What Are Credit Scoring and Automated Underwriting?

First seen in the auto loan and credit industries—and most recently in the area of home financing—automation and credit scoring now are poised to sweep through small-business lending.

It seems as if just about all areas of lending have been revolutionized by these systems, which offer the promise of improving the lending process for all those involved. The lender is able to get the job done faster and with better risk predictability; the consumer benefits from lower prices and immediate results. Many consumers and community development professionals, however, have concerns about the effect of credit scoring on access to credit. So, what are automated underwriting and credit scoring?

Lenders using an automated underwriting system enter a borrower's application information into the system. Additional information on the applicant is collected from credit reporting agencies. The automated underwriting system then weighs all this information to determine the likelihood that this loan will repay as agreed, based on the way similar mortgages with comparable borrower, property and loan characteristics have performed in the past. Automated underwriting systems assess the riskiness of the loan based on a comprehensive evaluation. Lenders using such systems are able to make faster and more accurate loan decisions, and, by consistently applying uniform standards of creditworthiness, automated underwriting systems provide the same objective treatment of all borrowers.

Automated underwriting systems use credit scoring as a scientific way of measuring the relative amount of risk a potential borrower represents to the lender or investor. A credit score is a number that rates the likelihood an individual will pay back a loan.

One of the most widely used scoring models was created by Fair, Isaac & Co., whose scores are known as FICO scores. FICO scores range from approximately 400 to 900. The lower the score, the higher the risk for the lender or investor. In a survey of one million loan records, Fair, Isaac found that one in eight borrowers with a FICO score below 600 was either severely delinquent or in default. In contrast, only one in 1,300 borrowers with a score above 800 had similar delinquency problems.[1]

This strong evidence of predicting delinquencies has prompted major secondary market investors Fannie Mae and Freddie Mac to encourage lenders to use credit scores as a regular part of their manual underwriting. They have recognized the use of credit scores as a valuable tool in evaluating credit risk. Both Fannie Mae and Freddie Mac also have endorsed certain "cutoffs." Both have said that a FICO score less than 620 would indicate a need for a cautious, detailed review of a borrower's credit history in order to identify compensating strengths to offset the low credit score.

The use of automation and credit scores has the potential to help bring more borrowers into the housing market. By speeding up loan approvals for borrowers with good credit scores, automated systems give underwriters more time to work with borderline borrowers. And by applying uniform standards when
evaluating a borrower’s credit profile, credit scores can help ensure a level playing field that should have a beneficial impact on the number of minority homeowners. As the use of credit scores moves into the small-business lending industry, these same benefits can affect the volume of such loans and mean greater access to credit for small-business owners.

Endnotes

1. Data from Mortgage Mart web site: mortgagemart.com/cwatts.html
Credit Scoring: a Tool for Small-Business Lending

Credit scoring is providing an opportunity for banks and other lenders to more efficiently evaluate loan risks and lower the costs of small-business lending. Many banks, both large and small, already have begun to probe the possibilities of credit scoring techniques for small-business markets.

Historically, credit scoring has been limited to the underwriting of consumer loans and home mortgages. In contrast, lenders believed that they had to assess the ability of the small business to generate revenue to determine its repayment prospects. More recently, analysts determined that a bureau score of an owner of a small business is highly predictive of the loan repayment prospects of the business. The bureau score of the business principal can be augmented with very basic information on the nature of the business and data from a business credit bureau, such as Dun & Bradstreet, to produce a type of credit scoring system for small businesses.

Once developed, credit scoring, coupled with loan standardization, may offer significant cost advantages for evaluating the risks associated with lending. As these two systems become more commonplace, the ability of banks to "securitize" small-business loans likely will be greatly enhanced. A key benefit of securitization is that it potentially increases the liquidity of small-business lending and provides banks and other lenders with additional sources of funding. One would expect the cost savings generated through lower origination costs, better risk assessment and greater liquidity to be passed on, at least in part, to small-business customers.

Credit scoring may alter small-business lending in three areas: the interaction between borrowers and lenders, the pricing of loans and the availability of credit.

**Borrower-Lender Interaction:** Traditionally, a small-business owner wanting a loan had to meet with a loan officer in person and submit an application, including financial statements, business plans and a variety of other records. It could take days for the loan officer to review the documents. And not just data were examined during the loan review; the "character" of the borrower could play a significant role in the decision. Credit scoring eliminates the need for this level of interaction. In fact, by using a credit-scoring system, a lender with no physical presence in a community can lend money to small businesses without ever seeing a business plan or financial statements.

**Loan Pricing:** The price of small-business loans will decline for higher-credit quality borrowers under credit scoring because these borrowers no longer have to bear the cost of a full human underwriting. Moreover, these high-quality borrowers will have access to a greater number of lenders. Lenders from across the country will be able to reach out to the small business via direct marketing. This increase in competition also should reduce the costs of funds to small businesses. Finally, some businesses that previously had been thought to be high risk under a traditional underwriting system may be classified as lower risk under a credit scoring system.

Not all borrowers, however, will see their loan costs decrease because of credit scoring. A borrower whose credit score indicates that a full-scale human review is required may actually face higher costs. Previously,
the fixed costs of human underwriting were spread among all the applicants. Under credit scoring, a significant percent of the loans will receive a limited human review, thus forcing those reduced number of loans that still require a full-scale review to bear the bulk of the fixed costs of traditional underwriting. Furthermore, credit scoring makes pricing according to risk much more feasible. The small-business borrowers who were being undercharged through the traditional underwriting system relative to their risk of default or delinquency now will face higher costs for credit.

**Availability of Credit for Small Business:** Better information about the repayment prospects of a small-business applicant makes it more likely that a lender will price the loan according to its expected risk. This prospect should increase the availability of credit to small businesses.

More important is the indirect ability of credit scoring to increase the size of the pool of funds small businesses can tap. Currently, there is a very small market for securitized small-business loans, for two reasons. First, there is not much data on how these loans perform over time. And second, small-business loans—even those made by the same bank—may vary in their underwriting, payment terms and loan structure. Both these factors make it very difficult for an investor who wants to buy a security backed by a pool of these loans to determine the cash flows that such a pool will produce. Investors are unlikely to buy securities backed by an uncertain cash flow and may ask the lender, for example, to sell the loans for less than what the lender thinks they are worth. Credit scoring small-business loans addresses both of these problems.

The highly computerized scoring systems make it easy to collect data on the performance of loans over time. To use a credit scoring system cost-effectively, a lender must also make its small-business loans fairly homogenous. Otherwise, the system will not be able to process many loans in a short period. Using a scoring system to rate heterogeneous loans would be like using the same machine to process many different shaped and sized widgets. In total, the credit scored small-business loans should be much easier to securitize. A vast pool of funds opens up to small businesses once lenders can securitize small-business loans. Indeed, investors throughout the world who currently invest in asset-backed securities would be able to invest in small-business loans.

Clearly not all small business loans are going to be appropriate candidates for securitization, and not all banks will wish to adopt complex statistical models for managing risks. There will continue to be a market for nonstandard small-business lending and a role for regional and community banks.

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**How Credit Scores Are Determined**

To compute a credit score, a model is used containing a list of questions, with a certain number of points given for each answer. Only information proven to be predictive of future credit performance is used in a model. By summarizing factors obtained from a credit report and credit application, lenders will have a quick but reliable handle on the likelihood of a borrower repaying on time.

To build a scoring model, developers analyze historical data on the performance of previously made loans to determine which borrower characteristics are useful in predicting loan performance. A well-designed model should give a higher percentage of high scores to borrowers whose loans will perform well and a higher percentage of low scores to borrowers whose loans won't perform well. But no model is perfect, and some bad accounts could receive higher scores than some good accounts.
Some of the factors that determine scores are:

- Payment History—How borrowers paid their bills in the past can give lenders an indication of how they will pay in the future.
- Credit History—How long borrowers have had and successfully managed credit.
- Outstanding Debt—How much credit borrowers have and how much they have used.
- Credit Inquiries—How many times borrowers have authorized lenders to check their credit report. Sometimes, having many inquiries within a time period indicates that credit usage may be increasing and creates an additional level of risk.
- Types of Credit—Do borrowers have a mixture of types of credit, such as credit cards, personal loans, etc.?

Factors that cannot be considered in determining credit scores are:

- Race
- Gender
- Religion
- National Origin
- Marital Status
- Where borrowers live

Having established credit, paying bills on time and keeping balances to a moderate level will help ensure a strong credit history and a good score. Remember, credit scores are intended to help lenders make faster and more consistent decisions, such as whether to approve a loan application or to raise a cardholder's credit limit. A company using credit scoring has to decide for itself which scores are “good” and which are “not so good.” The score is a tool, not a recommendation; the lender should make the decision.
How Mortgage Lenders Are Using Automated Credit Scoring

The United States has the largest and most developed housing finance system in the world, but automated credit scoring used in mortgage underwriting is a relatively recent development. It has become an area of increasing attention and uncertainty in this rapidly changing industry. With credit scoring here to stay, many wonder how it will affect the flow of capital to our nation's homebuyers.

Mortgage Fundamentals

Mortgage lending programs begin with a vision statement that describes the results the program would like to attain and a strategic plan to explain the program's objectives. Planning identifies the primary success factors that will enable the lender to meet and successfully respond to housing market realities. Because good mortgage lending programs and decisions rely on loan policy, the lender builds the organization's policy next.

Credit scoring is one of several automated devices that assist the lender in verifying or qualifying credit information about a customer. It is the first step taken by the lender after receiving an application for credit.

When the credit analysis is complete, evaluation and decision-making follow. The concern of lenders is that good mortgage credit decisions are complex and require hard work. Evaluating and ascertaining what risks are present and how to safely manage those risks are at the core for the lender. Loan policy guides the lender in the consistent use of information from many sources, including mortgage scores, when making a loan decision.

Market Realities

There are different types of mortgage credit scoring methods, but all credit scoring systems attempt to forecast loan performance; manage credit risk; predict the customer's ability and willingness to repay as scheduled; and forecast delinquency, default and bankruptcy rates.

Lenders must satisfy the loan volume, quality and profitability benchmarks contained in the lending program objectives. This includes a consistent flow of mortgage credit applications through the program that can bring the rate of return to the lender as set forth in the business plan.

Consumer demands for fair, quick and affordable mortgage credit parallel lender demands for safety and profitability. Lenders are using credit scoring systems to satisfy the consumer's demand for extraordinary customer services, including speed, accuracy and price. It now is possible to apply for a loan over the telephone, at a kiosk in a mall or on the Internet and receive a response measured in minutes, hours or a few days. Consumers want fast credit decisions, and, without the help of automation, decisions are time-consuming and expensive.
Looking for Patterns

Mortgage credit scoring systems attempt to find patterns in the credit histories of groups of individuals as reflected in credit bureau records. All data used in automated mortgage credit scoring are historical.

Mortgage credit scores use statistics to predict how the majority of loans with common characteristics in a broad group of the population will perform in the future. Performance in this case means loan defaults. Automated data can easily show trends in group behavior and how behavior may change over time. Much of the research conducted on mortgage credit scoring indicates that credit scores accurately predict the performance of the loans in the future and that scoring increases the accuracy of risk assessment.

Credit scores do not predict how individual borrowers may behave in the future but rather that the majority of persons with similar characteristics usually behave in predictable patterns. It may seem like splitting hairs, but there is a difference between the predictable performance of a group of loans with common credit bureau characteristics and an individual's behavior and risk. For example, most people in a movie theater will exit at the end of the movie while only a few will stay for the movie credits, or the majority of people stop at red lights but a few run them consistently. Credit scoring is useful because the greater the ability to predict aggregate or group problem credit behavior, the better chance there is to manage risk.

Issues of Credit Scoring Related to Mortgage Lending Programs

In all walks of life, there will always be exceptions to the statistical norm, and this fact has implications for mortgage lending programs and mortgage scoring usage. Research conducted at the Board of Governors of the Federal Reserve System raises several concerns about credit scoring. The research recognizes the benefits credit scoring systems may offer lenders and borrowers. However, the study states, "Its use raises economic and policy issues, including the ability of credit scoring to accurately quantify an individual's credit risk and the effects of scoring models on credit flows to lower-income and minority neighborhoods."

For individual borrowers, scoring does not include unobservable influences and could have incomplete information. These may include payment history for rent and utilities and participation in informal credit markets. For example, utility and rent payment history can be a substitute when the borrower lacks a consumer credit history.

Credit scoring may not allow for those conditions or variables (for example, a change in an individual's behavior through education, regional economic conditions or natural disasters) that may affect the individual customer. As one of the five "Cs" of credit, conditions may be altered that can affect the standard predictability of an individual's credit behavior. There may have been a general economic downturn and increasing unemployment rates in the region.

Credit scoring can be fair only to the extent that the information is accurate and the model is applied appropriately. A score may be accurate only to the extent that credit bureau information is accurate and complete. A scoring model developed for one product type, population group and loan term cannot be applied to a group or product with different characteristics and maintain its reliability.

Anecdotal evidence may indicate that credit scoring is being used as the only tool for credit evaluation when making a decision on a mortgage application. According to Fair, Isaac and Co., this is a misuse of the scoring system and may result in unsafe lending. Lenders are counseled by Fannie Mae and Freddie Mac that credit scores alone are not to be used in approving or denying an application for mortgage credit. The decision-making system must use a complete credit profile and not just the credit score.
"Our advice on using credit scores is that they can be used to quickly process the vast majority of borrowers, freeing up resources and time for lenders to focus on the more difficult loan files," said Henry Cassidy, senior vice president of single-family risk management for Freddie Mac.

**Benefits**

Technology can be a tremendous help when the number of variables that affect a decision increases. Automated scoring serves as an initial and primary screen for applications. In theory, automated scoring is used to screen large quantities of credit information for applications that may be approved with the least amount of credit analysis and decision-making resources. Such a screen could remove human subjectivity, especially bias, prejudice or overt discrimination. Applications scoring lower require further credit analysis, probably using manual or traditional underwriting.

The benefits of an automated screen of applicants can include lower acquisition costs, more objective and consistent decisions, and increased speed of decisions for the customer with less paperwork. Scoring also may contribute to the ability of a financial institution to make more loans that are profitable by decreasing the likelihood of default and collection costs. This could increase the amount and flow of funds to more borrowers. Fewer defaults could mean more money available for borrowers and mortgages.
Correcting Errors on a Credit Report

Credit scores are based on information in a credit report, which is a profile of an applicant's borrowing, charging and repayment activities. In addition, credit reports contain identifying information, such as the applicant's name, address, employment, Social Security number and birth date. It also may show whether the applicant has been sued or arrested, or has filed for bankruptcy. Credit reporting agencies or credit bureaus compile your credit report.

Since businesses may obtain this information to evaluate an application for credit, insurance, employment and other purposes allowed by the Fair Credit Reporting Act, it is important that the information in the report be complete and accurate.

What to do about errors

Credit bureaus gather the information that appears on credit reports from many sources, and, with so much data flowing back and forth, errors may occur. No matter how errors take place, it is important to correct them quickly. Therefore, it is worthwhile for applicants to review their credit report periodically by ordering a copy from one or more of the major credit bureaus. By doing so, applicants can be certain that the information on the report is current and correct. If they find an error, they should notify the bureau in writing, giving the following information:

- complete name and mailing address;
- what information they believe is incorrect;
- copy of documents (not originals) that support their position;
- copy of credit report with item(s) in question circled.

The credit bureau then is responsible for investigating and modifying or removing inaccurate data, usually within 30 days. Disputed information that cannot be verified must be deleted from the file. At the applicant's request, the bureau also must reissue corrected reports to lenders who received the report within the past six months or employers who received it in the last two years.

Credit bureaus usually are listed in the phone book under "credit reporting agencies." The three major national credit bureaus are:

**Equifax**

P.O. Box 740241
Atlanta, GA 30374-0241
(800) 685-1111

**Experian (formerly TRW)**
Spanning the Region

Consumer Credit Counseling Services

For individuals or families who need help with solving debt problems or would like to improve their credit history, the Consumer Credit Counseling Service (CCCS) is available to provide confidential, professional counseling regardless of race, creed, age, color, sex, social position or financial status.

CCCS provides money-management assistance to individuals and families, assisting them in arranging mutually acceptable debt repayment plans with creditors. CCCS counselors help families plan monthly budgets and suggest methods to improve money management and spending habits. Services include budget counseling, mortgage default and rent delinquency counseling, debt management and consumer education. Counseling is available in person, by phone or by mail.

Consumers may want to contact CCCS for assistance before their credit reports reflect a poor credit history. Consumers should be wary if they have:

- an increased percentage of income being used to pay off debts;
- approached or reached credit limits;
- paid only the minimum on revolving accounts;
- been chronically late in paying bills;
- borrowed to pay for items usually paid for in cash;
- put off medical or dental visits for financial reasons;
- reached a point where losing a job would cause immediate financial difficulty;
- been threatened with repossession of car or credit cards or with other legal action; and
- avoided calculating total debt and are afraid to add it up.

CCCS Locations

CCCS has locations throughout the United States. Several of the offices serving the Eighth District are listed below. You also may contact CCCS at 1-800-966-3328.

Arkansas

Family Service Agency
628 West Broadway,
Suite 300
P.O. Box 5431
North Little Rock, AR 72119
(501) 753-0202, ext. 209
1-800-255-2227
(serves Southwest Arkansas)
4604 Summerhill Road
Texarkana, Texas 75503
(903) 792-1116

Illinois
1616 W. Main St., Suite 200
Marion, IL 62959
(618) 997-1880

1623 Washington Ave.
Alton, IL 62002
(314) 355-6162

Kentucky
2100 Gardiner, Suite 103A
Louisville, KY 40205

546 Lone Oak Road, Suite 1
Paducah, KY 42003
(502) 443-7917

Mississippi
Greenville, MS 38703
(601) 378-3227

Missouri
1904 North Westwood
Poplar Bluff, MO 63901
(573) 686-3323

1300 Hampton Ave.
St. Louis, MO 63139
(314) 647-9004

Tennessee
Dyersburg, TN
1-800-710-8902

Family Services of Memphis
2400 Poplar, Suite 510
Memphis, TN 38112
(901) 323-4909