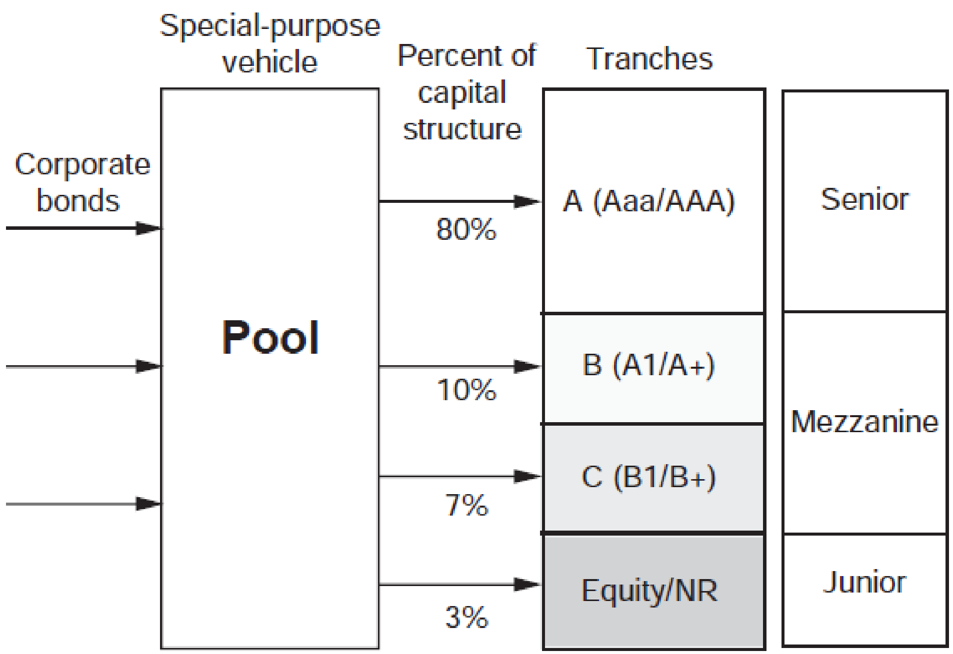
Cash Collateralized Debt Obligations

现金CDO

Collateralized Debt Obligation (CDOs “抵押担保债券”)

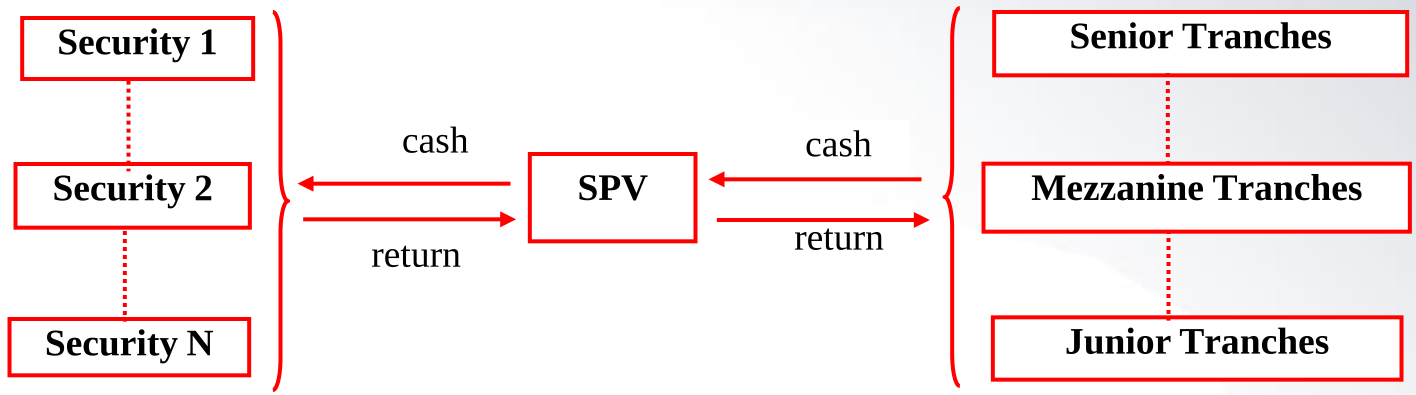
- A CDO is an asset-backed security structure, in which the securitized products issued have principal and interest backed by the cash flow on a pool of debt instrument collateral.
  - Collateralized mortgage obligations (CMOs) —backed by mortgages
  - Collateralized bond obligations (CBOs)—backed by bonds
  - Collateralized loan obligations (CLOs) —backed by loans



Collateralized Debt Obligation Structure

Cash CDOs VS Synthetic CDOs

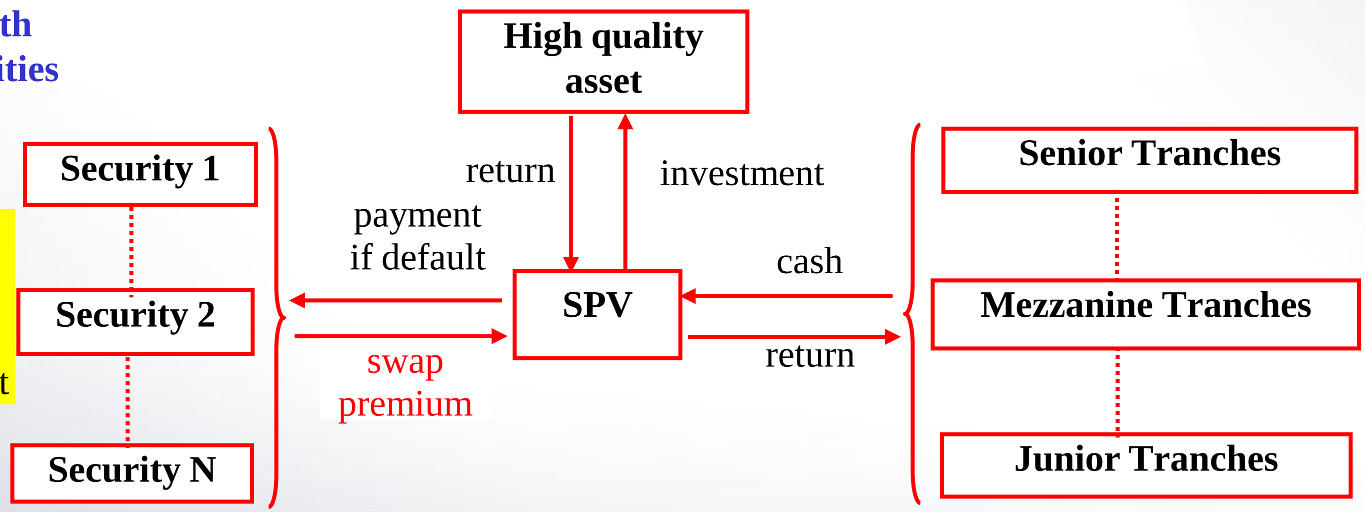
- **Cash CDO with N underlying securities**



- **Synthetic CDO with N underlying securities**

Characteristics:

- Sell CDS
- Buy high quality asset



Balance Sheet CDOs VS Arbitrage CDOs

- The **balance sheet CDO** is motivated by the asset owner wishing to remove the selected assets from his balance sheet.
- **Arbitrage CDOs** are financially engineered products designed to profit on the spread between the assets in the pool and the promised payments to security holders

	Balance Sheet CDOs	*Arbitrage CDOs*
Typical underlying assets	Loans	Bonds
Asset origination	Originator’s balance sheet	Open market
Management	Passive	Active
Purpose	Credit risk management	Profit
Residual interest	Retained by originator	May be sold to investors

Cash Flow CDOs VS Market value CDOs

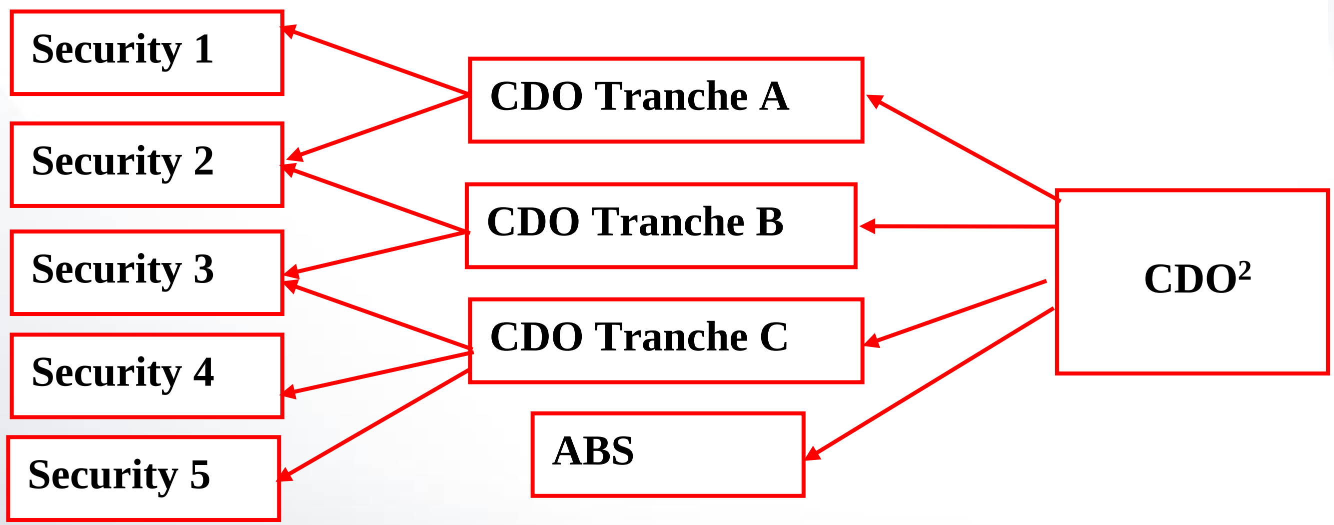
- The primary difference between **cash flow arbitrage CDOs** and **market value arbitrage CDOs** depends on the source of the cash used to satisfy inestor claims.
  - Cash flow CDOs satisfy the principal and interest obligations to investors from the associated cash flows (i.e., scheduled principal and interest) on the collateral pool.
  - On the other hand, market value CDOs would periodically sell securities from the collateral pool to manage the promised investor claims. Market value CDOs are rapidly disappearing from this segment of the market.

Static CDOs VS Managed CDOs

- **Static CDOs** essentially describe balance sheet CDOs. The collateral assets are purchased, placed in the collateral pool, and distributed based on the cash flows of the underlying assets. No active management is needed and the structure basically runs itself until termination.
- **Managed CDOs** involve varying degrees of active management. If the CDO is lightly managed, the collateral manager will selectively sell assets. In contrast, a static CDO collateral manager cannot sell assets even in anticipation of an adverse credit event. Finally, actively managed CDOs involve full-blown asset management. The collateral manager has the authority to sell, purchase, and manage the pool to maximize investor returns.

Collateralized Debt Obligation Squared (CDO^2)

- A collateralized debt obligation squared (CDO^2) is a CDO that invests in other CDOs.
- The yield is higher than that typically available from ordinary CDOs, but CDO^2 investments are quite complicated



真题回顾

1. A fixed-income investor is considering investing in an asset-backed security (ABS) that has the following structure.

Senior tranche	USD 250 million
Junior tranche	USD 100 million
Subordinated tranche A	USD 60 million
Subordinated tranche B	USD 30 million
Total	USD 440 million

If the assets in the pool are worth USD 450 million, what amount of losses will cause the investor to begin to lose money if he invested in the senior tranche?

A. USD 200 million
B. USD 190 million
C. USD 100 million
D. USD 90 million

Example 23.14: FRM Exam 2009—Question 6-5

a. This is the sum of the value of the lower tranches, or $190 million plus the overcollateralization, which is $10 million.

真题回顾

2. In a synthetic CDO,

A. The SPV gains credit exposure by buying securities.

B. The SPV gains credit exposure by selling credit default swaps.

C. The SPV gains credit exposure by buying credit default swaps.

D. The SPV gains credit exposure by selling risk-free bonds.

Example 23.15: FRM Exam 2008—Question 3-29

b. The SPV can either buy credit-sensitive bonds or sell default swaps.

真题回顾

3. Harris Smith, CFO of XYZ Bank Corp, is considering a $500 million loan securitization. He has enlisted a well-respected structuring agent to help decide on the most beneficial structure. XYZ is a $100 billion regional bank with a moderately strong balance sheet. Its current credit rating on unsecured debt is BBB. It recently issued a secured bond issue with a credit rating of a after ring-fencing certain assets. XYZ desires to minimize the cost of funds and achieve AAA credit rating on the senior tranche of the new securitization. After reviewing the financials of XYZ and forecasting future economic conditions, the structure has recommended an arbitrage CDO with the following loss distributions:

   Equity tranche: 0-30%

   Junior tranche: 30-50%

Smith should use which of the following CDO structures?

A. Arbitrage CDO with $25 million equity tranche.

B. Arbitrage CDO with $150 million equity tranche.

C. Balance sheet CDO with $25 million equity tranche.

D. Balance sheet CDO with $150 million equity tranche.

201405真题讲解

45. An underwriter structures a collateralized loan obligation (CLO) composed of 100 identical loans, each with a notional value of GBP 800,000 to be repaid in one year with an interest rate of LIBOR + 3%. The CLO has one planned payment at maturity and its capital structure is given by:

Tranche	Face Value	Coupon
Equity	GBP 5 million	
Mezzanine debt	GBP 10 million	LIBOR + 5.0%
Senior debt	GBP 65 million	LIBOR + 0.5%

At maturity the CLO accumulates GBP 6,625,000 of losses from defaults and unpaid interest. If LIBOR was flat at 1% over the 1-year period, and assuming no recovery on the defaults, how would the losses be absorbed by the capital structure?

A. The equity tranche will lose some of its value, and the other tranches will not be affected.
B. The equity tranche will lose all of its value, and the other tranches will not be affected.
C. The equity tranche will lose some of its value, and the mezzanine tranche will lose some of its value.
D. The equity tranche will lose all of its value, and the mezzanine tranche will lose some of its value.

Answer: B

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