

Did Credit Derivatives Cause the Financial Crisis?

And what are they anyway? Viva Hammer explains their vagaries.

In ancient times, a Queen presiding over a financial crisis might distract the masses by launching a crusade, a pogrom or a courtship with a foreign king. Today, our elected leaders blame credit derivatives. One could say it's an improvement in morality, but not necessarily in sophistication.



The financial crisis is both simple and complex. At its root are mortgages that were issued to Americans who couldn't afford them. Those mortgages were sold and bundled, the bundles were sliced up and resold, and then derivatives were written on the slices. Pieces of those bad mortgages were cherished by banks, pension plans, hedge funds, governments, everyone. Derivatives meant that the exposure could be multiplied *ad infinitum*. When the bottom of the economic pile — the mortgages — turned rotten, the entire structure collapsed, *ad infinitum*.

Let's start at the bottom of the pile. In the early 2000s, interest rates were low and that made homes more affordable. In America, borrowers can get 30-year fixed interest mortgages, but they are only available to people with good credit. During this period, home loans became available to people with poor credit: the

government wanted to increase home-ownership, investors wanted higher yields, and new types of loan were being engineered.

When I worked for the US Treasury Department, we used to whisper in the corridors about the phenomenon of the NINJA loan. That is, home loans made to people with 'No Income, No Job, no Assets'. Shockingly often, the loans were made based on information falsified by greedy mortgage brokers. These loans had terms too complicated for borrowers to understand, with interest rates that reset after a honeymoon period. In the early 2000s, lenders weren't worried about loan repayments, because house prices were appreciating, and if you couldn't pay, you could always sell!

NINJA loans were then sold to institutions which pooled them and then securitized them. That means, they divided the expected cash

flows from the loans and sold the rights to the cash flows to investors. The cash flows were divided into 'tranches' so that the people buying the top tranche would get the first cash flows coming from the mortgages, up to a certain rate of return; the second tranche would get whatever was leftover after the first tranche up to a certain rate of return, and so on until the bottom tranche — that was called nuclear waste.

The tranches were given ratings by specialised agencies — an assessment of how likely they were to pay out what they promised. Banks, pension funds and regulators relied on these ratings in determining how risky the investments were.

Then, other financial institutions wrote credit derivatives on these tranches of bundles of mortgages. Credit derivatives are contracts which require one party to pay another party the exact replica of the payments on the tranches — in exchange for premium payments. Those same institutions wrote other kinds of credit derivatives, too. In particular credit default swaps, in which one party pays another party the face value of a bond if the bond defaults again in exchange for premium payments.

The credit derivatives allowed exposure to the mortgages to be multiplied infinitely. There is no requirement for anyone to own the bond or tranche in order to write a derivative on it. It's just a financial bet.

What happened when interest rates increased in the mid 2000s? People with floating interest loans couldn't pay the increased rates, and when they tried to sell, found that the value

of their homes had not appreciated as much as expected. New homebuyers could only afford less costly homes because interest was a bigger part of their monthly mortgage payment. Loans started defaulting. Investors who had bought 'safe' tranches from securitizations found that they were not getting the cash they expected. Credit derivative sellers were making payouts they never expected to make. Interest rates continued to rise, defaults increased, home prices declined, and the effects were felt in a geometric fashion.

It was as if the bad mortgages had been reproduced and hung on the walls of every financial institution. When one went bad, all the reproductions fell too. Then panic set in and that's the complex part. The basics, however, are simple: loans were made to people who couldn't repay; the loans were sold and pooled and sliced and diced and shared around, then reproduced. One late payment reverberated everywhere.

The first rule of civilization is: tell the truth. If an entire economic system is built on making loans based on false documents to people who are never expected to pay back, that system will collapse. You can blame it on derivatives, or on any number of other things, but really it's a natural consequence of bad business morals. jd



About Viva Hammer (BEC 1988, LLB(Hons) 1990)



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Viva Hammer emigrated to the United States two days after finishing her final law school exams. While living on friends' couches, she studied for the New York Bar and found a job practicing US international tax (never having taken a tax law course). She also joined or started non-profit organisations to her heart's content. Marriage and childbearing coincided with acceleration in her career, as well as semi-permanent housing. Advising on the taxation of capital markets transactions, she traveled constantly, often with breast-pump (or baby) alongside.

After 10 years in New York and at least as many homes, Viva was invited to join the Office of Tax Policy at the US Treasury Department, the only Australian to have done so. ('You couldn't find an American for the job?' an admin complained, having to do extra paperwork for an Alien.) While there she wrote law and developed policy in the taxation of financial institutions and products. It was an exceptional job, for learning both patience and derivative products.

After six years at Treasury, Viva became partner at a Washington DC law firm. She

commutes between New York and DC, and her office is really on the Acela train that joins the two cities. The nomadic lifestyle compensates for the fact that in the nine years Viva has lived in the DC suburbs, she hasn't moved house once.

When Viva is not drafting tax opinions or homeschooling her daughter (14) and son (11) she is writing a book called *Choosing Children*.

Viva welcomes comments on derivatives and the GFC. New York housing, homeschooling, etc. at vivahammer@aol.com .