

“Market Power and Merger Simulation in Retail Banking” *by J. Molnar*

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Overall

The paper uses the methodology put forth in the work of Berry (1994) and Nevo (2001) to estimate market power in banking.

Demand is derived from individual utility maximization and estimated with a discrete choice model.

The model deviates from the well-known Panzar-Rosse (1987) and Bresnahan-Lau (1982) methods which are very popular but subject to criticisms as well.

Overall, this is a valuable extension to the existing literature.

The paper illustrates the advantages of structural modelling by simulating a merger experiment among pairs of large Finnish banks. Again, this is an interesting extension of the literature, although subject to a few limitations.

Data

- + Detailed bank-level dataset, Finnish banks, 2003-2006
- The procedure described in the data has the disadvantage of being quite more demanding than the Panzar-Rosse and Bresnahan-Lau approaches. For example, data from Bankscope (and other commercial databases, e.g. BankersAlmanac) are not useful.
- Only bank level data are available without branch-level data details so the market is defined as the whole country. Nakane, Alencar and Kanczuk (2006) argue that such an approach may create bias towards finding more competition than the actual levels (?). Ho (2008) also mentions that potential customers are more similar within a province than across provinces (variations in GDP per capita, etc).
- Small number of banks in sample (acknowledged by the author).

Methodology

- + Derive price-cost margins predicted by different strategic oligopoly models using discrete-choice demand estimates of own and cross-price elasticities. Compare the predicted price-cost margins to price-cost margins computed with the observed interest rates and accounting estimates of marginal costs. The proposed econometric model is an improvement over the conjectural variations method.
- The model is static and bank data are dynamic so the critique of Corts (1999) may still hold. IV regression or static GMM may not be able to capture such dynamics (see Delis, Staikouras, Varlagas, 2008).
- “*All banks are assumed to be X-efficient*” (p. 8). However, the studies on bank efficiency document cost inefficiencies around 10-20% and profit inefficiencies up to 60-70%.
- Banks choose interest rates and fees to maximise their profits on deposits and loans separately. A restrictive assumption?

Methodology (cont.)

- + An interesting extension of this strand of the literature is the simulation of mergers to study the unilateral effect of the mergers on the interest rates.
- However, the simulation of mergers is subject to numerous simplifying assumptions outlined in Altunbas, Molyneux, Thornton (1997):
 1. The merger simulations are hypothetically, ignoring any prior information about pairs. In reality, senior management would select the merger partner.
 2. It assumes no premiums or out-of-pocket merger costs.
 3. It is assumed that there are no synergies resulting from a restructuring of the product mix and the merged portfolio.
 4. It is assumed that there are no branch closures for the merged bank even if both banks are operating in the same market. However, mergers between the largest banks within a domestic market would be expected to result in a consolidation of branch networks (Savage, 1991).

Suggestions

Is it possible to develop a framework that allows for both market power and inefficiency in the estimated system?

Is it possible to relax some of the restricting assumptions of the merger simulations?

Could the model incorporate the impact of risk?

- Hughes (1999) argues that there is a link between risk, pricing decisions and efficiency

- Kim, Kristiansen and Vale (2005) argue that loan loss provisions (i.e. indicator of risk) can signal the quality of the borrowing firm and thus be a strategy of product differentiation (i.e. a source of market power).

- Asplund (2002) shows that price-competing firms should react differently to different types of uncertainty. Risk averse firms should set higher prices if there is cost uncertainty but lower prices if there is demand uncertainty.

Suggestions (cont.)

As Nakane et al. (2006) argue the results rely on the assumption that the demand for bank products is correctly specified and are subject to the assumption that an adequate function form for the demand model has been specified. Could the results be distinct if another function form was employed? Robustness tests?

For instance, Croque, Froeb, Tschantz, Werden (1999) use Monte Carlo experiments to investigate the effects of the assumed demand form on simulated postmerger equilibria. The predicted price increase is greatest with log-linear demand, followed by the Almost Ideal Demand System. The linear and logit demand forms result in significantly lower postmerger prices. They suggest to conduct merger simulations under a variety of assumed demand forms in order to take account of “model uncertainty” (Leamer, 1983).

Suggestions (cont.)

The studies of Kim et al. (2005) in Norway and Lozano-Vivas (2008) in 9 EU countries show that borrowers are willing to pay a higher interest rate to banks with high-quality loan portfolios.

Lozano-Vivas (2008) also concludes that banks that invest in quality (in terms of loans portfolio) are more cost efficient and at the same time have greater market power.

Kim et al. (2005) report that a bank at sample mean with an interest rate spread on its credit line loans of 4.74% will be “punished” by a reduction of the interest rate spread in the range of 0.38-0.74% points, if its loss provisions relative to its competitors double.

Could these findings be related to the increase in loan margin documented in the present study?

Suggestions (cont.)

It will be helpful if the results are compared with other studies on M&As and pricing. For example:

- Ashton and Pham (2007) in a UK study find that for most banking services, including instant access deposits, mortgage lending and unsecured lending, mergers have an insignificant effect on interest rate setting. For large amounts (5,000-50,000) invested in notice deposit accounts, a consistent **negative change** in the interest rates received by customers is recorded.
- Sapienza (2002) finds that mergers among Italian banks with small market shares **reduced loan rates**, while mergers between large banks led to **higher rates**. (See also Ho (2007) for differences among different sizes and listed/non-listed banks).
- The theoretical model of Catalao-Lopes (2006) shows that in equilibrium, for some combinations of the level of information sharing among banks and the sensitivity of the probability of default to the price of credit, all the rest unchanged, a merger in the banking industry may **reduce** the interest rate charged on loans.
- Banal-Estanol and Ottaviani (2007) show that when the value of diversification is sufficiently strong, bank mergers generate an increase in the welfare of borrowers and depositors. If depositors have more correlated shocks than borrowers, bank mergers are relatively worse for depositors than for borrowers.