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Chapter 11

Evaluating Consumer Loans

Recent trends in consumer lending

- Credit scoring
  - more lenders use statistical models to predict which individuals are good and bad credit risks.
- Rapid consolidation of the credit card business
  - at year-end 1997, for example, the 10 largest bank card issuers held approximately 85% of all credit card loans.

Evaluating consumer loans

- When evaluating consumer loan requests, an analyst addresses the same issues discussed with commercial loans:
  - the use of loan proceeds,
  - the amount needed,
  - the primary and secondary source of repayment.

Installment loans

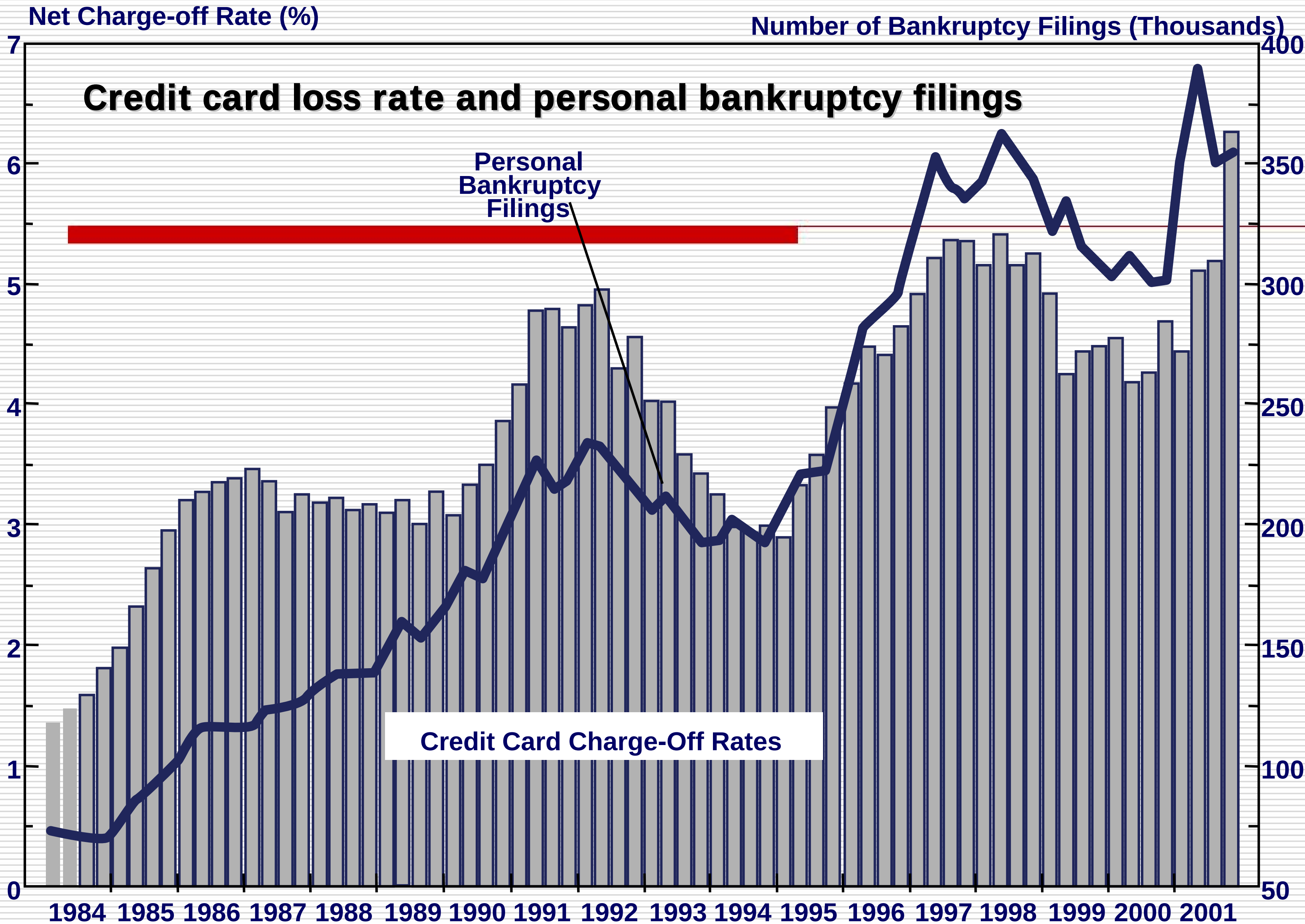
- Installment loans require the periodic payment of principal and interest.
- Installment loans may be either direct or indirect loans.
  - A direct loan is negotiated between the bank and the ultimate user of the funds.
  - An indirect loan is funded by a bank through a separate retailer that sells merchandise to a customer.

Costs and returns on consumer installment loans: functional cost analysis data

	Deposit Size (Millions of Dollars)	
	$200	$200
Data		
Average size of loan	$5,104	$5,448
Average number of loans	1,146	6,729
Number of banks surveyed	70	49
Costs per Loan		
Cost to make a loan:		
Electronic	$202.42	$84.56
Nonelectronic	152.17	137.49
Cost to maintain a loan (monthly)		
Electronic	$19.21	$16.96
Nonelectronic	21.74	20.07
Loan loss (average size loan)	27.05	31.05
Total	$422.59	$290.13
As a Percent of Total Loans Outstanding		
Loan income*	10.11%	9.35%
Expenses		
Direct	3.6	2.83
Net indirect	0.97	0.7
Loan loss rate (3-year average)	0.53	0.57
Total	5.1	4.1
Net yield	5.01	5.25
Cost of funds	3.28	3.31
Net spread	1.73%	1.94%

Credit cards and other revolving credit

- Credit cards and over-lines tied to checking accounts are the two most popular forms of revolving credit agreements.
- In 2001 consumers charged almost $650 billion on credit cards.
- Most operate as franchises of MasterCard and/or Visa.


Net Charge-off Rate (%)
Number of Bankruptcy Filings (Thousands)
Credit card loss rate and personal bankruptcy filings
Personal Bankruptcy Filings
Credit Card Charge-Off Rates
0
1
2
3
4
5
6
7
50
100
150
200
250
300
350
400
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001

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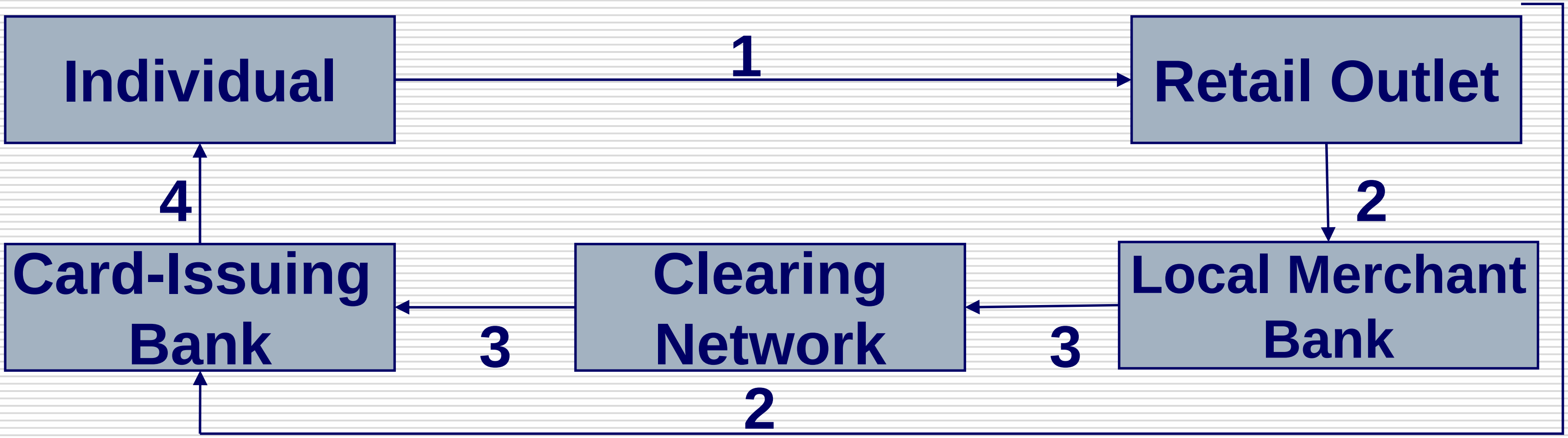
Credit cards

- Card issuers earn income from three sources:
  - card holders annual fees,
  - interest on outstanding loan balances, and
  - discounting the charges that merchants accept on purchases.

Credit card transaction process



Debit cards, smart cards, and prepaid cards

- Debit cards are widely available
  - when an individual uses the card, their balance is immediately debited.
  - they have lower processing costs to the bank
- A smart card is an extension of debit and credit cards
  - contains a memory chip which can manipulate information

The future of smart cards

- Smart card usage will likely increase dramatically in the U.S.:
  - firms can offer a much wider range of services
  - smart cards represent a link between the internet and real economic activity

Prepaid cards

- Prepaid cards such as phone cards, prepaid cellular, toll tags, subway, etc. are growing rapidly.
- Prepaid cards are a hybrid of debit cards in which customers prepay for services to be rendered and receive a card against which purchases are charged.

Overdraft protection and open credit lines

- Revolving credit also takes the form of overdraft protection against checking accounts.
- One relatively recent innovation is to offer open credit lines to affluent individuals whether or not they have an existing account relationship.

Home equity loans and credit cards

- Home equity loans grew from virtually nothing in the mid-1980s to over $220 billion in 2001
  - Home equity loans meet the tax deductibility requirements of the Tax Reform Act of 1986, which limits deductions for consumer loan interest paid by individuals, because they are secured by equity in an individual's home.

Non-installment loans

- A limited number of consumer loans require a single principal and interest payment.
- *Bridge loans* are representative of single payment consumer loans.
  - Bridge loans often arise when an individual borrows funds for the down payment on a new house.

Subprime loans

- During the 1990s, one of the hottest growth areas was subprime lending.
- Subprime loans are higher-risk loans labeled labeled “B,” “C,” and “D” credits
- They have been especially popular in auto, home equity, and mortgage lending.

What are subprime loans?

- Although no precise definitions exist, “B,” “C,” and “D” credits exhibit increasingly greater risk and must be priced consistently higher than prime-grade loans.
- B: typically scores 600+ under the Fair Isaac system; has some 90-day past dues but is now current.
- C: typically scores between 500 and 600 and has had write-offs and judgments.
- D: typically scores between 440 and 500

High LTV loans

- During the latter half of the 1990s, many lenders upped the stakes by making “high LTV” (loan-to-value) loans based on the equity in a borrower’s home.
- Where traditional home equity loans are capped at 75 percent of appraised value minus the outstanding principal balance, high LTV loans equal as much as 125% of the value of a home.

Consumer credit regulations

- Equal Credit Opportunity Act (ECOA), makes it illegal for lenders to discriminate.
- Prohibits Information Requests on:
  - the applicant's marital status,
  - whether alimony, child support, and public assistance are included in reported income,
  - a woman's childbearing capability and plans,
  - whether an applicant has a telephone.

Credit scoring systems

- Credit scoring systems are acceptable if they do not require prohibited information and are statistically justified.
- Credit scoring systems can use information about age, sex, and marital status as long as these factors contribute positively to the applicant's creditworthiness.

Credit reporting

- Lenders must report credit extended jointly to married couples in both spouses' names.
- Whenever lenders reject a loan, they must notify applicants of the credit denial within 30 days and indicate why the request was turned down.

Truth in lending

- Truth in lending regulations apply to all individual loans up to $25,000 where the borrower's primary residence does not serve as collateral.
- Legislation arose because lenders quoted interest rates in many different ways and often included supplemental charges in a loan that substantially increased the actual cost.

Truth in lending disclosure requirements

- The APR equals the total finance charge computed against the loan balance as a simple annual interest rate equivalent.
- Historically, consumer loan rates were quoted as *add-on rates*, *discount rates*, or *simple interest rates*.

Add-on rates...*applied against the entire principal of installment loans.*

- Example: suppose that a customer borrows \$3,000 for one year at a 12 percent add-on rate with the loan to be repaid in 12 equal monthly installments.
  - Total interest equals \$360,
  - monthly payment equals \$280, and
    the effective annual interest cost is approximately 21.5%.

$$\text{monthly payment} = \frac{[0.12(\$3{,}000) + \$3{,}000]}{12} = \$280$$

$$\text{Effective interest rate (i)}: \sum_{t=1}^{12} \frac{\$280}{(1+i)^t} = \$3{,}000$$

Discount rate method

- Example: consider a 1-year loan with a single $3,000 payment at maturity.
  - The borrower receives only $2,640, or the total loan minus 12% discount rate interest.
  - The effective annual percentage rate, or APR, equals 13.64%
  - Interest charge = 0.12 ($3,000) = $360
  - Annual percentage rate (APR) (i_n) : $\$2,640 = \dfrac{\$3,000}{(1 + i_n)}$

    $i = 13.64\%$

Simple interest

- Example: $3,000 loan at 12% simple interest per year produces $360 in interest, or a 12 percent effective rate
  Interest (i_s): = $3,000(0.12)(1)= $360

$$\$3{,}000 = \frac{\$3{,}000}{(1+i_s)}$$

$$i_s = 12\%$$

Fair credit reporting

- The Fair Credit Reporting Act enables individuals to examine their credit reports provided by credit bureaus.
- If any information is incorrect, the individual can have the bureau make changes and notify all lenders who obtained the inaccurate data.
- There are three primary credit reporting agencies:
  - Equifax,
  - Experian, and
  - Trans Union.

Community reinvestment

- The Community Reinvestment Act (CRA) was passed in 1977 to prohibit redlining and to encourage lenders to extend within their immediate trade area and the markets where they collect deposits.
- FIRREA of 1989 raised the profile of the CRA by:
  - mandating public disclosure of bank lending policies and regulatory ratings of bank compliance.

Bankruptcy reform

- Individuals who cannot repay their debts on time can file for bankruptcy and receive court protection against creditors.
- Individuals can file for bankruptcy
- Individuals appear to be using bankruptcy as a financial planning tool; the stigma of bankruptcy is largely gone.

Credit analysis

- The objective of consumer credit analysis is to assess the risks associated with lending to individuals.
- When evaluating loans, bankers cite the Cs of credit:
  1. character:
     - the most important element--difficult to assess
  2. capital:
     - refers to the individual's wealth position

Credit analysis

3. capacity:
   - the lender often imposes minimum down payment requirements and maximum allowable debt-service to income ratios
4. conditions:
   - the impact of economic events on the borrower's capacity to pay
5. collateral:
   - the importance of collateral is in providing a secondary source of repayment.

Two additional Cs

6. Customer relationship
   - A bank's prior relationship with a customer reveals information about past credit and deposit experience that is useful in assessing willingness and ability to repay.
7. Competition
   - has an impact by affecting the pricing of a loan.
   - all loans should generate positive risk-adjusted returns.
   - lenders periodically react to competitive pressures by undercutting competitors' rates in order to attract new business.

Policy guidelines
... Acceptable Loans

- Consumer loans are extended for a variety of purposes.
- Acceptable Loans
  - Automobile
  - Boat
  - Home Improvement
  - Personal-Unsecured
  - Single Payment
  - Cosigned

Policy guidelines
…Unacceptable Loans

- Unacceptable Loans
  1. Loans for speculative purposes.
  2. Loans secured by a second lien, other than home improvement or home equity loans.
  3. Any participation with a correspondent bank in a loan that the bank would not normally approve.

Policy guidelines
...Unacceptable Loans

4. Accommodation loans to a poor credit risk based on the strength of the cosigner.
5. Single payment automobile or boat loans.
6. Loans secured by existing home furnishings.
7. Loans for skydiving equipment and hang gliders.

Evaluation procedures: ***Judgmental*** and ***credit scoring***

- Banks employ basically two procedures when evaluating consumer loans :
  1. judgmental procedures
     ...the loan officer subjectively interprets the information in light of the bank's lending guidelines and accepts or rejects the loan

Evaluation procedures: *Judgmental* and *credit scoring*

2. quantitative credit scoring or credit scoring model
   ...the loan officer grades the loan request according to a statistically sound model that assigns points to selected characteristics of the prospective borrower

- In both cases, a lending officer collects information regarding the borrower's character, capacity, and collateral.

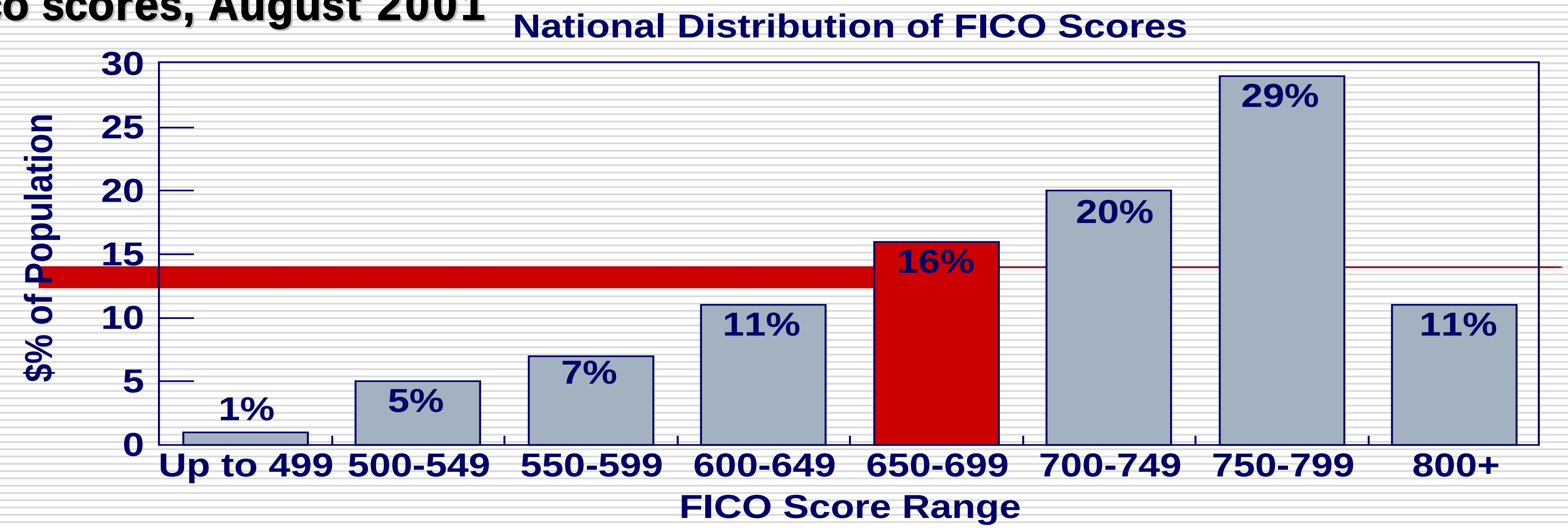
An application: credit scoring

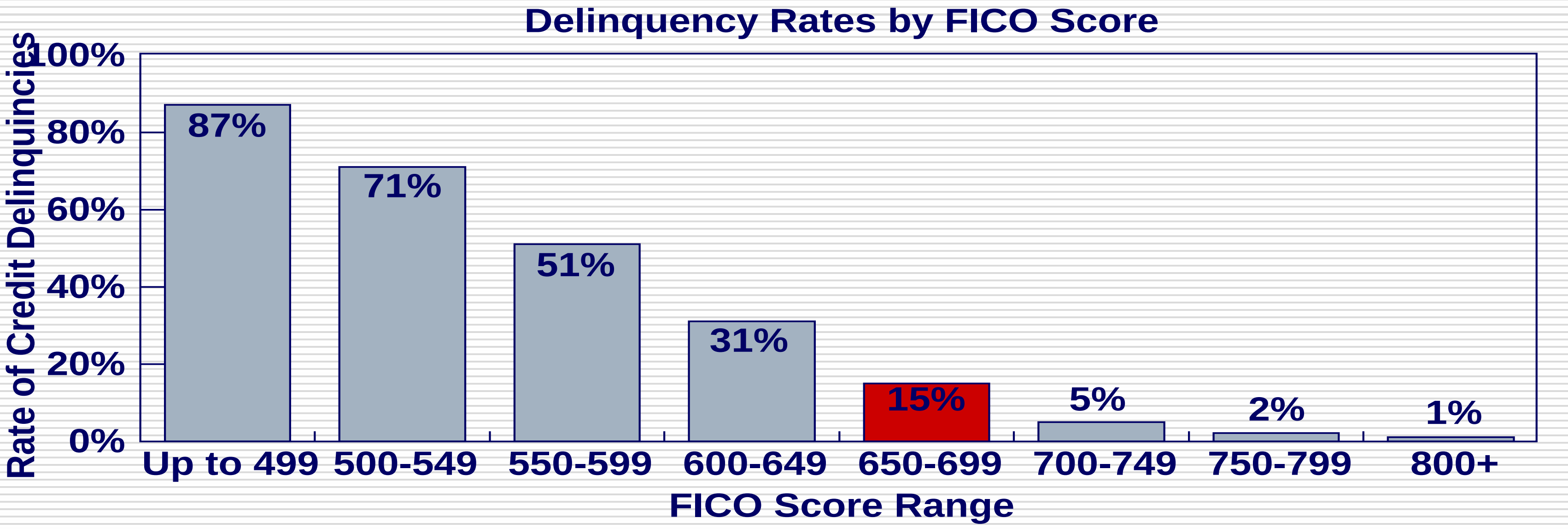
- Credit scoring models are based on historical data obtained from applicants who actually received loans.
- Statistical techniques assign weights to various borrower characteristics that represent each factor's contribution toward distinguishing between good loans that were repaid on time and problem loans that produced losses.

An application: The credit score

- A loan is automatically approved if the applicant's total score equals at least 200.
- The applicant is denied credit if the total score falls below 150.
- At University National bank, five factors, including employment status, principal residence, monthly debt relative to monthly income, total income, and banking references are weighted heaviest.

Fico scores, August 2001





Indirect lending

- A retailer sells merchandise and takes the credit application.
- Because many firms do not have the resources to carry their receivables, they sell the loans to banks or other financial institutions.
- These loans are collectively referred to as dealer paper.
- Banks aggressively compete for paper originated by well-established automobile, mobile home, and furniture dealers.

Indirect lending (continued)

- Dealers negotiate finance charges directly with their customers.
- A bank, in turn, agrees to purchase the paper at predetermined rates that vary with the default risk assumed by the bank, the quality of the assets sold, and the maturity of the consumer loan.
- A dealer normally negotiates a higher rate with the car buyer than the determined rate charged by the bank.

Indirect lending (continued)

- Most indirect loan arrangements provide for dealer reserves that reduce the risk in indirect lending.
- The reserves are derived from the differential between the normal, or contract loan rate and the bank rate, and help protect the bank against customer defaults and refunds.

Recent risk and return characteristics of consumer loans

- The attraction is two-fold:
  1. Competition for commercial customers narrowed commercial loan yields so that returns fell relative to potential risks
  2. Developing loan and deposit relationships with individuals presumably represents a strategic response to deregulation

Revenues from consumer loans

- Consumer loan rates have been among the highest rates quoted at banks in recent years.
- Consumer groups still argue that consumer loan rates are too high, especially when the prime rate declines.
- In addition to interest income, banks generate substantial noninterest revenues from consumer loans.

Consumer loan losses

- Losses on consumer loans are normally the highest among all categories of bank credit.
- Losses are anticipated because of mass marketing efforts pursued by many lenders, particularly with credit cards.
- Credit card fraud arises out of the traditional lender/merchant relationship.

Interest rate and liquidity risk with consumer credit

- The majority of consumer loans are priced at fixed rates.
- New auto loans typically carry 4-year maturities, and credit card loans exhibit an average 15- to 18-month maturity.
- Bankers have responded in two ways:
  1. price more consumer loans on a floating-rate basis
  2. commercial and investment banks have created a secondary market in consumer loans, allowing loan originators to sell a package of loans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