



## Derivatives are a zero-sum game: true or false?

**Anu Munshi, partner at B&B Structured Finance, explains that it is necessary to look at the cash underlying in order to find out what's been happening in the derivatives market**

Derivatives are bilateral contracts, so one party's loss is equal to its counterparty's gain and therefore the transaction as a whole is a zero-sum game. Right? Well, if that's true, then why has almost everyone who has traded derivatives lost money over the last year?

It's because derivatives are only a part of any market. We need to look at the entire market to understand what's been happening. The devil, surprisingly, is in the cash instruments.

Let's look to credit derivatives as an example. If Bank A buys protection and Bank E sells protection on Daimler AG, and Daimler AG files for bankruptcy, then Bank A will make as much money as Bank E will lose on the CDS contract. If Bank A buys protection from Bank B, who buys protection from Bank C, etc. with Bank E as the ultimate seller of protection, the chain of transactions will still amount to a zero-sum game. Bank A will make as much as Bank E loses and the other banks' offsetting positions will net to zero.

The fact is that, with the exception of a few hedge funds, most investors don't buy protection outright. They either buy and sell back-to-back protection in the business of making markets or they buy protection to hedge their credit risk, which is typically in the form of cash bonds or loans (and sometimes in the form of counterparty risk).

So, if Bank A buys protection to hedge a loan it has made to Daimler AG, then it doesn't make money when Daimler AG files for bankruptcy – its gain on the CDS is offset by its loss on the loan. So the party losing in this example is Bank E.

In this instance, the economics in the chain of CDS still amount to zero, but because we've added a loan to the chain the overall economics no longer net to zero. At the end of the chain, Bank E loses money because it has taken on credit risk to Daimler AG.

So who wins? Daimler AG, at the start of the chain, because it has borrowed money and doesn't have to pay it back.

We've got a borrower at the start of the chain and a lender at the end of the chain, and a bunch of CDS trades in the middle that net to zero. There are, of course, some CDS contracts where investors have bought protection outright.

Those investors have made money at the expense of their counterparties, but they're a small proportion of the overall credit market. The majority of trades have been end-investors who took on credit risk and lost money when those credits deteriorated.

In the end, CDS is just a tool. The tool has worked as it should. The house is just not standing any more.

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