COMPETITIVE DISADVANTAGE

GREATER RIVALRY BETWEEN BANKS IS NOT NECESSARILY A GUARANTEE OF FINANCIAL SOUNDNESS. PHILIP DAVIS AND DILRUBA KARIM EXPLAIN WHY

Bank competition and how it affects risk within a banking system has become a central policy concern since the sub-prime crisis, which was thought to be partly caused by excessive competition. On the one hand, the academic literature suggests policymakers can improve financial stability by promoting bank competition. This is the 'competition – stability' view, but it contrasts with the opposing 'competition – fragility' view, which suggests that *less* competition is better for financial soundness.

Under the competition-fragility view, in an uncompetitive banking system, a banking licence or 'franchise value' is prized, and banks therefore limit risk taking since they are unwilling to jeopardise their market advantage. Indeed, banks may voluntarily choose to maintain large capital buffers against losses. As deregulation of the sector ensues, allowing new competitors to enter the market, the competitive advantage of incumbents is eroded and so the franchise value declines. Now, to maintain the same profitability as before, banks may develop riskier activities in search of higher returns. The quality of borrowers on the bank's balance sheet declines, as does capital and provisioning against losses.

Within the competition-stability concept, informational asymmetries between the bank and the borrower play a central role. Even at a low level of market competition, banks know much less about the borrower's true repayment ability than the borrower. This 'asymmetric information' may lead to 'adverse selection' whereby the bank ends up with poor-quality borrowers, which increases risk on the loan book. This is thought to be particularly likely in uncompetitive systems where

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monopolistic banks charge high interest rates so that borrowers with good repayment prospects do not seek loans. Risk may also increase for large banks that may predominate in uncompetitive systems as, due to their complexity, supervision of larger banks becomes more difficult. Furthermore, large banks may take on excessive risk, knowing that they are 'too big to fail' and that public bailouts are likely if losses materialise.

Much of the work that has tested these contrasting theories has relied on bank-level data from the pre-crisis period. Given that banking architecture has changed in many economies following the crisis (either as a result of mergers or regulatory proposals, such as the Vickers Report in the UK), it is important to test the competition-risk relationship both pre- and post-crisis to assess the impacts of these reforms.

Finance and fragility

In December 2013, the National Institute of Economic and Social Research published our discussion paper exploring the short- and long-run links from bank competition to risk. In our study we distinguished between existing *levels* of competition, to which banks may have had time to adjust, and *changes* in competition, which may have required banks to alter their business strategy in order to survive. Hence, our empirical aim was, firstly, to assess competition among banks in each EU country over the period 1998-2012, and, secondly, to investigate how those levels of competition impacted on the fragility of banks. To undertake our study, we used financial statement data for 6,008 banks from the 27 countries of the EU, drawn from the Bankscope database.

Our main measure of competition is the 'Panzar Rosse H statistic'. The intuition is that competition in a market has an effect on the degree to which changes in cost impact on market prices and hence revenue for the individual firm, be it for banks or for companies. Accordingly, if rises in bank costs (interest costs, staff costs, other costs) affect revenues one-to-one, it is an indicator of a highly competitive market. In contrast, if bank costs feed into revenues at a lower rate, it is indicative of a less competitive market. In the extreme, a very uncompetitive banking system might show a negative response of revenue to costs.

We ran the statistical tests of banking competition separately for the periods 1998-2006 (pre-crisis) and 2007-2012 (post-crisis). A number of countries, including the UK, show a marked fall in the level of competition in banking after the crisis. Other large declines in competition are apparent in countries such as the Netherlands, Finland and Denmark. In contrast, in Germany, France and Italy, which were less affected by the crisis, banking competition was unchanged or even increasing. Some Eastern European countries that had very uncompetitive banking sectors include Bulgaria, Latvia and Slovenia, as well as Greece.

KEY LEARNINGS

Competition in banking is in general a good thing since it leads to readier and lower-cost availability of credit and higher deposit rates. But there remains a risk that such competition may lead to instability, since over-lending at excessively narrow margins leads to borrower default and banks facing problems of illiquidity and insolvency.

The resolution of this difficulty includes use of the tools of banking regulation, namely minimum capital/asset ratios (to protect banks from insolvency) and appropriate levels of liquid assets (to protect against illiquidity). What may also be needed is macroprudential policy that requires higher capital and liquidity during boom periods when competition and risk are rising rapidly. Our work implies that such a policy applied in the pre-crisis period would have mitigated the impact of the crisis on banks, and hence on the wider economy.

Meanwhile, measures that deregulate banking markets and hence abruptly increase competition should warrant particular vigilance by regulators and market players, since they can raise the fragility of banks, particularly those entering new areas of business and that accordingly lack experience in appropriate credit analysis. The failure of most of the demutualised building societies in 2007/8 in the first major downturn after their change in status is a case in point.

Rise of risk

We went on to test whether changes in competition or different levels of competition have an impact on banking-sector risk. The chosen indicator of risk was the Z-Score for each bank, which is the sum of the return on assets (a measure of profitability) plus the capital-to-assets ratio (a measure of safety and soundness) divided by the volatility of the return on assets (a measure of risk). It shows how many standard deviations profitability must fall for the bank to be insolvent.

Our principal result is that a sharp rise in competition is a robust indicator of greater risk in the banking system. Errors in risk management are very likely to occur in such a situation – for example, when margins are narrowing, and consequently management is pressuring lending officers to make more loans in order to maintain profitability. This result was confirmed by our second indicator of competition, namely the Lerner Index, which seeks to measure the difference between price and cost over the bank's range of operations.

Our results for the effect of the *level* as opposed to the *change* in competition on banking-sector risk were less clear-cut. The results for the H Statistic imply that banking risk is *reduced* by competition in the long run. This is entirely plausible, if banks adapt appropriately to a level of competition and find it sustainable, especially if profit margins are maintained. But a fall in the Lerner Index, which measures profit margins directly, indicates that a higher level of competition increases risk in the long run. Where competition affects margins as well as pricing behaviour *per se*, it becomes dangerous for the stability of banks and the banking system.

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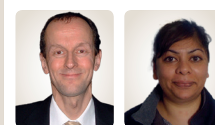

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