Referee Report for FINEC-D-25-00978

The Decline of Branch Banking

Summary:

This paper studies the determinants of bank branch openings and closures in the U.S. over the period 2001-2023, with a particular focus on the role of deposit pricing power and depositor sophistication. The authors argue that advances in digital banking and payment technologies have reduced both banks' pricing power over deposits and customers' reliance on physical branch access, with these effects varying systematically across local markets. To capture this channel, the paper introduces a branch-level measure of deposit interest-rate sensitivity ("deposit beta"), constructed by mapping bank-level deposit betas estimated from interest expense responses over monetary tightening cycles to branch locations using local demographic characteristics associated with financial sophistication. The empirical strategy exploits within-bank variation across branches while absorbing bank-year and local fixed effects.

The paper documents that branches with higher predicted deposit betas are more likely to close, particularly among large banks and in the post-GFC and post-pandemic periods. At the same time, banks are more likely to open branches in areas characterized by high deposit betas. The authors interpret these patterns as reflecting asymmetric incentives: incumbents close branches where deposits generate low franchise value due to high rate sensitivity and low reliance on proximity, while entrants avoid low-beta markets because depositors are difficult to attract away from incumbents in those areas. The paper finds comparatively weak evidence that local lending conditions explain branch restructuring, concluding that deposit-side considerations dominate branch location decisions.

Comments:

1. Contribution and broader implications

While the finding that high-beta branches are more likely to close is interesting, the evidence on the long-run trend in branch closures over the past decade and the role of technological change in driving it is already well documented in the literature (e.g., Jiang et al. 2024; Benmelech et al.

2023). The paper contributes by linking branch closures to deposit beta and by proposing an identification strategy that isolates the effect of deposit pricing power within the same bank. However, many of the core results are not particularly surprising in light of existing work, for example Drechsler, Savov and Schnabl (2017, 2021 and 2023) who show how deposit beta shapes the value of bank deposit franchise.

More importantly, even if the evidence on branch closures is convincing, the paper does not address the broader question of why this matters. The analysis would benefit from a deeper exploration of the implications of branch closures. What happens to local competition after a branch closes? How are nearby branches, both within the same bank and across competing banks, affected? Are branch closures/openings clustered across banks within the same area? Who is ultimately hurt or helped by these closures? Quantifying the effects on market structure, deposit pricing, or consumer outcomes would substantially strengthen the paper's contribution beyond documenting closure patterns.

2. Aggregation across deposit types and interpretation of betas

The paper measures deposit beta by aggregating all deposit categories (checking, savings and time deposits) into a single measure. This is potentially misleading, as these deposit types exhibit very different interest rate sensitivities. Time deposits typically have much higher betas, often close to one, while savings deposits have substantially lower betas, and checking deposits even lower. As a result, variation in the measured deposit beta used in the paper may to a large extent reflect differences in deposit composition rather than differences in depositor behavior or pricing power.

For example, a bank or branch with a high beta driven by a large share of time deposits is fundamentally different from one with a low beta driven by a predominance of savings or checking deposits. Treating these as comparable risks conflates compositional effects with behavioral or demographic effects and may distort the interpretation of the results.

3. Branch opening versus closure and the role of income

The paper consistently interprets deposit beta as a measure of branch profitability, arguing that lower-beta branches generate greater deposit franchise value. As the authors state, "Deposit Beta

provides a consistent ranking: low beta branches generate more value for the bank than high beta ones." This interpretation naturally explains why banks would close branches with higher betas and lower profitability.

However, this framework is difficult to reconcile with the results on branch openings, which show the opposite pattern: banks are opening branches in high-beta areas. Under the authors' interpretation, these areas should be less profitable and have weaker deposit franchise value. The authors suggest that low beta makes depositors difficult to attract away from incumbents, but this argument is not clearly articulated and is not supported by direct evidence. The paper does not document customer poaching behavior or show that switching costs are higher in low-beta areas.

In principle, low beta may simply reflect a lack of competition, in which case entry could allow a bank to poach customers relatively easily by offering slightly higher rates while still maintaining profitability. Banks may also compete on non-price margins, such as service quality or account opening bonuses, suggesting additional channels through which customers could be attracted in low-beta regions. Moreover, branch openings involve substantial fixed costs, raising further questions about the profitability of opening branches in high-beta areas. Relatedly, it is not clear why banks would close branches in high-beta areas only to open new branches in similar areas.

In addition, evidence from the closure and opening regressions with local demographic characteristics suggests that local income is a consistent predictor of branch location decisions. Banks appear less likely to close branches and more likely to open them in wealthier areas, consistent with a desire to maximize deposits. This pattern aligns with industry reports and press coverage (e.g., see Wall Street Journal, "America's Biggest Bank Is Growing the Old-Fashioned Way: Branches," 2024) emphasizing the importance of local income and wealth. The wealthiness of an area may matter not only for deposit availability but also for cross-selling opportunities such as credit cards or wealth management. Notably, wealthier areas also tend to have lower deposit betas, as shown in Table 2. This raises the possibility that the branch closure results are driven less by pricing power per se and more by local wealth, with deposit beta acting as a correlated proxy. This channel requires additional analysis and clarification as it is not fully clear to me whether deposit beta is the fundamental driver or partly a proxy for other factors like income. The paper

could also benefit from providing case evidence based on specific bank decisions regarding branch expansion, such as recent expansions in branch networks by JP Morgan.

4. Importance of lending opportunities for branch closure and opening

The authors argue that deposit margins are far more important than lending margins in explaining branch closure and opening decisions. This conclusion is based on regressions that include lending growth as an explanatory variable and find limited explanatory power. However, this test faces several challenges.

First, raw measures of lending growth are correlated with local economic conditions, which may also reflect deposit opportunities. In fact, deposit growth itself appears to have limited explanatory power, suggesting broader measurement challenges. Second, deposit beta may partially capture lending opportunities because it reflects local demographics that are correlated with credit demand. To disentangle the roles of deposit versus lending margins, the paper would benefit from exploiting clearer shocks to either lending or deposit opportunities. Ideally, one would like to observe shocks that increase or decrease lending opportunities without simultaneously affecting deposit margins, or vice versa.

5. Branch closure trends and the role of deposit beta

My current reading of the paper is that deposit beta effectively serves as a sufficient statistic for branch closure decisions: conditional on a bank deciding to close branches within a given period, it is more likely to close those with higher betas. However, the paper does not sufficiently explain what drives the time-series trend in branch closures or how this trend interacts with deposit beta.

As the paper documents, the distribution of deposit betas does not increase over time, suggesting that changes in beta are not the primary driver of the observed rise in closures. While the authors argue that technological change plays a role, the paper does not provide direct evidence on how technology interacts with deposit beta. In particular, it is unclear why a high-beta branch would be more likely to close in, say, 2025 than in 2005.

More generally, the explanatory power of deposit beta in the closure regressions appears limited, with an R^2 close to 10% even after including extensive fixed effects, and likely much smaller without them. At the same time, the estimated economic magnitudes are very large: a relatively small increase in beta of 0.02 (i.e., a 2 basis point larger increase in deposit rates per 100 basis point increase in the market rate) translates into roughly a 10% increase relative to the mean closure rate and about a 25% increase relative to the mean opening rate. Given that branch-level beta variation itself is quite small (with a standard deviation around 0.02), it is unclear what accounts for such large estimated effects.

6. Branch-level betas: imputed measures versus RateWatch data

The analysis relies on bank-level variation in interest expense on deposits, combined with local demographic characteristics, to construct branch-level betas. The authors argue against using actual branch-level deposit rate information from RateWatch due to limited coverage or uniform pricing across branches. Even if RateWatch is not well suited as a baseline measure, it would still be very valuable to include it as a robustness check.

Using RateWatch data where available would provide an important alternative source of variation and help assess whether the results are sensitive to the choice of beta construction. More broadly, the paper would be strengthened by validating the imputed deposit betas against realized betas constructed from RateWatch data where possible. Even if RateWatch is noisy or incomplete, showing that projected betas align with observed pricing behavior in overlapping samples would increase confidence in the beta measure and its economic interpretation.

7. Other minor comments

- Standard errors: Given that deposit beta is itself estimated in a first stage and then used as a regressor in the branch closure and opening regressions, the reported standard errors do not account for this generated-regressor problem. The standard errors should therefore be bootstrapped (or otherwise adjusted) to properly reflect the additional estimation uncertainty.

References

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