Summary and Critical Analysis of "Are Banks Really Informed? Evidence from their Private Credit Assessments"

By Mehdi Beyhaghi, Cooper Howes, and Gregory Weitzner

Boston University

CAS EC542 Money and Financial Intermediation

Robert King

Fall 2023



Rosa(Yuxin) He & Edith Joachimpillai & Yutong Zheng

Summary

Different types of institutions and markets that participate in financial intermediation have access to financial information in different ways. Each type of financial intermediation has its own forms of information frictions, information asymmetries, and processes that allow financial intermediaries to navigate and mitigate these frictions and asymmetries. In "Are Banks Really Informed? Evidence From Their Private Credit Assessments" Mehdi Beyhaghi, Cooper Howes, and Gregory Weitzner (2023) specifically evaluates the nature of banks ability to mitigate information fictions by monitoring and producing information about borrowers. Through this evaluation, Beyhaghi et al (2023) observe that bank private assessments of the expected losses of borrowers, in this case firms (and particularly small firms and growth firms), predict firms' future stock returns, bond returns and earnings surprises. The assessments are notably private because the information is held by the bank as an institution and is difficult to transfer to others.

Through the use of supervisory data generated by the Federal Reserve, bank private assessments of all corporate loans over one million dollars are included in the assessed sample¹. The sample that is evaluated is 1,854 unique firms from 2014Q4 to 2019Q4. Through this data, the empirical approach tests how banks assess expected losses, which is a form of private information, and predict public financial market outcomes. Expected losses are generated by the reported probability of default (PD) and loss given default (LGD) on the balance sheets of the banks. Beyhaghi et al (2023) create an average quarterly expected loss by using the product of the PD and LGD for each bank/firm relationship. This is weighted by the size of each loan. If banks did

⁻

¹ This is achieved via the Federal Reserve's Y-14Q Schedule H.1 data. The loans are exclusively extended by large bank holding companies in the United States

not have an informational advantage over public markets then changes in expected losses should have no relationship with future asset prices.

There is a measurable informational advantage that banks have over public markets. A banks' increased expected losses lead to an 80bps (20bps per quarter) underperformance in stock and bond returns. Importantly, underperformance is concentrated around earnings announcements. As the authors note, "30bps of the 80bps of equity underperformance over the quarter occurs on the day of the earnings announcement, meaning the annualized abnormal returns on earnings announcement days are almost 38 times higher than on non-earning days (75.6% versus 2.0%)" (Beyhaghi et al 2023, 4). The implication of this finding is that a large part of banks' private information becomes public on the date of earnings announcements. It is notable that this only applies to increased expected losses. There is no effect when banks decrease their expected losses, which suggests that banks' advantage centers on negative information. This is consistent with literature on the theory of bank incentives which indicate that banks' have higher incentives to learn when a firm is performing poorly and specialize in information production and monitoring firms for negative information accordingly.

The authors are additionally interested in the types of firms for which banks' information advantage is the strongest and the degree to which the risk assessment informs their credit allocation decisions. On the types of firms, the authors particularly assess this by looking at firms with different market capitalizations and lower book-to market. They find that the return predictability is the strongest for low market cap firms (small firms) and firms with lower book-to markets (growth firms). The smallest firms have a quarterly underperformance of 1.9%²

² This measure is statistically significant

in response to an increase in expected loss. On credit allocation, there is a negative relationship between banks' assessed expected losses and their loan commitment amounts.

Notably, the results are interpreted as a lower bound on the magnitude of the true information advantage that banks have over public markets for a number of reasons. Since the Federal Reserve data is only reported and observed on a quarterly basis, expected losses can only be observed at quarter end. In reality, banks can update their expected losses at any and multiple points throughout the quarter. Also, the data sample simply includes publicly traded firms, so it can be inferred that bank information is more important for private firms who do not have publicly traded asset prices and earnings forecasts. Lastly, the data only extends across the largest US banks which report this information to support the Dodd-Frank stress tests and Comprehensive Capital Analysis and Review (CCAR). Smaller banks, which are not included in the sample, likely have more traditional roles of relationship banking and have even more significant private informational advantages.

Limitation

The paper "Are Banks Really Informed? Evidence From Their Private Credit Assessments" by Gregory Weitzner, Mehdi Beyhaghi, and Cooper Howes provides important insights into the role of banks in mitigating information frictions in financial markets. The authors' findings suggest that banks have an information advantage over markets. While this information advantage can be beneficial in some respects, it can also have important implications for the efficiency and stability of financial markets. However, the paper has several limitations that are worth noting.

One limitation of the paper is that although the article has repeatedly emphasized that the predictability advantage of banks over the financial market should be more obvious for small businesses, yet this inference is not supported by any data which has been included in this article. The data that authors were using are Y-14Q and public stock/bond prices. Y-14Q database provides information of large bank holding companies (BHCs), and public stock/bond prices are also for publicly traded firms only. One of the proof the authors have is that they expand the result of Expected Loss increase (EL+) by splitting the the sample into size quintiles and separately re-estimate the stock return regressions for each quintile, and they have found out there is a decreasing of the correlation between them, and they came up with the inference that this would be more obvious to even smaller firms.

Even the interpretation is intuitive, yet they do not have any data to back up for the small non-publicly traded firms. It is reasonable that authors did not have access to data on small businesses that would allow them to test this hypothesis. However, private equity does hold the information of private firms, for instance the Lincoln Private Market Index, which tracks changes in the enterprise value of U.S. privately held companies. We believe that the interpretation would be better founded if the article can include the application of the theory to small private firms.

The second limitation in terms of data lies in the usability of data. The article's in-depth discussion of the bank's advantage of information adds depth to the analysis and contributes to a more nuanced understanding of the dynamics. At the same time, however, because the article uses quarterly data, we may suspect that the banks themselves have delays or errors in capturing

and rigorous if it could include a study of the variables in terms of how quickly banks update their assessments or the impact of the timing of information updates. Let me make a hypothesis in the context of the U.S. banking system. Like many financial institutions, U.S. banks are subject to regulatory reporting requirements. These requirements typically involve periodic reporting of key financial metrics, including credit risk assessments, to regulators. When banks update their assessments every quarter, they typically refer to expected loss estimates based on factors such as the probability of default (PD) and loss-given default (LGD). Consider a scenario where a particular industry suddenly faces challenges such as a drop in consumer demand, supply chain disruptions, or regulatory changes. These events would have a direct impact on companies in the industry. If this is the time banks need to make credit assessments of companies in the affected industry. However, the information they have, which is based on the previous quarter's update, may not fully reflect the rapidly changing conditions following the industry downturn.

The lag in updating private information means that banks may not be able to detect the increased credit risk of firms in the affected industry on time. The credit assessment process relies on outdated information and may underestimate the financial challenges faced by these firms. At the same time, with this delayed information, banks might also delay providing additional support to struggling businesses. Such delays may undermine the effectiveness of interventions and exacerbate the financial difficulties of banks and their customers. If many banks face similar delays in updating information, the financial sector may not be able to adapt to changing economic conditions promptly, with systemic implications.

Concerning this issue, we wonder if the article could mention that banks should improve their timeliness as well as their effectiveness in responding to rapidly changing economic situations, for example, whether they need to submit reports more frequently or whether they need to strengthen their mechanisms for obtaining real-time information. In other words, the issue of banks being able to maintain their information superiority in unexpected situations is discussed and analyzed.

Another limitation of the paper is that it does not provide a detailed interpretation of the real-world issues that arise from banks' information advantage over markets. While the authors' findings suggest that banks have an information advantage over markets, it is not clear how this information advantage should be regulated or how it can be used to improve the efficiency of financial markets.

One possible interpretation of the authors' findings is that banks' information advantage could lead to market inefficiencies. If banks have access to private information that is not available to other market participants, they may be able to earn excess profits by trading on this information. This could lead to market distortions and reduce the efficiency of financial markets. Moreover, if banks become too powerful, they may be able to exert undue influence on the firms they monitor, which could further exacerbate market inefficiencies.

Another possible interpretation of the authors' findings is that banks' information advantage could have important implications for financial stability. If banks have access to private

information that is not available to other market participants, they may be able to anticipate changes in market conditions and adjust their lending practices accordingly. This could help to mitigate the risk of financial crises by allowing banks to adjust their lending practices in response to changing market conditions. However, if banks become too reliant on their private information, they may be less willing to lend to certain types of borrowers, which could exacerbate financial instability.

Readability

The article draws an important conclusion that 'banks' informational advantage is stronger for smaller, more opaque, non-publicly traded firms.' We think this part will make some readers who do not know much about the financial markets or the banking system ask the question of whether SMEs should prefer banks to other institutions when it comes to lending. We believe that if the article compares other lending institutions with banks, readers will be able to understand the advantages and disadvantages that banks bring to SMEs in their lending behavior.

According to the article, we know that banks have advantages in collecting negative information, which can help them better understand the specific situation of SMEs. However, in the real world, there are still some special cases. For example, when SMEs want to obtain funds as soon as possible to meet their short-term needs, even if the bank has the advantage of information, cumbersome lending streams and longer approval times can cause SMEs to go to other lenders. Some SMEs with specialized financing needs will also look at lending channels other than banks. Imagine a healthcare organization that needs to invest in specialized medical equipment, such as advanced diagnostic machines or surgical tools. Such equipment is essential for

providing quality patient care and maintaining competitiveness in the healthcare industry.

However, medical equipment can be expensive, and healthcare organizations may not have the capital to purchase it outright. In such cases, some equipment suppliers offer lending services as part of the service of purchasing medical equipment

In this regard, we believe that the article would have been more comprehensive and understandable if it had been analyzed in depth after concluding that 'the information advantage of banks is stronger for SMEs and growth enterprises'.

Practicality

Besides, we believe that the article has some informational value for policy making, also providing actionable insights for practitioners, policymakers, or stakeholders. First, regulators can focus on monitoring the sources from which banks obtain private information.

Understanding whether banks rely primarily on the processing of public information for their analysis or whether they obtain nonpublic information in advance can inform the design of regulations related to the sources of information. Second, regulators can recognize that there are cross-sectoral differences in the predictability of returns and develop targeted measures to address information asymmetries faced by smaller and growing firms. Third, policymakers could consider developing or strengthening guidelines to promote ethical practices among banks in the collection and use of private information. These could mitigate the misuse or asymmetric distribution of information that could be detrimental to market participants to some extent.

Conclusion

In conclusion, the paper "Are Banks Really Informed? Evidence From Their Private Credit Assessments" by Beyhaghi, Howes, and Weitzner provides valuable insights into the information advantage that banks wield over financial markets, particularly in assessing the expected losses of borrowers. The study underscores the predictive power of banks' private assessments on future stock returns, bond returns, and earnings surprises, with a pronounced impact around earnings announcements. While the findings are significant, the paper is not without limitations.

The emphasis on the predictability advantage for small businesses lacks supporting data for non-publicly traded firms. The absence of information on small private firms, crucial in understanding the broader applicability of the study, suggests a need for future research to include such data, perhaps drawing from private equity sources.

Moreover, the paper falls short in providing a detailed interpretation of the real-world implications arising from banks' information advantage. The potential for market inefficiencies and its impact on financial stability is touched upon but warrants a more thorough discussion, including regulatory considerations and strategies to enhance market efficiency.

The study's data usability could be strengthened by exploring the timing of information updates by banks. Analyzing how quickly banks adapt their assessments to changing economic conditions would provide a more nuanced understanding of the dynamics involved in maintaining their information superiority.

In addressing the audience, the paper raises questions about SMEs' preference for banks in lending. A more comprehensive analysis, comparing banks with other lending institutions, would provide readers with a clearer understanding of the advantages and disadvantages that banks bring to SMEs in lending behavior.

Lastly, the implications and recommendations from the study offer valuable considerations for policymakers and practitioners. The need for regulatory attention to monitoring sources of private information, recognizing cross-sectoral differences, and promoting ethical practices among banks could contribute to a more transparent and efficient financial ecosystem.

In summary, while the paper significantly advances our understanding of banks' information advantage, addressing these limitations and incorporating additional considerations will strengthen the robustness and applicability of its findings, paving the way for more comprehensive insights into the role of banks in financial markets.