

# **The Adoption of Small Business Credit Scoring by Smaller and Smaller Banks and the Attendant Effects on Credit Availability**

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## Abstract

A recent strand of research explores the role of technological change in small business credit markets, especially the introduction of credit scoring methods. Small business credit scoring (SBCS) is a transactions-based lending technology that involves analyzing data about the owner of the firm and combining it with relatively limited data about the firm itself using statistical methods to predict future credit performance. Credit scores have been widely used for many years in consumer credit markets (e.g., mortgages, credit cards, and automobile credits) -- resulting in low-cost, commoditized credits that are often sold into secondary markets and yielding significant growth in consumer credit availability. Small business credit scoring is a more recent phenomenon -- most large U.S. banks did not adopt the technology until the mid-1990s due to concerns regarding firm heterogeneity and nonstandardized documentation.

The empirical literature studying the effects of SBCS on small business credit availability (broadly defined) documents associated increases in: 1) overall small business lending; 2) lending to relatively opaque, risky borrowers; 3) lending within low-income as well as high-income areas; 4) lending over greater distances; 5) the maturity of loans; and 6) the incidence of unsecured credit. While these previous studies provide important information about SBCS, this literature is hampered by the fact that they are all based on single survey conducted by the Federal Reserve Bank of Atlanta in 1998. Thus, the research to date examines only very large banking organizations (99 of the 200 largest) and studies only the period up to January 1998 when the application of this technology was relatively new and adoption rates were relatively low. Today, virtually all large banks use SBCS, and it is small banks that are making the adoption decisions.

This paper uses data from a new survey conducted in 2005 sponsored by the U.S. Small Business Administration's Office of Advocacy. The new survey provides broader information on a more recent period and expands coverage to banks of all sizes. Hence, the new data allows us first of all to examine the extent to which the prior findings for very large banks have changed in terms of adoption rates, the method of using of the technology, and the effects of their use on small business credit supply. The data also allows us to address for the first time the adoption of SBCS by smaller banks and the attendant effects on small business credit markets. We expect significant differences on all of these dimensions by bank size, given that the literature typically finds that banks in different size classes make very different use of hard- versus soft-information lending technologies, and have very different credit supply functions. Much of the analysis will be devoted to examining the differences among the bank size classes, which may help address issues of the effects of bank consolidation on the various dimensions of small business credit availability.