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INTERNATIONAL FINANCIAL REPORTING STANDARDS AND THE EFFECT ON BANKING PROFITABIITY. A CASE STUDY OF GREEK BANKS IN BUGARIA

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Abstract

The present work deals with the calculation and the analysis of profitability and the effectiveness in the Greek Banking Institutions which are located in Bulgaria during the period of IFRS implementation. Its general goal is to examine the effect in profitability after the implementation of IFRS in the banking Institutions. The use of financial ratios is one of the most widespread and dynamic methods of financing analysis that helps in the interpretation of economic elements of an enterprise, so that it has been selected for this work. It is evaluated the efficiency and profitability for the years before and after the implementation of IFRS in order to have a completed picture of the examined credit institutes. Afterwards, it follows a comparison of the given results for each bank and the export of conclusions.

Keywords: *IFRS, banking performance, efficiency, profitability*
JEL Codes: *G14, G21, G23, G15*

1. Introduction

This research is focused on the profitability analysis of the banking institutions during the period of IFRS implementation. Profitability analysis provides extensive information about the financing situation of a banking institution or an enterprise and more specifically it analyzes and presents in which period of time the enterprise succeeds higher profits. This way is analyzed the effectiveness and the profitability of an enterprise in sectors that concern and are related with the customers, the products, the costs, the investments, etc. Substantially this financing tool it helps enterprises to take the suitable decisions and correct strategies in order to achieve their essential objective, the profit. The use of financial ratios is one of the most widespread and dynamic methods of

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financing analysis that helps in the interpretation of economic elements of an enterprise. The reason that led to the establishment of ratios emanates from the need to become immediately perceptible the real value and the importance of real sizes. Therefore, with their usage we can realize the elements which yield profit and use them more intensively for their increase. A banking organization is an enterprise that aims at the maximization of wealth of shareholders that have invested in the enterprise for a given level of risk.

Basic factor for the achievement of objectives from the administration of a banking organization is the measurement of its efficiency with the use the most suitable quantitative and qualitative indicators that determine it. The most important and interesting dimension of efficiency is the measurement of profitability. They have been selected the basic indicators of profitability and effectiveness in order to analyze and present in which period of time the banking institutions succeeds higher profits.

2. Literature review

The most interesting and important dimension of efficiency is to measure profitability. Many researchers have attempted to measure productivity and efficiency of the banking industry using costs, outputs, efficiency and performance. Banks' efficient performance demands a large number of accurate information through an environment that includes accounting practices, government regulations, and the general market conditions under which banks operate. Potential differences in these features against political jurisdictions can affect the efficiency of banks across jurisdictions (Demirgüç-Kunt, Kane, and Laeven, 2008).

The functional environment canal so influence the exterior and interior mechanisms that discipline the directors of banks. The interior discipline it is caused or it is decreased by the organisational form, the property and the capital structure, the governing councils, and managerial compensation. The exterior discipline it is caused or it is decreased by the governmental regulation and the net of safety, the discipline of capital markets (undertakings, cost of capital, stock price), market competition, external debt, product market competition (LaPorta, Lopez-de-Silanes, and Shleifer, 2002).

According to O'Donnell and Westhuizen (2002), a bank is considered technically inefficient if the real output is lower than the maximum expected output, through a valuable combination of resources. The usual cause of inefficiency includes the managerial failure or organizational errors. The scale and scope economies of banking are absolutely related to the competitiveness and efficiency of banks and many researchers have focused on their extensive study.

Rutamu and Ganesan (2008), in their article"Profit and Profitability of Co-operative Banks: The Case of Banques Populaires (Peoples' Bank) of Rwanda" examined the output of Banques Populaires and the decisive factors of Profit and Efficiency. The output of this research was that there was a net profit which was merged with Gross Profit

for the years 1994-2004. The research was conducted between six models of Profit and Profitability, these empirical results defined that the determinants of profit in Banques Populaires were other incomes and total deposits. As decisive variables of efficiency were proved to be the total assets per branch and the number of branches. Furthermore, the deficiency of cost control and inadequate sources of income led to the low return from investment. As a result, Banques Populaires attempt to improve their efficiency in order to improve their low profitability.

However, Luo and Homburg (2007) stated that the assessments of efficiency encompass multiple inputs and outputs overlooking single and cost-based indicators such as return on assets and equity.

E. Stavrova (2009) examines the concentration of risk in the Bulgarian banking system using the Harfindel-Hirschman index and establishes a relatively high level of risk in the first group of banks for the period 1996-2009.

Various management direct studies of efficiency evaluate market efficiency which is reported in the expand where companies that use the minimal productivity factors (labour and capital), succeed maximal sales and profit. Luo (2003) pointed that stock market determines the real value of a company and as a result a company manage to convert its performance to value in the stock market. Contrary to the efficiency, market ability depicts the investors' anticipations for prospective performance.

A research on commercial and co-operative banks in Greece for the years 2003-2004 (Kosmidou and Zopounidis, 2008) gave the evaluation of their performance and efficiency. They used a ranking measurement which analyses the strengths and weakness of banks in a combination to their competitors, as Greek banks are rated based on their performance. They showed that commercial banks have an unconventional way to increase their profits by increasing their accounts, something that strikes enticing to customers and enhancing their financial indices. However, the co-operative banks' outputs varied as many of them presented high profitability and market sharing, while other were going into a decline.

Through an analysis of the sources of inefficiency Sharma et al. (2012) found that priority sector affect the total advance ratio and as a result, public owned banks are affiliated with the technical efficiency of banks. Specifically, cash-deposit ratio was positive demonstrated, correlated with technical efficiency. In conclusion, Public owned banks were proved to be more efficient than Private and Foreign banks.

Efficiency of European banks and how cost improvements affect them is a matter that has interested Cavallo and Rossi (2001), who concluded that mergers should be aimed at small banks which should penetrate in the product lines of larger banks.

Berger (2003), studied prospective efficiency outcomes of a European single market for financial services. He claimed that the single market of European financial services could not be enough efficient because of the cross-border efficiency barriers. Productivity changes in European co-operative banks have been examined by Carlos et al.

(2005), who found that technology and its use between 1996 and 2003 led to productivity augmentation. In particular, the outcomes refer to larger and centralized banks than to smaller co-operative banks.

3. Research Methodology

Each financial ratio alone is not sufficient to perform correctly a banking institution. In this paper they are calculated the most representative financial ratios, in order to arise reliable results. For the profitability analysis they are used three main financial ratios (ROA, ROE and NIM) and three for the efficiency (NPM, Asset Turnover ratio and Efficiency Ratio).

The research has been done to the Greek banking institutions which are located in Bulgaria. The adoption of IFRS has positive effect in banks as it contributes in the transparency of the application of rules in a capital market. IFRS with the establishment of the world acceptance of accounting rules that results through international tendencies and the awareness of the need for harmonization of accounting models, they cover the requirements of users of financial statements for a uniform presentation of information and comparability of financial elements, in order that the investors have more possibilities of choice with the lower possible cost.

IFRS require or allow the use of fair value for the calculation of financial elements and obligations. While financial elements and obligations constitutes the most important part of the assets and liabilities of the banking organizations, the use of the fair value has direct impact in the composing of its financial statements. Their implementation gives bigger variability in the financial statements, while the profits or the damage of financial elements are recognized immediately in the results or in the proper funds. As the banks were found in the center of recent financial crisis, our analysis focuses in the impact of IFRS in its performance.

There are many references for Bulgarian banks that have obliged to apply IFRS since 2003. Bulgarian banks are considered as the earliest mandatory adopters of IFRS in Europe. However, banks in Bulgaria did not publish any information before 2005 about their use of IFRS or which specific standards they implemented or even which is the started year of the transition to IFRS. In this essay it is considered as the crucial year of implementation 2005 as it is the first year of mandatory adoption in EU. All EU listed companies since 2005 were obliged to present their consolidated financial statements in accordance with IFRS (Regulation (EC) 1606/2002) and it is the first year that Bulgarian banking institutions presented information in the auditors' reports about which IFRS have been used.

It follows a study diversifying the years in two parts of 2001-2004 and 2005-2008. This separation in two periods is selected in order to be examined one precise period of 4 years before and 4 years after the implementation of IFRS, which will give us precise

results. All the used data are derived from the official financial statements of the Bulgarian National Bank.

4. Results

In the frame of the present study were created and used six financial ratios that represent the supreme defining factors of banks' efficiency. The three first financial ratios are named "profitability ratios" and are concern in the efficiency of asset, capital equity and the net interest margin, and the next three which are named "efficiency ratios" and concern in net profit margin, assets turnover and efficiency.

It follows an analysis and a classification of banks with a focus to a period before and after the implementation of International Financial Reporting Standards which was settled at January 2005. There is selected a period of 8 years (2001-2008) separated in two parts.

The first part includes the 4 years period of 2001-2004 and the second part the 4 years period of 2005-2008. This is selected because there is a need for taking equal periods before and after the implementation of IFRS which was in 2005. The average ratio prices of each banking groups for the years 2001-2004 and 2005-2008 and their classification from the best to worst for each financial ratio it appears in the following tables:

Table no. 1 - Average of efficiency ratios for banks for the years 2001-2004

2001-2004						
	ROA	**ROE**	**NIM**	**NPM**	**ASSET TURNOVER RATIO**	**ER**
ALPHA	0,99%	20,65%	1,91%	24,44%	1,91%	61,56%
EMPORIKI	0,14%	2,45%	4,77%	1,62%	4,77%	87,08%
PIRAEUS	0,75%	31,80%	2,40%	19,47%	2,40%	69,71%
POSTBANK	1,11%	11,80%	3,94%	17,80%	3,94%	80,17%
UBB	2,19%	15,45%	4,30%	30,32%	4,30%	60,58%
TOTAL AVERAGE	***1,04%***	***16,43%***	***3,46%***	***18,73%***	***3,46%***	***71,82%***

Source: (Bulgarian National Bank)

As it appears in the two tables, banking institutions achieve better efficiency after 2005, which means that they correspond completely in the changes that they have been settled by IFRS. We can ascertain that all ratios in general present a rising course, apart from ER which presents a downward course but this means that it achieves better efficiency.

Table no. 2- Average of efficiency ratios for banks for the years 2005-2008

2005-2008						
	ROA	**ROE**	**NIM**	**NPM**	**ASSET TURNOVER RATIO**	**ER**
ALPHA	0,06%	49,59%	1,93%	-2,84%	1,93%	90,43%
EMPORIKI	0,53%	1,15%	3,53%	5,92%	3,53%	98,89%
PIRAEUS	1,20%	12,64%	3,03%	28,28%	3,03%	47,71%
POSTBANK	1,32%	13,68%	4,22%	23,04%	4,22%	56,60%
UBB	3,14%	23,54%	4,96%	45,77%	4,96%	38,36%
TOTAL AVERAGE	***1,25%***	***20,12%***	***3,53%***	***20,03%***	***3,53%***	***66,40%***

Source: (Own research –Data from Bulgarian National Bank)

It follows a first classification of banks according to ratios of efficiency and profitability:

Table no. 3- Classification of banks for the years 2001-2004 according to financial ratios

2001-2004						
	ROA		**ROE**		**NIM**	
1	UBB	2,19%	PIRAEUS	31,80%	EMPORIKI	4,77%
2	POSTBANK	1,11%	ALPHA	20,65%	UBB	4,30%
3	ALPHA	0,99%	UBB	15,45%	POSTBANK	3,94%
4	PIRAEUS	0,75%	POSTBANK	11,80%	PIRAEUS	2,40%
5	EMPORIKI	0,14%	EMPORIKI	2,45%	ALPHA	1,91%
	NPM		**ASSET TURNOVER RATIO**		**ER**	
1	UBB	30,32%	EMPORIKI	4,77%	UBB	60,58%
2	ALPHA	24,44%	UBB	4,30%	ALPHA	61,56%
3	PIRAEUS	19,47%	POSTBANK	3,94%	PIRAEUS	69,71%
4	POSTBANK	17,80%	PIRAEUS	2,40%	POSTBANK	80,17%
5	EMPORIKI	1,62%	ALPHA	1,91%	EMPORIKI	87,08%

Source: (Own research –Data from Bulgarian National Bank)

In the table 3 it appears the classification of banks for the period 2001-2004. UBB seems to utilize more efficiently its assets with Alpha Bank which are the banks with the best performance and ratios for almost all the years until 2004, even if Alpha bank present bad outputs in the management of functional expenses and net interest margin, but except for this it is classified in the best three. Piraeus has a more stable performance and appeared to have the third or fourth class for all the ratios apart from ROE, to which

it has the highest price, a fact that proves to use more efficiently its capitals in order to create additional profits. Emporiki bank presents the worst efficiency in most categories (ROA, ROE, NPM, ER) with the exception of the effectiveness for the management of functional expenses and the net profit margin, where it possesses the first class, while in the remaining categories it occupies the last class. Postbank in general, presents bad output in all ratios, apart from the ROA, in which it is presented in the second class.

Table no.4- Classification of banks for the years 2001-2004 according to financial ratios

2005-2008						
	ROA		**ROE**		**NIM**	
1	UBB	3,14%	UBB	23,54%	UBB	4,96%
2	POSTBANK	1,32%	POSTBANK	13,68%	POSTBANK	4,22%
3	PIRAEUS	1,20%	PIRAEUS	12,64%	EMPORIKI	3,53%
4	EMPORIKI	0,53%	EMPORIKI	1,15%	PIRAEUS	3,03%
5	ALPHA	0,06%	ALPHA	49,59%	ALPHA	1,93%
	NPM		**ASSET TURNOVER RATIO**		**ER**	
1	UBB	45,77%	UBB	4,96%	UBB	38,36%
2	PIRAEUS	28,28%	POSTBANK	4,22%	PIRAEUS	47,71%
3	POSTBANK	23,04%	EMPORIKI	3,53%	POSTBANK	56,60%
4	EMPORIKI	5,92%	PIRAEUS	3,03%	ALPHA	90,43%
5	ALPHA	-2,84%	ALPHA	1,93%	EMPORIKI	98,89%

Source: (Own research –Data from Bulgarian National Bank)

After 2004 the ratios are altered and consequently it is also altered the classification of banks. UBB increases its efficiency in the all the ratios and possesses itself at the first class to all the categories. Postbank as well, presents very good prices to all the categories and it conquers the second class to all indicators apart from the net profit margin and efficiency ratio to which is exceeded from Piraeus. Emporiki has definitely a rise apart from the management of functional expenses and the net interest margin in which in the previous four-year period it possessed the first class. Remarkable is the fall of Alpha bank which it presents the worst picture in almost all the ratios, apart from the total efficiency ratio, in which the bad picture it presents from Emporiki, while it had good output for the years 2001-2004 it presents disappointing sizes after 2004 and for this reason it presents the worst picture.

The classification of each bank in the above table in scale of 1-10 from the best to the worst Bank, the average score that has achieved each bank is the following:

Table no.5- Classification of banks in the scale 1-10 for the years 2001-2004

2001-2004	
BANKING INSTITUTIONS	**FINAL CLASSIFICATION**
UBB	1,67
PIRAEUS	3,17
ALPHA	3,17
POSTBANK	3,33
EMPORIKI	3,67

Source: (Own research –Data from Bulgarian National Bank)

Table no. 6 - Classification of banks in the scale 1-10 for the years 2005-2008

2005-2008	
BANKING INSTITUTIONS	**FINAL CLASSIFICATION**
UBB	1,00
POSTBANK	2,33
PIRAEUS	3,17
EMPORIKI	3,83
ALPHA	4,83

Source: (Own research –Data from Bulgarian National Bank)

5. Conclusions

In this work it has been analyzed the profitability and the effectiveness of the Greek banking institutions which are located in Bulgaria, by the use of financial ratios. All the used data are derived from the official financial statements of the Bulgarian National Bank published at 31st of December.

There are many references for Bulgarian banks that have obliged to apply IFRS since 2003. Bulgarian banks are considered as the earliest mandatory adopters of IFRS in Europe. However, banks in Bulgaria did not publish any information before 2005 about their use of IFRS or which specific standards they implemented or even which is the started year of the transition to IFRS. In this essay it is considered as the crucial year of implementation 2005 as it is the first year of mandatory adoption in EU.

As it is mentioned before while this research was proceeding deeply it separated the examined period in two parts, four years before the application of IFRS and four years

after the application. At the duration of these two periods became the classification of banks depending on their efficiency.

The first results showed that banking institutions achieve better efficiency after 2005, which means that they correspond completely in the changes that they have been settled by IFRS. We can ascertain that all ratios in general present a rising course, apart from ER which presents a downward course but this means that it achieves better efficiency.

Concretely, banks in total achieved a development in the period 2005-2008. Its average efficiency proved to be improved having a 0.21% growth for ROA, 3.69% for ROE, 0.07% for NIM, 1.3% for NPM, 0.07% for Asset turnover ratio and 5.38% for ER.

The first classification of banks for the period 2001-2004 shows that UBB seems to utilize more efficiently its assets with Alpha Bank which are the banks with the best performance and ratios for almost all the of the years until 2004, even if Alpha bank present bad outputs in the management of functional expenses and net interest margin, but except for this it is classified in the best three.

Piraeus has a more stable performance and it proved that used more efficiently its capitals in order to create additional profits. Emporiki bank presents the worst efficiency in most categories but she presented higher effectiveness for the management of functional expenses and the net profit margin, where it possesses the first class. Postbank in general, before 2005 presents bad output in all ratios, apart from the ROA.

After 2004 the ratios are altered and consequently it is altered also the classification of banks. UBB increases its efficiency in the all the ratios and possesses itself at the first class to all the categories. Postbank as well, presents very good prices to all the categories and it conquers the second class to all indicators apart from the net profit margin and efficiency ratio to which is exceeded from Piraeus. Emporiki generally has definitely a rise but she has fallen from the first class concerning the management of functional expenses and the net interest margin. The most distressing output is concerned in Alpha bank which it presents the worst picture in almost all the ratios.

The classification of each bank in the above figures in a scale of 1-10 from the best to the worst Bank is referred to the average score that has achieved each one of them.

In this final classification the most efficient bank before the implementation of IFRS and afterwards appears to be UBB. Its efficiency is better after 2005, that means it has achieved to correspond completely in the new data that have been imposed with the application of IFRS and even if it continues to be in the top of classification scale, it has managed better score the second period. It is a profitable and efficient bank. Postbank, furthermore, increased its efficiency after the application of IFRS and appears that it was adapted faster in the new conditions. In the years 2005-2008 it raised in the second level of hierarchy, leaving the third level to Piraeus.

Piraeus, as it is realized from all our research is a bank that appears to have constant course and corresponds mediocrely decreasing its efficiency, in an effort for profitability and maintenance of its efficiency, after the application of the new standards.

Emporiki presented a more constant course and while it does not appear to be harmonized very efficiently with IFRS and it is not so much efficient in the second period of 2005-2008, nevertheless, it segues into the fourth and one before last level in the scale of classification. Its rise in the hierarchy is altered, of course, because of the abrupt fall of Alpha bank which has made a "plunge" and presents the worst picture.

Alpha is the bank that did not accomplish to absorb at all the new changes derived from the IFRS implementation and while in the period 2001-2004 it possessed the second class in the scale together with Piraeus, it has it collapsed to the last level of classification with a reduction of its efficiency of 1,66%.

It can be aware of that the examined period of 2005-2008 is concerned as years at which began the economic crisis in Greece, a fact that could be an obstacle for the Greek banks to accomplish their harmonization with the IFRS and increase or maintain constant their efficiency.

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