Lending Team Analysis

LESE 306

Fall 2010

Factors to Consider

- ✓Credit scores assessing the borrower's existing credit history.
- ✓Business plan and purpose of the loan.
- ✓Economic conditions in the borrower's industry (i.e., livestock, crops, input supply and other area of agribusiness).
- ✓Stress testing the assumptions made by the borrowers in their baseline scenario.

What is a Credit Score?

Credit Scoring Fundamentals

A credit score is a numerical expression based on a statistical analysis of a borrower's credit history to represent his/her ***creditworthiness***, which is the likelihood that the borrower will pay his/her debts in a timely manner.

A credit score is primarily based on credit report information obtained from credit bureaus and credit reference agencies.

Credit Scoring Fundamentals

Lenders use credit scores to evaluate the ***potential risk*** posed by lending money and to mitigate losses due to bad debt. Lenders also use credit scores to determine ***who qualifies for a loan, at what interest, and what credit limits***.

Credit scoring is not limited to lending. Other organizations, such as mobile phone companies, insurance companies, and ***potential employers*** are examples of other users of credit scoring.

Fundamentals Credit Scoring

A credit score is primarily based on credit report information typically from the three credit bureaus: Experian, TransUnion and Equifax.

There are differing approaches to calculating credit scores. The FICO is a credit score developed by Fair Issac & Company. It is used by many mortgage lenders that use a risk-based system to determine the ***possibility that the borrower may default*** on financial obligations to the lender.

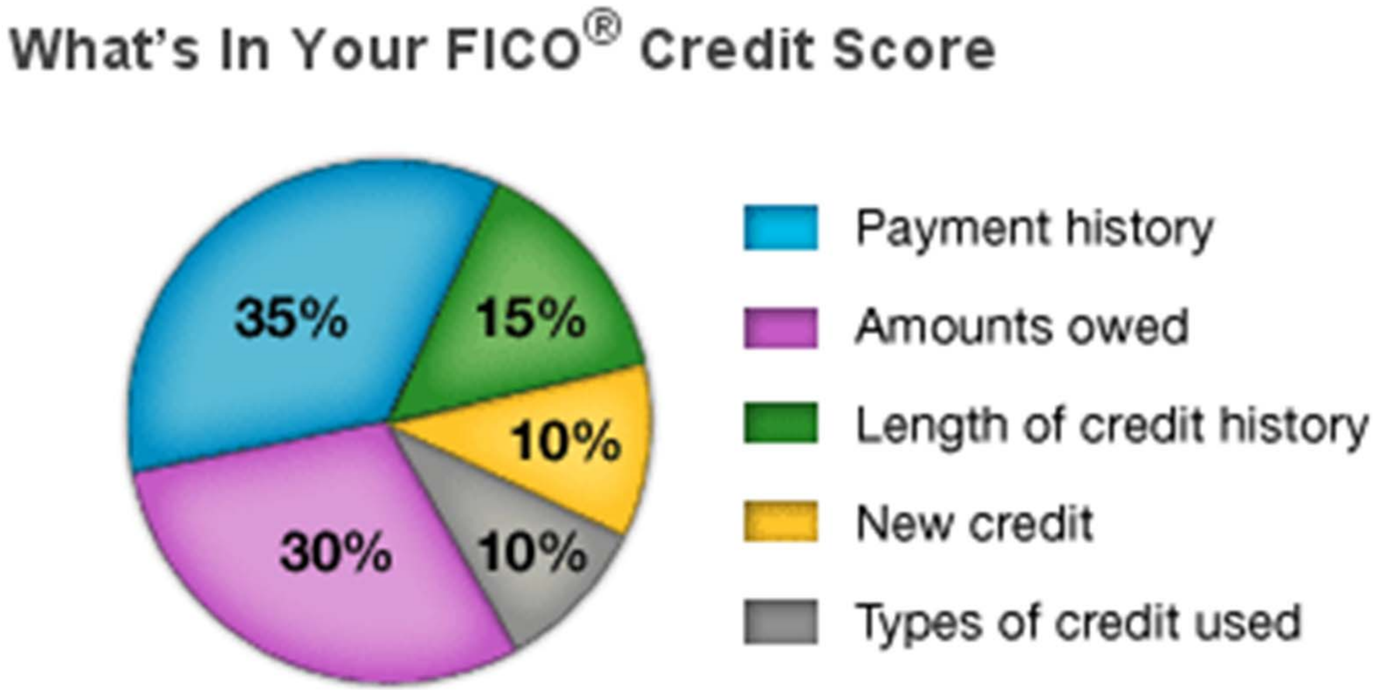
What is in a Credit Score?

1. Borrower's payment history – past due payments and adverse records (i.e., bankruptcy, wage attachments, suits).
2. Amounts owed.
3. Length of credit history.
4. New credit undertaken.
5. Types of credit (i.e., credit cards mortgages).

What is Not Included?

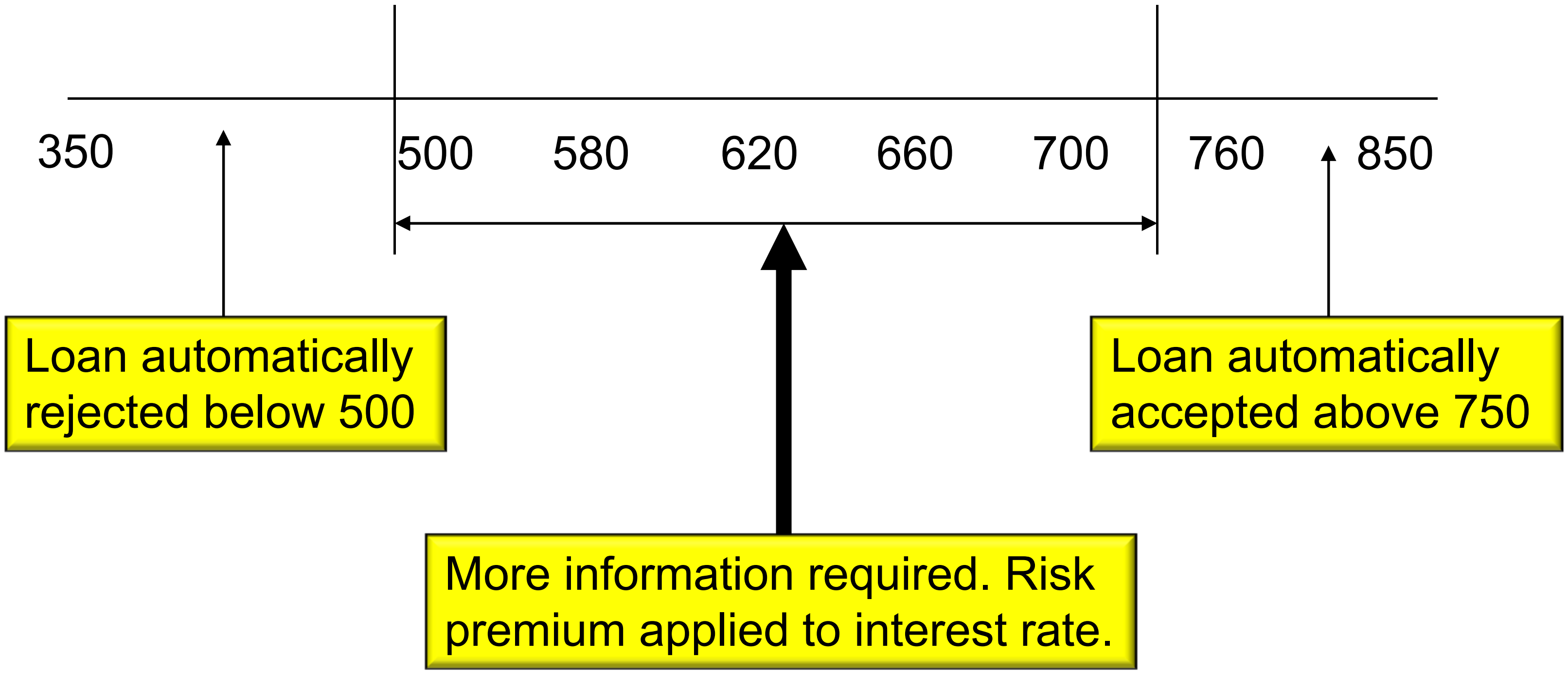
1. Race, religion, national origin, sex and marital status of borrower.
2. Age of borrower.
3. Salary, occupation, employment history.
4. Where you live.
5. Interest charged on loans outstanding.
6. Child/family support obligations and rental agreements.

Widely-used FICO credit scores are calculated based on information from credit bureaus that collect information on borrower's use of credit. The weights and factors captured in this score are shown below:



Consumer Credit Decisions

Many retail firms offer credit cards, trade credit lines and even home mortgage loans to individuals based upon FICO credit scores, which range from 350 to a perfect score of 850. Assume a hypothetical retail firm makes the following decisions in extending credit:



Assume you are applying for a 30 year home mortgage loan for $300,000 fixed interest rate loan at a commercial bank. Based upon your FICO credit score in the first column below, the lender has decided to charge annual percentage rates (APR) shown in the second column below. This has a significant effect on your monthly loan payment as shown in the third column.

30 Yr fixed mortgage | 15 Yr home equity loan | 36 month auto loan

FICO® score	APR [?]	Monthly payment
760-850	5.727%	$1,746
700-759	5.949%	$1,789
660-699	6.233%	$1,844
620-659	7.043%	$2,005
580-619	9.165%	$2,449
500-579	10.194%	$2,676

Location: National Avg.

Loan amount: $300,000

Recalculate

4.467 %
risk premium

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Location: National Avg.

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Recalculate

$930 difference in monthly loan payment!!!!

4.467 % risk premium

Scorecard Lending

Credit Standards

- ✓ Many agricultural lenders use credit scores as *only one* of several standards when evaluating loan applications.
- ✓ They will also include standards related to liquidity, solvency and debt repayment capacity (minimum current ratio of 1.50, maximum debt ratio of 0.50, minimum term debt and capital lease coverage ratio of 1.0).
- ✓ Lenders also focus on the "Six C's" when assessing a borrower's creditworthiness.

The Six C's

1. **Character** – assess intention to repay the loan. Responsibility, truthfulness.
2. **Capacity** – legal authority to request loan and sign a contract.
3. **Cash** – asset and cash flow liquidity.
4. **Collateral** – quality assets to provide adequate support for the loan.
5. **Conditions** – economic climate in the customer's industry.
6. **Control** – can changes in the law or regulations adversely affect the customer.

Two Additional C's

7. **Currency** – currency fluctuations if international lending is involved
8. **Customs** – way of doing business in a particular country.

Actual Scorecard Used to Underwrite loans

Standards Employed

Agricultural dependent loans:

1. Current ratio standard (weight 20%)
   - 4 CR > 2.0
   - 5 CR between 1.50 – 2.00
   - 6 CR between 1.25 – 1.50
   - 7 CR between 1.10 – 1.25
   - 8 CR between 0.90 – 1.10
   - 9 CR between 0.80 – 0.90
   - 10 CR between 0.70 – 0.80
   - 11 CR < 0.70
2. Debt coverage ratio standard (weight 35%)
   - 4 DCR > 1.50
   - 5 DCR between 1.40 – 1.50
   - 6 DCR between 1.25 – 1.40
   - 7 DCR between 1.20 – 1.25
   - 8 DCR between 1.15 – 1.20
   - 9 DCR between 1.05 – 1.15
   - 10 DCR < 1.05

Standards Employed

Agricultural dependent loans:

3. Management/character standard (weight 10%)
   - 4 MC very strong
   - 5 MC strong
   - 6 MC above average
   - 7 MC average
   - 8 MC minor weaknesses
   - 9 MC some weaknesses
   - 10 MC serious weaknesses
   - 11 MC major weaknesses
4. Equity/asset ratio (weight 35%)
   - 4 ER > 0.90
   - 5 ER between 80 - 90
   - 6 ER between 70 - 80
   - 7 ER between 65 - 70
   - 8 ER between 50 - 65
   - 9 ER between 40 - 50
   - 10 ER < 40

Standards Employed

Agricultural dependent loans:

The total score is then calculated by a weighted average of the borrowers average:

• Current ratio standard	20%
• Debt coverage ratio standard	35%
• Management/character standard	10%
• Debt/asset ratio standard	35%
Total	100%

The lower the score, the more favorable a loan request is viewed.

Standards Employed

Agricultural dependent loans:

The total score is then calculated by a weighted average of the borrowers average:

• Current ratio standard	20%
• Debt coverage ratio standard	35%
• Management/character standard	10%
• Equity/asset ratio standard	35%
Total	100%

Non-agricultural dependent loans:

The total score is then calculated by a weighted average of the borrowers average:

Current ratio standard	10%
Debt coverage ratio standard	30%
Management/character standard	10%
On line credit bureau score	20%
Equity/asset ratio standard	30%
Total	100%

Extension to Pricing Loans

Hypothetical Scorecard

	Weight	Points	Score
1. Current ratio	20%	_______	_______
2. Debt coverage ratio	35%	_______	_______
3. Management/credit score	10%	_______	_______
4. Debt/asset	35%	_______	_______
Total score	100%		

Assume I have the following values:

Current ratio = 1.5 = 6 points

Debt coverage ratio = 1.25 = 7 points

Management/credit score = average = 6 points

Debt/asset ratio = .30 = 7 points

Let's use the point system associated with the previous credit standards for an actual lender.

Hypothetical Scorecard

	Weight	Points	Score
1. Current ratio	20%	__6___	_1.20_
2. Debt coverage ratio	35%	__7___	_2.45_
3. Management/credit score	10%	__6___	_0.60_
4. Debt/asset	35%	__7___	_2.45_
Total score	100%		6.70

Assume I have the following values:

Current ratio = 1.5 = 6 points

Debt coverage ratio = 1.25 = 7 points

Management/credit score = average = 6 points

Debt/asset ratio = .30 = 7 points

My score under this scoring system

The **best** score possible is 4(.20) + 4(.35) + 4(.10) + 4(.35) = **4.0**

Hypothetical Scorecard

	Weight	Points	Score
1. Current ratio	20%	__6___	_1.20_
2. Debt coverage ratio	35%	__7___	_2.45_
3. Management/credit score	10%	__6___	_0.60_
4. Debt/asset	35%	__7___	_2.45_
Total score	100%		6.70

My score under this scoring system

Assume I have the following values:

Current ratio = 1.5 = 6 points

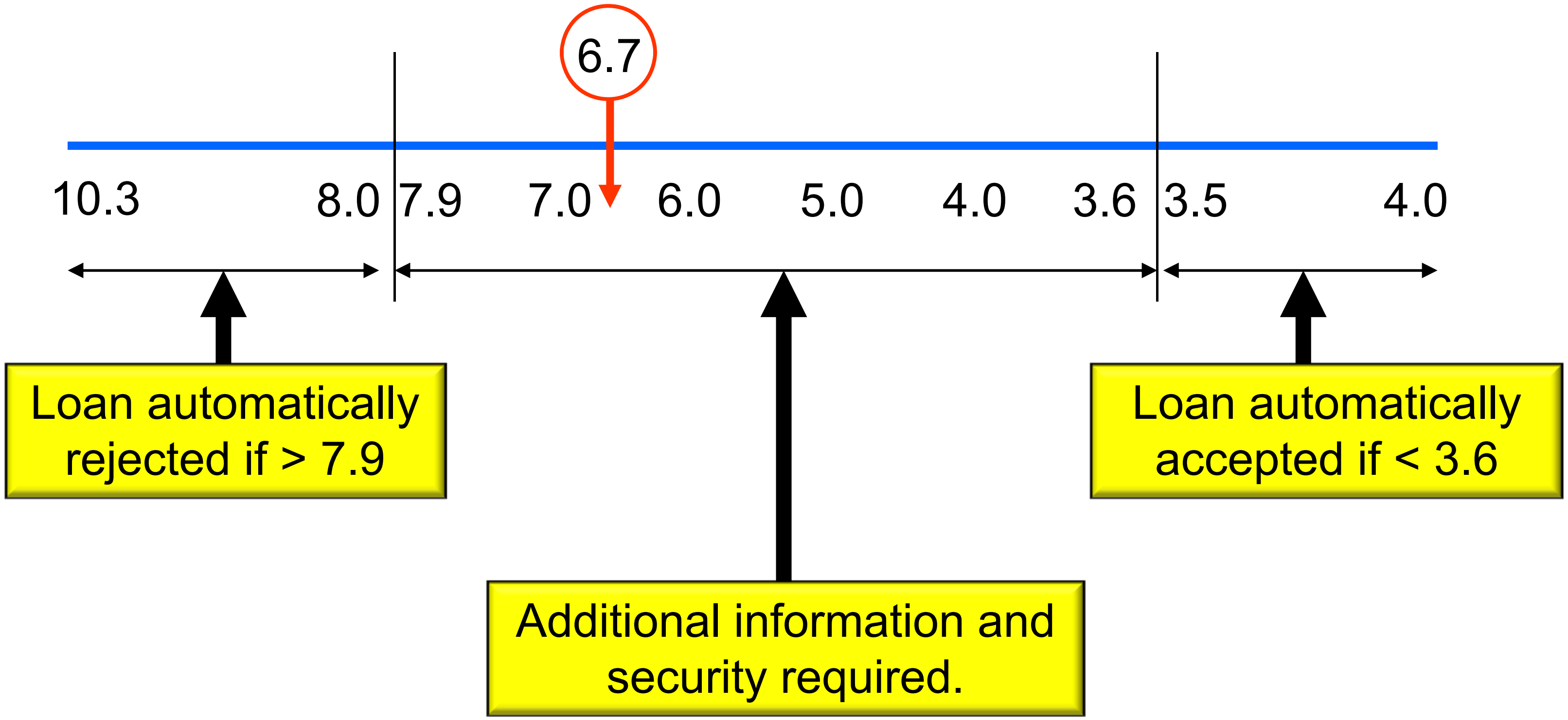
Debt coverage ratio = 1.25 = 7 points

Management/credit score = average = 6 points

Debt/asset ratio = .30 = 7 points

The lender then decides the minimum score for automatic approval, automatic rejection, and range over which additional conditions must be met (risk premium, additional collateral, compensating balances, etc.

Score Card Lending Ruler



Hypothetical Loan Rates

Bank cost of funds	4.0%
Score ≤ 3.5	6.0%
Score = 3.6 – 4.4	6.5%
Score = 4.5 – 5.4	7.0%
Score = 5.5 – 6.4	7.5%
Score = 6.5 – 7.4	8.0%
Score = 7.5 – 7.9	9.0%

Lending Decisions

- ✓ You must decide upon your bank’s credit standards and weights associated with each of these standards.
- ✓ You must decide on your credit scorecard ruler cutoffs.
- ✓ You must decide on the rates of interest you will charge based upon these scores.
- ✓ You must decide how much to stress test the lending team’s baseline scenario, including evaluating the borrower’s cash flows and debt coverage at 8% interest rate in the above example.