SBA Office of Advocacy
www.sba.gov/advocacy

Small Business Research Summary

Advocacy: the voice of small business in government

April 2013 No. 404

The Impact of Credit Availability on Small Business Exporters

By Joe Peek, Ph.D., Lexington, KY 40502 [50] pages.
Under contract number SBAHQ-11-M-0206

Purpose

A dramatic drop in U.S. exports during the 2008-2009 financial crisis and Great Recession stimulated interest in investigating the relationship between trade finance and small business exports. This research examines whether and how the tightening of credit affects small firm exporters.

Background

The dramatic decline in international trade flows in 2008-2009 was far beyond what might have been expected based on historical patterns. According to figures from the U.S. Census Bureau and the Bureau of Economic Analysis, the value of U.S. exports of goods and services declined from $1.84 trillion in 2008 to $1.58 trillion in 2009, a 14 percent drop, compared with a 6.0 percent decline in exports in the previous recession (2000-2001) and steady increases in exports in nearly every other year since 1992. One factor that many have cited to account for the unusually large decline is a supply effect resulting from credit tightening. Credit is especially important for exporters because of the need to finance their working capital to compensate for the riskiness of cross-border transactions and for the longer transportation time exporters need compared with domestic producers. In short, the deterioration in the ability or willingness of banks to provide financing is likely to adversely affect exporting firms to a greater degree than firms producing for the domestic market.

Previous literature has established that small firms rely disproportionately more on bank credit than larger firms. Thus, a tightening of credit might be expected to have a greater adverse effect on small and medium-sized enterprises (SMEs) than on larger firms with access to national and international credit markets.

This study investigates the impact on exporting SMEs of bank health, including differences by industry and state. The researcher explores various factors that might lead to differences in shares of exports in an industry. These include credit availability, general macroeconomic conditions, and the financial environment measured in terms of the industry's dependence on external finance. At the state level the analysis examines the impact of bank health on exporting.

Overall Findings

The key finding is that the small firm share of exports declines in response to deterioration in bank health; the adverse impact is greater for exporters in industries that rely more on external finance. The evidence is stronger for smaller firm size classes. Specific findings include:

- The adverse effects of deterioration in bank health appear concentrated among exporting firms with fewer than 100 employees.
  - Effects are evident for the smallest firm size class (fewer than 20 employees) and they remain when the threshold is raised to firms with fewer than 100 employees.
  - These results hold for alternative measures of bank health including capital, liquidity, and nonperforming loan ratios.
- Evidence for the state-level analysis indicates that local bank health matters.
  - Results suggest that deterioration in large bank health within a state, measured by the capital ratio and nonperforming loan ratio, has stronger adverse effects on the exports of SMEs than on larger firms.
  - The state-level analysis is limited because the firm size data cannot be disaggregated into size classes for categories below 500 employees.

Policy Implications

These findings suggest policies that would:

- Increase SME exporting by improving their access to credit and financing through steps to improve the health of the banking system.
- Encourage the Consumer Financial Protection Bureau to examine the constraints on banks and FICO scores to improve credit and lending to small business exporters.
- Increase U.S. Export Assistance Centers' (SBA, Commerce, Ex-Im Bank, and others) assistance to small businesses especially businesses with fewer than 20 employees.

Scope and Methodology

The key variable in this study is the SME share of the dollar value of total exports. It is expected that smaller firms were hit harder by the financial crisis than larger firms because of the greater reliance of smaller firms on bank finance and the perception that smaller firms expose lenders to greater risk.

The primary data for this study come from four separate sources. These include the U.S. Department of Commerce's International Trade Administration Exporter Database (ITAED), the Federal Deposit Insurance Corporation's Summary of Deposits (SOD), the Federal Reserve's Consolidated Reports of Condition and Income (Call Reports), and Compustat.

The research uses regression methods to test the hypotheses in terms of both industry-level and state-level analysis. Three alternative firm size classes are considered for the industry-level analysis: (1) firms with fewer than 20 workers; (2) firms with fewer than 100 workers, and (3) firms with fewer than 500 workers. However, for the state-level analysis, only one firm size distinction is available—fewer than 500 workers and 500 or more workers.

The dependent variable for the industry-level analysis is the SME share of the dollar volume of total exports in an industry. The equation contains both time and industry fixed effects—the former controls for general macroeconomic conditions, while the latter controls for systematic differences across industries. The analysis based on the ITAED data disaggregated by 21 industries and the independent variables include a measure of external finance dependence by industry and measures of credit availability—including an interest rate spread as well as several measures of bank health. The external finance dependence (EFD) is calculated using individual firm data from Compustat. Alternative bank health measures are calculated at the national level using the FDIC's problem bank list and Call Report data.

For the state-level analysis, the ITAED data are disaggregated by state and the dependent variable is the SME share of the total dollar volume of exports for firms headquartered in the state. Independent variables include alternative measures of state bank health and both state and time fixed effects. The state health variables include the same three bank health indicators used in the industry-level analysis.

This report was peer-reviewed consistent with Advocacy's data quality guidelines. More information on this process can be obtained by contacting the director of economic research by email at **advocacy@sba.gov** or by phone at (202) 205-6533.

Additional Information

The full text of this report and summaries of other studies of the U.S. Small Business Administration's Office of Advocacy are available on the Internet at **www.sba.gov/advocacy/7540**.

To receive email notices of new Advocacy research, press releases, regulatory communications, and publications, including the latest issue of *The Small Business Advocate* newsletter, visit **www.sba.gov/updates** and subscribe to the Small Business Regulation & Research Listservs.