

the real major league teams. Fantasy baseball is a synthetic derivative that operates "on top" of real baseball. It has financial value because you're willing to bet on your fantasy baseball team, and everybody in your league is willing to bet on their own derivative teams and against yours.

Miraculously, synthetic CDOs are not limited by the supply of mortgages or bonds that are assembled within pools. One pool of actual subprime mortgages can prop up many sets of securities. First, you can set up a CDO that you tranche and sell to investors where you actually are selling real slices of those mortgages. Then you can set up multiple synthetic CDOs based on credit default swaps (insurance) on those tranches you already sold. This increases the number of securities that can be sold, based on the same set of mortgages. It also amplifies the fat fees for the creators and brokers. And it multiplies the risk to the financial system. If something goes wrong in the underlying pool of junk debt, multiple synthetic CDOs can simultaneously crash in value.

All of these synthetic CDOs are playing "on top" of those mortgage pools just like in fantasy baseball. In real baseball, all we have are the thirty teams in the American and National Leagues. But there are tens of thousands of synthetic fantasy baseball leagues that play using the statistics of the real major leagues. (Some estimate that right now there are fifteen million of us playing fantasy baseball.) So too in fantasy finance: There's no limit to the number of synthetic CDOs that can, in theory, be created . . . assuming there are those who are willing to pay premiums for the credit-default-swap insurance and those who are willing to buy the tranches formed around those premiums.

And it doesn't stop there. Credit-default-swap insurance also is a tool that can make high-risk equity tranches much more desirable. Toxic tranche buyers might want to hedge some of the risk they are taking on. Having too much of it on your balance sheet might make the credit rating agencies look askance. Credit default swaps allow you to remove the risk entirely (which is

what the Royal Bank of Canada might have been doing with the Wisconsin school districts). During the housing boom, financial institutions (primarily investment banks and insurance companies) wrote swaps with the owners of equity tranches. For a period of let's say five years, the investment bank would insure the equity-tranche owner so that she would not lose her principal—in return for quarterly payments, just like an insurance policy. The equity tranche owner would continue to collect the high interest payments you'd expect from a risky investment, but in effect would share some of that risk and interest with the swap counterparty, which insured the principal.

In a very real way, credit default swaps enabled anyone to hedge their bets for any security at any time, in any place in the world. Anyone could unload some or all of their risk, or so it seemed. It worked beautifully—as long as everyone could pay their bets if the bonds or tranches ran into financial trouble. You can see why Greenspan admired the guile and genius of the derivative designers.

We now have the tools to explain how \$300 billion of subprime and "Alt-A" loan losses could do so much damage. During the housing boom, synthetic CDOs greatly expanded the number of tranches that were sold all over the world. And credit default swaps increased the market for the toxic-waste tranches by insuring them. In fact, the subprime assets were referenced again and again in multiple synthetic CDOs. This more than tripled the \$300 billion worth of subprime and Alt-A losses into a trillion dollars of losses on CDOs backed by risky housing debt. If we include the full range of CDOs backed by corporate, consumer, and housing debt, the estimated losses climb to about \$1.6 trillion. Of that, our banks have suffered about \$500 billion in losses on the CDO-type assets that they held on to. Combined with losses on more standard loans to corporations and consumers, the U.S. banking system has piled up about \$1.7 to \$1.8 trillion