Benn Eifert
@bennpeifert

Benn Eifert QVR Dec 6, 2022

To briefly reiterate, on derivatives notional and counterparty risk. Over the counter (OTC) derivatives are traded bilaterally between two large counterparties, under legal contracts called ISDAs. Positions are marked daily and cash flows exchanged. No IOU's.

If an insurance company has a billion dollars of notional on an interest rate swap with a bank, the value of that contract changes as interest rates change. If the position marks $1mm in the insurance company's favor, the bank wires them $1mm.

If the bank goes bankrupt, the insurance company's exposure to the bank is only however much mark-to-market PNL they earn on the swap *after* bankruptcy. Which could be positive or negative.

It is tied to the actual market risk of the contract - how much does the value of the interest rate swap move around with interest rates, and how volatile are interest rates. The insurance company does NOT lose the dollar value notional of the swap.

Even if the lifetime PNL on the swap is large -- which for a short term interest rate swap, might be tens of millions of dollars on a billion dollar notional exposure -- this cash is already paid to the insurance company, it is not a future obligation that can be defaulted on

What kinds of derivatives exposures create large counterparty risk? Ones where the actual underlying market risk is large, and especially where there is not much liquidity or observability so that true value may have deviated a lot without the marks being updated

Think exotic credit derivatives in 2008 which were highly opaque, didn't mark down at all as the subprime collapse began, and then suddenly marked down massively as panic set in and CDS on banks that suddenly and surprisingly went bankrupt (Lehman)

The problem is NOT on highly observable, highly liquid things like G10 interest rate swaps or FX swaps. Which, incidentally, are the things with massive notionals that everyone gets excited about. Focus more on the size of dangerous exposures and less on total exposures