Harvard Law School Forum on Corporate Governance

Why re-regulating derivatives can prevent another disaster

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When credit markets froze up in the fall of 2008, many economists pronounced the crisis both inexplicable and unforeseeable. That's because they were economists, not lawyers.

Lawyers who specialize in financial regulation, and especially the small cadre who specialize in derivatives regulation, understood what went wrong. (Some even predicted it.) [1] That's because the roots of the catastrophe lay not in changes in the markets, but changes in the law. Perhaps the most important of those changes was the U.S. Congress's decision to deregulate financial derivatives with the Commodity Futures Modernization Act (CFMA) of 2000.

It was the deregulation of financial derivatives that brought the banking system to its knees. The leading cause of the credit crisis was widespread uncertainty over insurance giant AIG's losses speculating in credit default swaps (CDS), a kind of derivative bet that particular issuers won't default on their bond obligations. Because AIG was part of an enormous and poorly-understood web of CDS bets and counter-bets among the world's largest banks, investment funds, and insurance companies, when AIG collapsed, many of these firms worried they too might soon be bankrupt. Only a massive $180 billion government-funded bailout of AIG prevented the system from imploding.

This could have been avoided if we had not deregulated financial derivatives.

Derivatives "De"regulation?

Wait a minute, some readers might say. What do you mean, "de"regulated derivatives? Aren't derivatives new financial products that have never been regulated?

Well, no. Derivatives have a long history that offers four basic lessons. First, derivatives contracts have been used for centuries, possibly millennia. Second, healthy economies regulate derivatives markets. Third, derivatives are regulated because while derivatives can be useful for hedging, they are also ideal instruments for speculation. Derivatives speculation in turn is linked with a variety of economic ills—including increased systemic risk when derivatives speculators go bust. Fourth, derivatives traditionally are regulated not through heavy-handed bans on trading, but through common-law contract rules that protect and enforce derivatives that are used for hedging purposes, while declaring purely speculative derivative contracts to be legally unenforceable wagers.

A Brief History of Derivatives

Finance economists and Wall Street traders like to surround derivatives with confusing jargon. Nevertheless, the idea behind a derivative contract is quite simple. Derivatives are not really "products" and they are not really "traded." They are simple bets on the future—nothing less, and nothing more. Just as you might bet on which horse you expect to win a horse race and call your betting ticket your "derivative contract," you can bet on whether interest rates on bank deposits will rise or fall by entering an interest rate swap contract, or bet on whether a bond issuer will repay its bonds by entering a credit default swap contract.

These sorts of commercial wagers are neither new nor particularly innovative. Although derivatives have gone by many different names, derivatives contracts have been around for centuries. (Readers are invited to read the 1884 U.S. Supreme Court case of Irwin v. Williar, **[2]** which demonstrates both that derivatives trading was common in the nineteenth century—although derivatives were then called "difference contracts" —and that derivatives were subject even then to regulation.) Originally, most commercial derivatives were bets on the future prices of agricultural commodities, like the rice derivatives traded in Japan in the fifteenth century or the corn and wheat futures still traded on the Chicago Mercantile Exchange today. To use the language of derivatives traders, the "underlying"—that is, the thing being bet upon—was the future market price of rice, wheat, or corn.

The first "financial" derivatives, in the form of stock options, became common in the 1800s. The 1990s saw an explosion in other types of derivatives contracts, including bets on interest rates (interest rate swaps), credit ratings (credit default swaps), and even weather derivatives. By 2008, the notional value of the derivatives market—that is, the size of the outstanding bets as measured by the value of the things being bet upon—was estimated at $600 trillion, **[3]** amounting to about $100,000 in derivative bets for every man, woman, and child on the planet.

This sudden development of an enormous market in financial derivative contracts was not the result of some new idea or "innovation." Rather, it was a consequence of the steady deregulation of financial derivatives trading.

A Brief History of Derivatives Regulation

Just as derivatives have been around for centuries, so has derivatives regulation. In the U.S. and U.K., derivatives were regulated primarily by a common-law rule known as the "rule against difference contracts."

The rule against difference contracts did not stop you from wagering on anything you liked: sporting contests, wheat prices, interest rates. But if you wanted to go to a court to have your wager enforced, you had to demonstrate to a judge's satisfaction that at least one of the parties to the wager had a real economic interest in the underlying and was using the derivative contract to hedge against a risk to that interest.

Because, of course, wagers can be used to hedge against risk. For example, if you own a corporate bond and you are worried the issuer might default, you can reduce your risk by entering a CDS contract, essentially betting against the issuer's creditworthiness. If the bond decreases in value, the CDS will increase in value. Similarly, if you own a $500,000 home, you can hedge against the risk your home will burn down by making a bet with an insurance company that will pay off $500,000 if the home actually burns. (Most of us call these wagers "homeowner's insurance," although a typical Wall Street derivatives dealer might label them "home value swaps.") Using derivatives this way is truly hedging, and it serves a useful social purpose by reducing risk.

But as judges have recognized for centuries, at least until recently, derivative bets are also ideally suited for pure speculation. Speculation is the attempt to profit not from producing something, or even from providing investment funds to someone else who is producing something, but from predicting the future better than others predict it. **[4]** A speculator might, for example, try to make money predicting wildfires by buying home insurance on houses in Southern California without actually buying the houses themselves. Similarly, a speculator might hope to make money betting on a company's fortunes by buying CDS on the company's bonds without buying the bonds themselves. Unlike hedging, which reduces risk, speculation increases a speculator's risk in the much same way that betting at the track increases a gambler's risk. Highly-speculative markets are also historically associated with asset price bubbles, reduced returns, price manipulation schemes, and other economic ills.

Common-law judges accordingly viewed derivatives speculation with suspicion. Under the rule against difference contracts and its sister doctrine in insurance law (the requirement of "insurable interest"), derivative contracts that couldn't be proved to hedge an economic interest in the underlying were deemed nothing more than legally unenforceable wagers.

This didn't mean derivatives couldn't be used to speculate. But the rule against difference contracts forced speculators to think about how they could make sure their fellow gamblers paid their bets. The answer was for the speculators to set up private exchanges with membership requirements, margin requirements, netting requirements, and a host of other rules designed to make sure that, despite the legal invalidity of speculative derivatives contracts, speculating traders would

make good on their contract promises. In the process, the exchanges kept derivatives speculation in check and under controlled conditions. Eventually, the control was increased when government regulators like the Commodities Futures Trading Commission (CFTC) and Securities Exchange Commission (SEC) were empowered to oversee trading on particular exchanges. Meanwhile, off the exchanges, the rule against difference contracts kept "over the counter" speculation in derivatives in check.

At least, it kept speculation in check until the rule was dismantled. The dismantling process began when the United Kingdom passed its Financial Services Act of 1986, "modernizing" the UK's financial laws by eliminating the old rule against difference contracts and making all financial derivatives, whether used for hedging or for speculation, legally enforceable. US regulators, worried that Wall Street banks might lose out on a lucrative new market, followed suit in the 1990s by creating ad hoc regulatory exemptions for particular types of financial derivatives like currency forward contracts and interest rate swaps. Soon the US also embraced wholesale deregulation with the passage of the CFMA in 2000. The CFMA not only declared financial derivatives exempt from CFTC or SEC oversight, it also declared all financial derivatives legally enforceable. The CFMA thus eliminated, in one fell swoop, a legal constraint on derivatives speculation that dated back not just decades, but centuries. It was this change in the law—not some flash of genius on Wall Street—that created today's $600 trillion financial derivatives market.

Why Re-Regulate Derivatives? Speculation and Systemic Risk

The results have proven unfortunate, to say the least. Yet it's surprising the unregulated over-the-counter derivatives market didn't go sour even sooner. Even before AIG, derivatives speculation had already led to the collapse of Barings Bank in 1995; the failure of hedge fund Long Term Capital Management (LTCM) in 1998; the Enron bankruptcy in 2001; and the collapse of investment bank Bear Stearns in 2008, a few months before AIG's fall.

These examples show why it is essential for policymakers thinking about how derivatives affect risk in the marketplace to distinguish, as the common law did, between using derivative contracts to hedge and using them for speculation. Hedging provides a social benefit by reducing the hedging party's risk. But when speculators use derivatives to try to profit from predicting future events, they increase their risk, just as gamblers increase their risk by betting. Unchecked derivatives speculation thus adds risk to the system by making it possible for individual speculators, like AIG (and Barings and LTCM and Enron and Bear Stearns) to lose very large amounts of money very unexpectedly.

But wait, some readers might say. Couldn't AIG have been an unusual case, a "rogue" insurance company that succumbed to speculative fever? Isn't it possible that most financial derivatives users wisely confine their derivatives deals to true hedging?

Given the stigma attached to speculation, it's not surprising that most parties to derivatives contracts claim, at least in public, that they use derivatives for hedging and not for speculation. In some cases this seems a rather transparent attempt at deception. (Hedge funds, for example, should really call themselves "speculation funds,' as it is quite clear they are using derivatives to try to reap profits at the other traders' expense.) Perhaps more often, derivatives traders incorrectly describe themselves as "hedging" when they use derivatives to offset some of the risk associated with taking a speculative position. This is much the same as a racetrack gambler claiming she is "hedging" because, in addition to betting on a particular horse to win, she also buys a betting ticket for the horse to show.

Yet the data suggests that speculation, not hedging, drives over-the-counter financial derivatives markets. For example, we know the CDS market was dominated by speculation in 2008. We know this because by the end of that year, the notional value of the CDS market had reached $67 trillion. **[5]** At the same time, the total market value of all the underlying bonds issued by U.S. companies outstanding was only $15 trillion. **[6]** When the notional value of a derivatives market is more than four times larger than the market for the underlying, it is a mathematical certainty that most derivatives trading is speculation, not hedging. And business history—including very recent history—shows derivatives speculation increases systemic risk.

It is possible, of course, that derivatives speculators provide other benefits to the market that offset the social cost of this increased systemic risk. Although from a social perspective speculation is a zero-sum game—one trader's gains necessarily come at another trader's expense, just as gamblers can only make money by taking money away from other

gamblers—economists sometimes claim speculators add useful liquidity to markets and that speculation can improve the accuracy of market prices. The derivatives industry routinely repeats this mantra. Yet there is virtually no empirical evidence to establish the value of the supposed liquidity and "price discovery" benefits from derivatives speculation, much less evidence that shows the value of those benefits exceeds the enormous social costs of derivatives speculation. (Recall that US taxpayers have spent nearly $180 billion on the AIG bailout alone.)

What to Do?

Although few observers appreciated it at the time, the CFMA's deregulation of financial derivatives was a novel legislative experiment. It's almost as if the US Congress said to itself, "let's see what happens if we suddenly removed centuries of law!" Now we know what happens. The experiment has not turned out well.

What to do? The answer seems obvious: go back to what worked so well, for so long, before. The old common law rule against difference contracts was a simple, elegant legal sieve that separated useful hedging contracts from purely speculative wagers, protecting the first and declining to enforce the second. This no-cost, hands-off system of "regulation" (there is no cheaper form of government intervention than refusing to intervene at all, even to enforce a deal) did not stop speculators from using derivatives. But it did require speculators to be much more careful about their counterparties, and to develop private enforcement mechanisms like organized exchanges that kept speculation confined to an environment where traders were well-capitalized and knew who was trading what, with whom, when. This approach kept runaway speculation from adding intolerable risk to the financial system. And it didn't cost a penny of taxpayer money.

During the roaring 1990s, when financial derivatives were being widely applauded as risk-reducing, highly-efficient (and, for Wall Street, highly profitable) financial "innovations," the old rule against difference contracts had little appeal. Maybe it has more now.

(This article appeared recently in ***Lombard Street***.)

Footnotes:

[1] See, e.g, Rick Schmitt, Prophet and Loss, Stanford Magazine March/April 2009 40-47 (describing efforts of CFTC Chair Brooksley Born to warn about and regulate financial derivatives in the late 1990s); Lynn A. Stout, Betting the Bank: How Derivatives Trading Under Conditions of Uncertainty Can Increase Risks and Erode Returns in Financial Markets, 21 J. Corp. L. 53 (1995); Lynn A. Stout, Why The Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives, 48 Duke L. J. 701, 769-771 (1999) (arguing that deregulating financial derivatives might increase market risk, erode returns, and lead to price distortions and market bubbles).
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[2] 110 U.S. 449 (1884)
(go back)

[3] Barrett Sheridan, The $600 Trillion Derivatives Market, Newsweek, October 27, 2008, **here**.
(go back)

[4] See Lynn A. Stout, Irrational Expectations, 3 Legal Theory 227 (1997) (discussing theories of speculation).
(go back)

[5] Bank for International Settlements, Quarterly Review Statistical Annex at A103 Table 19 (Amounts Outstanding of Over-The-Counter (OTC) Derivatives) (December 2008).
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[6] Id. at A97, Table 16B (Domestic Debt Securities).
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