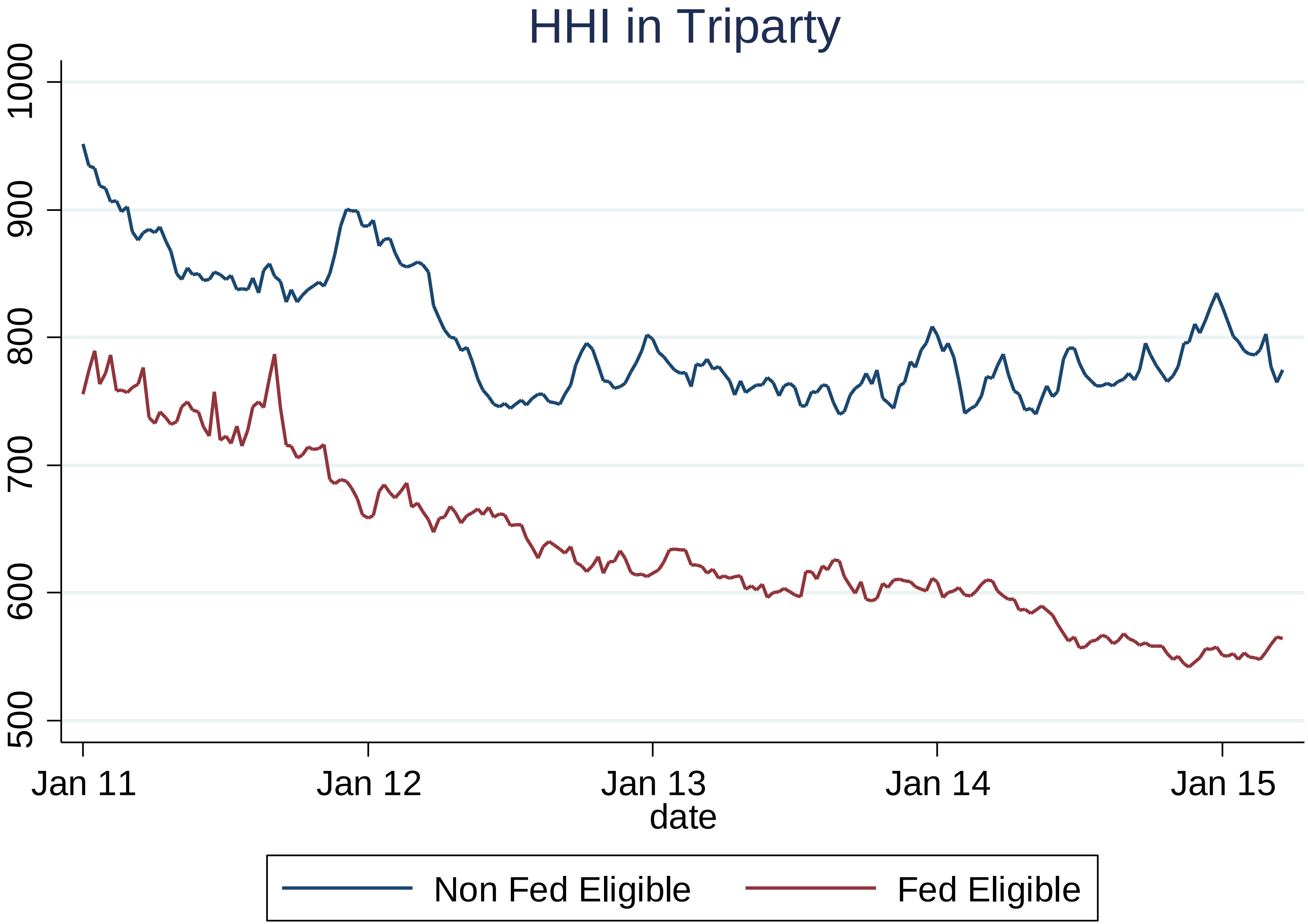
Concentration in the market is down



Smaller decrease for risk assets



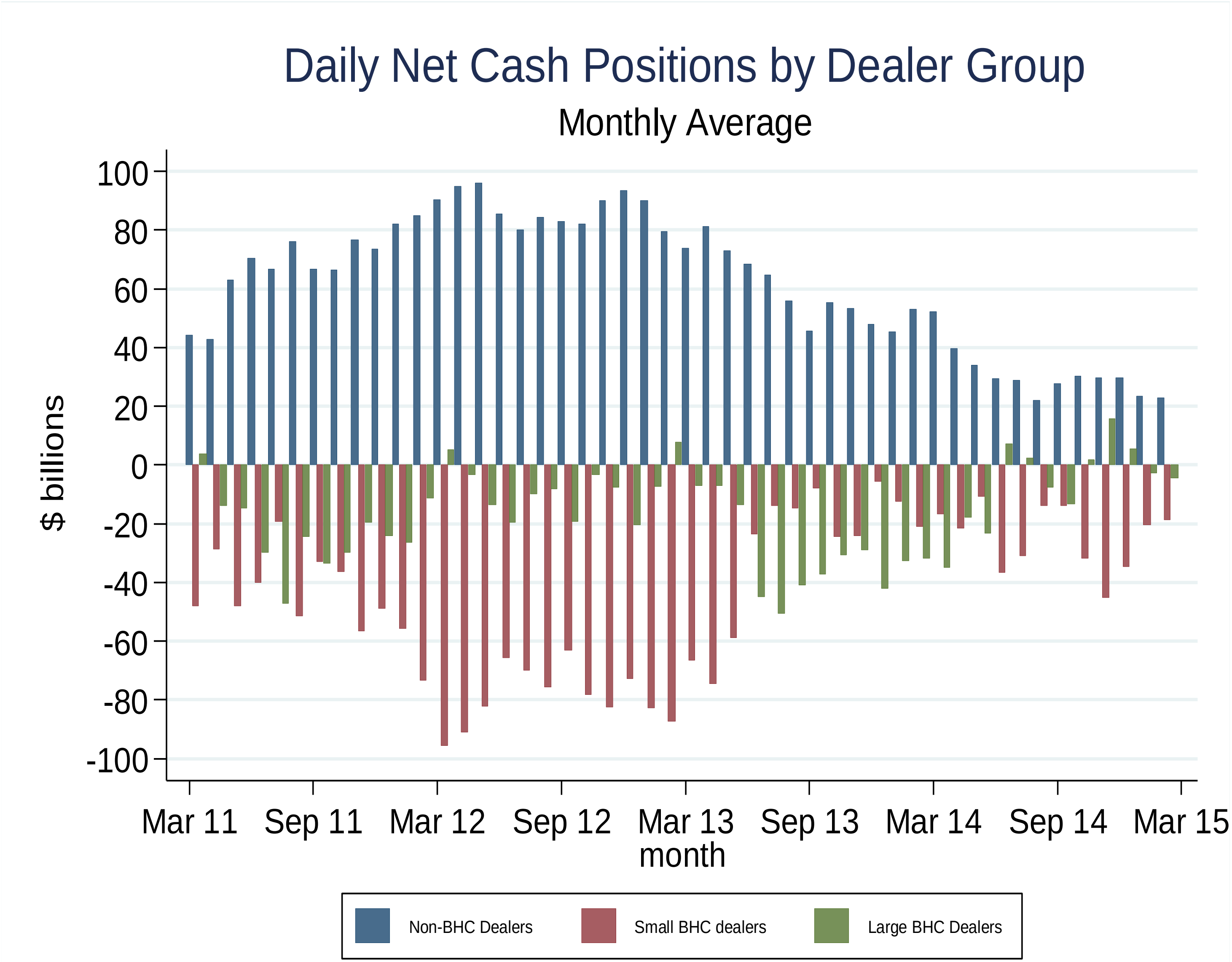
Particularly since 2013



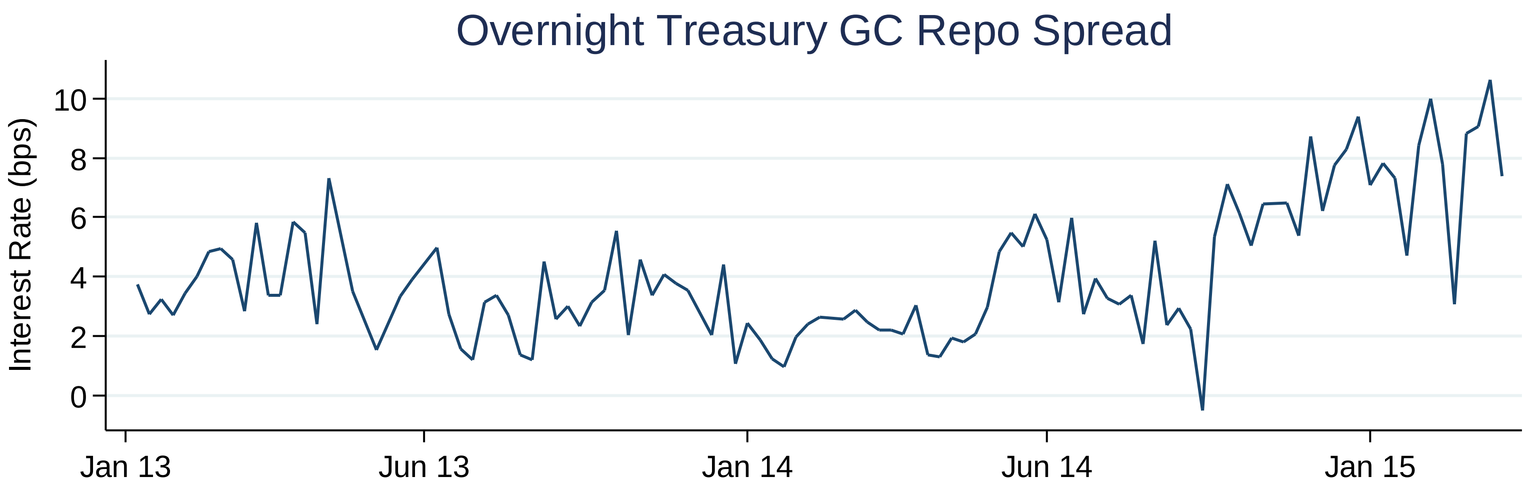
Effect on the CGF repo market

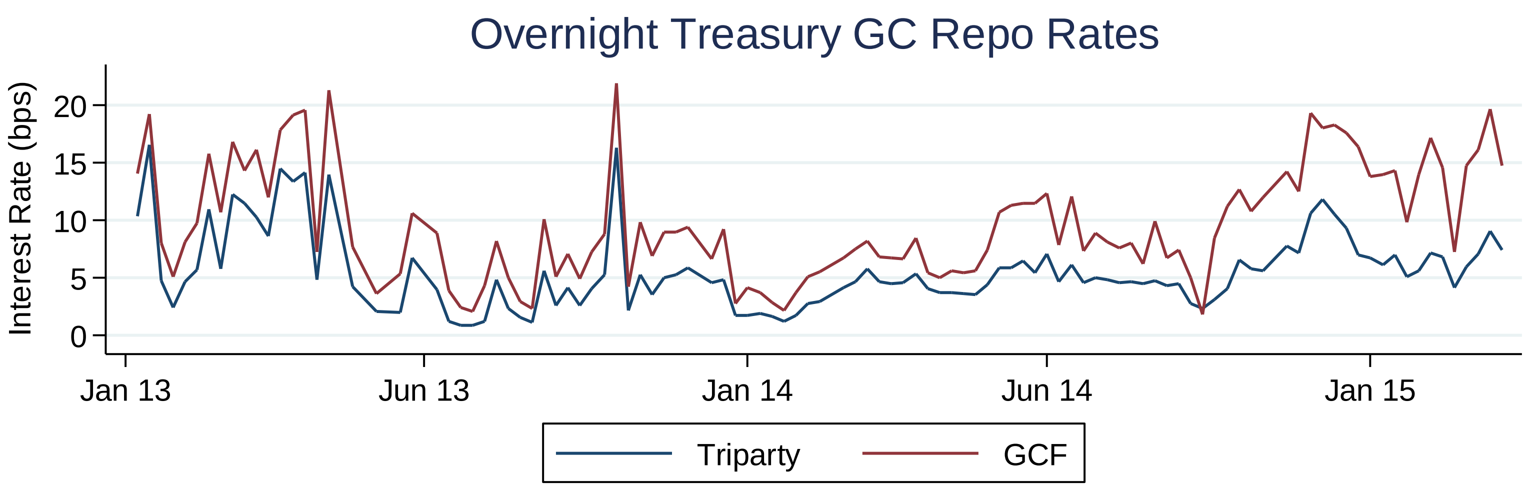
- The GCF repo market is the main funding source for some dealers who cannot obtain the funding they want in the TPR market
- Instead of borrowing directly from TPR cash investors, they borrow from large dealers who borrow from TPR investors (matched-book)

Decline in CGF net lending volume



Increase in interest rate spread





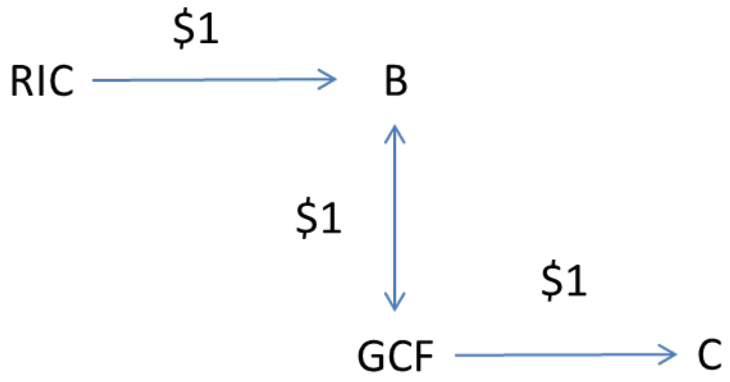
Triparty rate excludes Federal Reserve. Source: DTCC, FRBNY

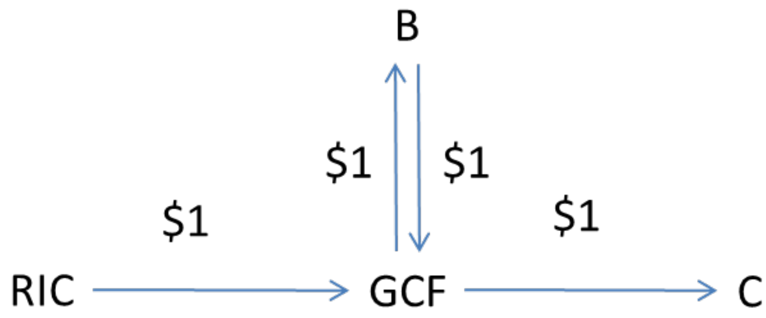
How to reduce the cost of the SLR?

- Balance sheet netting: Netting of *equivalent* obligations for the calculation of regulatory capital
  - Obligations must have the same maturity and counterparty
  - In the case of repos, the collateral need not be the same

Example: Proposed expansion of GCF

- The expansion would allow registered investment companies (RICs) to become GCF members
- This would allow balance sheet netting for dealers that intermediate between RICs and other dealers





Other proposals

- LCH and CME have made other proposals
- They are thinking about an agent model, similar to CCPs for derivatives
  - Big departure from existing repo clearing arrangements
  - Non-members can clear through agent members
  - Agent members get fees, guarantee client performance
  - CCP does not guarantee performance to client
- This has the potential to include a much wider set of market participants, including borrowers

Proposals could evolve

- Clearing limited to Treasury collateral at first
  - Benefits with respect to fire sale risk small
  - But could be expanded to other collateral classes later
- Repo CCP could attract trade from bilateral repo
  - This sector opaque, CCP could increase transparency
  - It may be possible to have a CCP for the specials market

Potential concern

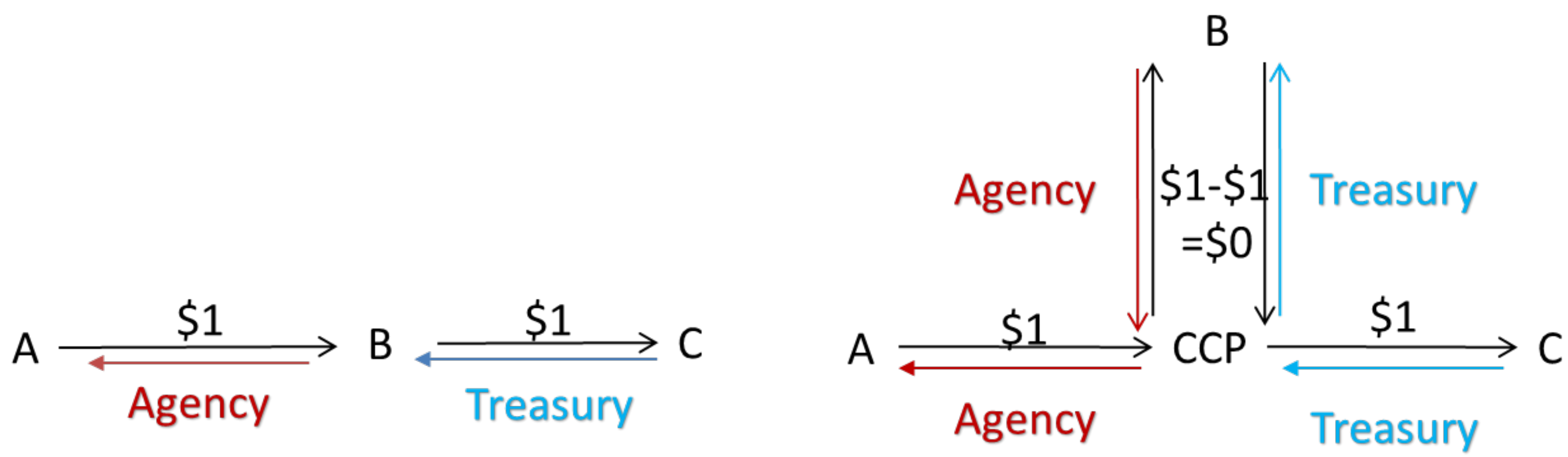
- Balance-sheet netting without exposure netting
- Suppose A lends $1 to B against Agency MBS.
  - A's balance sheet increases by $1
  - In case of default of B, A will have an exposure secured by the Agency MBS
- Suppose A lends $1 to B against Agency MBS and B lends $1 to A against Treasuries
  - If the two trades have the same maturity, the balance sheet of A has not increased (balance-sheet netting)
  - But if B defaults, A has an exposure that is secured by Agency MBS.

B.S. netting without exposure netting

- In both examples, A's exposure to B's default is essentially the same
  - To a first approximation, due to haircuts and perhaps other considerations
- In the first example there is an SLR cost while in the second example there is not
- In the second example, there is balance sheet netting without exposure netting

Example in the case of a CCP

- Without CCP: No balance-sheet netting for B
- With CCP: B can net the exposure with the CCP
- But CCP exposed to failure of B



Potential implementation difficulties

- Big challenge: repo CCP would need to satisfy Cover 1 w.r.t liquidity
  - Repo CCPs need way more liquidity than derivative CCPs: repo settlement is notional amount
- Potential solutions:
  - Obligation from members to provide liquidity
  - “Haircutting the unwind”
  - Committed lines of credit
  - Position limits to reduce liquidity need
- Does the agent clearing model work for repos?
  - Question about agent guarantee in an agent model

Conclusion

- Repo market in the U.S. is not an interbank market
  - Market for funding dealer inventories and the securities of dealers' clients
- Until recently, there was little interest for a repo CCP in the US—except for interdealer GC market
- SLR has had an impact on the US repo market
  - And has led to a strong interest for a repo CCP
- Liquidity will be major challenge to the creation of a repo CCP