

- Generally, a decline in bank capital leads to a reduction in the number of bank loans. However, a reduction in bank capital at both small and large banks was found to lead to an increase in the volume of SBA-guaranteed loans, although the effect was not statistically significant. This finding suggests that the SBA program is countercyclical, providing a stabilizing influence on small business lending.

- Reduced bank capital and increased real estate delinquencies at small banks were more associated with business failures and bankruptcies than the same deterioration at larger banks.

- During periods of slow growth or of tight monetary policy, the effects of bank capital levels, loan delinquencies, and SBA-guaranteed loans were both much larger and more statistically significant than during other periods. Thus, the effects of both adverse changes and potential solutions were magnified during recessions.

Scope and Methodology

The study estimated how much and how differently small businesses responded to banking sector difficulties and aggregate economic conditions over the 1991-2000 period. Annual data from a variety of sources including banks' call reports, U.S. Bureau of the Census data for business activities in firms of different sizes, and reports on macroeconomic conditions from the Federal Reserve and the Bureau of Economic Analysis were used in the statistical analysis. Most variables were adjusted for inflation and population growth. In general, changes in various measures of business activity relative to changes in other variables were estimated. This specification has the benefit of removing "fixed effects," which were likely to differ considerably across states but not be readily measured.

Ordinary least squares using annual data for each state for each year from 1991 to 2000 were estimated. Data for some of the variables were not available for the years before 1990 or after 2000, which precluded extending the sample period. Dependent variables in the models included employment, number of firms, dollar payrolls, loans, gross state product (GSP) growth rates, personal income and some of its

major components (wages and salaries and nonfarm proprietors' incomes), SBA-guaranteed loans, business failures, and business bankruptcies. To the extent possible, business activities were displayed by firm size. The effects on employment, number of firms, and payrolls were estimated both at the aggregate level and disaggregated into activities at firms with either 1-19, 20-99, 100-499, or more than 499 employees. The effects on various categories of bank loans (commercial, consumer, etc.) by bank size were also estimated. Bank sizes were small, with less than \$1 billion in assets; medium-sized, with \$1 to \$10 billion in assets; large, with \$10 billion to \$50 billion in assets; and megabanks, with more than \$50 billion in assets. .

Independent variables included bank capital, loan delinquencies, SBA-guaranteed loans, and macroeconomic conditions. Bank capital measures for banks of various sizes were used. Loan delinquencies were separated by loan type (commercial and real estate) and by bank size. To measure economic conditions, the growth rates of gross state product, the federal funds rate, and spreads of risky over safer short-term and long-term interest rates were used.

Ordering Information

The full text of this report and summaries of other studies performed under contract to the U.S. Small Business Administration's Office of Advocacy are available on the Internet at www.sba.gov/advo/research. Printed copies are available for purchase from:

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