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What is a CDO ?

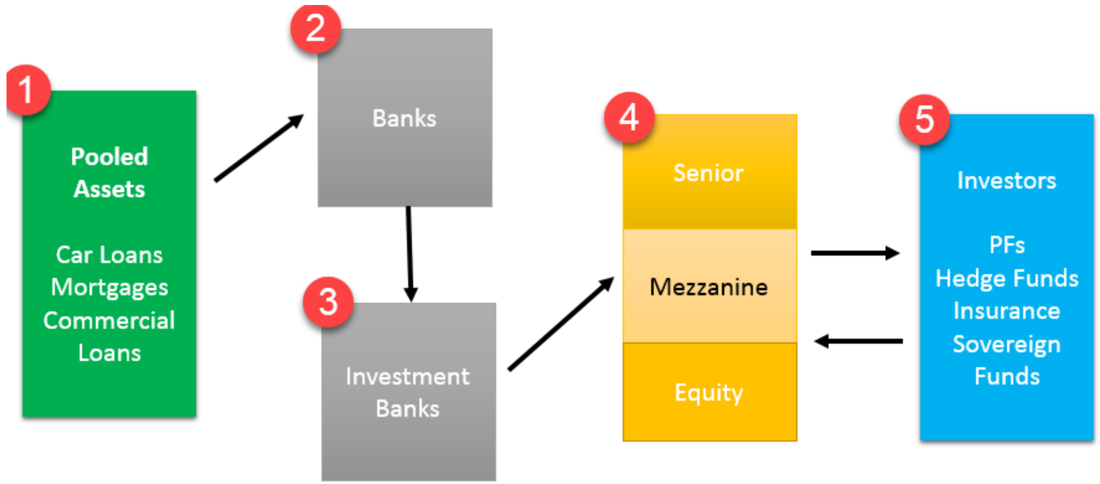
Complex structured finance product backed by **pool of loans** and other assets divided into **tranches**.

Particular type of **financial derivative** – the value of CDO is derived from another underlying assets.

If loan goes into the default, the underlying assets become **collateral.**

How to create a CDO

- Gather a **cash-flow generating assets** – mortgages, bonds, loans and other types of debt.
- Repackage them into **discrete classes (tranches, slices)** based on the level of credit risk.
- Tranches of securities = **Final investment product**



Structure of a CDO

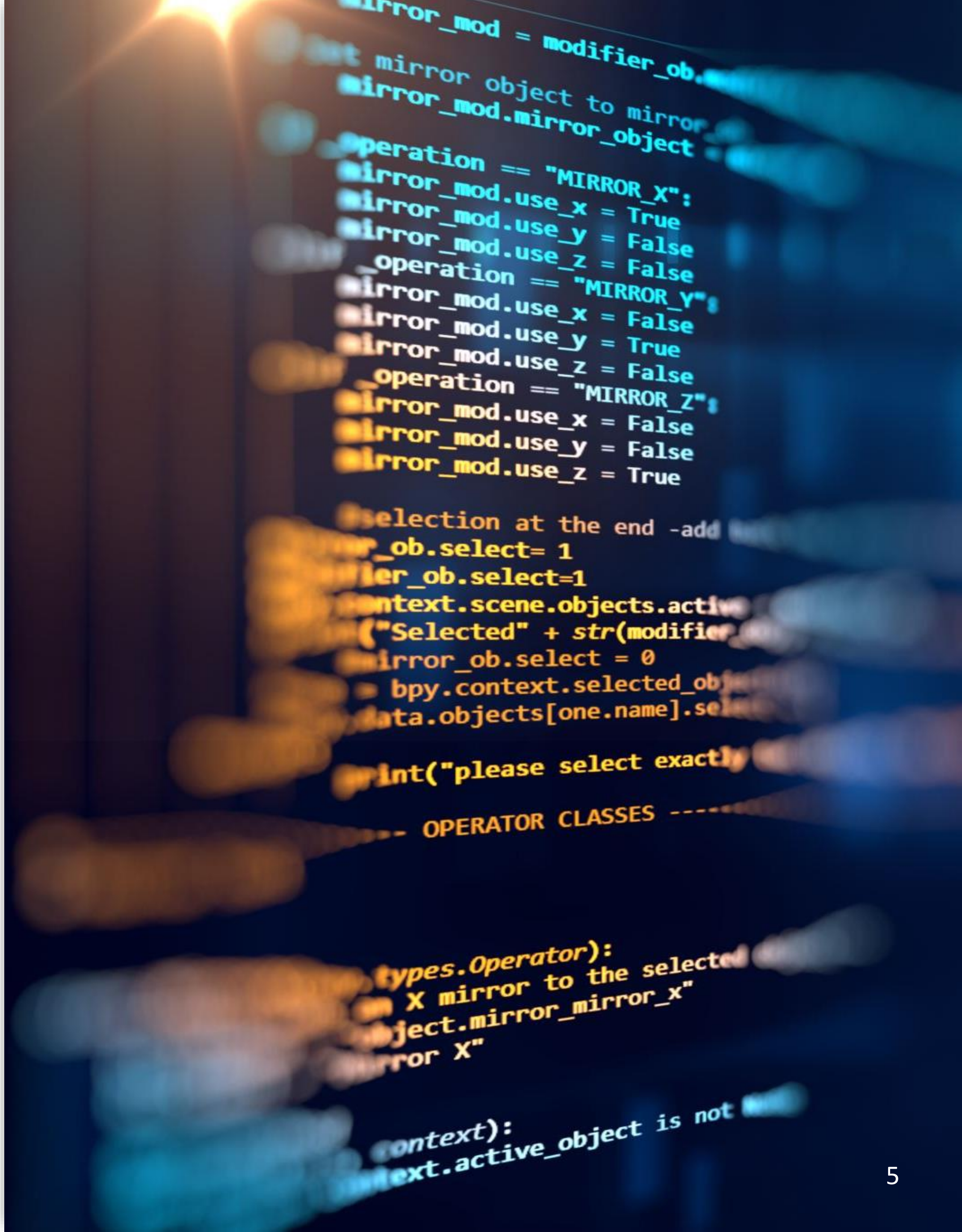
- As already mentioned, structured into tranches (discrete classes)
- Name of tranches reflect the **risk profiles**
- **Senior, Mezzanine, Junior/Equity**
- Tranches with different **maturity**
- Typically, **low risk -> low yield** and vice versa

Structure of a Collateralized Debt Obligation (CDO)—Sample

Debt	Maturity	Rating	Yield	Price	Coupon	Tranche
Senior	Apr 2018	AAA	5.27%	115.32	5.65%	84.52%
Senior	Nov 2018	AA	5.44%	118.24	5.88%	6.48%
Mezzanine	Jan 2019	BBB	5.63%	102.37	7.11%	4.68%
Junior	Jun 2019	B	5.79%	111.88	9.67%	4.32%
			5.53%		**100.00%**	

Synthetic CDO

- The previous text focused on more traditional, **cash CDO** – assets provided cash-flow.
- Term synthetic refers to the nature of derivative
- Synthetic CDO – non-cash derivatives like swaps, options, especially Credit Default Swaps.
- Tranches of Synthetic CDO based on credit risk.



Pros & Cons

- **Diversification:** Debt bundled in one CDO is spread over many different cash-flow generating assets (mortgages, loans, etc…)
- **Liquidity:** CDO turns relatively illiquid assets into liquid assets

- **Complexity:** Layered structure makes CDOs particularly difficult to value accurately
- **Repayment Risk:** Vulnerable to consumer not repaying their debt

CDO Historical Market Impact

- Boom in early 2000s where CDO sale rose almost **tenfold** (30 billion in 2003 to 225 billion in 2006)
- Issuers began to use securities backed by **subprime mortgages** as collateral
- Subprime mortgage = mortgage held by borrower with low credit rating (often no, or very low down payments, and many did not require proof of income)
- Little to no federal regulation

CDO Historical Market Impact

- In 2006 the housing market peaked and consequently the **housing bubble burst** and prices declined steeply
- Subprime borrowers found themselves **underwater** on homes that were worth less than what they owed on their mortgages
- High rate of defaults => Collapse of CDO market

References

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