Uncollateralized derivatives, a heterogeneous and non-transparent market!

Topic: Derivatives valuation

Since the entry into force of the European regulation EMIR and its equivalents in other jurisdictions, all derivatives transactions among financial counterparties must be collateralized.

Uncollateralized derivatives are limited to trades between financial counterparties and non-financial counterparties, and therefore represent a very small fraction of the market.

While a few non-financial counterparties do choose to collateralise their derivatives, most companies and government entities choose or are constrained not to.

This is especially the case for derivatives coupled with project financing, LBO financing, or asset financing. Lenders do not want corporates to post the cash they have borrowed to hedging banks through margin calls, as this could create liquidity risk. Also, giving collateral to hedging banks would structurally make them senior to debt holders in case of a credit event affecting the borrower.

Why does collateralization impact the valuation of derivatives?

When derivatives are collateralized, the counterparty for which the derivative has a negative market value deposits every day this market value as a guarantee to the other counterparty, this collateral earning interest at a short-term floating rate, typically Eonia in Europe. In order to discount future flows, it is market practice to use the swap curve referencing this index.

Since the derivative's Mark to Market is funded at Eonia, the consistency between the valuation of future flows and the cost of funding the derivative's market value is then ensured.

Ensured consistency between valuation of future flows and funding cost of the derivative's market value

In the case of a non-collateralized swap, the negative Mark to Market of the derivative represents a potential claim (in case of termination) of one party to the other. The funding of that claim is thus provided by the party being owed. The funding cost of the Mark to Market must then be taken into account when calculating the present value of future flows.

Yet, every investment bank has its own funding cost. This makes the choice of the "right" discounting curve for the future flows of a non-collateralized derivative far more complex.

How do investment banks value non-collateralized derivatives?

For non-collateralized derivatives, each bank has its own practice regarding the choice of the discounting curve for future flows. This introduces significant differences on entry or unwind prices of derivatives traded between each bank and its non-financial counterparties.

In practice, banks adopt an internal convention for the discounting of future flows in the case of non-collateralized derivatives. This convention is generally determined by the Treasury department of the bank which manages the funding of its capital markets activities. The convention can change over time, and above all is not necessarily the same among the various banks.

Which differences between the methods applied by the various banks?

In pratice, in Europe, banks apply very diverse methods to value non-collateralized derivatives. We have identified three main groups within investment banks:

- Banks that discount flows as if the derivatives were collateralized and use, for transactions in EUR, an Eonia discounting curve.

- Banks that account for all or part of their financing cost by discounting derivatives' flows at a nonnegative spread above 3M or 6M Euribor. Alternatively, they can calculate separately an FVA-like value adjustment.

- Some non-European banks that, as a result of their geographic representation, apply a mix of various currencies and various curves.

Understanding these varying practices is important since derivatives' prices are affected by these differing practices:

- When putting in place new derivatives transactions.

- And even more when unwinding transactions, when the derivatives' market value has become significant.

In the case of an interest swap with a long maturity, fixed rate differences at initiation can exceed 1 basis point. Differences at unwind can exceed 5 basis points.

These differences are not stable. They depend on a multitude of market parameters as well as the market value and schedule of the considered derivative.

The Hedge Advisor benefits from a 360° view to which banks do not have access

Banks do know perfectly at which levels the market prices collateralized transactions. However, they do not know which prices a non-financial counterparty that does not collateralize its derivatives can obtain from other banks.

The choice of the right discounting curve

As a Hedge Advisor, we assist our clients on on non-collateralized derivative transactions with all market counterparties. We create the conditions of an extensive dialogue with each bank in order to maximise transparency on derivatives valuation, both at initiation and at unwind.

Conclusion

Renowned to be simple, mature and transparent, the market for non-collateralized derivatives, especially interest rate swaps, is actually opaque and complex when it comes to valuation.

Discussing with each bank about the valuation curve for non-collateralized derivatives is not easy, as the bank does not often disclose such information. However, it is crucial to understand pricing for new derivatives or for unwinds of existing derivatives.

Having such discussions is critical since you must be able to:

- Account for it in the choice of hedging banks.
- Understand the prices offered by the bank.
- Ensure that the pricing methodology will be consistent between the derivative's initiation and its future potential unwind.
- Document the commercial agreement appropriately. ■

As a specialist of financial markets, ESTER is alongside you to explore this subject.

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