Introduction to Collateralized Debt Obligations

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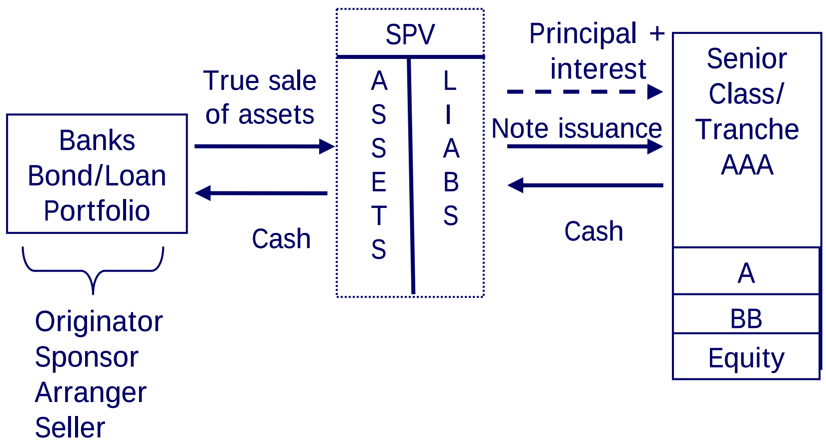
Collateralized Debt Obligations or CDOs are financial instruments where cash bonds or loans are grouped together in a package and resold to investors. Alternatively, CDOs can be created synthetically through the use of credit default swaps. This article looks at the basics of the cash and synthetic CDO.

Generic Cash CDO: Features and Characteristics

The features and characteristics of a generic cash flow CDO are illustrated In Figure 1 below:

Figure 1:
Cash Flow CDO
Transfer of assets and creation of tranches



- The originator legally creates a special purpose vehicle, ("SPV"). The SPV is a trust.
- The originator sells the assets to the trust. In a plain vanilla structure, the asset can be bonds or loans.
- The trust then issues notes to investors in the form of tranches. These notes are backed or collateralized by the assets sold to the SPV. Investors choose their tranche based on desired rates of return and credit quality.
- The SPV is said to be" bankruptcy remote." If the originator goes bankrupt, then creditors of the originator, or the bank in this example, may not legally stake claims to the assets within the SPV.
- The bank continues to service the loans and earns a fee for doing so.
- CDOs are nothing more than asset backed securities. CDOs are a form of securitization which issue notes in tranches--classifying this as structured finance rather than a securitization.
- There are often credit enhancements, such as an excess credit spread, senior subordinate structure, over collateralization, or a third party guarantee, such as monoline insurance.

Other Parties Involved in a CDO

There are several other parties involved in the CDO. These include:

- The trustee who oversees the compliance of the transaction.
- The servicer which services the assets e.g. collecting interest payments.
- The asset manager is responsible for managing the assets in the trust.
- The guarantor that guarantees the performance of the trust.
- The rating agency that supplies the credit rating.

Issuer and Investor Applications

Issuers use CDOs for a variety of reasons, some of which include:

- Reduction of regulatory capital (for banks).
- The sale of assets raises money therefore it is a funding tool.
- The originator can manage both credit and market risk.
- Fee income – the originator earns a fee.

Investors use CDOs for a variety of reasons, some of which include:

- Diversification – The CDO is backed by a well diversified portfolio of assets.
- Liquidity - Tranches tend to be more liquid than individual bonds.
- Asset Liability Management - Offers investors the ability to align their assets with their liabilities.

CDO's Galore

Other common structures/names for CDOs in the market include:

- Cash flow CDOs – The underlying collateral pays for the interest to the investors.
- Collateralized Bond Obligations (CBOs) - The underlying collateral are bonds.
- Collateralized Loan Obligations (CLOs) – The underlying collateral are loans.
- Market Value CDOs – The asset manager tries to actively manage the assets to achieve a superior return.
- Arbitrage CDOs – Not really an arbitrage but the additional assets under management earn a fee.
- Structured finance CDOs – The collateral is MBS or ABS.
- Multisector CDOs – The underlying securities can be MBS, ABS, bonds and or loans.

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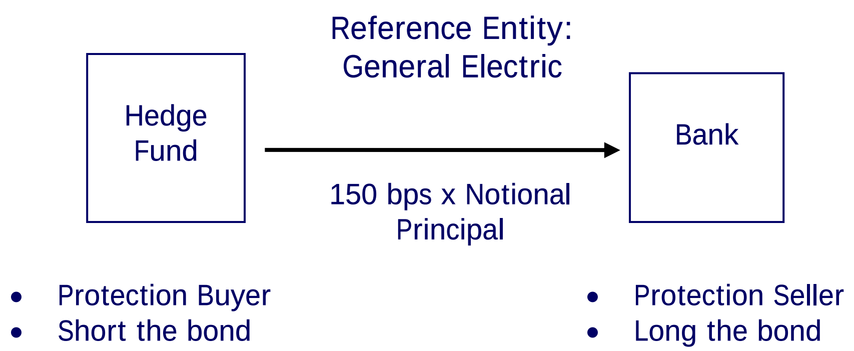
Synthetic CDOs

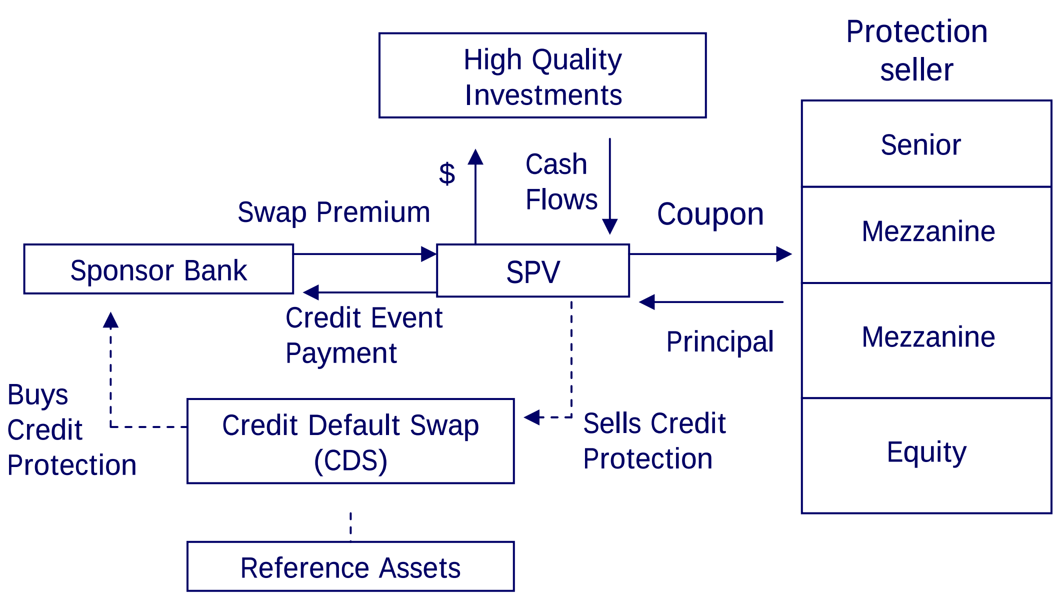
The most prevalent structure is the synthetic CDO. A synthetic CDO securitizes credit default swaps as the underlying security. Figure 2 illustrates a credit default swap. A counterparty such as the hedge fund pays a premium, commonly known as a spread, to another counterparty, which in this example is a bank, for credit protection on a third party, such as General Electric. This spread is reflective of the probability of the company going bankrupt.

Figure 2:
Credit Default Swap: No Credit event



The hedge fund is said to be the protection **buyer**, or **short** the bond. The bank is the protection **seller** or **long** the bond. The protection or credit event can be defined as the default of the counterparty, a missed payment or a number of other pre-defined credit events.

Figure 3: Synthetic CDO



Features and Characteristics

The features and characteristics of a synthetic CDO are illustrated above in Figure 3. They are:

- There is no legal or physical transfer of assets.
- The SPV sells credit protection to the sponsor.
- Since the CDS only pays a spread, the SPV will invest the principal received into high quality investments such as U.S. Treasuries. The combination of the spread and return from the Treasuries is the investor's return. The return can be fixed or floating.
- Quite often the portfolio is tailored to the investor's requirements.

The above synthetic CDO illustrates what is known as a funded transaction. Some structures issue tranches that are both funded and unfunded. Unfunded refers to a tranche where the investors only receive the spread but assume the credit risk of the tranche.

Risks

As with other securities, CDO investors are exposed to a myriad of risks, including:

- Default of underlying loan (in cash CDO)
  - Company simply goes bankrupt or
  - Misrepresentation by the originating institution i.e. operational risk
- Credit event in underlying CDS (in synthetic CDO)
- Default of servicer
- Definition of credit events
- Market risk
- Liquidity risk
- Valuation risk

In summary, CDOs can be collateralized using traditional fixed income securities or created synthetically using credit default swaps.

References and Suggested Further Reading

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