Finance Fundamentals: Deconstructing Derivatives
USA (National/Federal) Related Content

This Practice Note provides a description of basic (plain vanilla) interest rate swaps and basic credit default swaps (CDS), and discusses the importance of derivatives to finance attorneys.

Concepts and terminology used in finance matters can be perplexing. Practical Law Finance Fundamentals are reference guides designed to quickly explain commonly confused language and points of practice in finance transactions.

This Note focuses on basic ("plain vanilla") interest rate swaps and basic credit default swaps (CDS), and discusses why derivatives are important to finance attorneys.

What Is a Derivative?

A derivative, at its simplest level, involves periodic exchanges of payments between two parties, which are typically **netted** into a single payment by the party owing the greater amount to the other party.

The payments are based on some other thing, such as:

- Movements in a variable interest rate, as in an **interest rate swap**.
- A company's or government's failure to make payments on a debt obligation, as in a **credit default swap** (CDS).
- Movements in the price of an equity security, as in a **total return swap** (TRS).
- Movements in the price of a good, commodity, or currency, as in a currency swap or commodity swap, or a **futures** or **forward** contract.

Of course some derivatives, like certain equity derivatives, can be complicated where payments between the parties are determined by a complex formula. But most derivatives encountered by finance attorneys are actually quite simple.

Basic (Plain Vanilla) Interest Rate Swap

For example, in a typical plain vanilla interest rate swap, one party (Party A) believes interest rates will rise (or needs to protect itself against a rise or fluctuation in rates) and prefers to lock in the current rate. The other party (Party B) wishes to take the opposite position. In a sense, each side is making a bet (albeit one with a business purpose). So the parties enter into an interest rate swap under which, on each periodic payment date:

- Party A pays to Party B a fixed payment equal to the product of:
  - a fixed interest rate – usually the current rate – agreed by the parties (the agreed rate); and
  - a **notional amount** agreed by the parties, which is used solely for purposes of determining the periodic payments under the transaction.
- Party B pays a floating payment to Party A equal to the product of:

- a floating interest rate (usually based on **LIBOR** or another popular benchmark); and
- that same notional amount.

As mentioned, the parties' payment obligations under the swap are typically netted on each payment date so that only one party – the party that is **out of the money** on that payment date (the party that owes the greater amount) – must make the payment to the other party on a given payment date.

In this example, Party A is always obligated to pay a fixed amount to Party B under the agreement on each payment date. If the agreed rate is 3.5 **basis points** and the contract's notional amount is $1 million, Party A is obligated to Party B on each payment date in the amount of $35,000. But it is Party B's obligation to Party A on that payment date that determines who pays who and in what amount.

If market rates have risen above the agreed rate as of the payment date (or another agreed measurement date during the period), then Party B is out of the money on that payment date and must make a payment to Party A of the difference in the current market rate and the agreed rate multiplied by the transaction's notional amount.

If market rates have declined below the agreed rate as of the payment date (or another agreed measurement date during the period), then Party A is out of the money on that payment date and must make a payment to Party B of the difference in the current market rate and the agreed rate multiplied by the transaction's notional amount.

But Party A is never obligated on any payment date to pay more than the agreed rate multiplied by the transaction's notional amount (3.5% x $1 million = $35,000). So it is able to lock in its maximum periodic payment amount. Interest rate swaps historically have quarterly payment dates.

In an actual interest rate swap, the parties' payments are usually each multiplied by a day count fraction (such as Actual/360 or 30/360) to calculate the amounts due under the swap on each periodic payment date. However, this factor has been omitted here for simplicity. For details on day count fraction, see Standard Document, ISDA Market Agreed Coupon (MAC) Interest Rate Swap Transaction Confirmation (Annotated): Fixed Rate Day Count Fraction.

Note that one party may pay a fee to the other party for entering into the swap. The fee is usually accounted for and incorporated into the parties' net periodic payments.

Basic CDS

A typical credit default swap is even simpler. Under a typical CDS, if a third party (the **reference entity**) that is named in the CDS contract fails to make a payment under one or more of its outstanding debt obligations specified in the transaction confirmation, the **credit protection seller** under the CDS contract is obligated to make one or more payments to the **credit protection buyer**. (In the alternative, there may be a basket of reference entities, as in a CDS index transaction; if any one defaults then payment is triggered.)

The protection buyer pays a periodic fee (the fixed amount) to the protection seller for this "insurance." Generally, if a **credit event** involving the reference entity occurs during the term of the CDS, the credit protection seller is obligation to pay an agreed amount (the floating amount) to the credit protection buyer, usually corresponding to the periodic payments of principal and interest outstanding under the reference obligation, subject to the CDS auction-settlement process (see Practice Note, Credit Derivatives: Overview (US): Auction Settlement).

Why Are Derivatives Important for Finance Lawyers?

So now that we see these instruments are not necessarily so esoteric and complex, why are derivatives important to finance lawyers?

In addition to documentation and regulatory matters that arise with respect to derivatives, derivatives are important to finance lawyers because their clients use derivatives in the following ways:

- As speculative investments, to gain exposure to certain markets or securities.
- For hedging purposes, both commercial and financial.
- In the case of CDS, to protect themselves against:
  - default of a key party, such as a supplier or other entity integral to commercial operations; or
  - default on debt obligations which they might hold.

Lenders use derivatives to hedge interest rate risks, as well as risks that a borrower may default under a loan (see Practice Note, Derivatives in Loan Transactions).

Commercial businesses use derivatives to hedge against exchange-rate risk and risks in the value of commodities that are essential to their businesses, such as oil, agricultural products, and precious metals.

Lawyers need to understand how these instruments work so that they can assist their clients with the documentation and attendant legal issues and risks associated with derivatives, and so they can counsel their client with a full understanding of its transactional position and financial picture.

For further details and more examples of the types of derivatives transactions discussed above, see:

- Practice Note, Derivatives: Commercial Uses.
- Practice Note, Derivatives: Overview (US).

For more on the basics of credit default swaps and other types of credit derivatives, see Practice Note, Credit Derivatives: Overview (US).

For details on the basics of total return swaps and other types of equity derivatives, see Practice Note, Equity Derivatives: Overview (US).

For information on the regulation of derivatives under the Dodd-Frank Act, see:

- Practice Note, Summary of the Dodd-Frank Act: Swaps and Derivatives.
- Practice Note, US Derivatives Regulation: Swaps Regulatory Tracker.
- US Derivatives Regulation: Compliance Calendar.
- Dodd-Frank Swaps and Derivatives Compliance Toolkit.

For details on documentation of **over-the-counter (OTC) derivatives**, see:

- Practice Note, ISDA Documents: Overview (US).
- Practice Note, Understanding the ISDA Master Agreement and Schedule.
- ISDA Master Agreement Toolkit.

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