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Rüdiger Fahlenbrach is Associate Professor of Finance at the École Polytechnique Fédérale de Lausanne and holds an SFI Senior Chair. He graduated with a PhD in Finance from the Wharton School of Business. Before joining the faculty in Lausanne in 2009, he was a member of the faculty at the Ohio State University. His research interests include corporate governance and understanding the causes and consequences of the financial crisis of 2007–09.

Loan Growth and Bank Performance

The core role of a bank is to accept deposits from agents with excess liquidity and loan the resulting capital to agents with a lack of it. For these services, banks pay their creditors and charge their debtors. The remuneration for these services depends on macroeconomic factors, such as the real risk-free rate and expected inflation, as well as investment specific factors, such as liquidity, default risk, and maturity. If a bank overprices its lending activities, it will likely relinquish opportunities to a competitor. Reversely, if a bank underprices its loans, it will likely not be remunerated for the risk it is bearing.

SFI Professor Rüdiger Fahlenbrach, together with fellow researchers Robert Prilmeier, Tulane University, and René Stulz, The Ohio State University, investigate the loan growth and subsequent financial returns of US publicly listed banks between 1972 and 2014 in their paper "*Why Does Fast Loan Growth Predict Poor Performance for Banks?*", which was recently published in the *Review of Financial Studies*. Their empirical results show that banks that grow quickly make loans that perform worse than the loans of other banks in the three years following the high-growth period and that these results hold independently of economic cycles. Further results reveal that investors and equity analysts do not fully anticipate the poorer performance of banks after periods of high growth.

Do high-growth banks make poorer loans?

The key innovation in the paper is to use data on the loan portfolios and loan-loss provisions of individual banks instead of data aggregated at the country level as done in the outstanding literature. The researchers find that high-growth banks simultaneously have a high return-on-assets (ROA) rate and low loan-loss provisions. But after the high-growth period the ROA quickly deteriorates and loan-loss provisions increase substantially during the next three years. The key element put forward to explain this boom-and-bust cycle is that bankers and investors alike have expectations that fail to take risks correctly into account. Lenders and market participants become too optimistic about the risks of new lending opportunities. When these ignored risks are revealed or when the factors that led to overoptimistic expectations are no longer present, investors and bankers reassess the quality of the loans. At that time, reserves are increased, bank stock prices underperform, banks reduce their lending, and analysts are surprised by bank earnings.

Could M&As also explain this boom and bust cycle?

The researchers also ask whether the above results simply reflect the fact that banks that grow more merge more, and hence have lower returns because of post-merger integration costs or because they acquire banks with riskier loan portfolios. This is not the case, because when the researchers distinguish between organic loan growth and loan growth through acquisitions, the decrease in the ROA and the increase in loan-loss provisions are primarily driven by organic loan growth. In other words, high-growth banks do not appear to acquire or merge with banks with riskier loans; they make those riskier loans on their own.

Do equity analysts understand high-loan-growth banks?

One can raise the question of why investors do not incorporate bank specific credit cycles in their valuation of banks. Data show that analysts erroneously believe that bank growth is very persistent. For example, analysts overestimate earnings for high-growth banks relative to low-growth banks by 6 percent, on average, for a three-year horizon. Analysts appear to extrapolate too much from recent growth. Reality provides a different tale and as growth slows and loans are revealed to be more risky than anticipated, bank performance worsens and reserves increase, all of which leads to poor stock returns.

What does this mean for investors?

The sample used covers a period of over 40 years and provides stark evidence that it is not only aggregate country-wide credit booms that are followed by poor performance but also bank-level booms. Investors and bankers become too optimistic on the basis of recent data and believe loans to be less risky and more profitable than what is actually the case. Over time, they learn that their expectations were biased, loans end up having more losses than initially expected, and bank stocks underperform. The effect is economically large: a portfolio of bank stocks in the highest loan growth quartile underperforms a portfolio of bank stocks in the lowest loan growth quartile by more than 5 percent annually. An investment strategy of going long on a low-loan-growth bank portfolio and short on a high-loan-growth bank portfolio seems to be attractive.

These insights draw on an academic paper by Prof. Rüdiger Fahlenbrach, Prof. Robert Prilmeier, and Prof. René Stulz. The full academic paper can be accessed at: https://bit.ly/2MppZ5b

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Short-Term Gain or Long-Term Success for Banks?

As a key component of the financial system, banks supposedly allocate funds from savers to borrowers in an efficient manner. SFI Professor Rüdiger Fahlenbrach, together with Robert Prilmeier and René Stulz, questions this efficiency with the paper "*Why Does Fast Loan Growth Predict Poor Performance for Banks?*" The authors' results show that banks that have grown their loan book faster than their competitors experience higher loan-loss provisions and lower returns on assets during the years that follow the expansion period. This effect seems to hold irrespective of the general loan activity or the economic environment. Their data also seem to indicate that the effect is stronger following years of low system growth. Whilst problematic from a macroeconomic perspective, their findings can be understood using a microeconomic analysis of banking markets.

The fungibility of money is the plight of banking

A cornerstone of banking is that banks' key product, "money", is fully fungible. As a result, it is very difficult to differentiate in providing a loan. The wide availability of comparison websites is a testament to this. If a bank wants to gain market share, it will have to underprice competitors for a given client. Alternatively, banks can take on riskier loans. Granting a loan to a borrower with a higher risk profile or supplying loans within a riskier category such as unsecured consumer lending instead of mortgages are examples of such riskier loans. The latter is consistent with the authors' finding that higher growth banks have higher returns on assets at the outset. However, in each of these two cases the banks underprice the client on a risk-adjusted basis as returns fall in the near future.

Riskier loans have a delayed impact on the income statement

Some of the observed effect is mechanical due to US accounting rules: a provision can only be incurred if it is probable that a loan is impaired. Provisions in the income statement are not statistically expected losses over the lifetime of the loan, but probable, demonstrable losses. As a result, vintages of a loan portfolio mature only slowly, and provisions rise over time, irrespective of whether management was aware of supplying riskier credit. However, it seems that certain banks consciously increase their supply of loans aggressively during periods of lower loan growth.

The strategic choice is between cost leadership and differentiation

Given the competitive nature of providing loans, banks still have a few routes to long-term success. Simplified, a bank can achieve success either through adopting a low-cost position or through perceived uniqueness of offering. The former can be easily measured by calculating operational costs as a percentage of the asset base. Defining the latter is more difficult. However, income from loans provides on average about 50 percent of the income of banks. Almost 30 percent is driven by fee income. Being able to provide a client with other products and services will improve the client relationship and will make clients less sensitive regarding loan pricing. This should be noticeable in both higher fee incomes and lower costs of attracting deposits. Our own research indicates that the key determinants for future return on assets are in declining order of importance: fees, loan-loss rates, costs, and costs of deposits. The statistical significance of margins on loans is only half that of fees. Achieving higher returns on loans is only a short-term strategy. Interestingly, our research also indicates that financial markets focus overly on interest margins, opening venues for attractive investment strategies.

Banks looking for longer-term success or short-term gain

While faster loan growth might improve returns over shorter time horizons, the competitive nature of banking ensures that underpricing will deteriorate competitive positions over medium-time horizons. Strategies focused on cost leadership or strong client relationships will determine longer-term success.

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