Competition in Albanian banking sector

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Albania has a relatively new financial system, where banking system is the most developed financial service in our country, with a share of 94.4% of the total financial services. This is a phenomenon of countries with emerging economies, which proves that there is greater reliance on the state economic development of the banking sector, by effecting from the households to the biggest investors and the government.

As in any market, competition is an important aspect also in banking system. It affects the efficiency of the market and the variety and quality of products. But, as the banking system has great influence on the Economic growth and the development of a country, the level of competition definitely affects their performance too.

The main motive for the realization of this work is the great importance that the banking system, and competition in this market, plays in developing countries, including here Albania. Given that the financial system is dominated by the banking system, banks are the main channel for the transfer of funds from the lender to the borrower. Also investments are very sensitive to interest rates, the level of competition reflected in prices, quantities and types of products and services, which will definitely affect the level of investments and economic growth.

The goal is to understand the characteristics of competition in our banking system and study the relationship between the level of concentration, competition and the level of interest rates in the banking market. Defining the characteristics of banking market will be fulfilled in two main directions: first, in describing the characteristics of the banking market, trying to see with which market structure it resembles the most, and secondly by reference to empirical studies held for our market as well as comparison with the region.

By comparison with the region we found that in Albania operates a smaller number of banks and higher fees are applied. Also lending interest rates are higher than in the region, although the differences are not very large. Albanian banking system is more concentrated than the systems of most European Union countries; however, the concentration level is justified to some extent by the short lifespan of our banking system and its level of development, compared with EU countries. Economic theories of competition in the banking system study the linkage of the financial stability and its efficiency. From our observations, we have noted that the increase of the concentration was associated with increased efficiency (and vice versa). This finding supports the idea of efficient markets, whereby the concentration increase is due to higher efficiency. Also, a link between stability and competition was noticed, where the reduction of market power and the increasing competition, increased the undertaken risk by the banking sector, jeopardizing stability.

Keywords: banking system, monopolistic competition market, stability, financial systems.
1. Current situation in Albanian banking sector

In the Albanian banking sector today operate 16 banks, with fully private capital and foreign capital dominates. The number of banks began to increase after the ‘90, when in 1992, 4 new banks were licenced. And over the years, banking sector in Albania, began to improve, thus increasing the number of banks that compete in this market, which definitely brought the increase of influence of this sector in economic development, through increased funding to individuals and firms in the economy. Today the number of banks in the Albanian market, as we said above, is 16.

This can be considered as a relatively large number of banks compare with the number of population in Albania, which increases the competition and makes it difficult the cooperation between banks to increase the interest rate. However if we compare our banking system with other regional countries, in Albanian banking system operates the smaller number of banks.

Table 1: Numbers of banks in regional countries

<table>
<thead>
<tr>
<th>Country</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>16</td>
<td>17</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Bosnia</td>
<td>24</td>
<td>23</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>34</td>
<td>32</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>Croatia</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>Slovenia</td>
<td>25</td>
<td>25</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>Serbia</td>
<td>40</td>
<td>37</td>
<td>35</td>
<td>34</td>
</tr>
<tr>
<td>Moldova</td>
<td>16</td>
<td>15</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Romania</td>
<td>40</td>
<td>39</td>
<td>42</td>
<td>43</td>
</tr>
</tbody>
</table>

Source: Bank of Albania (2010)

The years from 2000 to 2010, are consider as a period of “transition” for the banking sector, and the years of a lot of differences in the structure. The table shows the existence of a relatively small number of banks, as among the eight countries listed. Albania is on the same level with only one of the countries, Moldova, while there is a significant difference with other countries. Thus, for example in Bulgaria operates a number of banks greater than the double of those operating in Albania.

Also it can be said that the banking sector in Albania is fully privatized and largely dominated by foreign capital. Only 3 of the 16 banks have Albanian capital, respectively Credins, Union Bank and National Bank, while there is no Albanian wholly-owned bank. Foreign capital represents nearly 95% of the growth of the system. Specifically, this capital is increased by 9.28 billion (18.45%), compared with 474.6 million increase (10.5%) of the Albanian capital. The increase of foreign capital continued in 2009. This indicates a growing interest of stronger European banks in Albanian market.

2. The concentration

According to SCP theory, estimation of concentration is a very good indicator of competition in the banking market. Although there is no evidence for the existence of a factual connection between these two indicators, the concentration in the banking sector continues to be regarded as an important indicator. Concentration in the banking system is measured through two indicators, the
Herfindahl index (HHI) and CR3 or CR5. Below we take a formance of these two indicators for banking market.

2.1 Herfindahl Index

Herfindahl index, also known as the Herfindahl-Hirschman Index, or HHI, serves as a measure of the size of firms in relation to the industry and an indicator of competition between them. The name is taken from economists Orris C. Herfindahl and Albert O. Hirschman. This index is an economic concept widely applied in competition law, antitrust and technology management.

Before approving the mergers of various companies usually the Herfindahl index gets applied, to see how this merger affects market concentration. If this index exceeds a specified value, 0:18 in the U.S. and 0.025 in the European Union, the merger can not be approved, or be subject to the conditions set out very well and big oversight.

However, this index faces two major problems:
1. Not take into account the extent of replacement of products and services;
2. Face difficulties in defining the geographical market.

Herfindahl index is calculated annually by the Bank of Albanian, as it provides important information for market concentration (not so accurate for competition between firms in the market). Bank of Albania calculates the Herfindahl Index for the total assets, deposits and loans. Precisely these indicators are presented on the following table for the banking sector.

Table 2: Index H (Herfindahl) of concentrations of actives, deposits, credit.

<table>
<thead>
<tr>
<th></th>
<th>Dec’03</th>
<th>Dec‘04</th>
<th>Dec‘05</th>
<th>Dec”06</th>
<th>Dec’07</th>
<th>Dec‘08</th>
<th>Dec 09</th>
<th>Dec‘10</th>
<th>Dec‘11</th>
<th>Dec‘12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index H</td>
<td>0.30</td>
<td>0.27</td>
<td>0.21</td>
<td>0.18</td>
<td>0.15</td>
<td>0.15</td>
<td>0.14</td>
<td>0.14</td>
<td>0.15</td>
<td>0.15</td>
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<tr>
<td>(assets)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index H</td>
<td>0.35</td>
<td>0.31</td>
<td>0.24</td>
<td>0.20</td>
<td>0.17</td>
<td>0.17</td>
<td>0.16</td>
<td>0.16</td>
<td>0.16</td>
<td>0.15</td>
</tr>
<tr>
<td>(deposits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index H</td>
<td>0.15</td>
<td>0.11</td>
<td>0.10</td>
<td>0.11</td>
<td>0.11</td>
<td>0.12</td>
<td>0.11</td>
<td>0.11</td>
<td>0.12</td>
<td>0.12</td>
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<tr>
<td>(loan)</td>
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<td></td>
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</tr>
</tbody>
</table>

Source: Bank of Albania (2012)

The values of the Herfindahl index, calculated respectively for total assets, deposits and loans, indicate stable rates during the last 3 years. While we can say that since the end of 2003 until the end of 2012, presented a declining trend of this index, but its values are still far from optimal level of concentration. If we compare these three indices, we see that the deposit market is the most concentrated, followed by the assets market, and it seems that lending activity is the one that is less concentrated, explained this by the fact that smaller banks are trying to gain ground by offering loans on easy terms.
2.2 CR3 and CR5 indicators

CR3 and CR5 indices calculated as the sum of the weight of assets, deposits and loans to total loans, respectively the 3 and 5 largest banks in the banking market. If it is assumed that the banking market operates to full competition and that all banks hold equal market share, this figure should be equal to the total weight of all system assets (100%), divided by the number of banks in market, so the market is divided in equal parts between the banks, and then multiplying this value 3 or 5, CR3 and CR5 appreciate the banking system to full competition. These indicators of banking market, where 16 banks operate would be 18.75% and 31.25%.

2.2.1 The share of banks in total assets

According to the annual Supervision Report, the three major banks (Raiffeisen Bank, National Commercial Bank and Intesa Sanpaolo), occupying 55.68% of assets (CR3), whereas as we said above this value should be around 18.75 %, in the case of full competition. We can conclude a complete avoidance of competition and the increase of market concentration in assets is about 3 times higher. Also based on the estimates of the Bank of Albania for specific weights of each bank, Raiffeisen Bank is the bank that owns most of the assets in the market, 28.28%, ie more than a fifth of the total.

In the chart below we see that the weights of total assets of bank peer groups in the system in December 2009 are estimated at levels 4.7%, 22.7% and 72.6% respectively for G1, G2 and G3, by 3.4%, 22.5% and 73.1% at the end of third quarter of the year, and 3.9%, 31.0% and 65.1% at year-end 2008. Also we can show a decline in the share of banks in G2 group, while the slight increase in the share of banks in G1 group, is accompanied by a slight decline since the second half of 2009, in G3 group banks.

CR5 indicator in this case is equal to the weight of the group G3, given that in G3 are included the five largest banks. At the end of 2009, this figure is 72.6%, more than two times higher than the indicator in full competition.

However, we can say that these indicators, also like the Herfindahl indexes, have been falling over the years, although we can not talk for a very high drop.

Graph 1: CR3 and CR5 index for assets of Albanian banking sector

Source: Bank of Albania, author’s calculations

From the above graph we can see the downward trend of these two indicators in years. Both indicators have generally moved together, the decrease of one indicator, was accompanied with the
decrease with the other indicator. Just only in two years we could see a reverse movement of these indicators. Thus, we can distinguish that from 2007 to 2008, while CR5 increased by 2%, CR3 decreased by 1%, then we can say that this increase in CR5, is dedicated to increasing the share of assets of the two smaller banks of this group, Alpha Bank and Bank Tirana, with 3%. While in 2009, the three largest banks regain ground against the two other banks, as we observe an increase of CR3, coupled with a decline in CR5, which means a decrease of 2% by weight to the assets of the two banks.

Additionally we can say that we distinguish an inequality and domination of the three largest banks to the two others (with a predominance of Raiffeisen Bank). The difference between CR3 and CR5 indicator is exactly the weight of two smaller banks within the group G3 (Alpha Bank and Bank Tirana). While the three largest banks together own about 56% of assets, on average 18.7% each, two other banks hold only about 8.5% each.

Graph 2: CR5 index for some European countries

Source: Bank of Albania (2010); Bank of Macedonia (2010)

In the chart above are listed CR5 indicators of some countries of Central and Eastern Europe. From this comparison, our country ranks fourth with 73%, being so included on the half of the most concentrated markets. Polonia has the lower level of concentration on assets with 44.20%. In Germany, as the best representative of European countries, CR5 indicator is at 22.7%, almost three times smaller than the indicator in Albania.

2.2.2 The Share on deposits of each bank

Banking system shows a high degree of concentration of deposits, where the 5 largest banks in the system occupy about 75% of the total, at the end of December 2009 and the three largest banks hold 59.7%. Based on reports of the Bank of Albania the deposits are even more concentrated than the assets, which is also dominated by the Raiffeisen Bank, with 29.6%.
Based on the graph we can say that even for the deposits’ market the concentration has a decreasing tendency. Since 2002 until 2009, the concentration of the deposits has fallen with 13% for the 5 largest banks and 17% for the 3 largest banks.

### 2.2.3 The share of the group-banks on the total of loans

The loan concentration resulted in lower levels compared to the concentration level of the deposits. In difference of the CR3 and CR5 indicators for deposits and activities, these indicators for loans have an increasing tendency.

In the above graph are illustrated the CR3 and CR5 index for the years 2002 – 2009. Even from the graph we can distinguish that loans are less concentrated than assets and deposits. The reduced dominance of the credit sector is seen also within the G3 banks, where the largest gap between CR3 and CR5 indicators show a more uniform distribution of loans within this group (more than the assets and deposits). However, unlike the assets and deposits, credit ratios, since 2005 (except 2009), show an increase of concentration of credit. This may be a reason of a higher concentration, of previous years in the deposits, which are the main source of liquidity provision, the concentration of deposits forces banks to reduce lending levels.
If we return once again to Table 2, where the given index HHI for deposits, loans and total assets over the years, will note the downward trend of the concentration level of the banking system. Based on the determination of the U.S. Department of Justice, we can say that the banking system by the end of 2005 (HHI active = 2.100), results more focused.

HHI levels in late 2012 had fallen to 1,400, 1,600 and 1,100 respectively for total assets, deposits and loans. Based on the above rule, we can say that the banking market has a moderate concentration, standing between two extreme forms of market, full competition and monopoly, approaching more towards monopolistic competition.

Also from the concentration ratios we can say that lending activity is less concentrated, unlike deposits and total loans. This result may have come as a result of two factors: the disengagement from several deposits in bank lending and the use of high levels of capital, in the absence of deposits from other banks. Despite the low level of concentration in loans, the high concentration of deposits is disturbing, as they are the main source of funds, becoming a determinant key of banks' lending capacity, and therefore can certainly face an increased concentration of credit over time. However, lowering the concentration of deposits and assets, and maintaining the low level of credit concentration, are a good indicator for the continuing of reducing the concentration in the market.

However, these concentration levels are high enough. Although we can not talk for an optimal level determined by the supervisory authority, if we do a simple comparison of this index with the European Union countries, we can understand that the Albanian market is far from these levels.

Graph 5: HHI index in EU countries and two regional countries

In this graph is presented HHI index for total assets, for two countries in the region, Macedonia and Serbia, as well as eight EU countries. In the chart we can see that the concentration of the banking system in Albania (the first column) is very high, the highest of all the countries (excluding only Macedonia).

As you can see this index is very far from the level of the member states of the European Union, being 1,104 times larger than the HHI index in Slovakia and 7.33 times higher than the index in Germany. Thus, the banking system is more concentrated than the systems of most European Union countries; however, the concentration level is justified to some extent by the short lifespan of our banking system and its rate of development, compared to other countries the EU.

3. Does the connection between the concentration and competition exist?
Both theories mentioned above, support the idea that the increasing of the concentration is accompanied with a reduction in competition. To make a simple evaluation if this hypothesis is true or not, we will do a comparison of HHI index and H statics.

This comparison will be made possible through the following two graphs, one graph showing the concentration of total assets in Albania, Serbia, Slovakia and Slovenia and one graph reflecting H statistic for some countries, including the countries mentioned above.

**Graph 6: Concentration of the total assets in the end of 2006**

![Chart showing concentration of total assets in Albania, Serbia, Slovakia, and Slovenia in 2006](image)

*Source: Annual report of Central Banks, authors calculations (2007)*

The data in this chart refer to the end of 2006. This is done for a simple reason: H statistic data, in Albania are solely for 2006, so the comparison is more appropriate to be indicators of the same period.

**Graph 7: H Statistic for banking systems**

![Chart showing H statistic for various countries](image)

*Source: Bank of Albania (2006)*

In Figure 6, we can observe that banking market in late 2006 was more concentrated than any other bank market presented in this graph. The reducing of the HHI indicator for assets, indicating a decrease of concentration, where Slovakia has the lowest level among the countries listed.
In Figure 7 is presented statistics H for some countries, including the countries listed in the chart above, in the same period. A higher level of H statistic indicates an increase in the level of competition. From the graph we can distinguish Albania is ranked somewhere near the middle of the level of competition, thus operating in a more competitive banking market than 8 countries listed in the chart.

If we join the analysis of the two graphs, we will notice that Albania has a concentration level of assets, and also a statistic H, greater than these three countries. Although Albania is facing a higher concentration of these countries, based on the empirical studies, it has a higher level of competition in the market, illustrated on a larger H statistic, than these countries, in the same period.

This simple observation is added to the empirical evidence gathered so far, that concentration and competition are not necessarily connected with each other, and that indicators of market concentration are not good indicators of the level of competition.

4. **The connection between the interest rate, concentration and competition**

Having compared the level of concentration and competition in the banking market in the region, let us make a simple observation, to see if there is a connection between interest rates operating in the market of these countries with these two indicators.

Graph 8: Interest rate of loans in 2006

![Interest rate graph](image)


In graph are shown the loan interest rates in these countries during the year 2006. It's taken the year 2006 for references, to enable comparison to the same period, the level of concentration and competition in these countries.

If you carefully observe two graphs, the graph of concentration of assets and the chart above, we will notice that countries with lower concentrations have also lower interest rates. This simple observation provides a positive link between concentration and loan interest rates; the lower the level of concentration in the banking sector, the lower interest rates. This is probably explained by the fact that the higher the concentration of assets is, the more limited is the size of lending by some banks, thus giving priority to power and banks that own most of assets and deposits. These banks taking advantage of market power have the power to increase interest rates, harmless to the loss of customers.

Meanwhile, according to a survey conducted by the Bank in connection with the determination of interest rates, resulted in a different conclusion from the above, which resulted in the increase of the concentration negatively affect the level of interest rates:
While was expected that the increase of concentration, firms that gain market would increase interest rates, for reasons of market power, showed that they follow a contrary policy, the reduction of interest rates. According to the Bank of Albania, the fact argued thus: "In theory and empirical results from many different studies, a positive correlation with the variable interest margin was expected. However, results similar to the case of Albania were identified in the study of Brock and Franken (2003) for some of the variables that measure the SPREAD in the case of Chile. As resulted from the equations for the case of banking system, the second hypothesis is confirmed, it's efficient structure. This means that banks operating in Albania use the highest concentration in lending to specialize in terms of services offered and in terms of reducing the margins "(I.Kalluci: 2010, fq.29).

Let us now look at the relationship that exists among the level of competition and the level of interest rates in the market. Among the economic theories supported the theory that increased competition is associated with a decrease of prices, interest rates in this case. But let's go back to the graphs 7 and 8, to see if this theory is confirmed in the banking market. We can observe that these two graphics show a positive correlation to the level of competition and the level of interest rates. For example, Romania, which results in late 2006 with a higher level of competition than Albania has also showed a higher interest rates, while countries like Bulgaria, Slovenia and Slovakia, which have a lower level of competition result even with a lower interest rate.

This simple observation contradicts the economic theory and the main reason for this is the uniqueness of this market, in which the banks copmit with each other for the resources and the product in the same time. Also we can say that this simple observation supports the conclusion of the Competition Authority, that the banking market does not compete with the prices but with the provision of new services, promotional packages and client proximity.

5. Conclusions

- The number of banks in the banking sector is 16, greater than 10, according to the theory approximates more with monopolistic competition. Also, on most of these banks dominates foreign capital.

- However if we compare this number of banks in the relevant markets in the region, Albania has the lowest number of banks in the market. 4 of these banks are the most extensive in the market, those who own most of the market.

- Herfindahl index calculated on the Albanian market for total assets, deposits and loans, has been steadily decreasing. According to this indicator deposits are more concentrated.

- The indicators CR3 and CR5 for assets and deposits have an increasing tendency, while these indicators have shown a loan slight tendency to increase. This probably comes from the fact of the concentration of funds.

- Three largest banks that have the grates share in the deposit and loans market are: Raiffeisen Bank, National Commercial Bank and Intesa Sanpaolo, with a predominance of Raiffeisen Bank.

- According to the SCP Paradigm, which equates to competition level of concentration, we can say that the banking market can be considered concentrated. According to the interpretation of the Herfindahl index provided by the U.S. Department of Justice (1992); banking market is under a

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9 “Përcaktuesit e Marzhit Neto të Interesave në Sistemin Bankar Shqiptar”, Banka e Shqipërisë 2010.
moderate competition. However, this index is very far from the level of the member states of the European Union, being 1,104 times larger than the HHI index in Slovakia and 7.33 times higher than the index in Germany. We concluded that the banking system is more concentrated than the systems of most European Union countries; however, the concentration level is justified to some extent by the short lifespan of our banking system and its level of development, compared with EU countries.

- Economic theories of competition in the banking system also connect financial stability with efficiency. From simple observations in this paper, it was observed that in the banking system, an increase in the concentration was associated with an increased efficiency (and vice versa). This finding supports the idea of efficient markets, whereby the concentration increase is due to higher efficiency.

- Also a link between stability and fair competition was found, where the reduction of market power and the increase of competition increased the undertaken risk by the banking sector, jeopardizing stability.

At the end of the paper we can conclude that competition in banking market, highlighted of its characteristics, based on various studies on this market and in comparison with the region, is at acceptable levels, with an average concentration, although the concentration levels are higher than in the region and Western Europe.

However, some problems of this market, as higher rates of interest than the region's, growth of primarily loans and dominance more than half of the banking market of the three largest banks, should be a signal for increased monitoring mainly to the dominant banks.

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