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Bank consolidation and competitiveness: Empirical evidence from the Korean banking industry

Dong Jin Shin [a], Brian H.S. Kim [b,*]

[a] Economic Analysis Division, National Assembly Budget Office, 1 Uisadang-ro (Yeouido-dong), Yeongdeungpo-gu, Seoul 150-010, Republic of Korea
[b] Program in Regional Information, Department of Agricultural Economics and Rural Development, Seoul National University, San 56-1 Shillim-dong, Gwanak-gu, Seoul 151-742, Republic of Korea

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ABSTRACT

The Korean government consolidated several banks following the Asian Financial Crisis of 1997–1998 to stabilize the financial market and to improve international competitiveness. This process has brought sound capital reserves, assets and profitability to the banking industry. However, due to the resulting increase in market concentration, this process has also produced concerns about the monopolistic and oligopolistic power of the banks. Recently, the growing concern within the government is the weakening of bank competition due to the sharp increase in market concentration. This study reviews and examines the status of bank consolidation and the competitive structure of the banking industry. The degree of competitiveness in the banking industry is analyzed using the Panzar and Rosse model with a non-structural approach and data from 1992 to 2007 (before the beginning of the 2008–2009 Global Financial Crisis). This time span is divided into a pre- and a post-bank consolidation period. The estimation results indicate that monopolistic competition in the market exists but that the competitiveness of the banks has improved with the increased market concentration. This finding contradicts previous beliefs regarding the increased risk and lower competition derived from a concentrated financial system.

1. Introduction

Bank consolidation has occurred largely as a result of the global trend of technological development, deregulation and globalization (OECD, 2000). As this trend has developed, the profitability of banks adopting a traditional system has decreased significantly, leading to an acceleration of mergers and acquisitions (M&A) among both domestic and foreign financial institutions. Bank consolidation due to changes in the financial market is primarily led by markets in developed countries, whereas the governments have been the driving forces of consolidation in emerging countries (Gelos and Roldos, 2002).

After the 1997 financial crisis, the Korean government closed several troubled banks to stabilize the national financial markets and consolidated the remaining banks to promote global competitiveness. The total number of banks fell from 26 in 1997 to 13 in 2009, leading to a more highly concentrated financial industry. There has recently been growing concern that market concentration may ultimately lead to weaker competitiveness and excessive monopoly and oligopoly activity within the industry. Kim (2002) argued that bank consolidation may weaken the financial service sector in Korea. However, Baumol (1982) has argued that any weakening of competition may depend more on barriers of entry and the freedom of closure than on the number of players in a given market.

* Corresponding author. Tel.: +82 2880 4717; fax: +82 2873 5080.
E-mail address: briankim66@snu.ac.kr (Brian H.S. Kim).

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In the last 10 years, the competitiveness of Korean banks has weakened compared to other advanced nations due to higher barriers of entry and the withdrawal of non-banking financial companies as banks' potential competitors (Kim, 2002). Uncompetitive pricing activities have occurred in the market, where banks offer lower interest rates for deposits and charge higher interest rates for loans. As a result, due to a more highly concentrated banking industry, households and firms (small and medium sized) have higher obligations and fewer opportunities as debtors.

As the competitiveness of banking industry becomes more globalized, the traditional policy of following similar industries (i.e., manufacturing) has limitations in the banking industry. Several foreign financial companies have entered the domestic market, whereas domestic financial companies are expanding their overseas financing and businesses. It is inappropriate to judge competitiveness based on domestic market conditions. The government must observe the industry from a different standpoint with regard to limiting and designing the competitiveness structure. Banks may become more efficient to improve their profitability given the competitive environment. Therefore, it is necessary to observe whether the competitiveness of banks has been strengthened following consolidations. To derive policy implications for future banking consolidation efforts, this paper reviews and examines the status of bank consolidation (e.g., changes in competition among banks following increases in market concentration) and the competition in the financial structure (e.g., the existence of monopolistic competition) over the last 12 years.

The paper is organized as follows: in Section 2, we present two approaches to measure competition in the banking industry. Both the structural and non-structural approaches are described. In Section 3, the Panzar and Rosse model is described, as are its limitations found in other studies. In Section 4, the empirical analytic model and data are introduced, and Section 5 summarizes the estimation results. Finally, the conclusion and policy implications are provided in Section 6.

2. Methodology for measuring bank competition

There are two approaches to measuring competition in the banking industry: the structural approach and the non-structural approach.

2.1. Structural approach

The structural approach can be divided into the structure–conduct–performance (SCP) hypothesis and the efficient structure (ES) hypothesis. Mason (1939) and Bain (1951) applied the structural approach to measure competition in the context of the SCP hypothesis. They took the market structure to be equivalent to the number and types of players within the same industry, each player's market share, overall market concentration and market entry barriers. This type of structure affects the competitive behavior and performance of firms. In other words, given a highly concentrated market structure, firms with a large market share could secure better profits by utilizing market control.

However, after Philadelphia National Bank's merger in 1963, a number of scholars specializing in anti-trust research tried to contextualize the market concentration and the market performance according to SCP hypothesis, but their efforts were largely a failure (Smirlock, 1985). As a result, an ES hypothesis was proposed by Demsetz (1974) and Peltzman (1977). They state that the positive correlation between corporate profit and market concentration can be explained by the finding that corporations with superior management, cost reduction technologies, and efficient production and operation may reap substantial profits, expand their market share and promote market concentration.

However, Gilbert (1984) and Smirlock (1985) state that the effect of the banking market structure on market performance is minimal and suggest that market concentration is a result of improved corporate efficiency rather than a signal of collusive behavior, based on their comparative study of the two hypotheses. Berger (1995) also tries to verify the two hypotheses and finds that the traditional SCP hypothesis is not supported. He states that neither the ES hypothesis nor the relative market power hypothesis can explain the effects of efficiency and market control variables on profitability. Consequently, he finds it difficult to suggest which hypothesis is better at explaining bank profitability. Rhoades (1985) analyzes whether market share is the source of major profits regardless of market concentration. He concludes that corporate profitability does not result from higher efficiency but rather is linked to the type of market control in place.

The pricing system of the Korean banking industry has been regulated for a long time. The regional banks (branches) do not have discretionary power for fund operations and interest rate adjustments. Consequently, regional markets must be demarcated to verify the market structure hypothesis for the Korean banking industry. It is almost impossible to derive any mechanism that is consistent with the market structure hypothesis in measuring bank profitability and explaining the competitive structure of the Korean banking industry (Kim & Kim, 1993).

2.2. Non-structural approach

Market entry and exit do not play an important role in the SCP hypothesis. Under the structural approach, market entry and closures are believed to have an impact on competitive behavior. In markets where entry and exits are free, corporations engage in competitive behavior regardless of market concentration (Baumol, 1982).

In conditions featuring high market concentration, this competition is not necessarily limited, and there is no abuse of market power. It is assumed that potential competitors have the same cost functions. If an existing corporation tries to exercise market power, a potential competitor may use a hit-and-run strategy (Baumol, 1982). Therefore, even when the