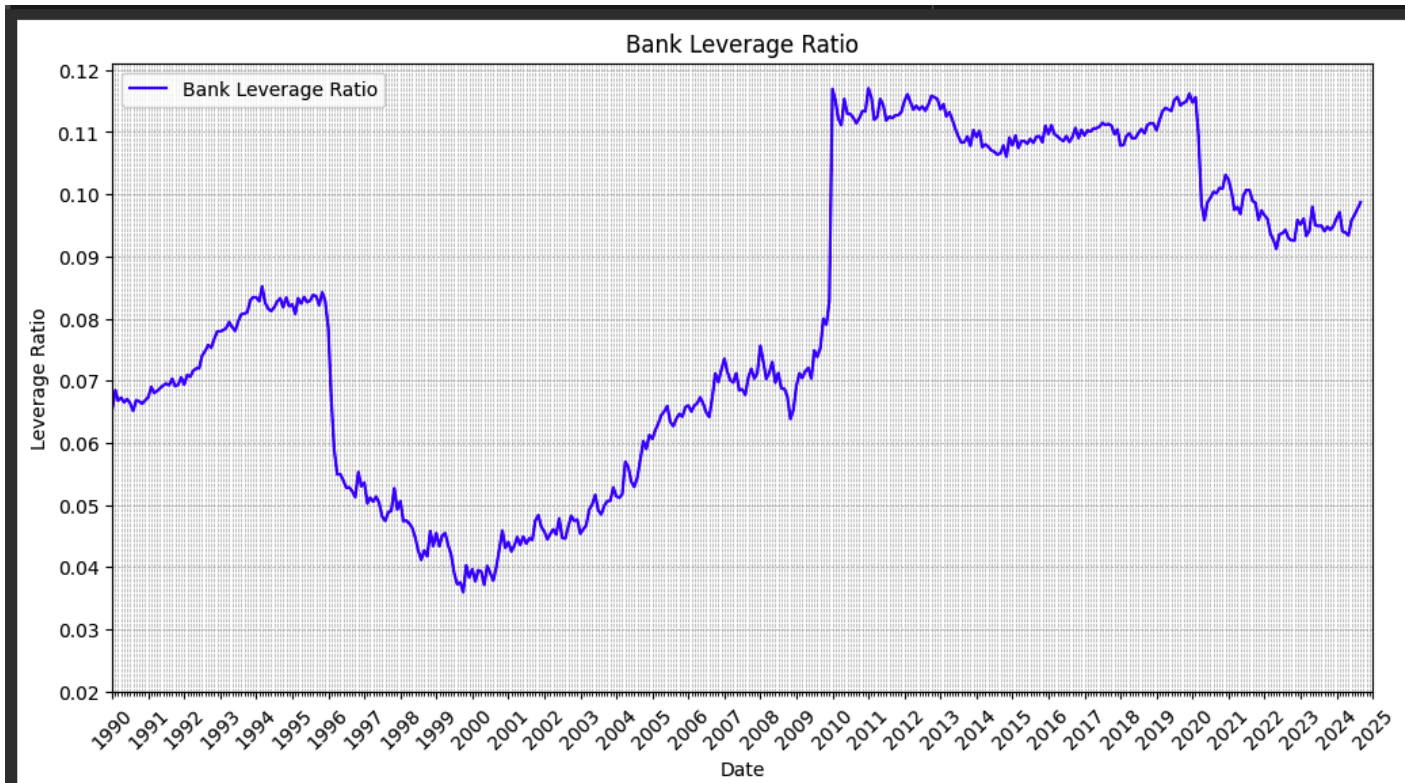


**Problem 1:** Line Graph representation of Bank leverage ratios.



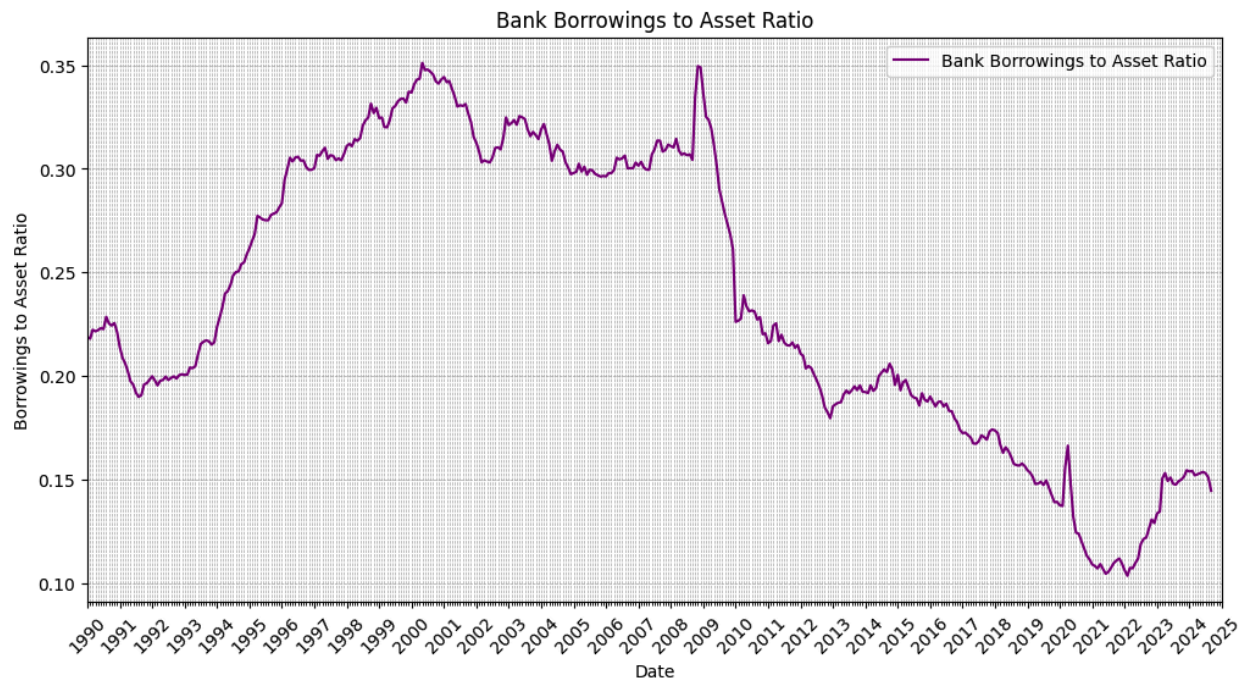
**Question 2:**

**1995-1996:** During this period, based on the graph, we see a sharp decline, going from being above 0.8 dropping to about 0.52. This trend continues into further years with less decline but still in that general direction. One of the regulations I found was the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994. This Act allowed banks to expand across states by acquiring other banks and essentially grow their empire. This Act led banks to want and borrow more, increasing their reliance on debt and essentially causing the leverage ratio to decrease. The argument behind imposing this Act would be to promote a more competitive banking environment, especially after the early 1990s recession. In addition to this Act, the Bill Clinton administration promoted bank deregulation, including the repeal of an earlier regulation called the Glass-Steagall Act. They called this Act the Gramm-leach -Bliley act, which allowed for the combination of commercial and investment banking activities. Similarly to the Riegle-Neal Act, the Gramm-leach-Bliley aimed to increase competitiveness by removing restrictions on banks that separated some of their functions, such as the bank leverage ratio.

**2009-2010:** During this period, we see the highest jump in bank leverage ratios, going from 0.6-0.7 to about 0.115. This increase would be due to a famous act called the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Following the 2008 recession, this act was created to prevent any excessive risk-taking in the banking environment and hold everyone accountable for allocating their resources. Essentially, the Dodd-Frank Act required banks to have more of their capital and reduce risky borrowing. This act also brought in the idea of stress testing, which made sure banks could withstand recessions. In addition to this act, the CFPB or Consumer Financial Protection Bureau came along, further promoting transparency between banks and the public. Overall, the goal was to create the proper measures to ensure another 2008 crisis would not happen shortly with these new precautions.

**2019-2020:** During this period, we saw another decline, but to a lesser extent than the previous years we looked at. The regulation I found that best fit this would be the Economic Growth, Regulatory Relief, and Consumer Protection Act Under the Trump administration. This act reduced some of the restrictions of Dodd-Frank, which led to this decrease in ratios as banks were less watched over. This included an increase in the stress testing threshold from 50 billion to 250 billion, meaning smaller banks had more leeway.

### Question 3: Do $(\text{Total liabilities} - \text{Total Deposits}) / \text{Total Assets}$



#### **Question 4: Comment on the movements of bank borrowing to asset ratio**

Before the 2008 financial crisis, banks had a high bank borrowing-to-asset ratio, showing that they relied a lot on borrowed funds rather than their equity or reserves. This strategy made banks vulnerable to liquidity issues, meaning if they could not roll over their debt, then they were at higher risk of failing. The monetary base was much smaller before 2008 because banks wanted to keep minimal reserves as they preferred to lend out more or at least as much as possible. After 2008, the FED realized under the ideas of Bernanke that they must stabilize the economy by increasing this monetary base. The FED did multiple things, such as buying assets, especially mortgage-back securities, which injected liquidity into the public and increased the economic base to 2 trillion (Around 850 billion before). The Fed also provided extra incentives, such as interest for banks to hold more reserves, which forced them to make less risky plays and helped stabilize them. Through these means, the borrowing-to-asset ratio decreased after 2008 and continued this trend. Overall, the goal was to increase the monetary base as an extra security buffer to reduce risk in the financial world.