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Basic Conclusions of Paper

CDS market is an alternative trading venue with respect to corporate bonds that is driven by the extent of illiquidity in the bond market
This alternative venue is used by both hedgers and speculators

Evidence that Bond Illiquidity Drives CDS Market: Herfindal Index

- One measure of the illiquidity of a CDS's underlying bonds is the extent of "fragmentation," as proxied by a Herfindal index
- O&Z find a negative relation between the index and net notional level of CDS trading (controlling for a firm's total bonds outstanding)
- Good evidence of illiquidity as a driver
 - fragmentation seems like a source of illiquidity and its causes – managerial decisions relating to capital structure – would seem exogenous to the existence or extent of a CDS market

• Evidence that Bond Illiquidity Drives CDS Market: Bond Turnover

- O&Z find a negative relation between turnover and net notional CDS trading
 - conclude this is further evidence that illiquidity drives the CDS market
- Turnover is less convincing evidence because causality could go in either direction
 - Das, Kalimipalli & Nayak (2012) show that the introduction of a CDS market significantly reduces both the average turnover level of the underlying bond and turnover's volatility
 - other measures of liquidity eg bid/ask spreads and measures of price sensitivity to order flow – though still subject to this problem, might be less sensitive
 - Important to find out because illiquidity caused by features of the structure of the bond market may be ameliorated by better regulation

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• Are There Other Drivers of the CDS Market Besides Illiquidity: Capital Requirements

- For a speculator, purchasing protection through a CDS requires less capital than shorting the underlying bond
- The importance of this driver might be measured by seeing how CDS trading varies with measures of the "tightness" of capital over time
- Lack of net notional data prior to 2008 means, however, this test may need to wait 5

• Are there other drivers of the CDS Market Besides Illiquidity: The Historical Record

- Total notional increased from \$6 trillion in 2004 to \$57 trillion in 2008
- What changed so radically?
 - unlikely it was a huge increase in bond mkt illiquidity
 - unlikely it was a huge increase in the demand for trading based on speculation or hedging

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– were there any important innovations?

Speculation and Hedging: the Role of Each in CDS Trading

- Each can be accomplished as well in the underlying market
 - speculation by selling the bond short
 - hedging by selling the bond
- Bond mkt illiquidity or some other factor might push one or both activities into the CDS mkt
- CDS trading has to be one, the other or both; no other reason to engage in it

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• O&Z conclude that both are significant

Evidence of the Role of Speculative Trading

- Extent of speculative trading should be a function of degree of disagreement among traders
- O&Z find a positive relation between net notional CDS trading and stock analyst disagreement concerning an issuer
- Good evidence that at least some CDS trading is speculative
 - is cross-sectional differences in disagreement as meaningful as differences over time?
- High trading volume in equity markets is associated with disagreement and speculation
 - addition to the gross notional level of CDS trading per time period roughly measures trading volume, shouldn't that be tested as well?⁸

Evidence of the Role of Hedging: Bonds Outstanding

- O&Z hypothesize that more bonds outstanding would lead to a greater demand for hedging
- O&Z find that net notional CDS trading is positively related to total amount of bonds outstanding (controlling for total debt)
- Good evidence that at least some CDS trading is hedging
- Makes sense since purely speculative markets do not appear to be sustainable

Evidence of the Role of Hedging: Loss of Investment Grade Rating

- O&Z find higher net notional CDS activity for issuers that lost their investment grade in the last five years
- Hypothesize that many bond holders need to hedge in such a situation and so this is more evidence of hedging in CDS mkt
- Less convincing than bonds outstanding
 - in the longer run can't the hedger just sell the bond
 - loss of rating may also correlate with more speculative trading

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Regulatory Implications

- Important to figure out (i) how much of the illiquidity in the bond market is due to fragmentation, and (ii) how much of this illiquidity is due to features of the mkt's structure that could be improved by regulation
- To the extent that it is the first
 - shows importance of any contribution regulation can make to a well functioning CDS mkt
- To the extent the second
 - CDS mkt may be the canary in the mine shaft suggesting need to solve problems in the bond market
 - Alternatively, if CDS mkt works sufficiently well, it may suggest bond market benign neglect is best