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THE EFFECTS OF ENTRY REGULATION ON BANK COMPETITION: THE CASE OF THE IRANIAN BANKING INDUSTRY

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We focus on a modified version of the markup test to investigate the impact of entry regulation on competitive conditions in the Iranian banking industry for the period 1996-2006. The time interval under examination corresponds to an era characterized by substantial relaxation of entry barriers and private bank penetration. To estimate Lerner indexes as a measure of bank competition, we set up a simultaneous equation model for unbalanced panel data by utilizing the stepwise maximum likelihood method. We find that concomitantly with the new bank entries a pro-competitive change in the banking industry took place.

JEL classification codes: C33, D43, G21
Key words: bank competition, Lerner index, entry regulation, unbalanced panel

I. Introduction

The prediction and measurement of market power in the banking industry has received increasing attention during recent years, mainly due to the processes of regulatory reform in the financial services industry. While significant reform took place among financial service providers, the process was particularly concentrated in the banking industry.

As in most transition economies, the priority of plan fulfillment determined all financial transactions in the Iranian banking industry. Credit allocation was dependent

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on the central planner, and the banks had to support this allocation. The state-owned banks settled all payments, absorbed private savings, and channeled them either to the state budget or to state enterprises according to the central plan regardless of fund repayments.

The recent process of banking reform in the Iranian banking sector is conceptually similar to the liberalization process followed by NIS countries.[1] In the late 1990s the Central Bank of Iran changed the entry policy from one where entry was totally barred to one where the entry of non-bank credit institutions and private banks was allowed. The regulatory reform and new bank entries provide a natural setting to test differences in behavior before and after the change in the underlying institutional structure. Specifically, we wish to know whether or not the removal of the substantial entry barriers has made the highly concentrated banking sector more competitive.

The traditional Structure-Conduct-Performance (SCP) hypothesis, aiming to infer competition conditions from concentration measures (e.g., the Herfindahl index), views the degree of competition as an increasing function of the number of firms in a market and a decreasing function of the average market share. Although the SCP hypothesis of a positive relationship between concentration and profits can be derived from oligopoly theory under the assumption of Cournot behavior, it is not warranted under alternative models.[2] Also, as noted by Shaffer (2004), even if the SCP hypothesis is generally correct, there are reasons that limit the practicality of the SCP approach in banking industry.

In contrast to the structural approach, the non-structural approach, based on the so-called "New Empirical Industrial Organization literature", focuses on obtaining estimates of market power from the observed behavior of banks. One method, the H-statistic developed by Panzar and Rosse (1977), uses the sum of the elasticities of a firm's revenue with respect to the firm's input prices to identify the extent of competition in a market. Under perfect competition, the H-statistic should be equal to one, since any increase in input prices should lead to a one-to-one increase in total revenues.

An alternative non-structural measure of competition, the markup test of Bresnahan (1982) and Lau (1982), involves estimating demand and supply equations to capture the divergence of price from estimated marginal cost. This method allows the

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[1] The Newly Independent States (NIS) are the twelve former Soviet Union republics that achieved independence after the disintegration of the Soviet Union in December 1991.

[2] As noted by Shaffer (2004), alternative equilibrium concepts may predict different relation between market concentration and competition.