Talking point

CDS spreads widen under central clearing obligation

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Among the agreed derivatives market reforms, the central clearing of OTC derivatives contracts has a pivotal role that changes the existing risk management and collateralisation practices tremendously. Nevertheless, to date, there is little empirical evidence on the impact of the new market infrastructure on CDS spreads. Controlling for a number of factors, our results indicate that the costs of central clearing seem to be passed on to end-users in the form of increased CDS spreads.

G-20 leaders at their 2009 meeting in Pittsburgh agreed on initiatives to strengthen market infrastructures by regulating OTC derivatives markets including credit default swaps (CDSs)[1] which became the focus of regulatory attention in the aftermath of the financial upheaval of 2008/09. Notwithstanding the fact that CDSs act like simple insurance contracts that provide important hedging benefits and amount only to 4% of the overall over-the-counter (OTC) derivatives contracts outstanding, in the eyes of policymakers the counterparty risk involved in CDS trades and their largely uncollateralised nature increase the risk of contagion in the highly interconnected financial markets.

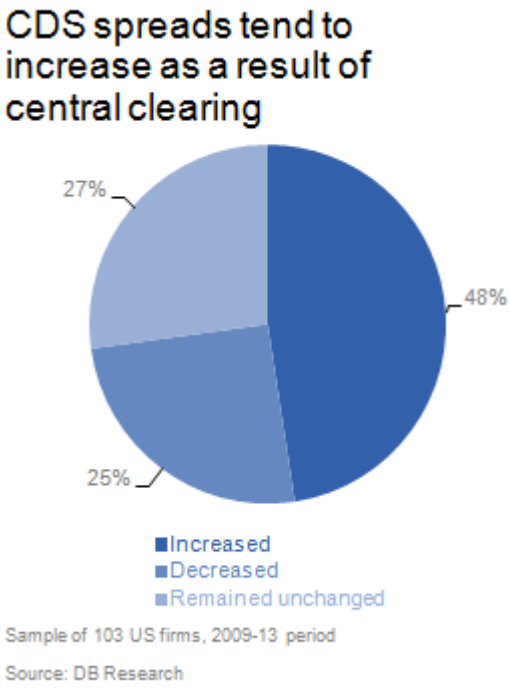
Among the agreed reforms that aim to increase transparency by moving derivatives trades to organised platforms (such as exchanges) and imposing mandatory reporting requirements as well as setting minimum capital and margining requirements for OTC trades, systematic control of cross-exposures by placing central clearing counterparties (CCPs) between the trading participants has pivotal importance. Given that CCPs interpose themselves between transacting parties and become the buyer and the seller of the same contract, the move to central clearing is a fundamental shift that significantly changes the existing risk management and collateralisation practices of the OTC environment.

In the meantime, the far-reaching change in market infrastructure with the introduction of CCPs undoubtedly affects the value of derivatives contracts, e.g. by impacting CDS spreads. Nonetheless, the magnitude and even direction of the development of CDS spreads after the introduction of central clearing are not obvious, a priori. On the one hand, market participants and policymakers agree that new risk management and collateralisation practices will increase the cost of derivatives trades. Indeed, the increase in trading costs may be reflected in an increase in CDS spreads, through which the higher costs are passed on to end-users.[2] On the other, it is widely accepted that imbalances in information flows lead to liquidity shortages in financial markets. In this respect, an increase in the liquidity of centrally cleared CDSs could work in the opposite direction and in fact reduce CDS spreads.

Increase in CDS spreads of the centrally cleared derivatives

To assess the impact of central clearing on CDS spreads, we use a sample of single-name US corporate CDS contracts (103 firms) from 10 different sectors that were centrally cleared between January 2009 and June 2013. Academic research has found that a firm's leverage ratio and the volatility of its share price as well as the short-term risk-free interest rate are the main determinants of credit risk. In order to focus on the net effect of central clearing, we run an empirical model that controls for time-specific effects in the data and the three main drivers of credit risk.[3] The results of our analysis are statistically significant and worth highlighting:

- On average, CDS spreads increase by 9 bp as a result of central clearing.
- Among firms whose CDSs are centrally cleared, 48% see an increase in CDS spreads whereas only 25% exhibit a decrease. For 27%, central clearing has no impact on spreads.
- In line with the previous pioneer literature,[4] an increase in a firm's leverage ratio and its share price volatility also increase CDS spreads. The short-term risk-free interest rate has the opposite effect through its role in the discount factor.



Even though our results point towards higher CDS spreads for centrally cleared instruments, the increase in spreads could be even greater once the regulatory rules have been fully implemented. Indeed, we had to restrict our analysis to a narrow number of companies due to the fact that central CDS clearing, to date, is only available for a limited number of firms that have high credit ratings and relatively stable share prices. Thus, using central clearing for a much larger sample of companies may further boost the magnitude of the increase in CDS spreads.

All in all, our results indicate that with the introduction of the new market infrastructure, investors that use CDS contracts to hedge their exposures may face higher premiums and may need to revise their hedging practices.

[1]The regulatory reforms are implemented by the Dodd-Frank Act in the US and by EMIR and MiFID 2 in Europe.

[2] In the eyes of some observers, the counterparty risk is priced in the CDS spreads and an increase in counterparty risk leads to a decrease in the CDS spreads. Consequently, a reduction in counterparty risk with the introduction of central clearing could be reflected in an increase of CDS spreads simultaneously. Nevertheless, the recent academic literature shows that the effect of counterparty risk on CDS spreads is almost negligible and economically insignificant.

[3] We use quarterly dummy variables in the model to control for time fixed effects in the data. We run this model with daily observations for each firm separately.

[4] See [Ericsson, J., Jacobs, K., and Oviedo, R., (2009), "The determinants of credit default swap premia," Journal of Financial and Quantitative Analysis, 44, 109-132] and [Zhang B.Y., H. Zhou and H. Zhu, (2009), "Explaining Credit Default Swap Spreads with the Equity Volatility and Jump Risks of Individual Firms," Review of Financial Studies, 22, 5099-5131] for a detailed discussion.

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