
Notes: Net interest margin (NIM) is net interest income (total interest income less total interest expense) divided by average earning assets. Return on assets (ROA) is net income after taxes and extraordinary items divided by average total assets.

Source: Federal Deposit Insurance Corporation (FDIC), Quarterly Banking Profile (various issues), from Haver Analytics.
The methodology

\[ Y_{ijt} = \beta_0 + \beta_1 Y_{ijt-1} + \beta_2 SEC_{ijt-1} + \beta_3 CORE_{ijt-1} + \beta_4 LEV_{ijt-1} + \beta_5 TBILL_t + \]

\[ \beta_6 SPREAD_t + \beta_7 \Delta GDP_{t-1} + \beta_8 \Delta UR_{t-1} + \beta_9 \Delta HOUSE_{t-1} + \beta_{10} \Delta CRE_{t-1} + \beta_{11} VIX_t \]

+ \epsilon_{ijt}

for bank \( i \) in asset-size class \( j \) in quarter \( t \) and where

- \( j \) is 1) less than $100 million, 2) $100 million to $1 billion, 3) $1 billion to $10 billion, or 4) greater than or equal to $10 billion;
- \( Y \) is net interest margin (net interest income divided by average total assets) or return on assets (net income after taxes and extraordinary items divided by average total assets);
- \( SEC \) is average total securities divided by average total assets;
- \( CORE \) is core deposits divided by total liabilities;
- \( LEV \) is average total equity capital divided by average total assets;
- \( TBILL \) is the quarterly average yield on the three-month U.S. Treasury bill;
- \( SPREAD \) is the difference between the quarterly average yield on the ten-year U.S. Treasury note and the quarterly average yield on the three-month U.S. Treasury bill;
- \( \Delta GDP \) is the annualized quarterly percent change in real gross domestic product;
- \( \Delta UR \) is the quarterly change in the civilian unemployment rate;
- \( \Delta HOUSE \) is the quarterly percent change in the CoreLogic Home Price Index;
- \( \Delta CRE \) is the quarterly percent change in the Commercial Real Estate Index as published by the Federal Reserve Board in its baseline scenario for the stress tests conducted under the Dodd–Frank Wall Street Reform and Consumer Protection Act; and
- \( VIX \) is the quarterly average level of the Chicago Board Options Exchange Volatility Index.

The model was estimated for 5,583 commercial banks for the 2003:Q3–2013:Q2 sample period. Standard errors of parameters were adjusted for heteroskedasticity and clustered by bank. The data sources are the Federal Financial Institutions Examination Council (FFIEC) 031 reports (Consolidated Reports of Condition and Income for a Bank with Domestic and Foreign Offices, or Call Reports) and Haver Analytics.