



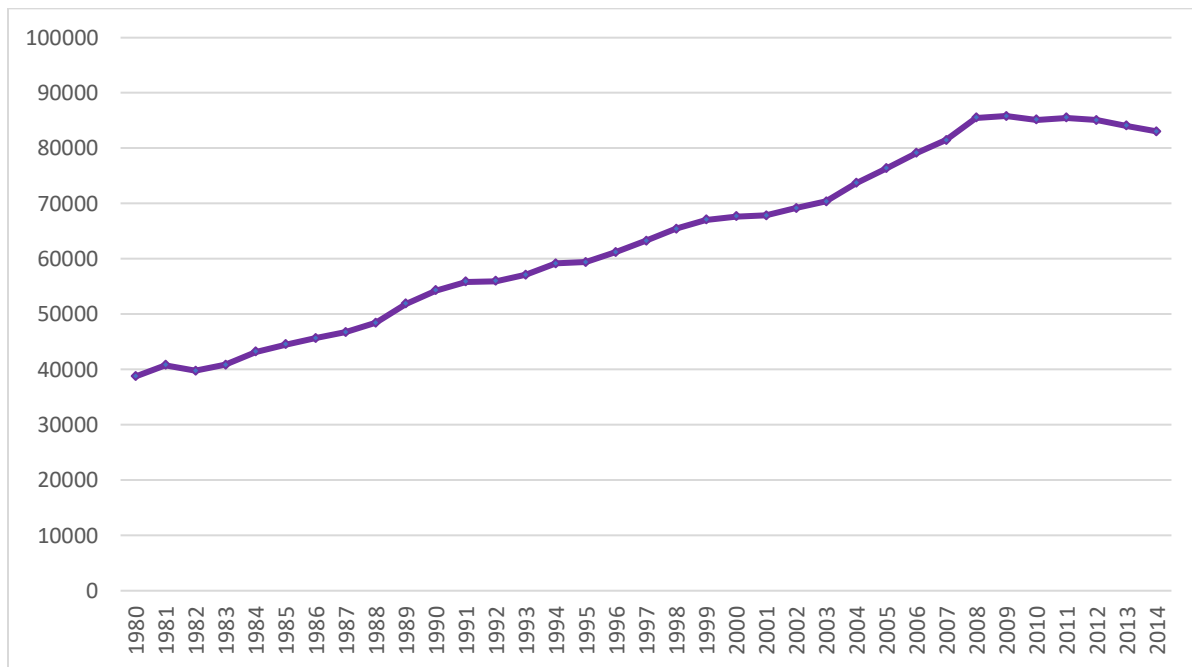
# The “Branch Destruction” Fiction | Part I

Paul Calem | March 7, 2023

On Feb. 10, a research paper co-authored by a group of Federal Reserve Board economists was presented at the OCC’s Symposium on Bank Mergers.<sup>1</sup> The paper analyzes detailed data on banking market structure, deposit growth and deposit account interest rates in the U.S. from 1980 to 2014. The study clearly involved major data gathering and statistical analysis efforts and produced results consistent with economic reasoning. However, the authors appear to have drawn conclusions that are not supported by the empirical findings.

The period covered in this paper saw a significant amount of bank consolidation as well as a significant increase in the number of bank branches. While the number of banks in the country shrank from about 14,400 to about 5,600, the number of bank branches more than doubled, increasing from around 38,000 branches in 1980 to a peak of almost 86,000 in 2009, then declining slightly to about 83,000 by 2014 (Figure 1). The study obscures these facts by shifting the focus to neighborhood-level comparisons, arguing that mergers cause “branch destruction” and therefore the traditional, market concentration approach to assessing competitive effects needs reconsideration.

**Figure 1: Number of Branches of FDIC Insured Depository Institutions, 1980-2014**



Source: [Federal Deposit Insurance Corporation](#)

<sup>1</sup> Benson, David and Blattner, Samuel and Grundl, Serafin and Kim, You Suk and Onishi, Ken, “Concentration and Geographic Proximity in Antitrust Policy: Evidence from Bank Mergers” (September 21, 2021). Available at SSRN: <https://ssrn.com/abstract=3873502>

## The Study's Approach and Findings

The study applies an estimation strategy commonly known as “difference-in-differences.” This strategy involves comparing the effects of a merger, including any change in number of bank branches pre- and post-merger, for a “treatment group” of local markets versus a control group of local markets. The treatment group comprises geographic banking markets where the merging banks were jointly present (overlap markets), while the control group comprises markets where the merging banks were individually but not jointly present.<sup>2</sup> Within the treatment group, the analysis further distinguishes markets where the merging banks had closely overlapping branch networks.<sup>3</sup> So, the study attempts to determine how the effect of a bank merger on branching activity in an area differs between areas where the two legacy banks have neighboring branches versus areas where only one had a branch.

Consistent with intuition, the paper finds that number of bank branches (on average) *grew more slowly* in local markets where merging banks had closely overlapped networks compared to those with no overlap.<sup>4</sup> So, for example, if a merged bank ended up with two branches on the same or a nearby block, it would be likely to close one of them.

However, the relevant question is whether any inconvenience accruing to consumers or businesses whose home branch may have relocated to a marginally more distant location was material enough to offset the benefits from gaining access to the combined and, in many cases, expanding branch network of the merging institutions. While merged banks were closing redundant branches, their combined branch network offered customers increased convenience. Moreover, banks overall, including many if not most of those involved in mergers, were opening *de novo* branches at a much faster rate than branches were being closed. On balance, there seems little reason to conclude that mergers were harmful.

Thus, the paper errs by suggesting harm to consumers based on the results of its difference-in-differences analysis. The central result that fewer net additional branches were established in markets where the merging banks’ networks overlapped more closely is repeatedly referred to as branch decline or “destruction.” Specifically, the paper frequently employs words or phrases such as “*branch closures*,” used 18 times; “*close branches*” or “*reduce number of branches*,” used six times; and “*destroy*” or “*destruction of*” branches, used 10 times. These characterizations are misleading, particularly since the net number of bank branches increased in most areas. Banks expanded to new communities, while closures mostly were limited to redundant branches in areas where merging banks’ networks closely overlapped.

The study offers a few additional findings on effects of bank mergers. These include:

- (1) Increased accessibility of bank branches across the whole footprint of the new, merged entity.
- (2) Modestly slower growth of the merged institution’s deposits in close-overlap markets.
- (3) Lower two-year CD interest rates offered, on average, by competitors in close-overlap markets.

The first effect clearly is favorable for customers, and even more so if, as some studies suggest, geographic proximity to a bank branch is a key determinant in whether a loan applicant obtains credit.<sup>5</sup> The second effect is

<sup>2</sup> The study applies the Federal Reserve System’s 2014 geographic market definitions.

<sup>3</sup> These are markets with “close-proximity mergers” such that the acquirer-target network distance is below the median acquirer-target network average distance (approximately 4 miles) in markets with overlap.

<sup>4</sup> A statistically significant differential is indicated only for “close-proximity mergers”.

<sup>5</sup> See, for example, Adams, Robert M. and Brevoort, Kenneth and Driscoll, John C., “Is Lending Distance Really Changing? Distance Dynamics and Loan Composition in Small Business Lending” (February 2021). FEDS Working Paper No. 2021-011, Available at SSRN: <https://ssrn.com/abstract=3865407>

found to be mild and transitory, and it is offset by faster deposit growth at competitor institutions, which means mergers did not lead to slower growth at the market level. The third effect is also temporary. The second and third effects are characterized in the paper as “anticompetitive”, although the narrow evidence presented does not support such a strong conclusion.

The increased accessibility is a direct result of customers of the merging institutions having access to the full branch network of both banks, compared to fewer branches of only one bank previously. Thus, the average customers’ distance to the nearest branch is reduced. This effect clearly is favorable for customers, assuming that a loan applicant’s geographic proximity to a bank branch is a key determinant in whether the borrower obtains credit. This benefit will naturally be more limited in areas where the merging institutions had more closely overlapping branch networks. The authors choose to emphasize the latter relationship, which imparts a pessimistic tone to the description of the results:

“Every bank merger leads to a larger branch network by combining two separate smaller networks, and this “accessibility” synergy reduces consumers’ distances to the merged bank. We find that close-proximity mergers have significantly smaller accessibility synergies, on average. Repositioning caused by the merger can also affect consumers’ distances to banks. We find that, unlike far mergers, close-proximity mergers increase the distance to branches for some consumers.”

Note that the last sentence above follows from the fact that some redundant branches may be eliminated in markets where the merging banks had closely overlapped networks. However, the share of customers in these markets who experienced reduced accessibility amounted to a few percentage points.<sup>6</sup>

The finding on temporarily slower deposit growth for the merged institution (offset by faster growth at competitors) and lower two-year CD rates offered by competitors are likely related to each other and tied to adjustments following the merger.<sup>7</sup> A variety of factors not considered by the paper could be at work, and the resulting market dynamics naturally could differ depending on the relative sizes of the merging institutions and their degree of branch network overlap. For instance, some customers of the merged bank may prefer the ambiance of a smaller bank.<sup>8</sup> In some cases, employees separated because of the merger might take clients elsewhere. Branch divestitures required by the regulators might also contribute to these outcomes.<sup>9</sup> Finally, competitors may decide to compete differently against the combined, post-merger institution by offering to lower the minimum balance on CDs combined with a lower interest rate.<sup>10</sup> None of these causes would be evidence of anticompetitive effects from a merger.

Indeed, the paper shows that the merged institution itself does not reduce its offered CD rates in markets where there is overlap, which suggests that it did not gain market power. However, the paper portrays these narrow and transitory effects as “*anticompetitive*,” with use of that word occurring 12 times throughout the exposition.

<sup>6</sup> As reported in the study, “after close mergers, 1 to 2.5 percent of consumers experience an increase in distance to their nearest branch.”

<sup>7</sup> The deposit growth differential is not statistically significant more than one year post-merger, and the interest rate differential is no longer statistically significant after two years.

<sup>8</sup> In the near term, the competitors benefit from gaining customers who are shopping based on other needs or conveniences and are willing to accept a lower CD rate in exchange.

<sup>9</sup> Alternatively, if the influx of new customers places the competitor in a stronger financial condition, it may be able to reduce the interest rate offered to depositors. Another paper presented at the OCC Symposium provided evidence that CD rates are strongly related to a bank’s financial condition, with stronger banks offering lower rates. See Berger, Allen N. and Kravitz, Troy A. and Shibut, Lynn, “The Many Facets of Bank Competition: Evidence from An Extraordinary Dataset” (February 9, 2022). Available at SSRN: <https://ssrn.com/abstract=4030784>

<sup>10</sup> The analysis considers only the reported interest rate.

## Conclusion

The paper presents a well-developed analysis of how the effects of bank mergers can vary depending on the degree of spatial overlap of the merging banks' branch networks. An objective assessment of the statistical findings does not, however, support the paper's narrative that the current approach to competitive analysis of bank mergers is fundamentally flawed.

---

*Disclaimer: The views expressed do not necessarily reflect those of the Bank Policy Institute's member banks, the G30 or the G30 Working Group on Treasury Market Liquidity and are not intended to be, and should not be construed as, legal advice of any kind.*