Reflections on the Post-Crisis Derivatives Market Reform in the U.S.

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Disclaimer and Acknowledgement

Part of this presentation is based on my joint paper with Lynn Riggs, Esen Onur, and David Reiffen (all from the US CFTC), Mechanism Selection and Trade Formation on Swap Execution Facilities: Evidence from Index CDS.

Views expressed in this presentation are entirely mine, and not necessarily those of my coauthors or the CFTC.

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U.S. OTC Derivatives Market Reform

Dodd-Frank Act, Title VII, introduced important changes in OTC derivatives market in the U.S. Important steps include:

- Dec 2012: Mandatory swap transaction reporting to swap data repositories
- Jan 2013: Mandatory central clearing for standardized OTC derivatives
- Feb 2014: Certain standardized IRS and index CDS must be executed on Swap Execution Facilities (SEFs)
- Sep 2016: Margin requirement for uncleared swaps

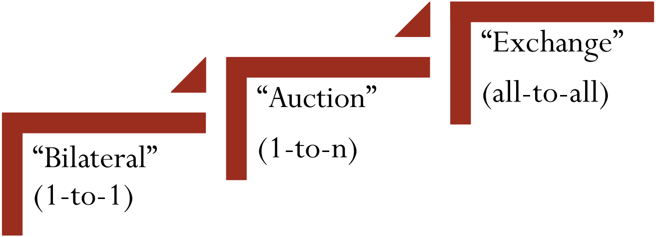
Basel III creates unintended dynamics with derivatives market reform.

In this talk, I will discuss some aspects of the U.S. experience in OTC derivatives market reform.

- Evidence on the SEF Trading Mandate

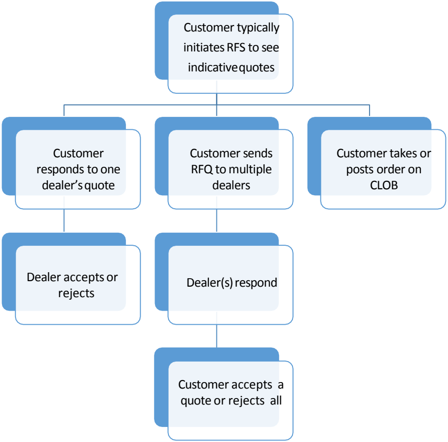
- Observations on the Clearing Mandate

Trading Mandate: What is the Long-Run Market Structure for OTC Derivatives?



Current SEF Mechanisms in Index CDS Markets

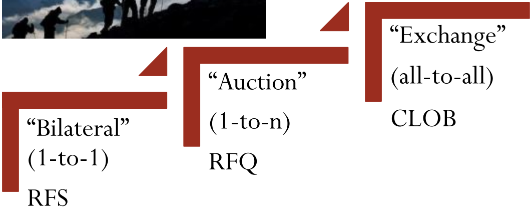
- Two-tiered: Dealer-to-customer (D2C) SEFs and interdealer (D2D) SEFs
- D2D SEFs typically use order books, with size-discovery enhancement (see Collin-Dufresne, Junge and Trolle 2017)
- D2C SEFs use a mix of mechanisms (see Riggs, Onur, Reiffen, and Zhu 2017)



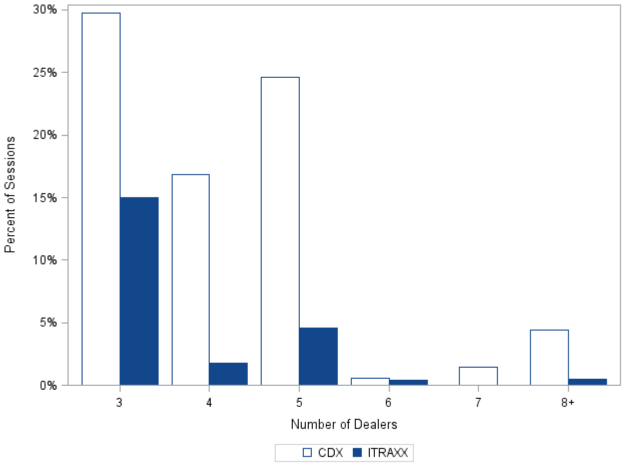
Findings of Riggs-Onur-Reiffen-Zhu

- Message-level data from two largest D2C SEFs in index CDS, May 2016
- CDX IG+HY, iTraxx Europe+Crossover, on-the-run and first off-the-run
- Order sizes below block sizes (block trades can be off-SEF)
- CLOB: Very low trading volume
- Bilateral: About 64% of customer orders
- Auction (RFQ): About 36% overall, 42% for CDX and 24% for iTraxx

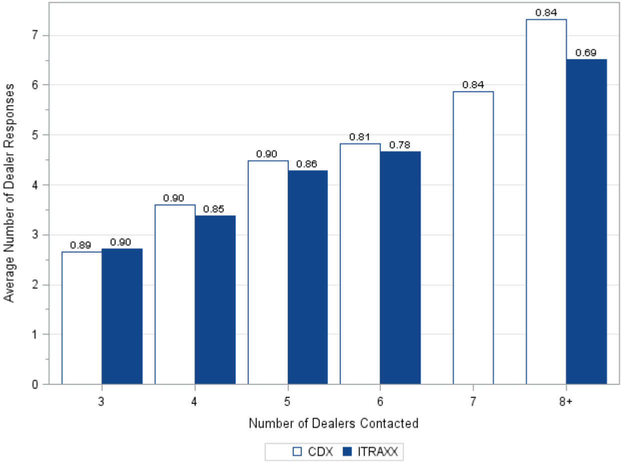
Index CDS Markets, D2C



In an average RFQ, customers contact only 4 dealers (out of 20).



Dealers' response rates are high but decrease as competition increases.



Why Is Multilateral Trading Sparse on D2C SEFs?

Winner's curse problem, arising from the two-tiered market structure:

- Dealers use D2D SEFs to lay off unwanted positions.
- E.g., you won an order by outbidding 9 other dealers on the D2C SEF.
  → 9 dealers do not want this order as much as you did.
  → You expect significantly worse D2D price in laying it off.
- Customer contacting more dealers in RFQ → Increased competition but worse winner's curse

Relationship. Data show:

- Customers send more RFQs to dealers with whom they trade more in the past.
- Dealers' response rates to relationship customers are mildly higher, but no price difference.

Better Market Design?

Recall winner's curse is created by market segmentation (D2D vs D2C).

Eliminating this bifurcation should significantly increase competition and improve market quality. e.g., stricter enforcement of impartial access

- Customers should have access to D2D SEFs, and they should be permitted to provide liquidity (see also Duffie 2017).
- Buy-side argues that post-trade name give-up discourages them from using D2D SEFs (see Managed Fund Association 2015). To date, CFTC has not announced planned action on post-trade name give-up.
- Swaps markets are global, so cross-border coordination is important.

In 1997, SEC implemented "order-handling rule"

- Rule permits investors to compete with dealers in providing liquidity.
- Rule requires Nasdaq dealers to publicly display their best quotes (which used to be shown only in private venues).
- ......

→ Bid-ask spread fell by about 30% (see Barclay et al. 1999)

- Evidence on the SEF Trading Mandate

- Observations on the Clearing Mandate

Direct Clearing by Clients

U.S. supplementary leverage ratio (SLR) has unintended consequence on client clearing.

- Clients' cash margin counts toward total exposure of dealer banks.
- Some dealers exit client clearing, and market concentration goes up.
- Access to clearing has become a challenge.

Proposals aim to exempt initial margin from leverage calculation.

"Unintended benefits" of Basel III: Encourage direct clients access to CCPs, and the unbundling of clearing services

- Direct clearing is already in place (Eurex, LCH) or proposed (CME).
- Clients with abundant cash have little reason to rent dealer banks' balance sheet, now more costly.
- Clients with advanced technologies have little reason to rent dealer banks' back-office operations.
- Direct clearing enables the segregation of clients' margin, remote from fellow clients' default.
- Unbundling reduces antitrust concerns (see Chang 2016 and CDS Antitrust Litigation).

Compression

- Basel III's treatment on derivatives penalizes notional sizes and limits netting/offsets.
- Increased demand for trade compression—keep the same economic risk but with lower notional sizes (triOptima, SwapClear, etc.)
- Compression can be viewed as an pre-clearing step.
- Uncleared book → Compressed book → Cleared book
- Question: How much economic cost (funding, capital, systemic risk) is reduced in each step?
- Caution: Compression should not be viewed as a complete substitute for clearing. The presence of mandatory clearing keeps compression services competitive and accessible.

Looking Forward

U.S. SEF trading mandate—"Competition"

- Some pre-trade transparency, some competition among dealers
- A large part remains bilateral, and markets remain segmented.
- Suggestion: Eliminate market segmentation (e.g. stricter enforcement of open access) and continue the move toward all-to-all.

U.S. clearing mandate—"Basel III"

- Glass-half-full: Basel III forces banks and marketplaces to innovate in technology and new business models.
- Suggestion: Encourage (and monitor) innovations, such as direct clearing by clients, unbundling of clearing services, and trade compression, etc.

Concluding thought: How much (and which) activities should go through dealer banks?

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