

Chapter 10: Executive Summary

Derivatives - The Ultimate Financial Innovation

Viral V. Acharya, Menachem Brenner, Robert Engle,
Anthony Lynch and Matthew Richardson

Background

Derivatives are financial contracts whose value is derived from some underlying asset. These assets can include equities, bonds, exchange rates, commodities, and residential and commercial mortgages. The more common forms of these contracts include options, forwards/futures and swaps. A considerable portion of financial innovation over the last 30 years has come from the emergence of derivative markets. Generally, the benefits of derivatives fall into the areas of (i) hedging and risk management, (ii) price discovery, and (iii) enhancement of liquidity. Even in the current financial crisis, the derivative scapegoat, credit default swaps (CDS), has played some positive roles. For example, CDSs enabled lenders to hedge their risk and offer loans. When the securitization market for loans, bonds and mortgages shut down in the summer of 2007, a number of financial institutions were left holding large loan portfolios. Using the CDS market, some of these financial institutions smartly hedged their risk exposure. In addition, CDSs and other credit derivatives have played a very important role in disseminating information to both the public and to regulators by judging the quality of financial firm's bankruptcy prospects in a remarkably prescient way, from providing credit risk estimates that were central to the U.K. government's bailout plan, and from revealing declines in values of subprime-backed assets in early 2007.

The Issues

For over 30 years derivatives markets functioned very well, so what went wrong this time?

The problems that arose were not associated with all derivatives, but primarily with over-the-counter (OTC) derivatives and, in particular, the newer credit derivative market. And, even then, the issue should not be with the derivatives as an instrument, but with (i) the way they were traded and cleared, and (ii) how they were used by some financial institutions to increase their exposure to certain asset classes.

Double counting of contracts aside, the CDS and CDO markets are nevertheless huge, having grown to well over \$50 trillion in notional amounts in a short period of time. Yet there was a complete lack of transparency about the underlying exposures of financial institutions to this market. In the OTC market, because contracts are bilateral, no one knows precisely what the total exposure is, where

it is concentrated, what the values of such contracts are, and so forth. In the current crisis, this effect was amplified by the complexity of credit derivatives, and especially the subprime CDOs on which, to this date, we still do not have a handle.

Each financial institution and market participant will act in their own interest to manage their risk/return tradeoff. These actions may not take into account the spillover risk throughout the system. The most important principle underlying the regulation of derivatives must encircle two primary issues: (i) counterparty credit risk exposure which can generate illiquidity and can cause markets to break down, and (ii) capital erosion which, if large and concentrated in institutions that provide liquidity to the financial system, can cause the financial system to break down.

The policy issues are therefore as follows:

- Should the current “no regulation” status of OTC derivatives be changed?
- Given the potential systemic risk of credit derivatives, in particular CDSs, what arrangements (regulations) should be considered?
- Given the opaque nature of these markets, what reporting requirements should be in place?

Policy Recommendations

1. Since they have the same economic value, there is no reason why regulation of OTC derivatives should not be of a similar nature to those traded on an exchange. One-off OTC transactions could be exempted. Jurisdictional issues need to be resolved.
2. OTC markets that grow “sufficiently large” should be migrated to either Clearing House or Exchange market structures – the CDS market being one prime candidate. Note that the main reason for systemic risk in OTC markets is that bilaterally set collateral and margin requirements in OTC trading do not take account of the counterparty risk externality that each trade imposes on the rest of the system, thus allowing systemically important exposures to be built up without sufficient capital to mitigate associated risks. With appropriate collateral and margin requirements, the Clearing House or Exchange structures could have little to no counterparty credit risk.
3. To increase transparency throughout the system, trade-level information for some OTC markets, in particular the CDS market, on volume and prices seems a reasonable requirement. There would be no need to reveal who is trading or the amount traded above a certain level. This is a feature of most markets and is now a feature of the corporate bond market, which was hitherto entirely OTC but now has trade-level disclosure to TRACE. The TRACE system is a good model and has been quite successful.

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