

The financial indexes of the failed banks in the usa

[Literature](#), [Russian Literature](#)



The bankruptcy of a bank can lead to a broad range of effects. Investors, individual entrepreneurs, and companies can lose their deposits that exceed the insured amounts. Furthermore, the growth of bank failures may have a particular impact on the overall economic stability and prosperity of the country. Hence, it is crucial to identify factors that can influence bank's sustainability and potentially lead to bank failures.

Throughout recent years, there have been carried out vast research analyzing the agents that can explain bank defaults. This paper uses the latest data to examine specific factors that could put under risk the solvency of a bank. The investigation revealed the correlation between specific financial ratios and bank failure during the time of economic crisis. Moreover, there was found interconnection between the bank defaults and the geographical location of those financial institutions which experienced insolvency. The report will disclose all the gathered findings in more detail.

This report aims to analyze the financial indexes of the failed banks in the USA which took place in the time of the Great Recession and lasted for several years. In the first part of the report, there will be presented the general overview of the failures in different years as well as being discussed the geographical distribution patterns of the closed banks. The second part of the report will demonstrate the connection between the different bank capital ratios and the eventual bank failures in times of financial crisis. The dataset used for analysis is from 2007 to 2012. The interpretation of the received findings will be supported by reputable academic resources.

Carrying out the analyses of the given data, it can be concluded that the highest frequency of the bank defaults fell on the three years between 2009 and 2011. The number of failures appeared to be 140 in 2009, 156 in 2010 and 92 in 2011 (see Fig. 1). What is notable is that the highest percentage of defaults was registered in 2010 and the fact that the mean, mode, and median were equal at that year prove this affirmation. The results are relevant to those times since many American banks faced severe times and experienced defaults as an outcome of the Great Recession (Lazette, 2017).

Regarding geographical patterns of US bank failures, there is observed promiscuous or dissimilar distribution (Lazette, 2017). In particular, quite a few banks in certain states didn't suffer, due to their policies of having more isolationistic investment portfolios. In fact, the highest proportion of bank failures emerged in the following states: Georgia, Florida, Illinois, and California. The numbers of defaults for those regions were 85, 66, 55 and 38 accordingly (see Fig. 2). Among the main factors for such significant failures were rapid loan portfolio growth, high concentrations in the commercial real estate (CRE), specifically construction and development (C&D) lending, heavy reliance on noncore funding, notably brokered deposits and insufficient capital to cover losses (Johnson, 2014). The numbers of failures in Georgia, Florida, Illinois, and California were noticeably larger than average indicators obtained through analysis of the other states. Thus, for all other states presented in the sample the mean, median and mode of failures were 6, 5 and one respectively. The academic research states that cause staying behind the fact that some states suffered a lot more in terms of the number of bank failures is an economic recession as a consequence of rapidly

collapsing house prices in hot real estate markets. (Aubuchon, Craig, & Wheelock, 2010).

Further analysis of the data provides an opportunity to draw some conclusions and get certain insights from balance sheet figures ratios. Specifically, the average ratio of Equity towards Total Assets demonstrates a sharp decline from 2007 up to 2012, reaching 0, 33% (See Table 1). This indicates that a lower proportion of the bank's assets was financed by its capital. Academic research states that relatively low capital-to-asset ratios and rapid asset growth in relation to the equity were one of the common characteristics or reasons for eventual bank failure (Federal Deposit Insurance Corporation [FDIC], 2017). On the contrary, if the ratio increases, the possibility of a bank failure decreases. A contrasting trend is demonstrated by the Net Loans and Leases /Total Assets Ratio (Samad, 2011). The high Loans/Total Assets ratios are directly related to the risk of failure (See Table 2). In contrast to cash and liquid assets, loans and leases are not demolished until the signed term lapses. Hence, loans or leases are quite unsafe. The possibility of failure was higher among banks with more significant ratios of net loans to total assets (Wheelock & Wilson, 2000). This ratio shows the proportion of banks' total assets that are at risk. Shaffer's (2012) logit regression analyses similarly observed a significant correlation between loan to asset ratio and eventual bank defaults. Hence, the more loans and leases a financial institution has, the higher the potential probability of the bank's failure.

Lastly, looking at one of the macro factors there is observed a negative relationship between the prime loan and the GDP growth ($p=-0,31$), which can also interpret the decline of the Fed Funds rates (see Table 3). The decrease in these figures may have an impact and cause a reduction of such indexes as the prime loan rates. The latter in its turn can subsequently stimulate the growth of GDP because the private households can borrow money at lower costs, thus increasing their expenses, which in its turn positively influences the GDP (Siegel & Coleman, 2015).

In this report, there was analyzed US bank data for the period 2007 -2012 to demonstrate empirical records of the connection between bank financial ratios and bank failures in the times of the great recession. The most severe period of the defaults fell in 2010 with the highest frequency of cases. The obtained findings show that banks which faced defaults had specific characteristics, including several macroeconomic indicators, which played a crucial role in defining the risk of potential failure during the financial crisis. The results suggest that certain ratios such as Equity/Total Assets ratio and Net Loans and Leases /Total Assets Ratio have a positive impact and have the direct connection with a default case. This can also be explained by the assets bubble which exploded at the end of 2007 when the financial institutions couldn't cover their liabilities. Another notable finding relates to the geographical distribution patterns of the failures. In certain US states, the concentration of defaults was noticeably higher than in others. That is explained by modern research as a consequence of rapidly collapsing house prices in hot real estate markets in the period of financial crisis that took place at that time.