Collateralized Debt Obligation (CDO) is an asset backed security structure backed by debt instrument collateral.
Type of Collateral

CDOs are distinguished based on the type of collateral that backs the notes.

CDO backed entirely by loans are called Collateralized Loan Obligations (CLOs) where as bond backed CDOs are called Collateralized Bond Obligations.

Later, CDOs were backed by ABSs, CMBSs and RMBSs. (also known as structured finance CDOs)
CDO

Asset pool of Bonds with face value: 1000 mn

Transaction Waterfall: Determines how the cash generated from the asset will flow through the liabilities/notes.

Rating enhancement for the senior classes is achieved through prioritizing the cash flows or through external credit support.

Rating agencies have internal models to rate the senior tranches based on the probability of shortfalls due to defaults.

Example:

- Tranche A pays LIBOR + 45bp,
- Equity tranche, which is not rated, Due to leverage, the return can be very high if there is no default.
  - The pricing of the equity tranche differs from others. He receives a running spread, and an up-front fee. This fee is quoted in percent and is typically around 40% for an investment-grade CDO. In this case, the investor would get $12 million up front.
The underlying and resulting securities, will have the same cash flows at each point in time, apart from transaction costs.

As a result, this implies (1) the same total market value, and (2) the same risk profile, both for interest rate and default risk.

The weighted duration of the final package must equal that of the underlying securities.

The expected default rate, averaged by market values, must be the same. So, if some tranches are less risky, others must bear more risk. This is sometimes called “toxic waste.”

The institution sponsoring the CDO will most of the time retain the most subordinate equity tranche.