



THE EFFECT OF FOREIGN BANK ENTRY ON DOMESTIC BANKING PERFORMANCE: THE CASE OF TUNISIA

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ABSTRACT

The purpose of this paper is to examine the effect of foreign bank entry on the performance of domestic banks and their ways of rooting. Both competition-efficiency and competition-inefficiency theories are used to show the entry process of foreign banks and their ability to realize performance. Empirically, we used 11 Tunisian banks during the period of 15 years, from 2003 to 2017. Our main result shows that there's a significant impact of foreign bank presence on domestic banking performance in particular, on their competition through concentration. Foreign banks, among other things, can concentrate through specialization and diversification in the banking market, as well as domestic banks. Overall, our findings show that the entry of foreign banks and their capitalizations foster competition to increase the performance of the bank.

KEYWORDS: *Foreign bank, Domestic bank, Performance, Efficiency, Concentration, Tunisia*

1. INTRODUCTION

Competition is generally seen as a positive force in most industries; it is expected to promote efficiency, improve the quality of delivery, stimulate innovation and enhance international competitiveness. To achieve these objectives, governments, developing countries and developed countries have recently undertaken further reforms in the financial sector. However, recent research has indicated that the relationship between competition and the performance of the banking system is more complex and that the idea that competition is good and unambiguous, is more naive in the banking sector than in other industries (Claessens and Laeven, 2004).

The internationalization of the banking sector has been stimulated by the liberalization of financial markets throughout the world. Developed and developing countries now allow banks to expand abroad and allow entry of foreign banks on the basis of the national regime. The purpose of this paper is to provide a theoretical overview of the effect of Competition on bank performance with the entry of foreign banks into the market. This theoretical part will enable us to better discern the causes and consequences of competition in the interbank market. We will discuss two main theories, competition-efficiency and competition-inefficiency. These two theories will be accompanied by the literature of the entry of foreign banks and their abilities to preserve their places. Empirical validation is the subject of the Tunisian banking market; we

will see the effect of competition, the entry and capitalization of foreign banks on the performance of Tunisian banks. To do so, we proceed in the first place, to review the literature and then move on to a methodological part of the subject of empirical tests on competition and performance, and eventually with results and main conclusions.

2. LITERATURE REVIEW

Certainly, the competition has effects on the banking sector. As a first-class effect, the increase of competition in the financial sector leads to lower costs and increases efficiency even taking into account the fact that financial products are heterogeneous. The standard economic argument about the positive influence of competition on firm performance is that the existence of monopoly rents gives managers the ability to capture some of them in the form of play or efficiency (Nickell Et al., 1997). Moreover, the study of competition in the banking sector and its relationship to bank efficiency continues to be a very important issue not only for researchers but also for politicians.

According to Schaeck (2008), there are two major hypotheses. The competition-efficiency hypothesis which is derived from the "efficient structure" hypothesis and suggests that increasing competition leads to increases in business efficiency. On the other hand, the "competition-inefficiency" hypothesis stipulates that competition leads to a decrease in the inefficiency of the bank. Boot and Schmeijts

(2006) consider that competition is more likely to be associated with shorter, less stable relationships between customers and banks while amplifying information asymmetries and requiring additional resources for screening and Monitoring of borrowers. In addition, Weill (2004) examines the relationship between competition and efficiency in the banking sector in a sample of 12 EU countries during the period (1994) (1999) and provides support for a relationship Competition and efficiency in the banking sector.

Several authors have stressed the potential benefits of foreign bank entry to the national economy in terms of better resource allocation and greater efficiency, namely Levine, (1996). He mentions that foreign banks can improve the quality and availability of financial services in the domestic financial market by increasing banking competition, and by allowing the greatest application of modern banking skills and technologies, Stimulate the development of underlying banking supervision and the legal framework, and improve a country's access to international capital.

These differences may reflect the deferential market conditions of foreign banks. Foreign banks in developing countries may be able to realize high-interest margins because they are exempt from credit allocation regulations and other restrictions that represent a net charge on margins. Banking markets in developed countries tend to be more competitive with more sophisticated participants. The low margins of foreign banks in developed countries may be due to the technical advantages that foreign banks may have in these markets and which are not large enough to overcome the disadvantages of information they face compared to domestic banks.

Stijn et al., (2000) find, using 7900 bank observations from 80 countries for the period 1988-1995 that foreign banks have lower net profits in the more developed countries; they generally have higher net benefits in developing countries. Results also indicate that the entry of foreign banks is significantly associated with a reduction in the profitability of the national bank and also a reduction in non-interest income and expenses.

Several authors have examined the activities of foreign banks in developed countries, particularly in the United States, for example, Goldberg (1981) finds that US multinational banks tend to serve as retail customers, while foreign institutions the United States are more oriented towards wholesale trade. Daman (1990) provides similar evidence by showing that foreign banks show a high concentration of commercial and industrial loans in their portfolios. Calomiris and Carey (1994) suggest that growth in the market share of foreign banks depended more on the purchase of existing loans than on the provision of new loans. Similarly, Kraus (1995) finds that by establishing their presence in the United States, many foreign banks have increased their market share by acquiring existing US banks, rather than by procuring new loans.

Although their focus is limited to the benefits that foreign banks could provide, some borrowers have been better off. Goldberg (1992) notes that foreign banks have been oftenaccused of pricing their products (especially commercial

and industrial loans) in order to get business. They were able to accept smaller profit margins than their domestic competitors due to low capital requirements and the greater ability to use leverage. The high cost of doing business in a foreign country means that foreign banks often find themselves at a competitive disadvantage, which they need to overcome either through expertise or special services. In the United States, a developed country with strong domestic banks, it is difficult to do so, and therefore it is little surprising that foreign banks competent on prices in the wholesale market.

However, in developing countries, local banks will probably find it harder to protect their profits. Indeed, using panel estimation techniques, Barajas et al., (2000) provide evidence on the competitive impact of the entry of foreigners into Colombia in that the entry of foreigners serves as the sole measure Of the liberalization of the financial sector, entry is associated with intermediation spreads, lower non-financial costs, and improved loan quality (fewer nonperforming loans versus total loans). In simple regressions (OLS), they find that new banks, whether domestic or foreign, have placed spreads lower than their counterparts, probably in an effort to gain market share.

In Colombia, the entry of foreigners took place simultaneously with other structural and regulatory changes. When the authors understand the entry measures of the national bank and a measure of financial liberalization not related to entry, the impact of foreign entry changes slightly. The entry of domestic and foreign banks was associated with significant reductions in non-financial costs for all banks and a significant increase in non-performing loans of existing domestic banks. However, they find that the entry of foreigners has been associated with the reduction of gaps between foreign banks, while the entry of national banks reduces spreads across all banks. The latter result suggests that foreign banks in Colombia do not compete with domestic firms in all sectors.

3. MATERIALS AND METHODS

Our study will focus on analyzing the effect of foreign bank concentration on bank performance. In this section, we present the sample used first, then present the econometric model and the retained variables.

3.1. Data collection

We collected statistical data from 11 Tunisian commercial banks during the period 2003-2017. These are BNA, BH, and STB, majority owned by the State, Attijari Bank, ATB, UIB, and UBCI, whose capital is mainly foreign, as well as Tunisian private banks Namely BIAT, BT, Amen Bank, and BTE. The data have been gathered from several sources including the Tunisian Banks and Financial Institutions Association (APTBEF) and the Central Bank of Tunis (BCT), which provide them on their sites Internet. In this study, we have a balanced homogeneous panel with 121 observations since all banks are observed over the entire period.

3.2. Econometric model

We study the relationship between concentration and foreign banks and its impact on performance, and then study the performance channels of foreign banks. The model used was established by Bourke in (1989) and has been applied in several studies. The econometric model is written as follow:

$$ROA = \alpha_0 + \alpha_1 PBE + \alpha_2 Concentration + \alpha_3 PBE \times Concentration + \sum_i X_i \quad (1)$$

Where:

i. Return on Assets (ROA): The ratio of asset returns measures the profitability of the business; it evaluates the ability or the inability of the company to make profits with its own material means. It is, therefore, an indicator of the profitability of the company. Our work consists of analyzing the effect of concentration and foreign banks on ROA.

ii. Foreign Bank Share (PBE): This variable indicates the change in shares of foreign banks in the banks in our sample and during our study period. It is represented by the percentage of foreign capital in the capitalization in Tunisian banks. Demirgüç-Kunt and Levine (2008) indicate that the presence of foreign banks has a positive impact on banks' performance. The concentration ratio (Concentration): is an index that measures the concentration of the market. Bourke (1989) and Molyneux and Thornton (1992) show that banking concentration has a positive and statistically significant impact on bank performance. However, according to Smirlock (1985), concentration has no significant effect on profitability. To do this, we propose two main measures: Herfindahl-Hirschman India and the concentration index: The Herfindahl-Hirschman index. This is the sum of the squares of the market shares.

iii. Concentration index: This is the share of the n largest banks according to their market share. There is a ratio of orders 3, 4 and 5 which is expressed as follows:

$$C_n = \frac{\sum_{i=1}^n Assets_i}{Total Assets} \quad (2)$$

Other control variables that we can include them to better put the model in its study context.

iv. Size: The size of each bank is calculated by the logarithm of its assets. However, the impact of size on the performance of banks is still ambiguous. Pasiouras *et al.* (2007) find a

positive impact of size on the performance of banks. It is argued that a large size reduces costs because of the economies of scale involved. However, Stiroh *et al.* (2006), show the negative effects of size and point out that the larger a bank, the more difficult it is to manage. Kasman (2010) also finds a statistically significant and negative impact of size on the net interest margin using a panel of 431 banking institutions in 39 countries.

v. Operating ratio: It represents the ratio of personal expenses to GNP. This ratio is a measure of the efficiency of cost management. As Guru *et al.* (2002) point out; good cost management leads to increase profitability. This variable is expected to have a negative effect on bankability.

4. RESULTS

In this section, we will provide empirical evidence of the relationship between the concentration of the banking system, the share of foreign banks and the performance of Tunisian banks. The first step is to check whether the introduction of foreign banks influences the profitability of banks by increasing competition in the banking system. We will also analyze the channels through which the presence of foreign banks influences performance. This model was subjected to several preliminary tests: The homogeneity test which shows the individual and/or temporal effect was rejected. This led us to apply the Hausmann test in order to choose between the fixed effect and the random effect. The fixed effect was retained for this model.

The model was simulated several times by introducing a concentration index, beginning with the HH index and then going through the second and the tertiary and the fourth order of the concentration index. The index that seems most significant is that of order 4. The results of the model are summarized in table 1.

Table 1: Parameters estimates of the model (1)

| Variable | Parameter | P-value |
|------------------|-----------|---------|
| C | -3.304 | 0.876 |
| BE | -0.026 | 0.013 |
| Concentration | 0.015 | 0.076 |
| BE*Concentration | -0.046 | 0.022 |
| Size | 0.475 | 0.119 |
| CAP | 0.212 | 0.054 |
| CE | -0.069 | 0.024 |
| R2 | 0.351 | - |
| F-statistic | 4.832 | 0.010 |

There was a significant positive relationship between the concentration and ROA with a coefficient of (0.115). This indicates that the concentration positively influences the performance of the banks. This result leads us to find that competition leads to more deterioration in the performance of banks. On the other hand, the effect of the interaction between the concentration and the entry of foreign banks on performance is negative. To better explain this result, we interpret the derivative of the function of the estimated performance with respect to the concentration:

$$\frac{\partial ROA}{\partial Concentration} = 0 \Leftrightarrow 0.0115 - 0.046BE = 0 \quad (3)$$

The result is a positive relationship between concentration and performance when the share of foreign banks does not exceed 25%. Beyond this threshold, the relationship becomes negative. The first observation we make is that when the foreign banks enter Tunisia, they do not have enough power over the Tunisian banking system, and they cannot succeed in increasing competition. This result is consistent with the competition-inefficiency theory targeted by Boot and Schmeijts (2006); Weill (2004). The root causes that prevent the intensification of competition stem mainly from the lifting of agency costs and controls that foreign banks can undergo to collect information on borrowers and avoid asymmetry of information. Once foreign banks are rooted in the Tunisian interbank market, and their shares reach 25% or more, their tasks become easier to manage borrowers' risks through access to information, given their strong market Occurred with their competitive power with domestic banks.

This situation can lead to a fall in the interest margin, which may tend to have a pure and perfect competition market. This result is consistent with Zarutskie (2013), and Chen (2007). Indeed, there is a significantly positive relationship between size (LNS) and bank performance (ROA), which confirms the results of Smirlock (1985), and Pasiouras *et al.* (2007) who find that size has a positive effect on bank performance. In addition, there is a positive relationship between the equity variable and the ROA. This confirms the results already noted in the theoretical and empirical literature concerning the effect of this variable. Several authors like Bourke (1989), Demirgüç-Kunt and Huizinga (1999), Abreu and Mendes (2002), and Goddard *et al.* (2004), argue that better capitalization increases the performance of banks. The presence of foreign capital in the capital of a bank exerts a significant effect on its performance only after a certain threshold of 25%. Indeed, the foreign bank must have a large share of capital to influence the long-term strategy of a bank and therefore its results. For the COST-INCOME variable or operating ratio, there is a significantly negative relationship between this variable and the ROA. Thus, the bank's expenses negatively affect its profit, which confirms Bourke's hypothesis (1989), which indicates that increased profitability requires good cost management. The economy of spending increases with the capitalization of foreign banks. A strong foreign capital intensity allows to better govern the expenses and consequently to realize low margins of interest in a competitive framework. The good knowledge of the Tunisian banking market, by foreign banks, allows them to better control their spending through the good selection of borrowers by means of economies of scale that they can realize by collecting information.

Hence, as Goldberg (1992) has shown, foreign banks accept low margins with their entry, once they are rooted and capitalized, they can better compete and lower interest and gain Through an economy of scale realized on the loans as well as on their qualities. The rooting of foreign banks in the Tunisian banking market can be achieved through loan repurchases and not by new loans because former borrowers will disclose the information to new borrowers and the borrower pulling process is triggered and Competition is intensifying and performance is increasing.

Moreover, the competitive superiority of foreign banks can also arise from the good diversification of banking products as demonstrated by Harry Huizinga (2000), by the good concentration on industrial loans that yield more profits to the banks. As for the liquidity variable, it has a non-significant effect on the ROA, which means that the liquidity level does not affect the performance of the banks in our sample.

5. CONCLUSION

Through this study, we have been able to build the rooting process of foreign banks in the banking market and their roles in intensifying competition in order to verify the theory of competition efficiency. In fact, in the theoretical literature, we have considered two contradictory theories such as competition efficiency and competition-inefficiency. The first support the current authors who have shown that the intensification of competition characterized by the weakness of the banking concentration makes improve the banking performance by the good control of the production costs of information and their good pricing and diversification. The second trend shows that competition leads to banking inefficiency and deterioration in performance since the opening

of the national banking market to the private sector does not give them the information advantage.

Our results confirm the two currents under market constraints. The entry of foreign banks leads competition to maximize performance from a threshold of 25% when these banks are sufficiently capitalized in the market. The capitalization of foreign banks encourages informational productive capacity to avoid information asymmetry between borrowers and banks and better control of costs.

The limit of this article is not to mention the real causes that led competition to maximize performance with the entry and capitalization of foreign banks. These causes are multiple: the nature of the loans granted to customers, the strategy of penetration of banks in the market. Other than these limits, this article could contain leverage to better mediate between bank capitalization and their ability to cope with competition. Overall, this paper opens up future horizons to highlight the performance-based spending economy based more on banking efficiency and its relation to competition and foreign bank entry by giving more importance to Strategic qualitative factors.

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