Alternative Forms of Asset Securitization

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Asset-Backed Securities: Alternative Structures

- What Assets?
- MBS and Paydown Structure
- Legal Forms
  - Collateralized Debt
  - Pass-Through
  - Pay-Through
- Asset-Backed Commercial Paper (Conduits)
- Other Deals
What Assets?

- Mortgages
- Consumer receivables
  - Auto
  - Credit Card
  - Cellphone
- Commercial receivables
  - Customer A/R
  - Leases
- Infrastructure revenues
  ...and many new forms

ABS

Asset-Backed Securities

Mortgage

Non-Mortgage

Consumer

Industrial

Infrastructure
**Structure of the US MBS Market**

- **Mortgage Loan**
  - Bank (mortgage originator) makes a whole loan
  - Ancillary: brokers, servicers, insurers

- **Mortgage Pass-Through**
  - FNMA or GMAC (conduit) pools mortgage loans with similar characteristics

- **CMO or REMIC**
  - Takes a mortgage pool and makes the cash flows more predictable by assigning priority of claims to the cash flows

- **MBS Portfolio**
  - Institutional investor evaluates risk/return behavior of mortgage-backed securities through option-adjusted price and spread analysis

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**US Mortgage-Backed Securities**

**Agency Pass-Throughs**
- INTEREST
- PRINCIPAL
- PREPAYMENT

**Private-Label Pass-Throughs**
- INTEREST
- PRINCIPAL
- PREPAYMENT

**Grantor Trust Structure**

- **GNMA MBS** (US Govt g'tee)
- **FHLMC PC**
- **FNMA MBS** (US Agency g'tee)

**Credit enhancement:**
- Corp g'tee
- L/C
- Insurance (FSA)
- Senior/sub debt
Form of cash flow allocation

- Pay-through obligation
- Different tranches
- Pass-through obligation
- PAC (planned amortization class)
- TAC (targeted amortization plan)
- IO/PO strips

Mortgage Prepayments

Complexity of the option -
- Systematic risk: exercise of the interest rate option
- Unsystematic risk: reasons unrelated to mortgage interest rates (e.g., demographic)
- What is the PSA?
Mortgage Pool Prepayment Conventions

Traditional method is to forecast prepayments by adjusting the PSA (Public Securities Association) benchmark of a prepayment rate that reaches 6% a year for 30 year mortgages.

Annual prepayment rate (CPR):

100% PSA:
- If \( t \leq 30 \) \( \text{CPR} = 6\% \frac{t}{30} \)
- If \( t > 30 \) \( \text{CPR} = 6\% \)

170% PSA:
- If \( t \leq 30 \) \( \text{CPR} = 170\% [6\% \frac{t}{30}] \)
- If \( t > 30 \) \( \text{CPR} = 170\% [6\%] \)

CMOs and Strips

The technique:
- Allocate cash flows (interest & principal) of MBS to mitigate prepayment risk
- Pay different returns based on risk
- The sum of the part should be worth more than the whole alone.

Example: MDC Series J CMO with underlying pool WAC 9.5%, 297 months final maturity
Mortgage-backed securities and other callable bonds may have negative convexity which cushions a bond’s price rise and accelerates its fall!
**Typical MBS:**
**Fannie Mae REMIC Pass-Throughs**

- What are the underlying mortgage pools?
- Look at different asset groups:
- Yields on different classes
- Price risks on each class
- What do the seller & servicer gain?

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**Non-Mortgage ABS:**
**Typical Paydown Structure**

Principal Amount

- Principal Repayments Are Reinvested
- Principal Repayments Are Passed Through To Investors

Date of Purchase

End of Revolving Period

Amortization Period

Clean-Up Call

Time

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Alternative Forms of ABS 15
**Alternative Structures**

- Collateralized Debt
- Pass-Through
- Pay-Through

**Collateralized Bonds**

<table>
<thead>
<tr>
<th>Originator/Issuer</th>
<th>Assets (loans)</th>
<th>Collateralized bond</th>
<th>Equity</th>
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</table>
Pass-Through Securities: Repayment of Interest and Principal

Seller → Receivables Trust 1991-A

Repayments collected from borrowers by seller

Fee paid for collecting repayments

Repayments passed through to investor

Investors

LOC Provider (if required)

Letter of Credit Agreement

Pay-Through Securities: Repayment of Interest and Principal

Seller → Funding Corporation

Repayments collected from borrowers by seller

Fee paid for collecting repayments

Dividends

Equity Investors

Investors

Interest and principal as indicated on notes

Letter of Credit Agreement

LOC Provider (if required)