



Business & Finance Consulting

# **CREDIT SCORING:**

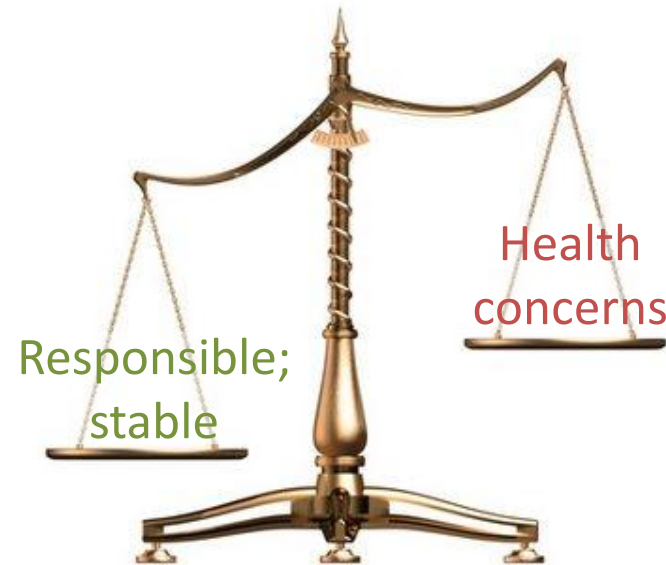
## **WHY AND HOW TO GET STARTED**

Peter Hauser  
November 2011

# Are older clients more risky than average?

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Age of client:  
60+ years



**Survey of credit committee members in one MFI:**

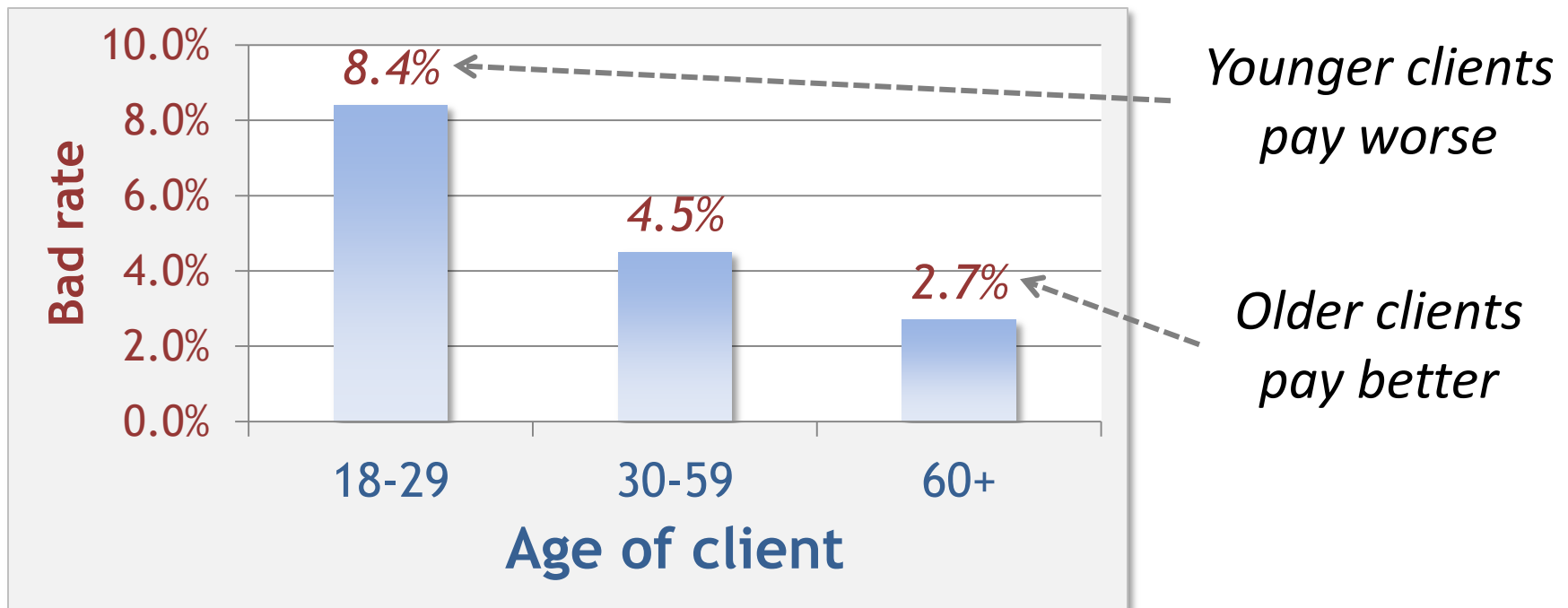
Risk level:	Higher	Average	Lower
Age 18-29	87%	13%	0%
Age 60+	48%	31%	21%

# Are older clients more risky than average?

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Statistical scoring approach:

1. Classify loans as good or bad based on payment history
2. Calculate “bad rate” for each age group



# Survey of credit committee members

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Variable	Higher	Average	Lower
1	20%	55%	25%
2	87%	13%	0%
3	35%	24%	41%
4	44%	31%	25%
5	10%	65%	25%
6	100%	0%	0%
7	33%	33%	34%
8	52%	31%	17%
9	4%	11%	85%
10	23%	50%	27%
11	20%	29%	51%
12	3%	92%	5%
13	71%	19%	10%
14	35%	10%	55%
15	16%	79%	5%
16	45%	23%	32%
17	12%	82%	6%
18	0%	18%	82%
19	58%	22%	20%
20	6%	40%	54%
21	16%	75%	9%
22	29%	18%	53%
23	2%	22%	76%
24	32%	35%	33%
25	38%	10%	52%

Dark green = high agreement

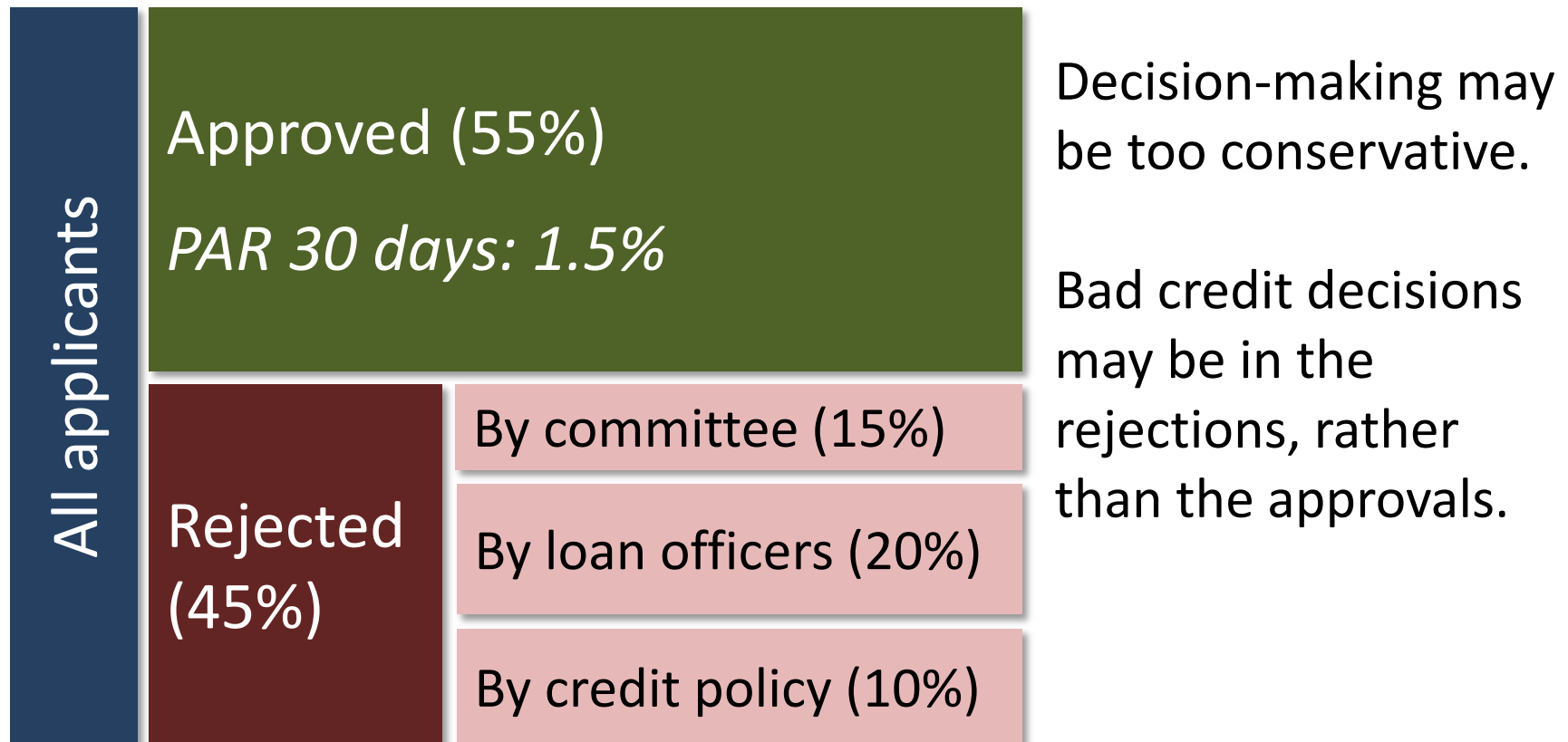
**Only 9 variables with 75%+ agreement**

Such results are not uncommon

## What if portfolio quality is good?

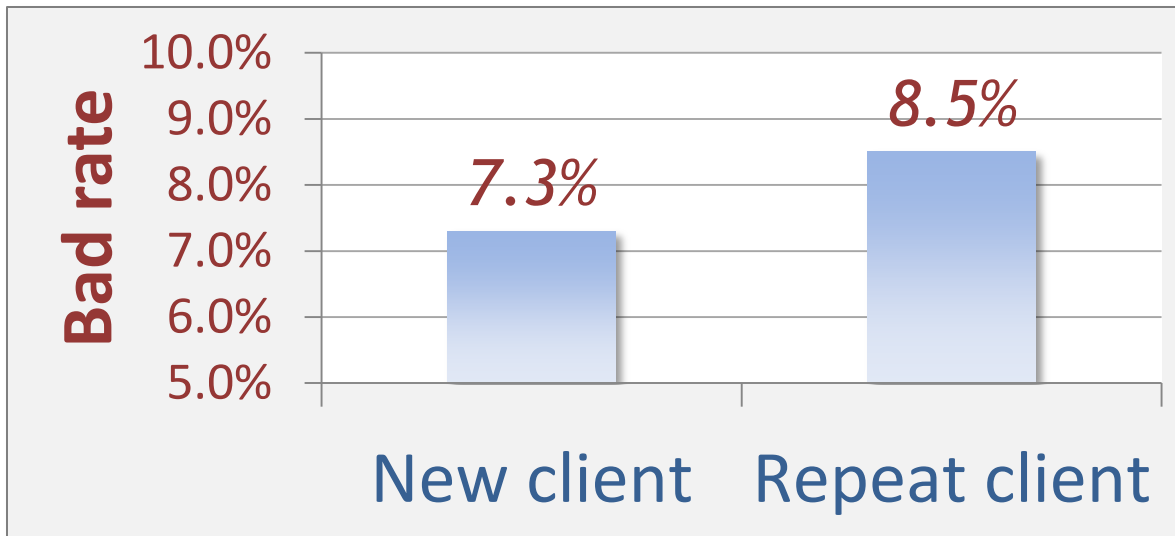
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*“Our low PAR ratio proves that our credit committees are accurate – we don’t need scoring.”*



# What is the effect of repeat lending?

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*New clients  
paying better  
than repeat  
clients in this  
MFI*

Ratio of loan amount to client equity:

New client:	44%
Repeat client:	81%

*Too aggressive  
with repeat  
clients*

# The benefits of credit scoring

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## More accurate risk assessment

- Reduce delinquency rate or rejection rate

- Evaluate and improve credit policies and practices

## Increased efficiency through automatic decisions

Automatic  
rejection

Credit committee  
review

Automatic  
approval

*Low score*

*High score*

## Key requirements for credit scoring

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Sufficient number of  
bad loans

Minimum 500  
Preferably 1000+

Staff who can  
monitor the system

Client and loan data  
in electronic format  
for past 2 years

Low-tech, low-cost  
solutions (like Excel)  
can work

# Summary

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**Credit committees are often not as good as we think at assessing risk**

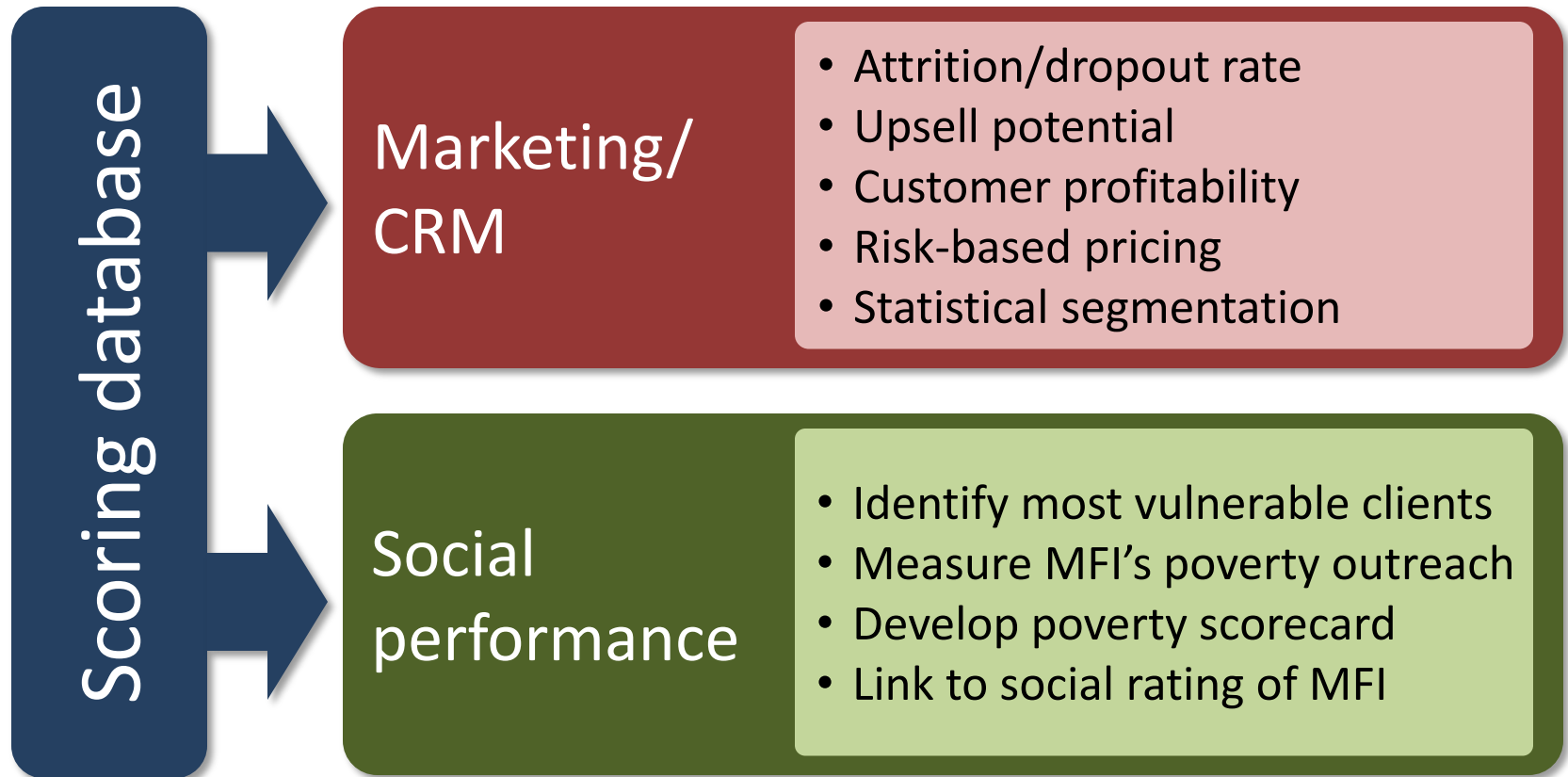
**Good portfolio quality of MFIs is often at the expense of a high rejection rate**

**Scoring can provide the dual benefits of accurate risk assessment and increased productivity through automatic decisions**

**Scoring can be implemented with relatively simple, low-tech IT solutions**

## Beyond scoring: additional uses of scoring data

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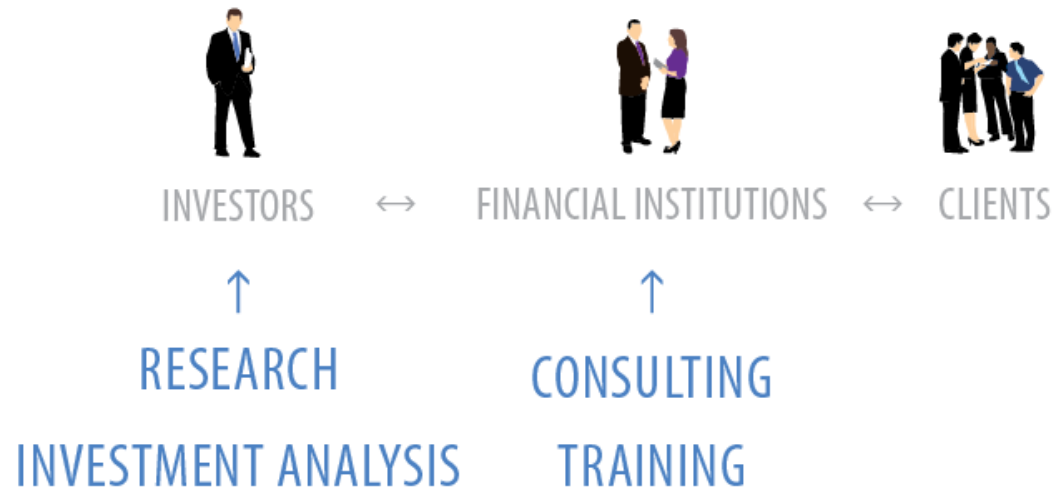
Scoring data covers 90% of data requirements for marketing and social performance applications



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# Making the scoring formula

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## VARIABLES

**Client** (age, marital status, etc.)

**Business** (age, activity, etc.)

**Loan** (maturity, collateral, etc.)

**Credit history** (late payments, etc.)

Statistical software

Variable	Points
Age <30	-20
Age >50	+16
Unmarried	-12
Maturity >24m	-25
...	

# Timeline for first-time scoring development

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		Step	Working Days
Development (1.5 - 2 months)	{	Collect and clean data	15
		Identify significant variables	10
		Develop and evaluate scoring formula	15
		Develop approval strategies	5
Implementation (2 - 3 months)	{	Adjust MIS and credit policies	10
		Train staff	5
			60

# Types of scoring

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**Application scoring:** assess default risk at time of application

**Fraud scoring:** assess likelihood of fraudulent application

**Monitoring scoring:** prioritize monitoring work

**Collections scoring:** prioritize collections work

# What is the effect of collateral?

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Gold is main  
form of  
collateral

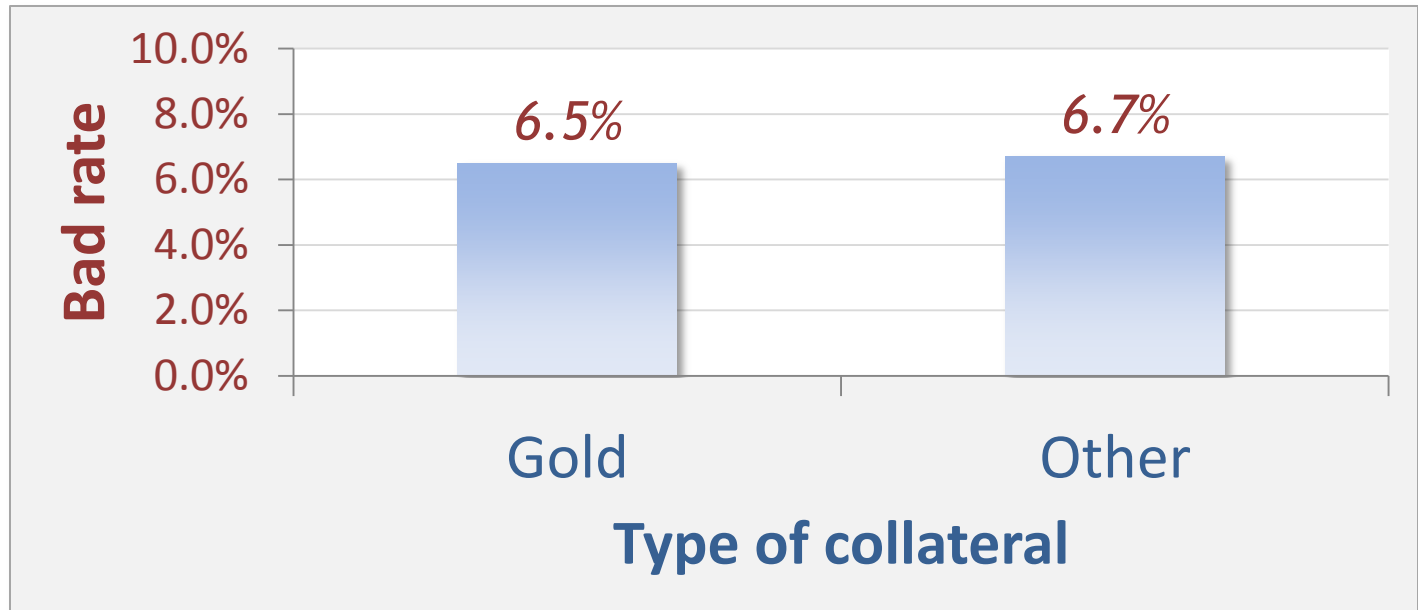


**Survey of credit committee members in one MFI:**

Risk level:	Higher	Average	Lower
Main collateral is gold	0%	16%	84%

## What is the effect of collateral?

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Taking gold as collateral is not helping the MFI to avoid delinquency