# LECTURE VII
# SECURITIZATION

International Financial Markets- 2018

# What is Securitization?

– An entity (bank, SPV, UCITS) pools together identifiable cash flows over time and packages the pool of collaterals into notes, with explicit priority of payments and sells them to investors.

– Thus securitization is, first and foremost, a financing mechanism for the issuer of the collaterals.

– The tranche structure makes securitization interesting, in terms of risk.

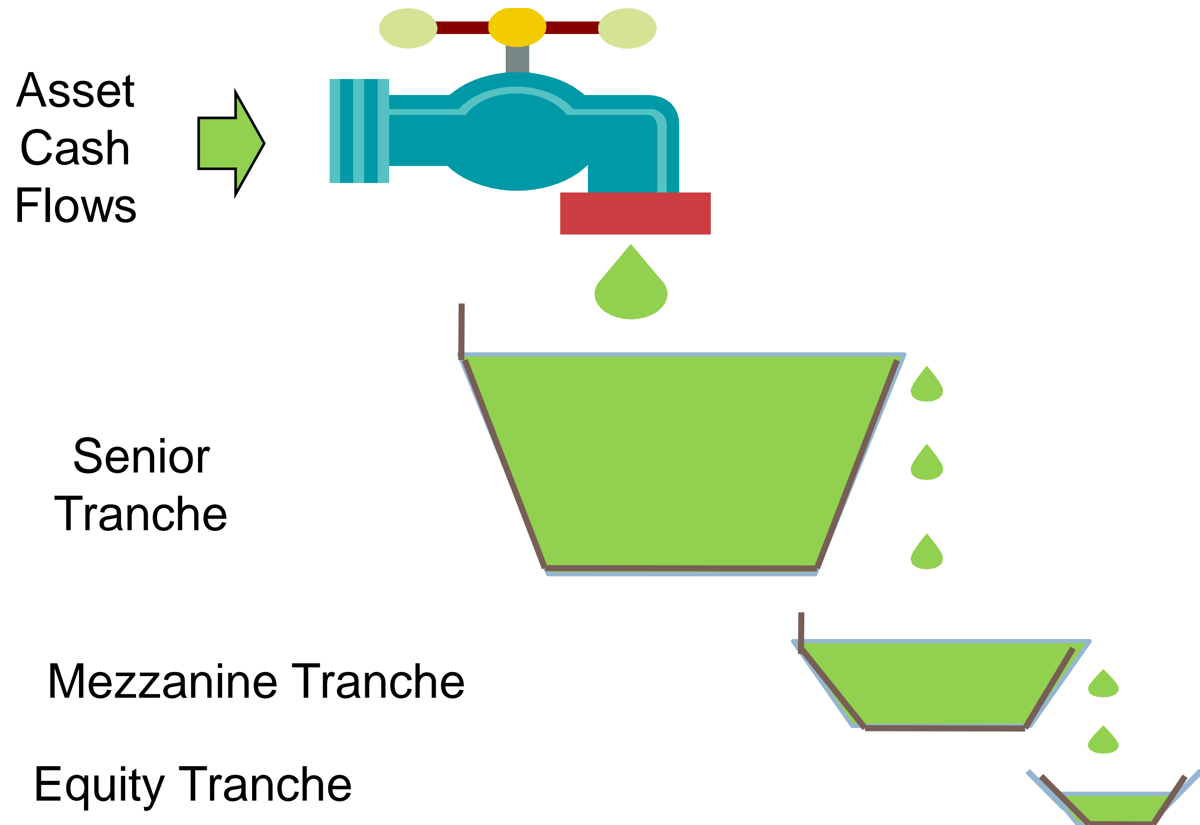
# Types of Securitizations

- Securitization types are defined based on the type of the underlying pool of assets
  - mortgage loans ==> ***MBS***
  - consumer loans ==> ***ABS***
  - corporate loans ==> ***CLO***
  - corporate bonds ==> ***CBO***
- Mortgage backed securities (MBS) were the first ones and are still the most predominant type of securitization.

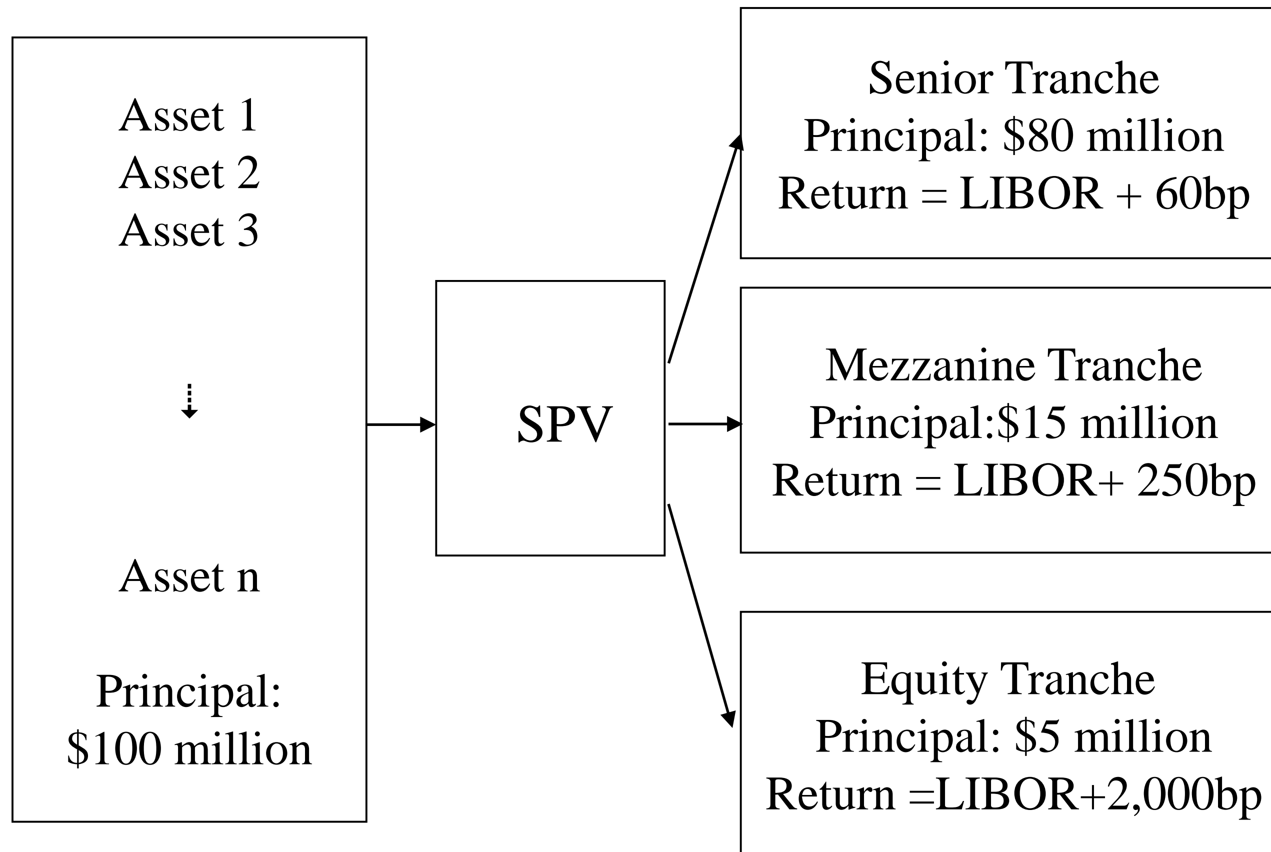
# Securitization + tranching

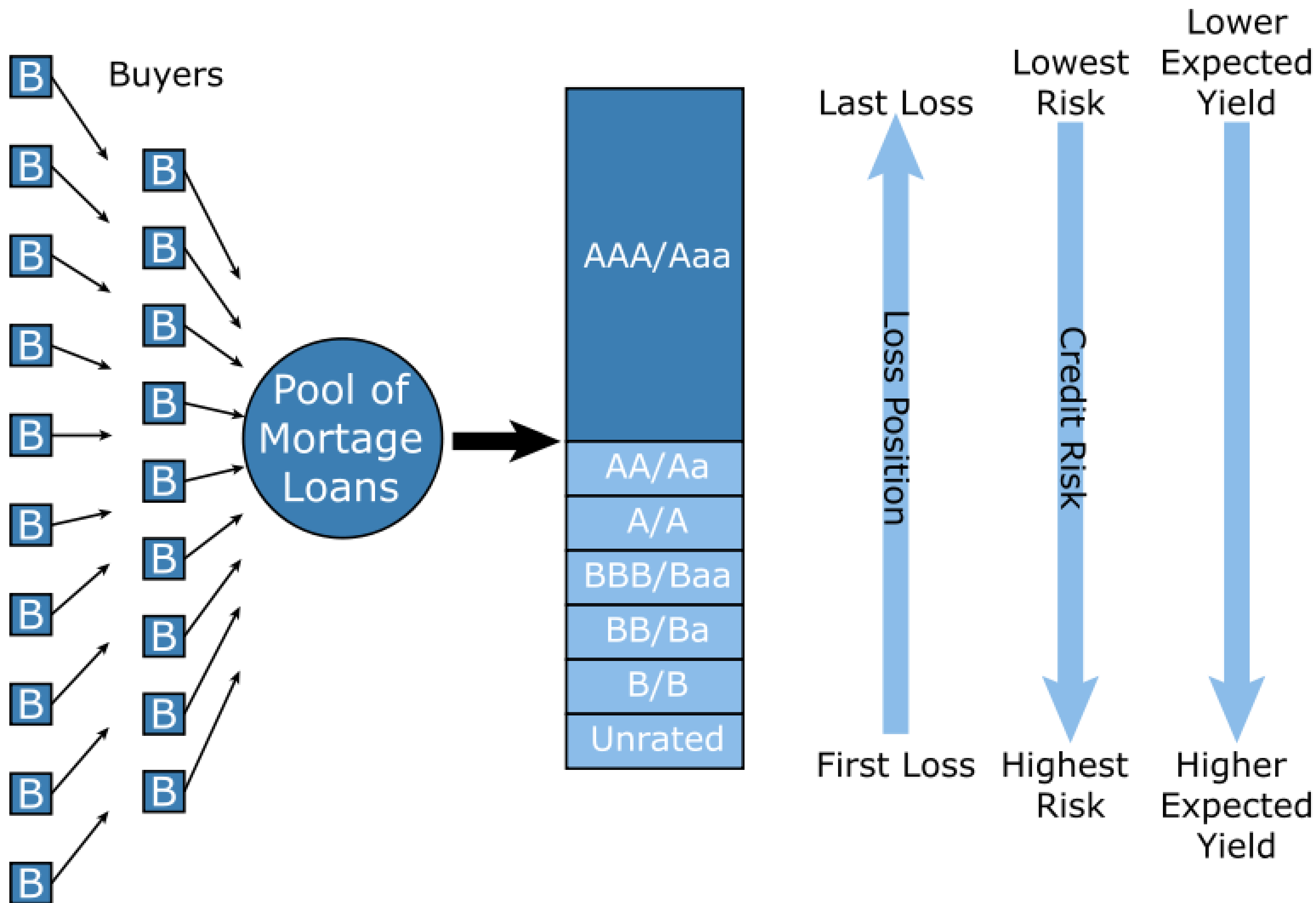
- Securitization: with it, investors are able to gain exposure to asset classes, such as leveraged loans, whose performance across the business cycle may differ from that of other eligible assets.
- Tranching: it can be very helpful for those investors that have to invest in highly rated securities
- Tranching offers the following benefits:
  - Tranches allow for the ability to create one or more classes of securities whose rating is higher than the average rating of the underlying collateral asset pool or to generate rated securities from a pool of unrated assets.
  - This is accomplished through the use of credit support specified within the transaction structure to create securities with different risk-return profiles.
  - The equity/first-loss tranche absorbs initial losses, followed by the mezzanine tranches which absorb some additional losses, again followed by more senior tranches.

# The Waterfall



# Asset Backed Security (Simplified)




Different Risk and Return for Different Investors
Buyers
B
Pool of Mortage Loans
AAA/Aaa
AA/Aa
A/A
BBB/Baa
BB/Ba
B/B
Unrated
Last Loss
Loss Position
First Loss
Lowest Risk
Credit Risk
Highest Risk
Lower Expected Yield
Higher Expected Yield

# What happened…

- Starting in 2000, mortgage originators in the US relaxed their lending standards and created large numbers of subprime first mortgages.
- This, combined with very low interest rates, increased the demand for real estate and prices rose.
- To continue to attract first time buyers and keep prices increasing they relaxed lending standards further
- Features of the market: 100% mortgages, ARMs, teaser rates, NINJAs, liar loans, non-recourse borrowing

# What happened…

- Mortgages were packaged in financial products and sold to investors
- Banks found it profitable to invest in the AAA rated tranches because the promised return was significantly higher than the cost of funds and capital requirements were low
- In 2007 the bubble burst. Some borrowers could not afford their payments when the teaser rates ended. Others had negative equity and recognized that it was optimal for them to exercise their put options.
- U.S. real estate prices fell and products, created from the mortgages, that were previously thought to be safe began to be viewed as risky
- There was a "flight to quality" and credit spreads increased to very high levels

# Key Mistakes Made By the Market

- Default correlation goes up in stressed market conditions
- Assumption that a BBB tranche is like a BBB bond

# Need to Align Interests of Originators and Investors

- There is evidence that mortgage originators used lax lending standards because they knew loans would be securitized
- For a rebirth of securitization it is necessary to align the interests of originators and investors
- Regulators are insisting that when credit risk is transferred a certain percentage (5% to 10%) of each tranche is retained by the originator

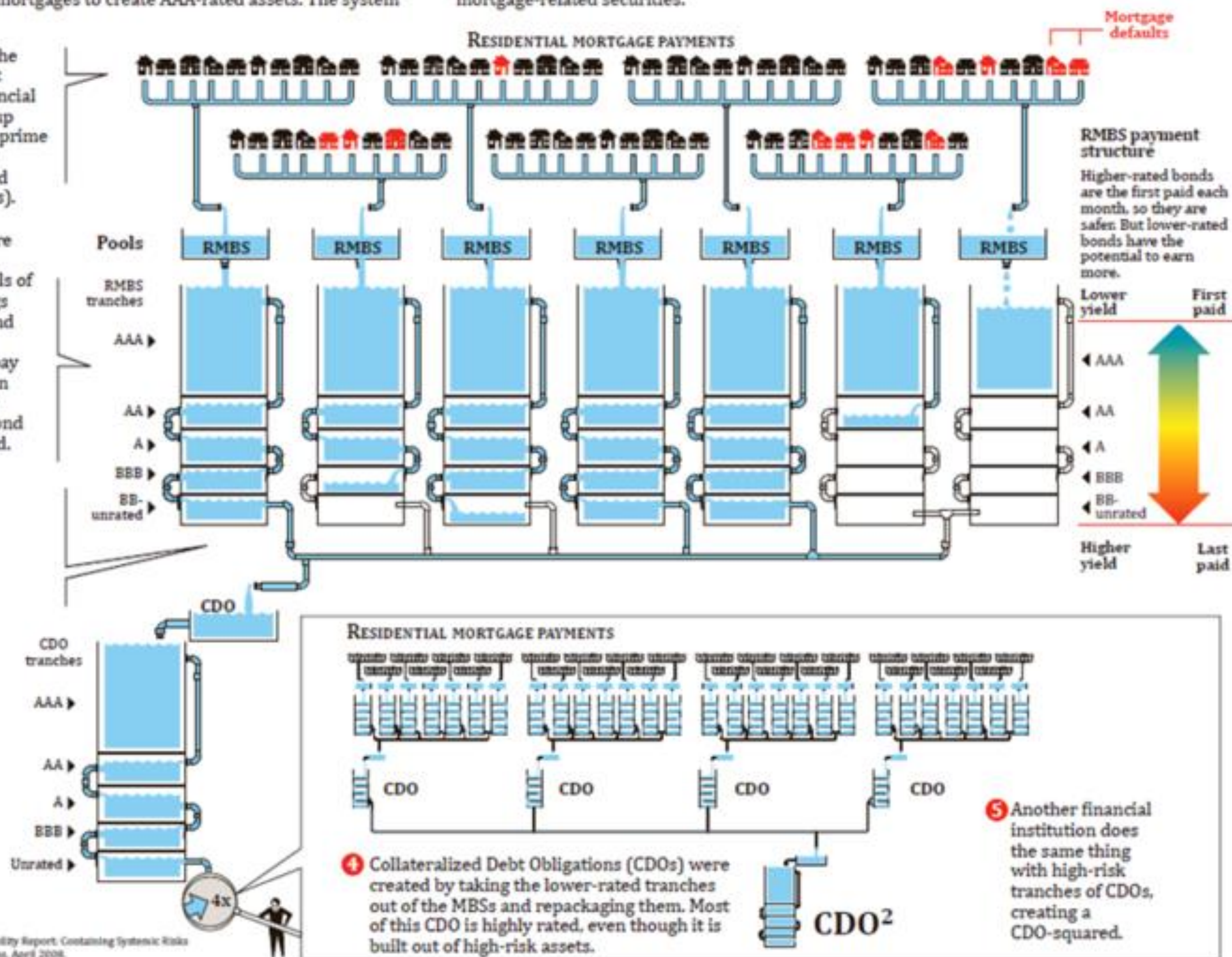
# Transparency

- ABSs and ABS CDOs were complex inter-related products
- Once the AAA rated tranches were perceived as risky they became very difficult to trade because investors realized they did not understand the risks
- Arguably the onus should be on the creators of the products to provide a way for potential purchasers to assess the risks (e.g., by providing software)

# The Theory of How the Financial System Created AAA-rated Assets out of Subprime Mortgages

In the financial system, AAA-rated assets are the most valuable because they are the safest for investors and the easiest to sell. Financial institutions packaged and re-packaged securities built on high-risk subprime mortgages to create AAA-rated assets. The system worked as long as mortgages all over the country and of all different characteristics didn't default all at once. When homeowners all over the country defaulted, there was not enough money to pay off all the mortgage-related securities.

1. People all over the country take out mortgages. Financial institutions group hundreds of subprime mortgages into Mortgage Backed Securities (MBSs).
2. The securities are grouped into tranches by levels of risk and earnings potential for bond holders. When everybody can pay their mortgage in full each month, each group of bond holders gets paid.
3. The mortgage payments are collected by a financial institution and payments distributed to bond holders. Higher rated tranches are paid first. When monthly mortgage payments are not made, payments may not reach holders of lower-rated tranches.




Source: IMF, Global Financial Stability Report: Containing Systemic Risks and Restoring Financial Soundness, April 2008.

# More Emphasis on Stress Testing

- We need more emphasis on stress testing and managerial judgement; less on the mechanicistic application of VaR models (particularly when times are good)
- Senior management must be involved in the development of stress test scenarios