Chapter 8

THE IMPACT OF CREDIT SCORING AND AUTOMATED UNDERWRITING ON CREDIT AVAILABILITY

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INTRODUCTION

During the 1970s and 1980s, credit scoring and automated underwriting became widely accepted for most forms of consumer lending, other than mortgages. An implicit part of that acceptance by creditors was that scoring could enable expanded lending while maintaining or even reducing loss rates. There is little evidence—or, at least, little memory—of any serious concerns on the part of regulators or consumer activists during those years that scoring might somehow restrict access to credit for any significant subset of the population. But, in the last four or five years, such concerns have been raised more and more frequently. This paper addresses both the reasons for this change in perception, and the answer to the substantive question: How do credit scoring and automated underwriting affect access to credit by the population as a whole and by traditionally underserved segments of the population?

THE EVOLUTION OF CREDIT SCORING

The basic idea of credit scoring was conceived in the late 1930s and early 1940s. However, without access to the computing power needed to analyze large masses of raw data, early credit scoring systems were, at least by today’s standards, relatively crude. It is relatively easy to isolate individual factors (“characteristics”) which are predictive of satisfactory or unsatisfactory credit performance. But accounting for the potentially intricate correlations among those factors to find the most predictive combination of characteristics, and the optimal weighting of each value (“attribute”) of each
characteristic, may require tens or hundreds of thousands of computations. In short, developing even a moderately sophisticated scoring system requires the use of an electronic computer, a device which first became available for civilian use in the 1950s.

During World War II, crude scoring systems were used by high-volume credit grantors—principally retailers and personal finance companies—to offset the loss of experienced loan officers to military service and defense industries. These early systems were developed and implemented manually and sought primarily to preserve the quality of decisions despite the loss of experienced decisionmakers. A major milestone in credit scoring came about in 1958 when Bill Fair and Earl Isaac began to develop credit scoring systems with the aid of computers. Used primarily by finance companies, retailers, and auto lenders, these systems were also implemented manually; that is, a loan officer would compare the information from a credit application and credit report to a table of characteristics, attributes, and score weights (“scorecard”) to determine the applicant’s score. Fair and Isaac believed—and demonstrated—that statistically-based systems could actually make better decisions than judgmental underwriters.

During the 1960s and 1970s, there occurred parallel developments that would drastically alter both consumer credit and credit scoring. These were the rise of general purpose credit cards and the development of the first automated credit application processing systems, (i.e., automated underwriting). It is impossible to imagine the current prevalence of credit cards without automated underwriting and, later, automated account management. Since credit cards and automated underwriting and account management have grown up together, there was never a wrenching shift from judgmental to automated decision-making in the credit card arena.

The history of credit scoring in mortgage lending is much briefer and includes a truly radical paradigm shift. Until 1995, scoring was seldom—if ever—used in mortgage lending. The reasons were relatively simple. Developing a reliable scoring system requires a significant sample of loans displaying unsatisfactory (“bad”) as well as satisfactory (“good”) performance. Few, if any, mortgage portfolios have enough bad loans to satisfy the requirements for a statistically sound system. In addition, from shortly after World War II until the late 1980s, there was almost constant appreciation in the value of U.S. residential real estate. Mortgage lenders thus relied on the value of their collateral rather than the credit risk of their borrowers.

The late 1980s and early 1990s saw the end of infallible appreciation in residential real estate. Mortgage lenders quickly became keenly interested in the quality of their borrowers. During the same period, credit risk models based on aggregate credit bureau data had come into widespread use in non-mortgage consumer lending. Although these models had been developed to