

IBBM
Financing with Asset-Backed Securities

***ABS Rating Process
and Credit Enhancement***

Prof. Ian Giddy
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Rating Agencies

- Moody's
- Standard & Poors
- Fitch

Why bother with a rating?

- Compare equivalent credit risks across different kinds of debt: corporate, sovereign, ABS
- Compare alternatives across different ratings levels
- Obtain a relative as well as an absolute measure of credit risk
- Be reasonably sure of a market to sell the security.

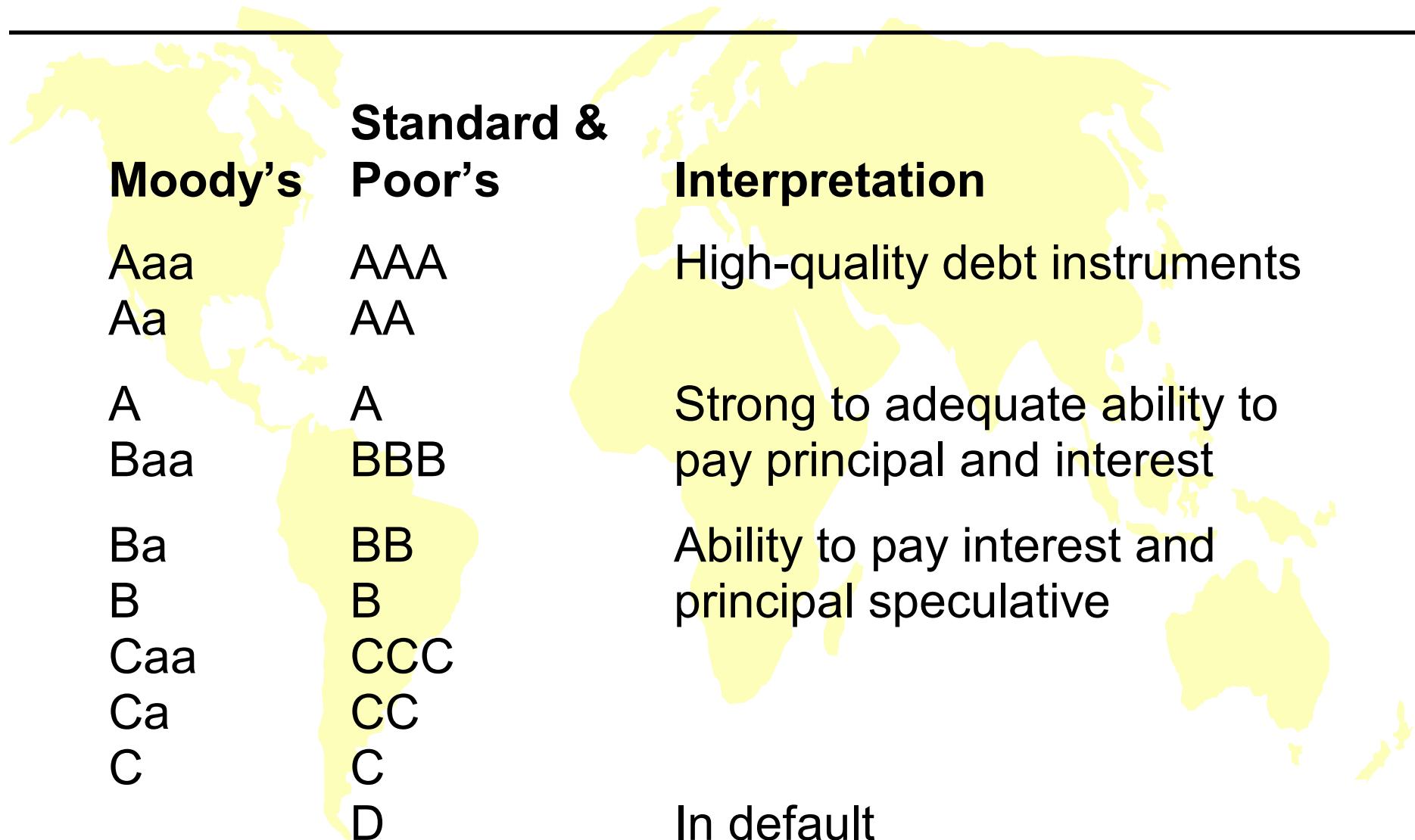
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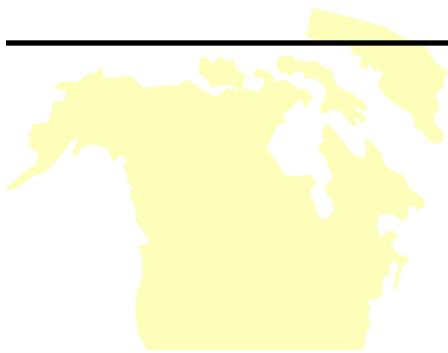
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Bond Credit Ratings



Moody's	Standard & Poor's	Interpretation
Aaa	AAA	High-quality debt instruments
Aa	AA	
A	A	Strong to adequate ability to pay principal and interest
Baa	BBB	
Ba	BB	Ability to pay interest and principal speculative
B	B	
Caa	CCC	
Ca	CC	
C	C	
	D	In default

Ratings



Rating Scales of the U.S. Rating Agencies																								
Agency	Investment Grade												Speculative Grade											
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	D		
S&P	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca				
Moody's	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca				
Fitch	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	DDD	DD	D



Typical Rating Report

Asset-Backed
Presale Report

Honda Auto Receivables 2004-1 Owner Trust

Expected Ratings

\$347,000,000 Class A-1	
Asset-Backed Notes.....	F1+
\$456,000,000 Class A-2	
Asset-Backed Notes.....	AAA
\$431,000,000 Class A-3	
Asset-Backed Notes.....	AAA
\$301,000,000 Class A-4	
Asset-Backed Notes.....	AAA
\$47,514,648 Asset-Backed Certificates*.....	NR

*Retained by seller. NR – Not rated.

Analysts

Andrew Chou

■ Summary

Fitch Ratings expects to rate the Honda Auto Receivables 2004-1 Owner Trust (the trust) notes as listed at left. The trust is also issuing \$47.5 million in certificates that are unrated and retained by the seller. Fitch's ratings address the likelihood that noteholders will receive full payments of interest and principal in accordance with the terms of the transaction documents. The ratings on the class A notes are based on the following:

- High quality of the retail auto receivables originated and serviced by American Honda Finance Corporation (AHFC).
- Initial credit enhancement of 3.50% provided by a 3.00% subordinated certificate and a 0.50% nondeclining reserve account growing to a target level of 0.75% of the initial pool balance.
- Yield supplement account (YSA) designed to compensate for

Rating Reports

ABS

OVERVIEW

SUBSECTORS

RATINGS

Issuer List

RESEARCH & REPORTS

Research Highlights

Special Reports

Criteria Reports

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Performance Reports

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Issuance Trust Updates

Presale Reports

14 Jun 2004

09 Jun 2004

08 Jun 2004

02 Jun 2004

01 Jun 2004

27 May 2004

25 May 2004

24 May 2004

20 May 2004

19 May 2004

19 May 2004

17 May 2004

15 May 2004

[BPL Consumer S.r.l. - Series 2004](#)

[GE Capital Credit Card Master Note Trust, Series 2004-1 \(US ABS\)](#)

[Capital One Multi-asset Execution Trust, Card Series Class C \(2004-3\) \(Europe & International ABS\)](#)

[SLM Student Loan Trust 2004-5 \(US ABS\)](#)

[State of Connecticut Special Obligation Rate Reduction Bonds, 2004 Series A \(US ABS\)](#)

[The National Collegiate Student Loan Trust 2004-1 \(US ABS\)](#)

[TXU Electric Delivery Transition Bond Company LLC, Series 2004-1 \(US ABS\)](#)

[Asset-Backed European Securitisation Transaction S.r.l. \(Italy Asset-backed\)](#)

[Chase Credit Card Owner Trust, Series 2004-2 \(Chase Credit Card Master Trust\) - \(US ABS\)](#)

[F-E Green S.r.l. \(Italy ABS Leasing\)](#)

[Nippon Shinpan/Ann Funding One \(Japan ABS\)](#)

[Gendant Timeshare 2004-1 Receivables Funding, LLC \(US ABS\)](#)

SLM

FitchRatings

ABS/Europe Criteria Report

Structured Finance

Kicking the Tyres: An Overview of European Auto ABS

Analysts

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■ Summary

European auto asset-backed securities (ABS) issuance has undergone rapid growth over recent years. Total rated volume of European term issuances with auto ABS collateral has increased from EUR 450 million in 1997 to over EUR 8,700m by year-end 2001. Indications point to continued growth, and issuances are experiencing the general narrowing of spreads representative of a maturing sector. To date, auto ABS has been issued across a number of European jurisdictions, including Italy, Portugal, Germany, Austria, Spain, France and the United Kingdom. Expectations are that auto ABS issuance will spread to other

FitchRatings

Asset-Backed/Italy Presale Report

Structured Finance

Asset-Backed European Securitisation Transaction S.r.l.

■ Summary

Fitch Ratings has assigned expected ratings to the notes to be issued by A-BEST, a limited liability company incorporated in Italy, as indicated at left.

This EUR728m transaction is the term ABS phase of a securitisation programme that Fiat SAVA S.p.A. (SAVA) set up for securitising part of its auto loans portfolio. The programme has been executed in several stages.

- In mid-June 2003, SAVA sold a pool of auto loans to Nixes S.r.l. ("Nixes"), a Law 130 special purpose vehicle, which funded the purchase by issuing asset-backed notes under a

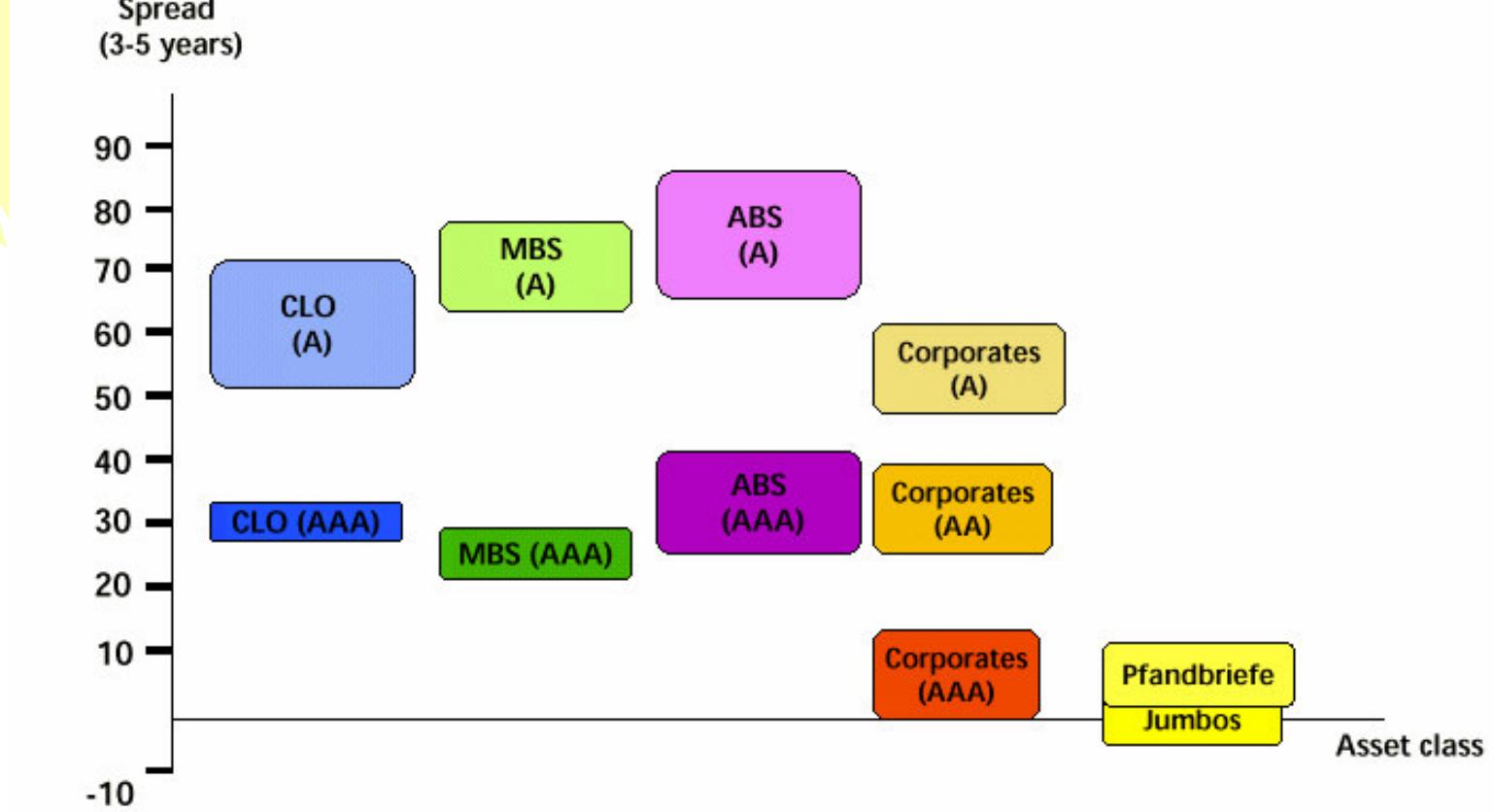
Expected Ratings*	Amount (EURm)	Maturity	Final Rating	CE (%)
648.0	Jul 2013	AAA	11.0	
21.75	Jul 2013	A+	8.0	
29.25	Jul 2013	BBB	4.0	
29.25	Jul 2013	N.R.	N/A	

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Spread Analysis

Relative Value



Spread Analysis

Relative Value

	Rating	Euribor Mid-Spreads	R.W.
Jumbopfandbriefe 5y	AAA	-3/+3	10%
Pfandbriefe 5y	AAA	+2/+7	10%
Corporates	AAA	flat/+10*	100%
Corporates	AA	+25/+35*	100%
Corporates	A	+45/+55*	100%
* exceptions even wider or tighter			
EU MBS (4-6y)	AAA	+25/+28	100%
EU MBS (4-6y)	A	+65/+75	100%
EU CLOs (5y)	AAA	+28/+32	100%
EU CLOs (3y)	A	+50/+70	100%
EU Consumer Loans (3y)	AAA	+26/+36	100%
EU Consumer Loans (3y)	A	+65/+85	100%
Recent issues			
Fennica 5 (RMBS)	AAA(5y), A(7y)	+25/+65	100%
Aire Valley Fin.No.2 (RMBS)	AAA(5.1y), Aa3(8y)	+32/+55	100%
ELOC 4 (CMBS)	AAA(5y), A(5y)	+40/+100	100%
Celtic 6 (RMBS)	AAA(4.4y), A(7y)	+25.5/+75	100%
DMPL 1 BV (RMBS)	AAA(5.6y), A(10y)	+26/+75	50%
Car loan invest-1	AAA(3.8y), A2(3.8y)	+26/+65	100%
WürttHyp 2000-1 (RMBS)	AAA(5y), A(5y)	+26/+75	100%

Default Matrix

Assumed Default Rates*

(%)

Collateral Rating	FITCH IBCA Default Curve**	Note Rating (Assumed Default Rate)				
		'BB'	'BBB'	'A'	'AA'	'AAA'
'AAA'	1.0	0.0	0.5	0.8	1.0	1.3
'AA'	1.2	0.6	0.9	1.2	1.4	2.3
'A'	1.3	1.0	1.3	1.6	4.3	5.0
'BBB'	4.0	4.0	5.0	10.0	12.0†	14.0
'BB+'	12.7	16.1	18.4	25.3	34.8	47.5
'BB'	16.0	20.0	21.6	27.9	39.9	54.3
'BB-'	20.6	24.3	26.8	34.0	46.4	59.7
'B+'	25.2	29.0	31.6	39.1	50.5	64.1
'B'	29.9	33.2	35.8	43.3	52.3	67.2
'B-'	34.5	36.9	39.7	48.3	57.0	70.8

*Midpoint stressed default rates for corporate bonds. Loan default rates would be slightly lower. **Cumulative 10-year default probability of a corporate bond at an initial rating level. †For example, credit enhancement levels for an 'AA' note rating must cover 12% default stress on a portfolio with an average rating of 'BBB'.

Source: Fitch, "Bank CLOs"

Rating Reports: Who Pays for Them?

- General reports on a sector, like CLOs
- Pre-sale report on an individual CLO, once risks have been evaluated but final terms and credit enhancement have not yet been finalized
- Final deal report
- Periodic updates

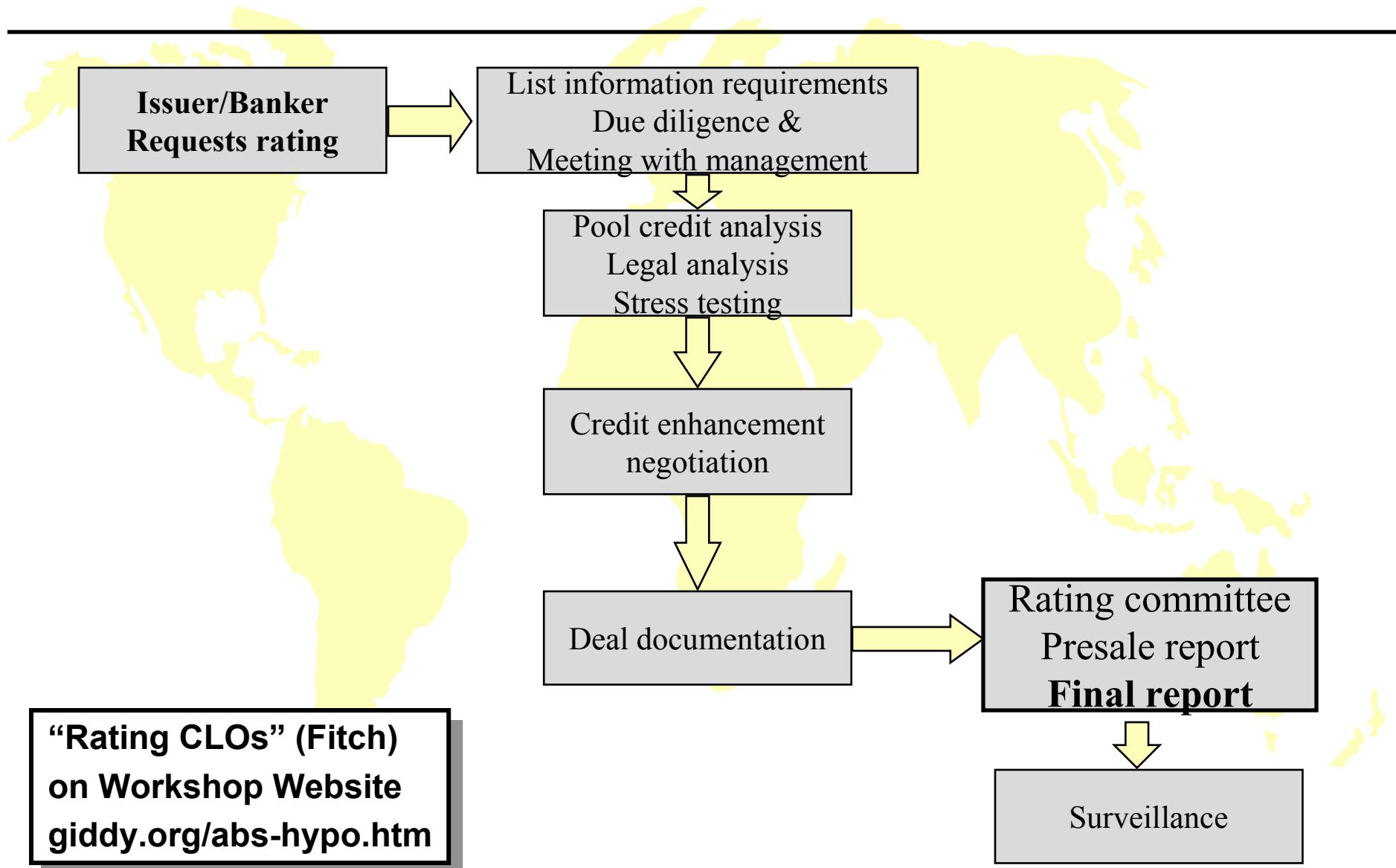
ABS: Factors Agencies Examine

- Asset portfolio analysis
- Legal structure of the transaction
- Quality of the originator/servicer
- The trustee
- The cash flow structure
- The counterparties

Rating Agencies: Business Analysis

- Organization and management structure
- Financial performance
- Business strategy and planning processes
- Controls and procedures
- Asset origination and credit assessment procedures
- Quality of its loan documentation
- Credit administration and debt recovery procedures

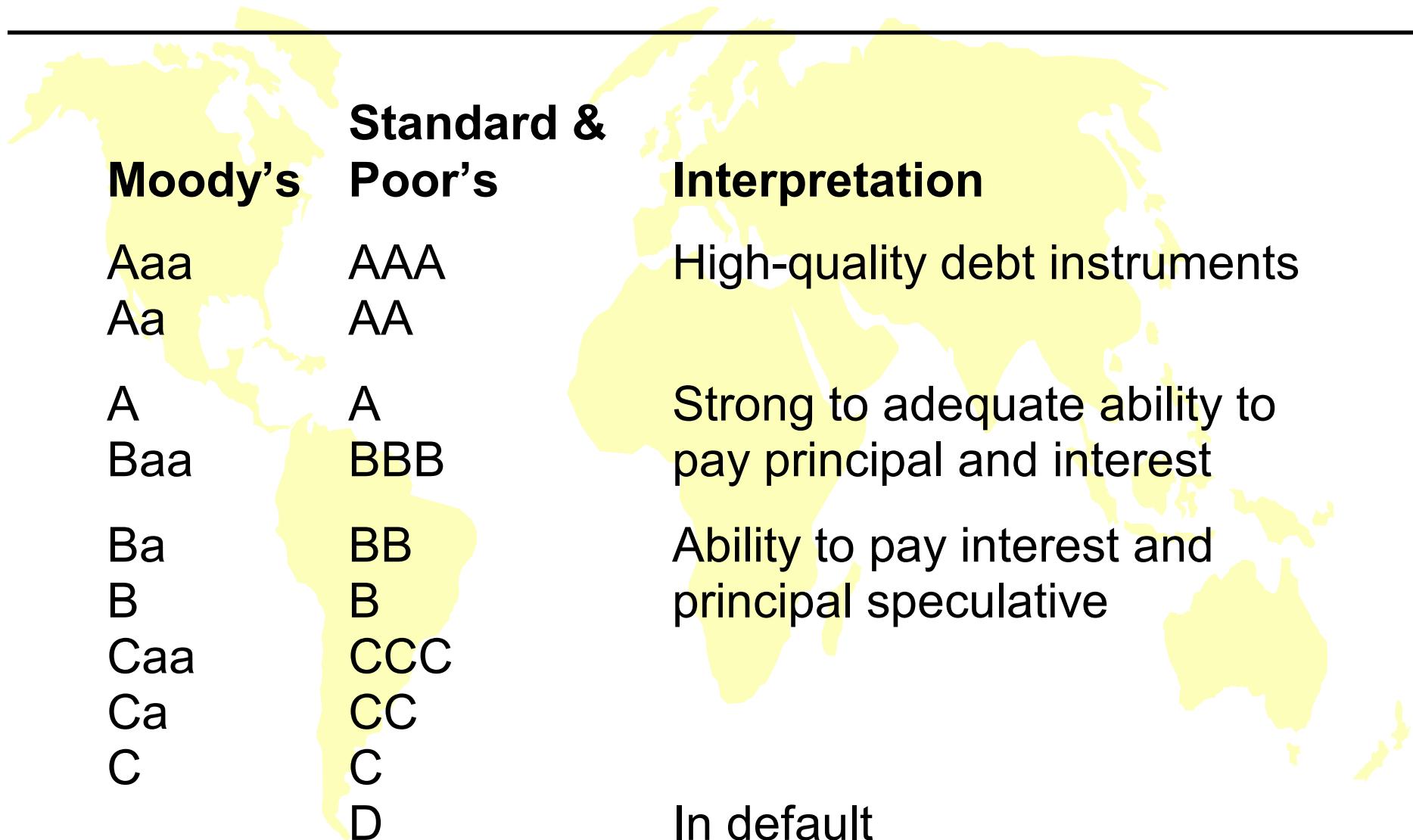
Rating Process



Credit Enhancement

- Senior/Sub or overcollateralization
- Reserve and liquidity accounts and lines
- Excess cash flow
- Third-party guarantees

The Result: Bond Credit Ratings



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Rating ABS: S&P vs Moody's

- Standard & Poor's method traditionally has been asset-based, related to the liquidation value of the assets in the pool. Their ratings logically follow from a default frequency concept.
- Moody's analysis, the basis for ABS ratings is the average reduction of yield on diversified portfolios of similarly rated securities over the life of the portfolio.

Alternative Models

- McKinsey Model highlights the role of the credit cycle in risk
- CreditRisk Plus (CSFP) uses actual default rates and their volatilities
- Creditmetrics: based on transition matrix and portfolio theory
- KMV: Expected Default Frequency based on stock price volatility

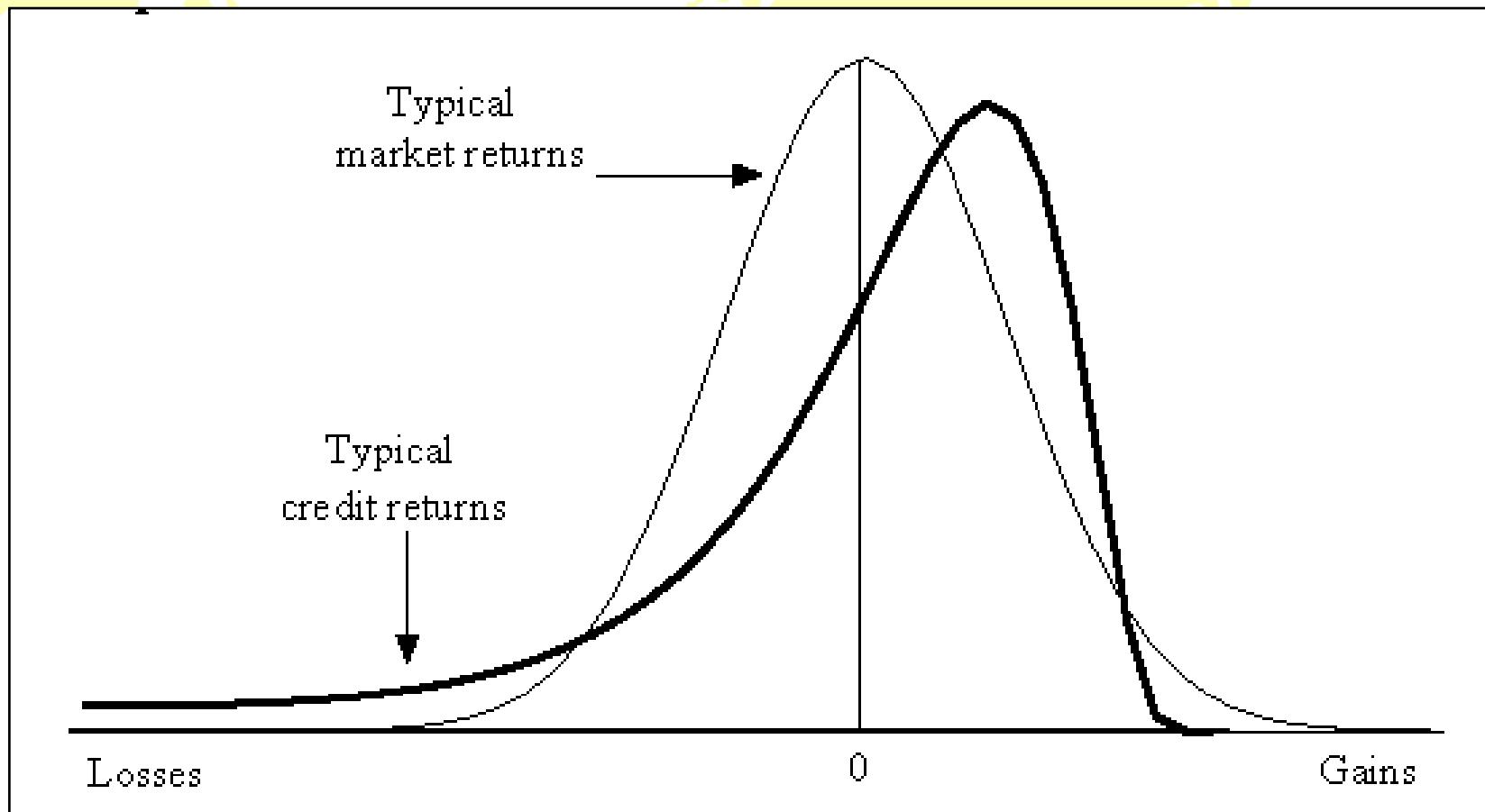
Transition Matrix

One-year transition matrix (%)

Initial Rating	Rating at year-end (%)							
	AAA	AA	A	BBB	BB	B	CCC	Default
AAA	90.81	8.33	0.68	0.06	0.12	0	0	0
AA	0.70	90.65	7.79	0.64	0.06	0.14	0.02	0
A	0.09	2.27	91.05	5.52	0.74	0.26	0.01	0.06
BBB	0.02	0.33	5.95	86.93	5.30	1.17	0.12	0.18
BB	0.03	0.14	0.67	7.73	30.53	8.84	1.00	1.06
B	0	0.11	0.24	0.43	6.48	83.46	4.07	5.20
CCC	0.22	0	0.22	1.30	2.38	11.24	64.86	19.79

Source: Standard & Poor's CreditWeek (15 April 96)

Credit Risk versus Market Risk



Stress Testing

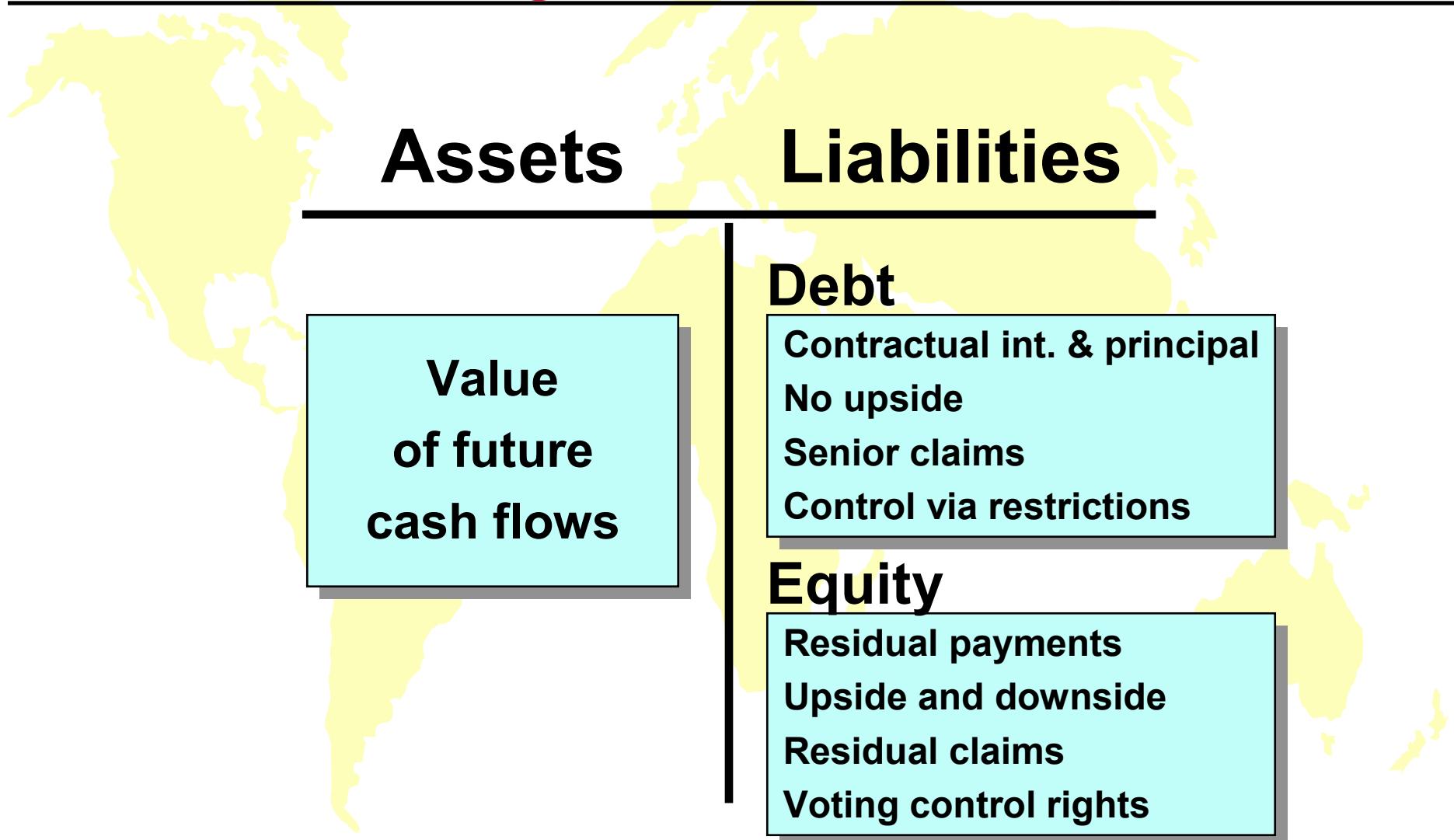
Indicator	Scenario				
	Hypothetical Deal	Stress Test One	Stress Test Two	Stress Test Three	Stress Test Four
Chargeoffs	Remain stable at 5%	Increase to 20%	Increase to 20%	Increase to 20%	Increase to 20%
Payment Rate	Remains stable at 15%	Remains stable at 15%	Decreases to 7%	Decreases to 7%	Decreases to 7%
Yield	Remains stable at 18%	Remains stable at 18%	Remains stable at 18%	Decreases to 10%	Decreases to 10%
Pool Size	Remains stable	Remains stable	Remains stable	Remains stable	Decreases by 70%
Result	Deal ends as planned after 9 months.	Deal goes into early-amortization and investors are repaid on time.	Deal does not mature on time (takes extra 3 mo.), although investors are repaid.	Deal does not mature on time (takes extra 2 mo.), although investors repaid.	Deal fails. No one willing to buy assets. Investors are not fully repaid.
Investors Repaid?	Yes	Yes	Yes	Yes	No

Stress Testing & Credit Enhancement

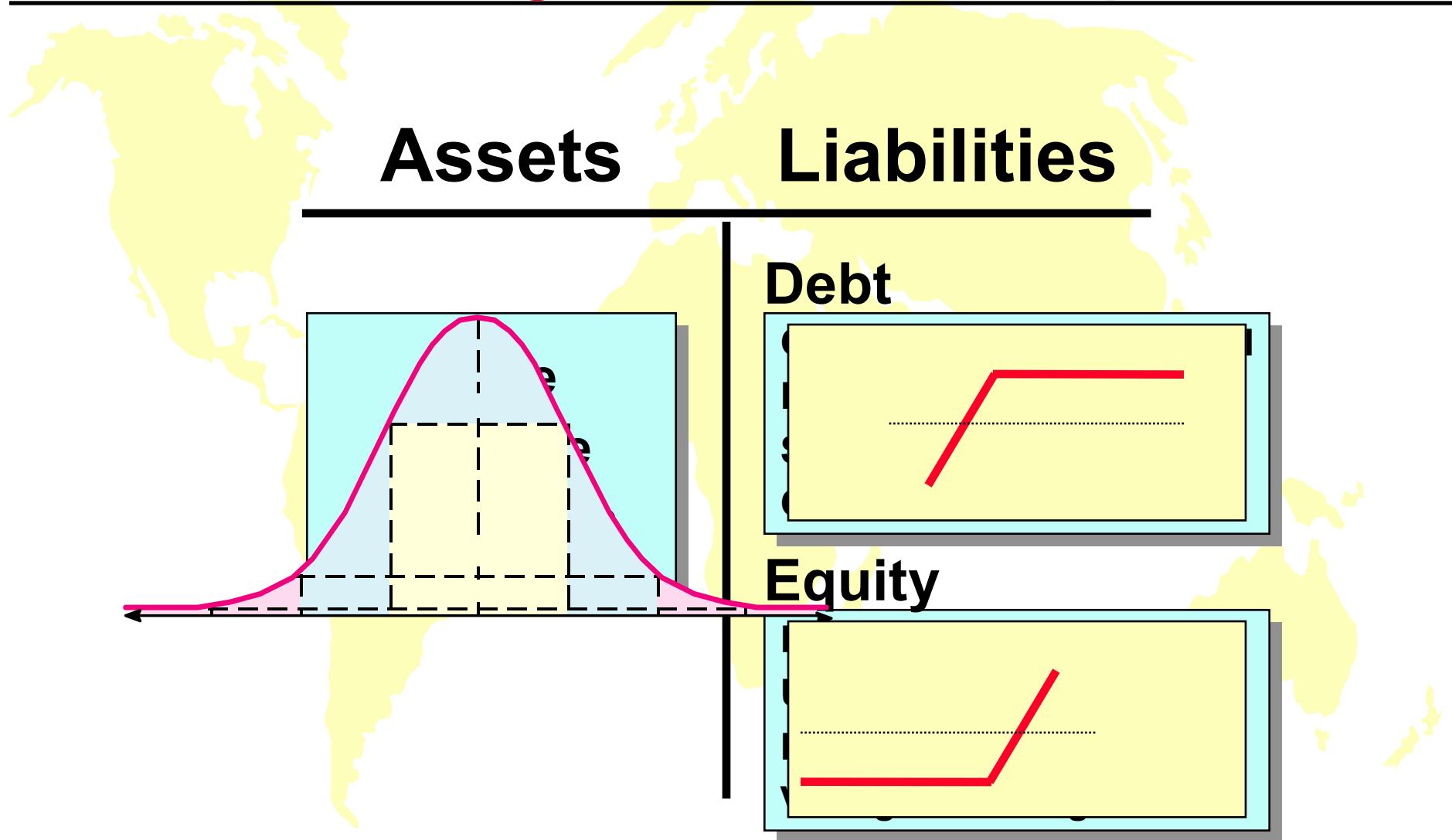
Collateral	Default probability 10yr	Note rating	
		BBB	AAA
AAA	1%	0.5	1.3
BBB	4%	5.0	14.0
B-	34.5%	39.7	70.8

Source: FitchIBCA Bank CLOs

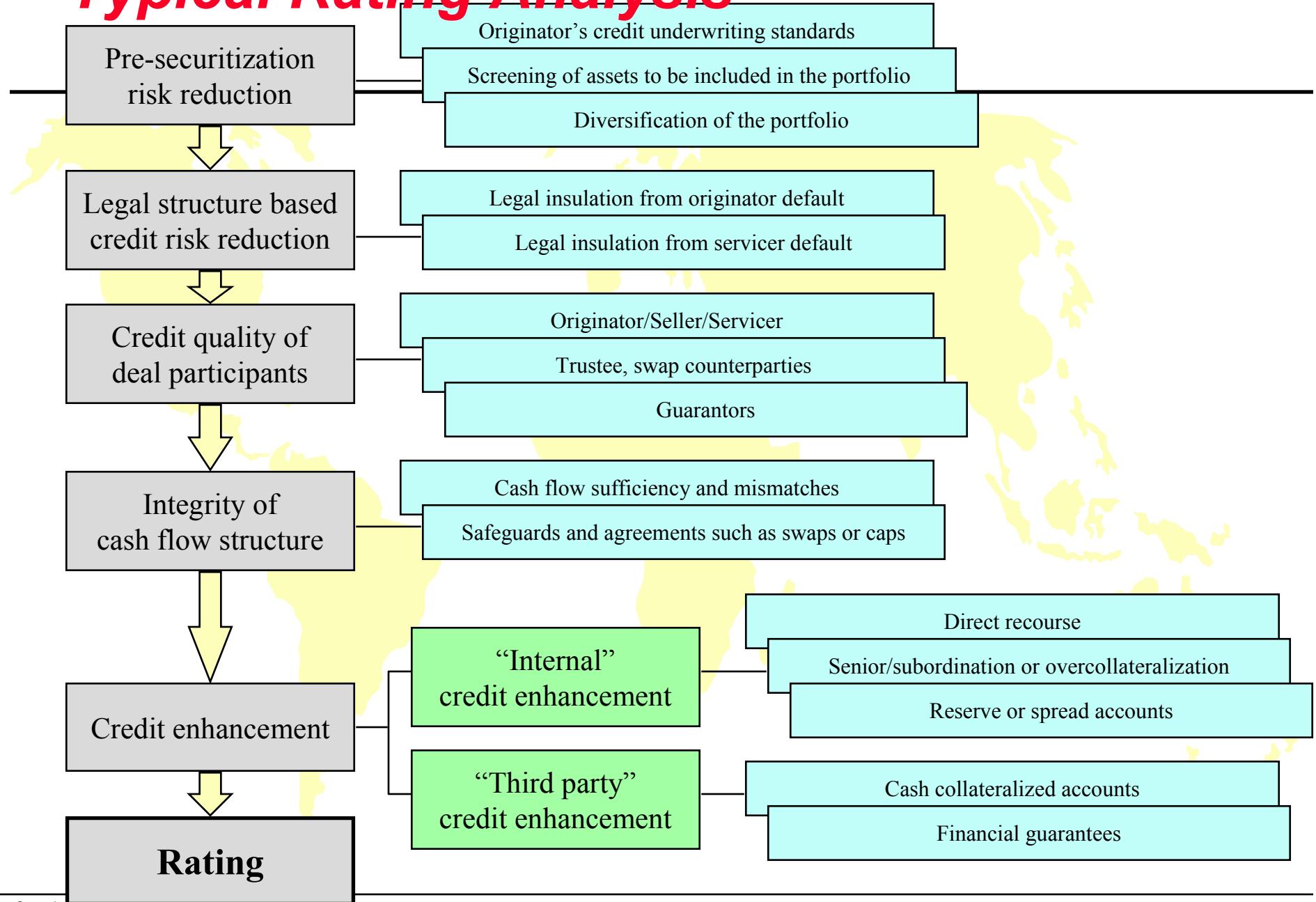
KMV: Owning a Bond Is Like Writing a Covered Call Option



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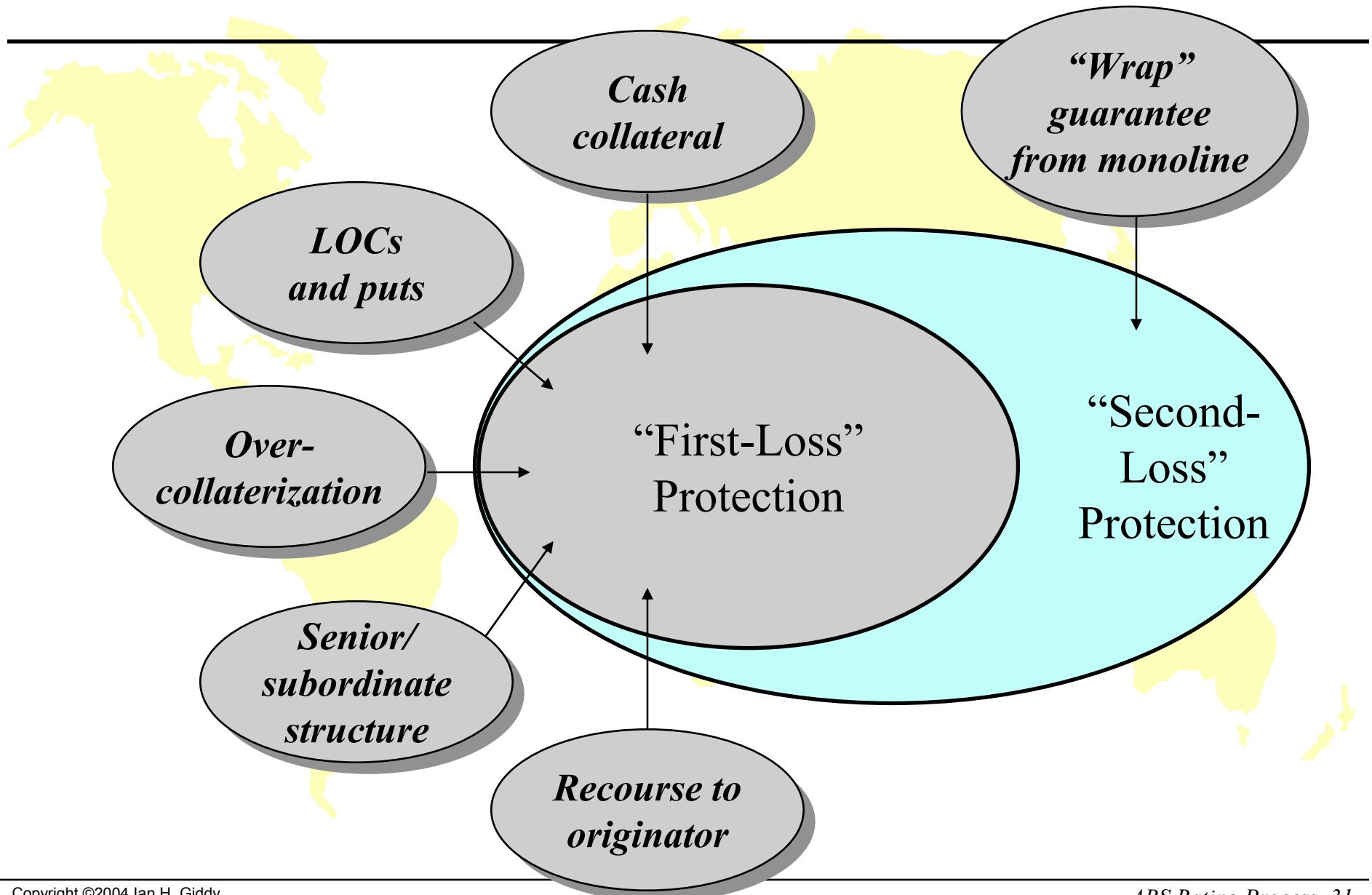
Typical Rating Analysis



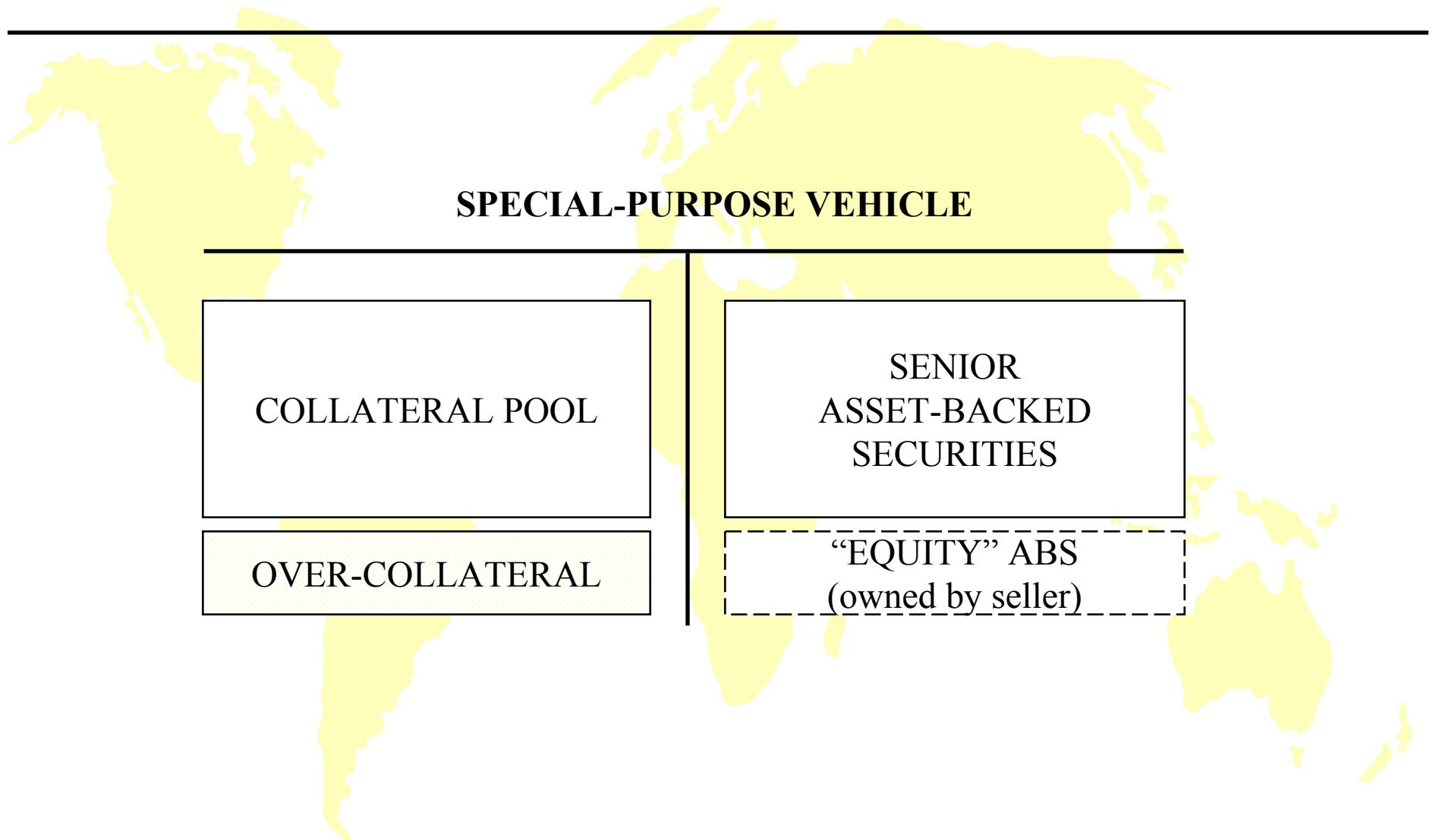
Credit Enhancement

- Overcollateralization
- Senior/Sub or
- Reserve and liquidity accounts and lines
- Excess cash flow
- Third-party guarantees

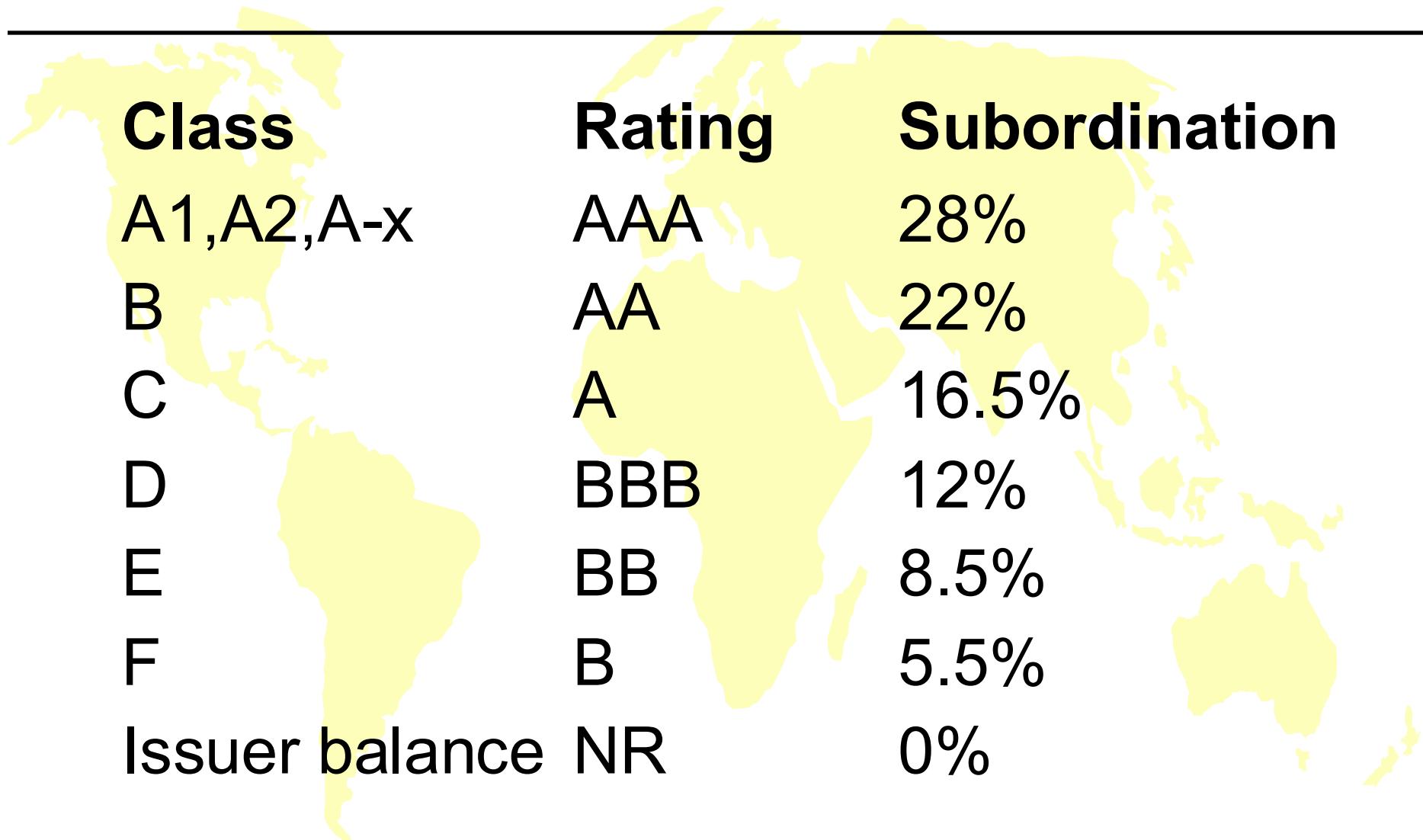
Credit Enhancement



Over-Collateralization Method

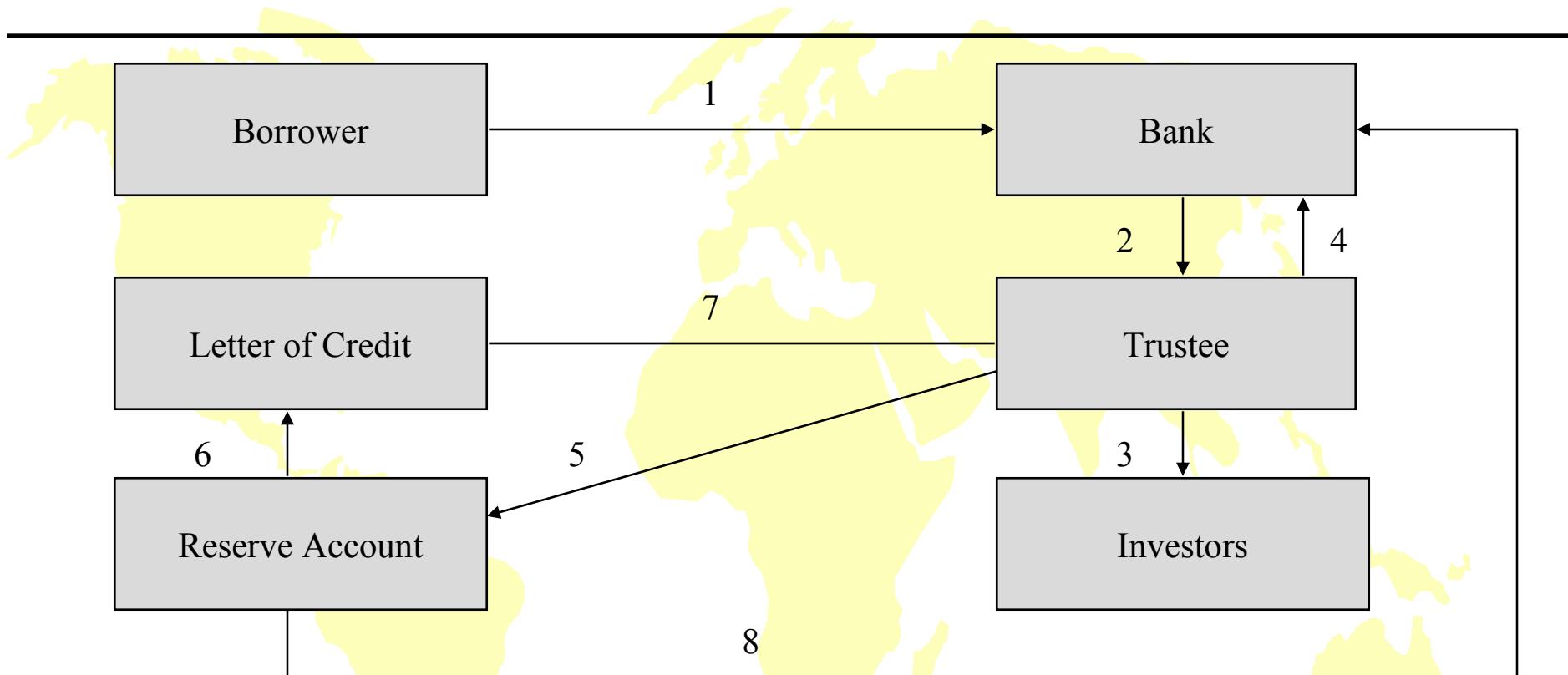


Example of Senior/Sub Structure



Class	Rating	Subordination
A1,A2,A-x	AAA	28%
B	AA	22%
C	A	16.5%
D	BBB	12%
E	BB	8.5%
F	B	5.5%
Issuer balance	NR	0%

Use of a Cash Reserve Account



- 1** The payments are made to the bank , as before the sale **2** The bank passes the payments on to the trustee **3** The trustee pays investors their interest **4** The trustee pays the bank a fee for servicing the loan **5** The difference between the porfolio yield, the investor interest and the servicing fee is paid to the reserve account **6** The reserve account is used to reimburse the letter of credit bank for **7** draws occasioned by defaults by borrowers on the loans **8** When the reserve account reaches its cap , excess funds flow back to the selling bank .

Role of Financial Guarantees

- Why use guarantees?
- The guarantors: banks, pool insurers, financial guarantors
- What do they guarantee?
- Who guarantees the guarantors?
- Getting a guarantee
- Cost of a guarantee
- Ongoing monitoring by the guarantee companies

CLO Rating Process (Fitch)

- Information request
- Initial review
 - ◆ Bank's internal credit standards, history
 - ◆ Credit scoring correlation
 - ◆ Chargeoffs and nonaccruals
- Due diligence
- Legal
- SPV
- Participations vs assignments vs CLNs
- Determining credit enhancement

Case Study: Atherton Franchisee Loan Funding

- What are the credit risks of the underlying franchise loans?
- What other risks should a rating agency consider?
- What is Fitch's method for rating franchise loans?
- How are investors protected?

Group work

Asset-Backed Securities

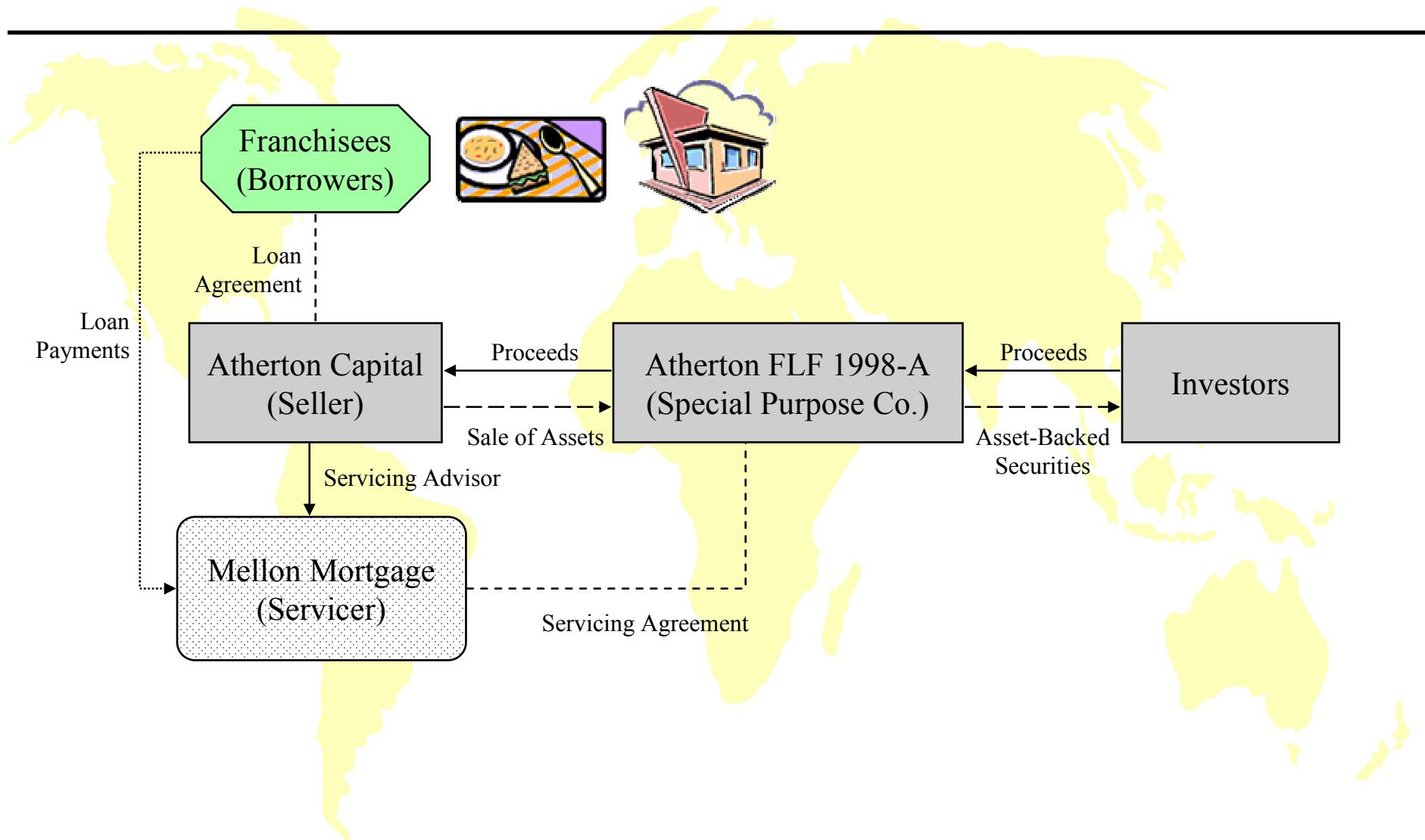
***Getting a Rating:
Franchise Loan Securitization***

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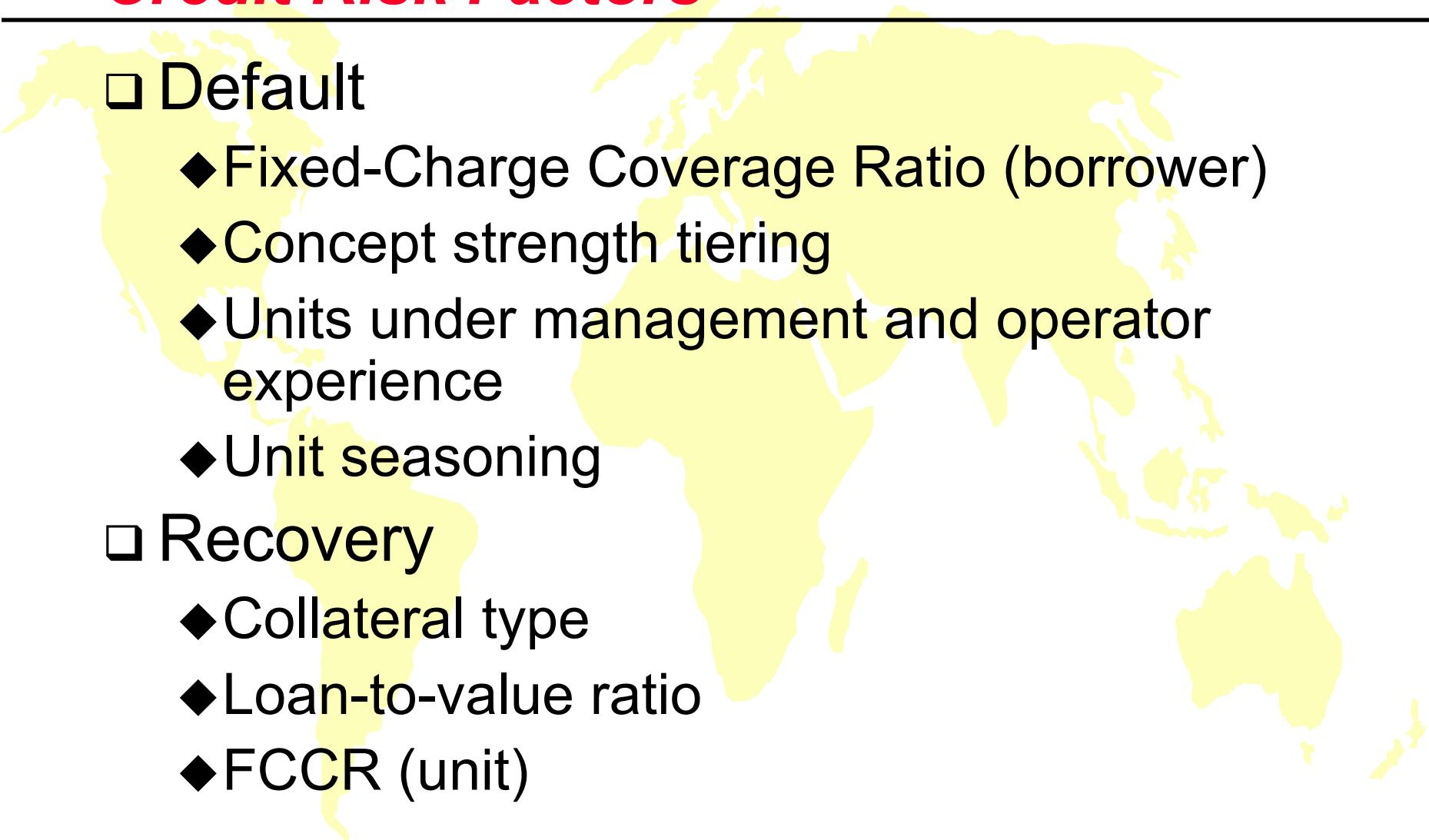
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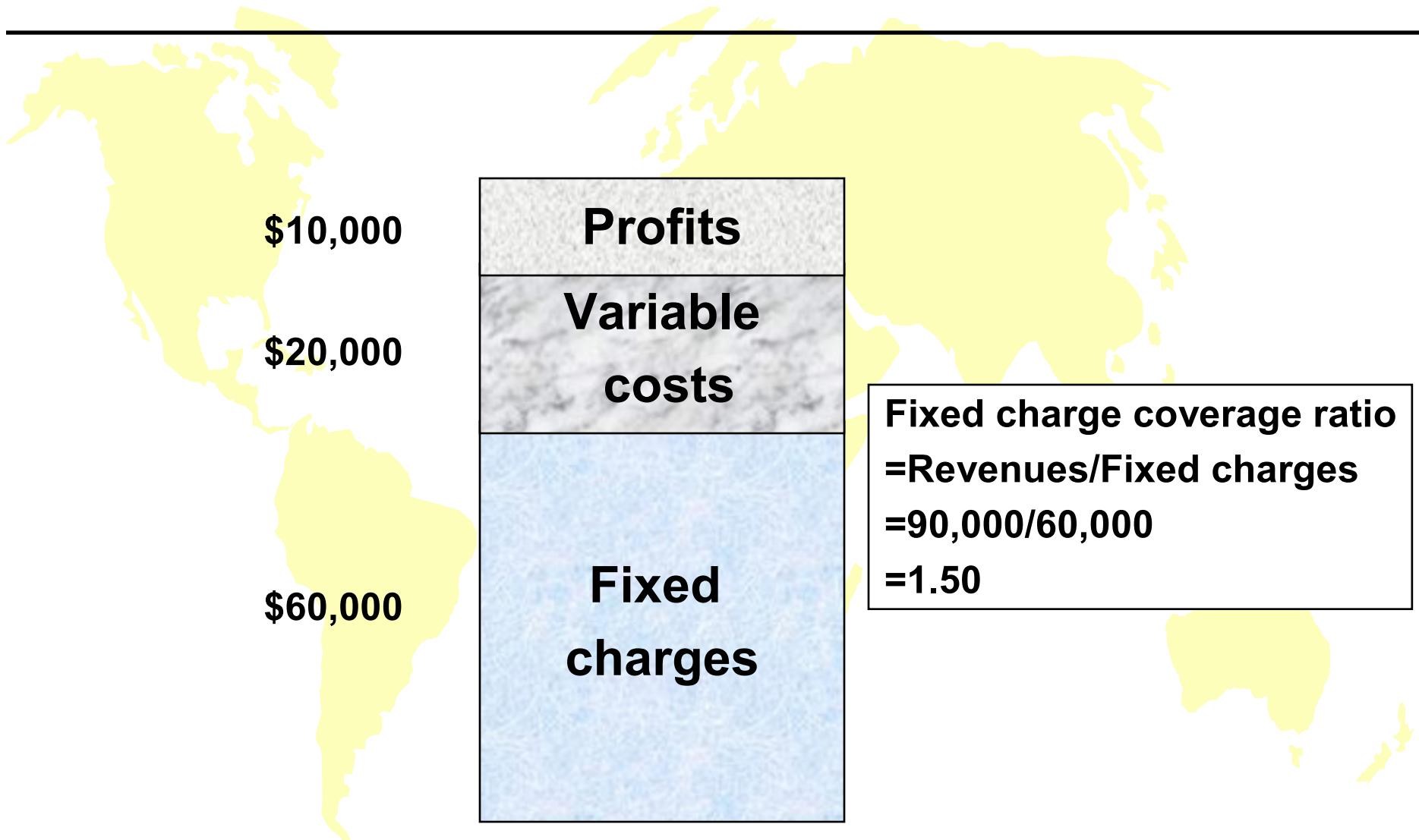
Atherton Structure



Franchise Loan Securitization: Credit Risk Factors

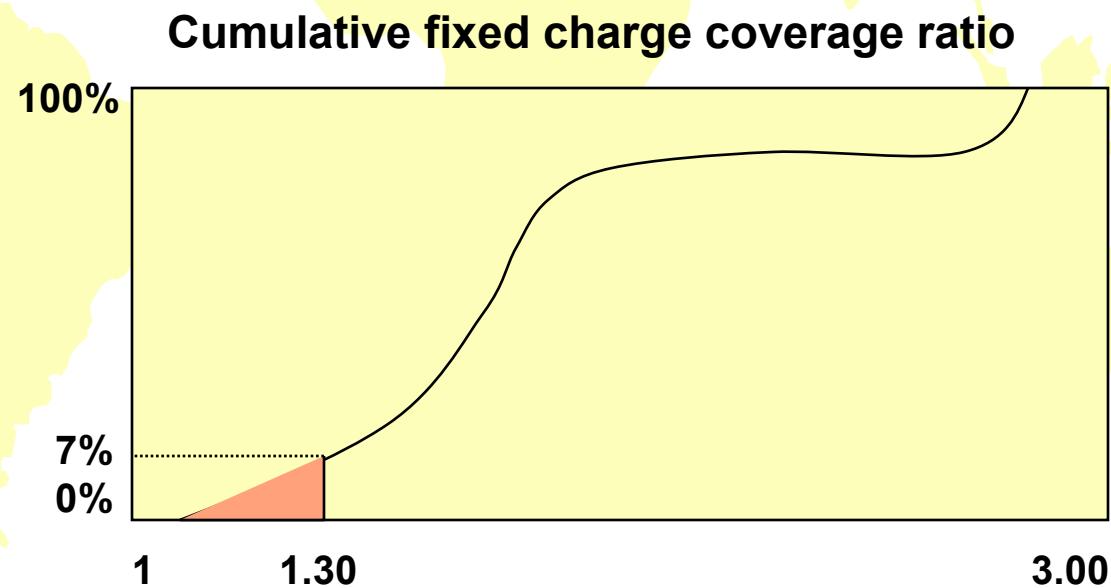
- 
- Default
 - ◆ Fixed-Charge Coverage Ratio (borrower)
 - ◆ Concept strength tiering
 - ◆ Units under management and operator experience
 - ◆ Unit seasoning
 - Recovery
 - ◆ Collateral type
 - ◆ Loan-to-value ratio
 - ◆ FCCR (unit)

Fixed Charges



Example: Atherton

- Pool FCCR is “better than average”
- Weighted-average FCCR is 1.56x
- Weighted-average LTV is 66.5%



Loan Default and Recovery Model (LDRM)

- The Fitch IBCA model uses key factors to determine conditional expected default frequency and conditional expected recovery value for each loan in the pool.

Other Factors in Rating

- Transaction legal structure
- Originator's credit underwriting standards
- Servicer capabilities
- Environmental
- Legal issues

Result:

- How much credit enhancement is needed for each rating?
(Based on LDRM and qualitative factors)

Example: Atherton

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A1,A2,A-x	AAA	28%
B	AA	22%
C	A	16.5%
D	BBB	12%
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Issuer balance	NR	0%

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