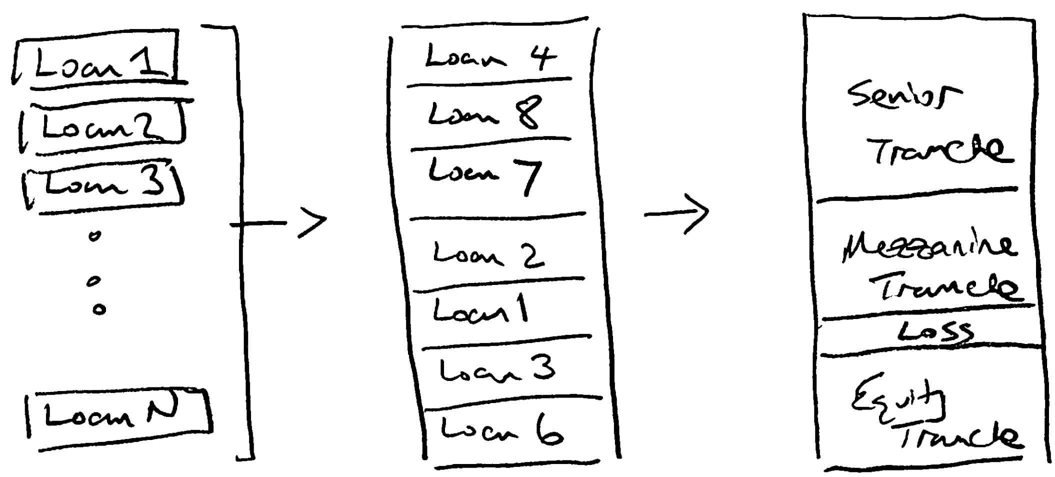
Credit Securitizations and Derivatives

- OTC market instruments with exposures totaling 40 trillion USD
- Securitizations involve the sale of assets into bankruptcy-remote special purpose vehicles (SPV) which are funded by investors of different seniorities (tranches).
- SEC defines Asset-Backed Securites (ABS) as financial instruments "that are backed by a discrete pool of self-liquidating financial assets."
- Assets are:
  - mortgages
  - student loans
  - credit cards
  - auto loans
  - home-equity loans
  - etc.

these assets, the underlying asset pool, also called the collateral, are debt instruments that are unable to be traded individually.



asset pool (collateral) | pooling and tranching | Asset securitization

Asset securitization consists of three generic tranche types:

- senior tranche
- mezzanine tranche
- equity

Often the SPV or Originator (sponsor) will own part of securitization structure so as to signal the credit quality of the underlying debt claims. Originator will typically retain the equity tranche.

Equity Tranche ⇒ the first loss piece, since it covers first losses in the collateral.

If losses of the collateral exceed the equity tranche, then the mezzanine tranche is <u>impaired</u>, and so on.

Form subordination principles:

- senior tranche is suffered by the mezzanine and equity tranches
- mezzanine tranche is suffered by the equity tranche
- equity tranche has no suffering

Most risky – equity
mezzanine
Least risky – senior

Investors can choose their preferred risk profiles, such as

- banks
- insurance companies
- hedge funds
- investment banks

- Tranche investors receive a premium payment which is typically paid quarterly and which is a compensation for the default risk.

- Payment Directions
  - Premium Leg (pass-through structure)
  - Protection Leg

- Premium Leg
  - investor's risk premium paid by the issuer
  - raised from cash flows generated by the collateral through
    - interest payments and/or
    - liquidation payments
  - premium payments follow the subordination principle, ie,

    senior gets paid first,
    then mezzanine
    then equity

    } waterfall principle
  - since the principle of risk/reward
    - premium payments are generally higher for equity tranches

- Protection Leg (contingent payments)
  - paid by investors to the pooled assets' counterparties in terms of a default event within the collateral to compensate for occurred losses.

In general, a default event is

- delayed or failure interest payments
- liquidation.

Typically Credit Rating Agencies

- S&P
- Moody's
- Fitch

are the agencies that

1) subordinate the asset pools into tranches
2) Typically, an investor can offer his/her profile for risk/reward and then be offered a tranche

Note:

Asset Back Securities (ABS)

- Home-Equity Loans (HEL)
- Auto Loans
- Credit Card Receivables
- Student Loans

Mortgage-Backed Securies (MBS)

- Commercial MBS (CMBS)
- Residential MBS (RMBS)

Collateterized Debt Obligations (CDO)

- Collateralized Loan Obligations (CLO)
- Collateralized Bond Obligations (CBO)

Mortgage Backed Securities (MBS)

- A mortgage loan is a debt instrument by which a borrower gives the lender a lien on real property as security for repayment of the loan. The borrower has the use of the property and the lien is removed when the obligation is paid in full.

- MBS are bonds that are secured by a collection of underlying mortgage loans. The mortgage payments of the individual real estate are used to pay interest and principal on the bonds.

- Three US Federal Housing Agencies account for nearly all the mortgage pass-through issuance in the US mortgage market.

Formal Name	Nickname	Abb.	Established	Tie the US Govt
Government National Association	Ginnie Mae	GNMA	1968	Backed by the full faith of US Govt
Federal National Mortgage Assoc.	Fannie Mae	FNMA	1938	Line of credit to the US Tsy.
Federal Home Loan Mortgage Corporation	Freddie Mac	FHLMC	1970	Line of credit to the US Tsy