

“Credit Contagion from Counterparty Risk”

Philippe Jorion and Gaiyan Zhang

Discussion

Jun Yang

Bank of Canada

Fixed Income Market Conference

Related Literature

- Default clustering

Das, Duffie, Kapadia, and Saita (JF 2007): existing reduced-form models using common factors cannot generate sufficient dependencies across firms to reproduce the observed default patterns.

- Credit contagion

-- theoretical papers: Collin-Dufresne, Goldstein, and Helwege (WP 2003), Giesecke (JBF 2004), Jarrow and Yu (JF 2001).

-- empirical papers:

Jorion and Zhang (JFE 2007): industry contagion

This paper: counterparty contagion

This Paper

- Identify counterparty relationship from Chapter 11 bankruptcy filings.
 - Industrial firms: mainly trade credits
 - financial firms: mainly loans
- Apply event study method with stock and CDS data to investigate the effect of counterparty contagion.
- It is expected that the effect of counterparty default on industrial firms is larger than that on financial firms because of the cascading effect in addition to the immediate default loss.

Main Results

- The effect of a counterparty default on industrial firms is larger and lasts longer than financial firms.
- The cross-sectional counterparty effects are significantly related to creditor characteristics, such as the exposure ratio, recovery rate, correlation of equity returns, and volatility of the creditor
- Simulation results suggest the economic importance of counterparty risk in managing portfolio risk.

Comments (1)

- Are markets efficiently pricing counterparty risk?

Table III CAR (Industrial Firms)		
Day	Mean(%)	T-statistic
-1,1	-0.93	-3.68***
-5,5	-2.29	-4.73***
-5,65	-9.56	-7.77***

Comments (1)

- Is there a cluster of negative news about the creditor?
- If not, why delayed response in the equity market?
- Market friction:
 - Avramov, Chordia, Jostova, and Philipov (WP 2007) studies negative stock returns for financial stressed firm around rating downgrade.
 - They relate predictable stock returns to market frictions, such as information uncertainty, illiquidity, and high short-sell cost.

Comments (1)

- Behavior:
 - Cohen and Frazzini (JF 2008): uses investor inattention to explain delayed response of the stock price of a firm to the news about an economic linked firm.
- In this paper, is the delayed response due to market friction or investor inattention?
- Could you construct trading strategy to make profit?

Comments (1)

- There is also delayed response in the CDS market.

Table IV Abnormal CDS Spread (Industrial Firms)

Day	Mean(%)	T-statistic
-1,1	2.47	-3.17***
-5,5	-5.58	-3.74***
-5,65	-15.41	-4.06***

Comments (1)

- It could be more difficult to use market frictions to explain the delayed response in the CDS market because short-sell cost should be low.
- Could you construct trading strategy in CDS market to make profit?

Comments (2)

- Is default anticipated?

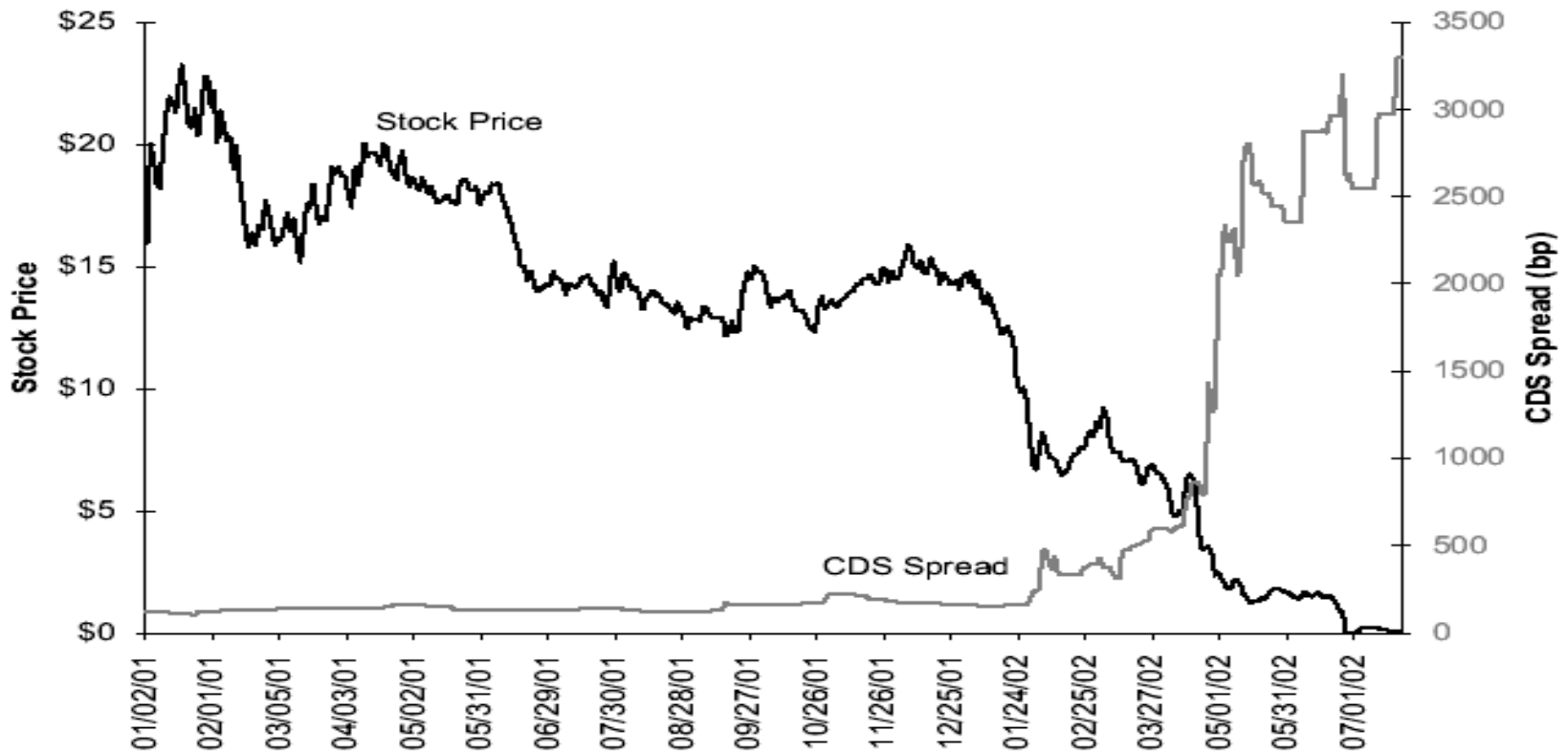


Fig. 1. CDS Spread and Stock Price of WorldCom Inc.

Comments (2)

- There seems to be big movements in the equity and CDS markets for the borrower before it defaults.
- It would be interesting to study the response of the equity and CDS for the creditor when those big movements happened.
- It might strengthen the results if you study those big movements.

Comments (3)

- How much information does the market know about the counterparty relationship?
- We would expect the equity and CDS response would be higher if the market knows less about the relationship.
- The degree of information the market knows about the relationship may be related to the correlation of equity returns between the creditor and borrower.

Comments (3)

- If a low correlation indicates more diversified cash flows for a creditor, the equity and CDS response could be smaller for the creditor who has a lower correlation with the borrower.
- However, if a high correlation indicates that the market knows a lot about the business relationship, the equity and CDS response might be smaller for the creditor who has a high correlation with the borrower.

Conclusion

- Very nice empirical study on counterparty risk.
- It has important implications for managing portfolio risk.