



The Levy Economics Institute of Bard College

Policy Note

2006 / 1

CREDIT DERIVATIVES AND FINANCIAL FRAGILITY

EDWARD CHILCOTE

On September 15, the Federal Reserve convened 14 large credit derivatives–dealer banks to an unusual meeting (Beales 2005b). The last such meeting occurred on September 16, 1998, in secret. At that time, a major financial institution was melting down and threatening to take some large banks with it. This time they met to discuss the same topic: the clearing of transactions in the credit derivatives market.

In 1998, the major Wall Street banks orchestrated a \$3.65 billion bailout of a hedge fund called Long-Term Capital Management. The fund had entered into thousands of derivative contracts and was intertwined with every major bank on Wall Street (Lowenstein 2001, p. xix). If Long-Term Capital Management had defaulted, its counterparties would have been left holding one side of contracts for which there was no offset. Analysts expressed concern that banks would rush to neutralize exposure from their one-sided positions and that this rush might overwhelm the markets. Fearing that a run might ensue and foreseeing the potential difficulties of an unraveling of the derivative swaps, banks decided to act.

Long-Term Capital Management did not disclose its risk or positions to investors or counterparties. The fund was highly leveraged. In one trading day it lost \$533 million—one-third of its equity (Lowenstein 2001, p. 191). Banks also suffered large losses (p. 170). In the days of this unraveling, capital was scarce. Then–Treasury Secretary Robert Rubin (1998) characterized the

EDWARD CHILCOTE is a research scholar at the Levy Institute. He gratefully acknowledges comments from Martin Mayer. The author bears sole responsibility for any errors in this Policy Note.

The Levy Economics Institute is publishing this research with the conviction that it is a constructive and positive contribution to the discussion on relevant policy issues. Neither the Institute's Board of Governors nor its advisers necessarily endorse any proposal made by the author.

Copyright © 2006 The Levy Economics Institute

time and events as the “most serious financial crisis in many respects of the last 50 years.”

In the last few months, a number of developments have affected the credit derivatives market. In particular, the downgrading of the corporate bonds of Ford and General Motors by rating agencies stunned the credit derivatives market. The cost of insuring some of General Motors’ debt through credit derivatives rose fourfold in five months (Gilbert 2005). Hedge funds lost hundreds of millions of dollars, owing to their exposure to derivative contracts and the downgrading of General Motors’ and Ford’s debt in May (Whitehouse 2005).

Credit derivatives are bilateral contracts that transfer credit risk between parties. Some credit derivatives divide bonds into parts to make bond trading less risky for some parties. Banks pool different corporate bonds and cut these pools into sections called tranches. Each tranche bears some risk. The riskiest tranche, while offering the highest return, absorbs the first portion of any loss a pool suffers.

Another type of credit derivative is the credit-default swap. Credit-default swaps insure pools of corporate bonds against credit losses. Credit-default swaps are contracts between counterparties in which the protection seller agrees to compensate the protection buyer if some “credit event,” such as a default, occurs. It is a guarantee—a credit insurance policy. The seller of the protection receives a fee up front for agreeing to provide protection against some possible future credit event. The party that assumes the credit risk must provide funding in the future if and when a credit event occurs (Rule 2001). If there is a default, the insurer or owner of the credit default obligation absorbs the loss. If the probability of default increases, then the cost of protection rises. So if the party that sold protection wants to get out of the contractual obligation, it has to pay a higher price to get some other party to do the insuring.

Credit derivatives such as credit-default swaps introduce counterparty risk. Counterparty risk is the risk that the other party to a contract will not be able to meet its contractual obligation. Contractual arrangements link counterparties and increase systemic risk: if one fails, there is a higher likelihood that those around it will also fail. Close interconnection means that the financial performance of one institution is linked to the financial performance of its many counterparties.

Many credit derivatives pose systemic risk to the financial system because they do not require credit-loss reserving. They

are pay-as-you-go. Paying for credit losses as they come due—rather than reserving for them in advance—is unsound, because funding might not be available when it is needed. In some cases, the introduction of credit derivatives allows conventional credit-loss reserving to be circumvented.

Against this backdrop, evidence shows that banks are providing less for loan-loss reserves. The Federal Deposit Insurance Corporation statistics on loan-loss provisioning suggest that bank regulation today is more lax than at any time since the early 1970s. In 2003, the provision-to-net-credit-loss rate stood at 91.84 percent. In 2004, it dropped to 89.88 percent. This ratio shows the amount of dollars provided for loan-loss reserves over the actual dollars depleted from these reserves to cover net credit losses. A ratio below 1 means that credit-loss reserves are shrinking. In the last 30 years, there have been only five years where this ratio has fallen below 1. In 2003 and 2004, the ratio reached its lowest points since 1971. This decline is occurring while loan growth is expanding.

The current legal structure entices counterparties in derivative contracts to act as first movers. The U.S. bankruptcy code affords parties in financial derivative contracts exemption from the “automatic stay.” This exemption allows counterparties to terminate derivative contracts and seize collateral with debtors that are in bankruptcy (Edwards and Morrison 2004, p. 3). Exemption from the automatic stay exacerbates systemic risk. Edwards and Morrison point out that a chain reaction—a run—might have ensued, had one of Long-Term Capital Management’s counterparties terminated or liquidated its derivative contracts (p. 11). Long-Term Capital Management’s derivative positions were unwound in an orderly fashion because of the Federal Reserve’s oversight and intervention (p. 12). Edwards and Morrison suggest that if the special provisions in the bankruptcy code had not existed, the threat of an abrupt or disorderly closeout of Long-Term Capital Management’s position would not have been possible (p. 13). They say that the exemption from the automatic stay provision of the bankruptcy code gives derivatives institutions incentives to run on financially distressed counterparties (p. 16).

Many hedge funds and a few pension funds that specialize in credit-default swaps and other credit derivative instruments are secretive and unregulated. They do not disclose their risk to counterparties. It came as a surprise to counterparties to learn of Long-Term Capital Management’s financial position in 1998

(Lowenstein 2001, p. xxi). Banks and other financial institutions that have counterparty contracts with hedge funds are exposed in ways that even they are not completely clear about.

Unlike 1998, when there were fewer players and a smaller market, today's market is large and expanding. According to the International Swaps and Derivatives Association *Mid-Year 2005 Market Survey*, the notional amount for credit derivatives in the first half of the year stood at \$12.43 trillion. The annualized growth rate for the first six months of 2005 was 128 percent (International Swaps and Derivatives Association 2005). According to the *Financial Times*, currently there are huge backlogs of paperwork; some transactions have remained unconfirmed for "months or even years" (Beales 2005a).

Hedge funds are typical sellers of these derivatives and receive large sums of money for the pledge to pay in the event of default. The credit derivatives market has never been tested during a serious downturn, when the incidence of credit defaults rises. According to the *Wall Street Journal*, foreign investors are purchasing some of the riskiest assets (Hagerty and Simons 2005). This complicates any potential bailout.

A possible scenario is that many hedge funds will fail simultaneously from exposure to credit derivatives, and banks will rush to buy contracts to cover their exposure. A declaration of bankruptcy by a major corporation would put further pressure on the credit derivatives market. The market might become illiquid, and the potential for a cascade of losses could rise. Under such stress, a run on the assets of troubled institutions that have counterparty contracts would become more likely.

Federal Reserve Chairman Alan Greenspan contends that the economy is resilient because new developments, such as the growth of credit derivatives, bring enhanced flexibility. He argues that flexibility reduces the need for government action: "Enhanced flexibility provides the advantage of allowing the economy to adjust automatically, reducing the reliance on the actions of monetary and other policymakers, which have often come too late or been misguided" (Greenspan 2005a). He asserts that if the economy maintains an adequate degree of flexibility, the large imbalances will self-correct. Shortly before the collapse of Long-Term Capital Management in 1998, Greenspan was echoing a similar view about flexibility in the regulation of the derivatives market. In February 1997, he argued that government regulation of the off-exchange derivatives between institutional counterparties would be rash: "It would also seem

unwise to unnecessarily impede competition in the provision of centralized trading or clearing facilities to derivative transactions that are currently negotiated and cleared bilaterally." On September 16, 1998, in the midst of the collapse of Long-Term Capital Management, and while his colleagues were actively intervening to shore up problems in the financial market, Greenspan testified before Congress, "Market pricing and counterparty surveillance can be expected to do most of the job of sustaining safety and soundness."

Greenspan continues to stress the theme that private markets are effective at managing risk. Greenspan believes credit derivatives have had a stabilizing influence on the economy. Speaking before a conference on bank structure, he said: "The development of credit derivatives has contributed to the stability of the banking system by allowing banks, and especially the largest, systemically important banks, to measure and manage credit risk more effectively" (Greenspan 2005b). At a recent meeting, he cited the credit crunch of the early 1990s and the bursting of the stock market bubble as proof of the economy's continued "resilience" (Greenspan 2005a).

While Greenspan expresses confidence that the market will resolve any problems on its own, one lesson relearned from the disaster in New Orleans—about expecting the future to be similar to the recent past—is that prudence dictates anticipating events, however unlikely, and working to counteract any potential negative impact. Engineers had warned for years that the levees could break in a large storm. The fact that the levees had not been breached in the recent past should not have been grounds for complacency. The events that unfolded should not have come as a surprise to government officials. Small incidents, such as a levee breaking, can trigger larger, more serious events, such as flooding. Faith in "resilience" may not get us through the next crisis. Decisive action to head off a future crisis in the credit derivatives market is needed. Standardizing trading documentation, imposing time limits for clearing transactions, mandating strict margin requirements, rewriting the bankruptcy code, requiring better public disclosure, and overseeing capital adequacy and loss reserves for institutions engaged in the credit derivatives market would be a good start.

References

- Beales, Richard. 2005a. "Is Fed Preaching to the Converted?" *Financial Times*, September 15.
- . 2005b. "Three Yards and a Cloud of Dust." *Financial Times*, September 8.
- Edwards, Franklin R., and Edward R. Morrison. 2004. "Derivatives and the Bankruptcy Code: Why the Special Treatment?" Working Paper No. 258. New York: Columbia Law School: The Center for Law and Economic Studies.
- Federal Deposit Insurance Corporation. 2005. Historical Statistics on Banking. www2.fdic.gov/hsob/SelectRpt.asp?EntryTyp=10
- Gilbert, Mark. 2005. "Still Think Ford, General Motors Can't Go Bust?" *Bloomberg Online*, May 6.
- Greenspan, Alan. 2005a. "Reflections on Central Banking." Remarks at a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 26. www.federalreserve.gov/boarddocs/speeches/2005/20050826/default.htm
- . 2005b. "Risk Transfer and Financial Stability." Speech to the Federal Reserve Bank of Chicago's 41st Annual Conference on Bank Structure, Chicago, Illinois (via satellite), May 5. www.federalreserve.gov/boarddocs/speeches/2005/20050505/default.htm
- . 1998. Testimony on the international economic and financial system before the Committee on Banking and Financial Services of the U.S. House of Representatives, September 16. www.bis.org/review/r980918d.pdf
- . 1997. Remarks on government regulation and derivative contracts at the Financial Markets Conference of the Federal Reserve Bank of Atlanta, Coral Gables, Florida, February 21.
- Hagerty, James R., and Ruth Simons. 2005. "Mortgage Risk: A Hot Export." *Wall Street Journal*, September 22.
- International Swaps and Derivatives Association. 2005. *ISDA Mid-Year 2005 Market Survey: Credit Derivatives at \$12.43 Trillion*. New York, September 28.
- Lowenstein, Roger. 2001. *When Genius Failed: The Rise and Fall of Long-Term Capital Management*. New York: Random House.
- Rubin, Robert. 1998. Remarks at Yale Law School, New Haven, Connecticut. October 17. www.treas.gov/press/releases/rr2762.htm

- Rule, David. 2001. "The Credit Derivatives Market: Its Development and Possible Implications for Financial Stability." *Financial Stability Review*, June: 117–140.
- Whitehouse, Mark. 2005. "How a Formula Ignited a Market That Burned Big Investors." *Wall Street Journal*, September 12.

Recent Levy Institute Publications

POLICY NOTES

Credit Derivatives and Financial Fragility

EDWARD CHILCOTE

2006/1

Social Security's 70th Anniversary: Surviving 20 Years of Reform

L. RANDALL WRAY

2005/6

Some Unpleasant American Arithmetic

WYNNE GODLEY

2005/5

Imbalances Looking for a Policy

WYNNE GODLEY

2005/4

Is the Dollar at Risk?

KORKUT A. ERTÜRK

2005/3

Manufacturing a Crisis: The Neocon Attack on Social Security

L. RANDALL WRAY

2005/2

The Case for an Environmentally Sustainable Jobs Program

MATHEW FORSTATER

2005/1

Those "D" Words: Deficits, Debt, Deflation, and Depreciation

L. RANDALL WRAY

2004/2

LEVY INSTITUTE MEASURE OF ECONOMIC WELL-BEING

Interim Report 2005: The Effects of Government Deficits and the 2001–02 Recession on Well-Being

EDWARD N. WOLFF, AJIT ZACHARIAS, and HYUNSUB KUM
May 2005

Economic Well-Being in U.S. Regions and the Red and Blue States

EDWARD N. WOLFF and AJIT ZACHARIAS
March 2005

How Much Does Public Consumption Matter for Well-Being?

EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
December 2004

How Much Does Wealth Matter for Well-Being? Alternative Measures of Income from Wealth

EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
September 2004

Levy Institute Measure of Economic Well-Being:

United States, 1989, 1995, 2000, and 2001

EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
May 2004

Levy Institute Measure of Economic Well-Being:

Concept, Measurement, and Findings: United States, 1989 and 2000

EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
February 2004

STRATEGIC ANALYSES

The United States and Her Creditors: Can the Symbiosis Last?

WYNNE GODLEY, DIMITRI B. PAPADIMITRIOU,
CLAUDIO H. DOS SANTOS, and GENNARO ZEZZA
September 2005

How Fragile Is the U.S. Economy?

DIMITRI B. PAPADIMITRIOU, ANWAR M. SHAIKH,
CLAUDIO H. DOS SANTOS, and GENNARO ZEZZA
March 2005

Prospects and Policies for the U.S. Economy:

Why Net Exports Must Now Be the Motor for U.S. Growth

WYNNE GODLEY, ALEX IZURIETA, and GENNARO ZEZZA
August 2004

PUBLIC POLICY BRIEFS

The Ownership Society

Social Security Is Only the Beginning . . .

L. RANDALL WRAY
No. 82, 2005 (Highlights, No. 82A)

Breaking Out of the Deficit Trap

The Case Against the Fiscal Hawks

JAMES K. GALBRAITH
No. 81, 2005 (Highlights, No. 81A)

The Fed and the New Monetary Consensus

The Case for Rate Hikes, Part Two

L. RANDALL WRAY
No. 80, 2004 (Highlights, No. 80A)

The Case for Rate Hikes

Did the Fed Prematurely Raise Rates?

L. RANDALL WRAY
No. 79, 2004 (Highlights, No. 79A)

The War on Poverty after 40 Years

A Minskyan Assessment

STEPHANIE A. BELL and L. RANDALL WRAY
No. 78, 2004 (Highlights, No. 78A)

This Policy Note and all other Levy Institute publications are available online on the Institute website, www.levy.org.

To order a Levy Institute publication, call 845-758-7700 or 202-887-8464 (in Washington, D.C.), fax 845-758-1149, e-mail info@levy.org, write The Levy Economics Institute of Bard College, Blithewood, PO Box 5000, Annandale-on-Hudson, NY 12504-5000, or visit our website.

The Levy Economics Institute of Bard College

Blithewood

PO Box 5000

Annandale-on-Hudson, NY 12504-5000

NONPROFIT ORGANIZATION

U.S. POSTAGE PAID

BARD COLLEGE

Address Service Requested