



## Ten Magazine

# The relationship between bank size and profitability

by:

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In the aftermath of the 2007-09 financial crisis, community bankers and industry analysts have raised concerns that smaller community banks need to grow larger to be successful. Kristen Regehr, an assistant economist, and Rajdeep Sengupta, an economist, both with the Federal Reserve Bank of Kansas City, examine this assumption in their study about the relationship between bank size and profitability.

### Trend toward larger banks

The banking industry has undergone significant restructuring over the last three decades. Since the mid-1980s, the number of commercial banks has declined, while the asset size of banks has continued to increase. From 2000 to 2014, the number of banks with assets less than \$100 million declined by more than 3,000 and while banks' assets increased over this time, most of the growth can be attributed to banks with more than \$10 billion in assets.

### How size can affect profitability

Banks have good reason to believe profitability and size are related. Increasing bank size can increase profitability by allowing banks to realize economies of scale. For example, increasing size allows banks to spread fixed costs over a greater asset base, thereby reducing their average costs. Furthermore, as the scale of operation increases, banks could better use specialized inputs such as loan officers with expertise in a particular business line, resulting in greater efficiency. Scale economies are not the only way size can affect profitability. Small banks may be able to form stronger relationships with local businesses and customers than large banks, allowing them access to information useful in setting contact terms and making better credit underwriting decisions. Indeed, these pricing and information advantages may offset any loss of scale economies.

## Other factors affecting profitability

Size is not the only factor that affects a bank's long-run profitability. Profitability depends on the characteristics of both the individual banks and the markets in which they operate. Bank-specific factors include business strategies and other bank characteristics such as organizational structure. Market-specific factors include market competition and local economic conditions. In order to properly examine the size-profitability relationship, bank-specific and market-specific factors must be included in the analysis.

## Examining the size-profitability relationship

To determine how bank size affects profitability, Regehr and Sengupta performed an analysis that relates a bank's profitability to its size and characteristics, as well as the characteristics of the markets in which it operates. The authors' study includes community and regional banks with real assets of less than \$100 billion from 2000 to 2014. The results support the view that there are significant scale economies in banking, but that the gains in profitability from increasing in size diminish as banks continue to grow. Most of the improvements in profitability due to size are realized while still in the community bank size range. Not surprisingly, the results also indicate that many of the bank-specific and market-specific factors are important determinants of profitability and that small changes in these factors are equivalent to large changes in asset size in achieving higher profitability.

## Has the size-profitability relationship changed in the post-crisis period?

After the financial crisis and recession of 2007-09, the banking industry underwent significant technological and regulatory changes, such as the adoption of mobile banking technologies and the implementation of new regulations resulting from the Dodd-Frank Act of 2010. Changes in technology and regulation have the potential to affect the size-profitability relationship. By conducting further analysis that allows the size-profitability relationship to change over the study period, the authors conclude that there has been no significant change in the relationship from the pre-crisis years to the post-crisis years. In other words, recent changes in technology and regulation have not disproportionately affected the size-profitability relationship for community banks.

## Conclusion

The results support industry analysts' view that there are significant scale economies in banking, especially for the smallest community banks. This is not merely a post-crisis phenomenon. In achieving higher profitability, small changes in bank-specific and market-specific factors are equivalent to large changes in size. Therefore, banks need not grow larger to be successful: business strategies and local economic conditions are no less important in determining bank profitability than size.

## Further Resources

Read “[Has the Relationship between Bank Size and Profitability Changed?](#)” by Kristen Regehr and Rajdeep Sengupta.

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