

Session on Corporate Bond & CDS Markets

Financial System of the Future
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Two interesting and (under the surface) similar papers

- What is the effect of a recent innovation (platform/instrument) on the functioning and efficiency of the bond market?
- Compare trade level data on the innovation with trade level data from the market as a whole, aggregating up to focusing on behavior of dealers/traders per interval of time
- Find several interesting facts in each case documenting the importance of the innovation
- Similar criticism: to tease out the value added from the individual level data, need more careful modeling of trader incentives and distinction between individual and market changes
- Interesting dynamic possibilities particularly for studying stressed times, but just scratched the surface (and so much here that I'll skip those parts).

“The Electronic Evolution of Corporate Bond Dealers” by O’Hara and Zhou

How does the introduction of an electronic platform for corporate bonds affect the market?

Link MarketAxess data on electronic platform activity with TRACE data for trades

Traditional Platform in Corporate Bonds

- Dealer holds inventory
- Customer searches for a dealer; obtains a (limited number of) quotes
- Spreads greater for riskier bonds
 - Information frictions; holding costs
- Spreads greater for smaller lots
 - Transactions costs; monopoly power

Request for Quote process

- Customer sends buy/sell request and dealers can respond with bid/offer
- Reduces the cost of obtaining quotes
- Makes customer anonymous
- Prices in electronic venue provide more information: would like more detail on this (dealer sees more failed offers; buyer tests waters more easily?)

Previous results (using aggregate data): Introducing RFQ makes trading costs lower in more liquid, larger bond issues.

Main Findings of This Paper

- Voice trading costs are lower when customers trade with firms heavily engaged in e-trading that bond.
- Increasing e-trading of a bond correlates with reduced interdealer trading of the bond
- In periods of downgrades the relative activity in a bond moves from e-trading to voice trading

Other, general finding

- Market penetration is relatively slow
- Cost reduction dramatic over period observed, particularly for voice trading. Biggest cost reduction for small trades. Platform trading more important for investment grade bonds.
- Unlike other markets where electronic trading introduced, no entry of new dealers.

What should happen in theory?

Prices are imperfect because of

- Search costs
- Information costs

More specifically

- Market power
- Costs of holding inventory
- Adverse selection

An electronic platform could help on all these dimensions

Market Power Seems Important

Transactions costs highest for small trades lowest for large—not information or carrying costs but transactions costs or market power.

But cost differences are disappearing in electronic trading and seem to be continuing in voice trading.

Consistent with earlier findings: more active investors get a better deal (ease of switching)

What affects dealer costs?

- Why should electronic trading by that dealer (as opposed to electronic trading in that stock) affect the dealer's pricing?

Dealer cost of holding the stock is reduced by ready outlet through electronic trading. Ability to use bargaining power on customers is reduced through availability of electronic trading.

Both of these depend on how frequently the stock is traded electronically, not how frequently the dealer trades the stock electronically.

It is odd that a dealer who unexpectedly trades a large proportion that bond electronically also provides lower costs to voice traders in that bond that day.

Recommendations

1. Reconsider the formulation of that variable
2. See if active trading by dealer in one bond affects his voice trade pricing of other bonds

Price dispersion

- Similar reaction (the measure should be issue based, not dealer based)
- Reduced price dispersion can stem from overall reduction in dealer costs due to increase in offloading through e-trading. But to be effective and large, needs a competition channel.
- Indeed the results show that reduction in execution dispersal is greatest for the smallest trades, which would seem to be an argument for competition not for cost of carry.
- Finally, note these results are consistent with no entry—the platform is just taking away dealer rents.

“Credit Default Swaps and Corporate Bond Trading” by Czech

How does the presence of credit default swaps affect the market for corporate bond trading?

Combine DTCC CDS position data with Zen data on UK corporate bond trades

Main Findings of This Paper

- Investors with CDS positions in a particular issuer are more likely to buy that issuer's bonds. In periods of downgrades this activity is reinforced.
- In response to an increase in required margin, some dealer banks exited some CDS markets. Those dealer banks also reduced purchases and increased sales of corresponding bonds.
- Using frequency of non-centrally cleared CDS as an instrument, paper shows that mark-to-market losses in CDS induce sales in the bond market.

The relation between CDS and Bond Holdings

Credit default swaps can *complement* bonds: individuals can use CDS to hedge the risk of bond holdings (or short the two at the same time).

- Usefulness depends in part on regulatory capital requirements

Credit default swaps can *substitute* for bonds – as a cheaper, more liquid way of taking on or offloading the same risk (“crowding out”)

- Important to understand source of difference in liquidity

Some evidence of use of CDS to “double-down” on initial bond exposure risk.

Dynamic Complications

- Trading bonds is a movement *towards* a preferred portfolio. Are adjustments completed in a month?
- Is it important that the trade in the CDS is occurring at the same time, or that it has recently occurred or merely that it could occur?
(Liquidity spillover: the mere existence of the CDS market makes the bond market more liquid as well)

Hypothesis: Liquidity spillover dominates crowding out

- Actual result: Investors holding CDS contracts in a month buy more bonds in that month.
- Interesting fact, but meaning is unclear.
- For liquidity spillover, answer may be more relevant at market level rather than in terms of individual activity.
- For questions of complementarity, want the position, rather than the fact that activity exists. (CDS buyers and CDS sellers *both* buy more bonds).

Alternative explanation: Confounding of effects

- CDS provides a hedge; therefore purchasing CDS and purchasing corresponding bond is complementary.
- Selling CDS is indicative of expertise in a bond. Sellers of CDS are therefore more likely to be willing to buy to the bond for trading purposes.

Further complication: reverse causality

“Intuitively, it is possible that transactions in the corporate bond market determine composition of an investor’s CDS portfolio, and not vice versa”

In fact, the CDS market is the more liquid market; so surprises ought to lead to adjustment in CDS, holding bonds fixed.

So causality is *likely* to be reversed.

Paper's Response: Effect of 2015 Introduction of Increased Margin Requirement

- In markets where they exit CDS, they reduce holdings of bonds.
- Causality seems clear, but explanation is not:
 - CDS cost increases for dealer banks. They switch from sellers of protection to buyers.
 - Not a complements story; possibly an expertise story? (need to subdivide more carefully)

Effect of issuer downgrades

- Existence of CDS enables holder of downgraded bond to buy protection and avoid selling loan. Empirical results at market level already that introducing CDS increases liquidity of downgraded loans.
- What do we learn by examining individual investors? Answer: Investors with CDS positions provide liquidity around downgrades.
- Timing is tricky: did they already have the CDS position before the downgrade, or did they acquire it afterward?
- Note: CDS sellers also more likely to buy in downgrade. (again expertise)

General Question

We know agents active in one CDS market are likely to be active in many CDS markets. Is participation in a particular CDS market a proxy for participation in CDS?

The crucial right side variable has been “do you have a position in a CDS for this particular bond”—this variable is a combination of: do you know about CDS in general and are you active in this bond in particular.

As a baseline would be useful to compare behavior on particular bonds of agents who are not active in any CDS market with agents who are not active in that CDS market but are active in other CDS markets (while correcting for size)

Summary

- Two neat papers!
- Neat data sets, neat questions, neat findings, tantalizing extensions --and interpretations subject to further discussion.