BANK PROFITABILITY AND ENTERPRISE PROFITABILITY IN POLAND – DIRECTIONS AND CAUSES OF CHANGES IN THE YEARS 2001 – 2016

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Abstract

The aim of the article is to study the changes in bank profitability in relation to non-financial enterprise profitability in Poland and to indicate main reasons and potential consequences of this phenomenon. The research concerns the years 2001 – 2016 with particular consideration of the years 2013 – 2016. The profitability ratios used in this article with respect to both banks and enterprises are ROA and ROE. The Net Interest Margin (NIM) was used for banks only and the Net Turnover Profitability (NTP) for non-financial enterprises. In the conducted analysis dynamics indicators of the used profitability ratios were applied.

Lower financial profitability of the banking sector in relation to that of non-financial enterprises observed since 2015 has not resulted from activities of banks in the environment of low interest rates only. Other important factors which should be taken into consideration when correctly interpreting the above issue include increased domestic fiscal burden in the form of a bank tax, credit recommendations of KNF (Polish Financial Supervision Authority) that complicate the involvement of financial resources of banks in lending activities, as well as growing capital and credit requirements enforced by KNF as banking supervision.

Key words: bank profitability, profitability ratios, fiscal policies

JEL Code: G18, G21, H32

Introduction

Profitability as efficiency of the use of capitals and assets by an economic entity constitutes an important synthetic parameter illustrating its economic and financial condition. However, profitability is often interpreted by stakeholders as an important indication of the future of a given entity and the changes in the level of profitability raise questions concerning their causes and potential future effects. The same applies to the observation of changes in profitability of whole groups of economic entities. Over recent years, decrease in the profitability of banks in many countries has been observed, which can have a strong impact on the further evolution of the financial sector and the whole economy (Chaudron, 2018).

The aim of the article is to examine whether the cumulative effect of additional fiscal and non-fiscal burdens imposed by public authorities on banks in Poland in combination with the environment of low interest rates is reflected in changes in the profitability of banks against the profitability of non-financial enterprises. The research will concern the years 2001 – 2016 with particular attention paid to the years 2013 – 2016. At the time of finalisation of this article, the accessible data for 2017 concerned bank profitability only. The profitability ratios used in the article are the Return On Assets (ROA) and the Return On Equity (ROE). Due to significant differences in the subject of activity between banks and non-financial enterprises, the assets and capital in them have very different structures and share in earning the financial result. However, while the direct comparison of the size of these indicators for both groups of entities has a dubious information value, observing the trajectory of changes in the value of these indicators may provide interesting material for analysis (Hagel, Brown, Samoylova & Lui, 2013). Taking into account the character of banking activities, also the Net Interest Margin (NIM) will be reviewed. For non-financial enterprises the Net Turnover Profitability rate (NTP) is used due to a different specificity of activities and financing.

When it comes to different potential factors of profitability changes, not only in Poland, particular attention will be drawn to the monetary policy of the central bank in interest rates (Borio, 2017). In the case of Poland, analysing the difference in the course of changes in the profitability of banks in relation to enterprises, attention should be drawn to the changes in domestic fiscal burden, that is a bank tax, and capital and credit requirements enforced by banking supervision (WIB, 2016).

1 Materials, Methods and Theoretical Hypothesis

In order to examine whether the cumulative fiscal and non-fiscal burdens specific for the banking sector are reflected in the banks 'profitability rate against the background of enterprises' profitability, the input statistical data on basic profitability ratios were collected. These data come from the Polish Financial Supervision Authority (KNF), the National Bank of Poland (NBP) and the Central Statistical Office (GUS). The most popular profitability ratios applied to both banks and enterprises have been illustrated in the charts, which helped to make an initial assessment of the similarities and differences in the course of changes in the size of these indicators. On the basis of selected data, the profitability dynamics indexes were calculated and presented. The professional literature in English and Polish was used to interpret the obtained results.

The following research question is proposed in the paper:

Are the cumulative fiscal and non-fiscal burdens specific to the banking sector reflected in the banks' profitability rate against the profitability of enterprises?

2 Characteristics of Selected Profitability Ratios of Banks and Enterprises

Profitability is considered to be one of the most important financial categories in a market economy and it constitutes the main factor that motivates people to establish one's own business (Kopiński, 2016). It reflects the effectiveness of management in an enterprise in the most synthetic form (Sierpińska, Jachna 2004). The authors share Kopiński's view that the profitability of banks "as entities supplying funds to the economy conditions the functioning and development of individual economic entities, and in macroeconomic terms it is a catalyst for the development of individual sectors and the whole economy" (Kopiński, 2016). Both in enterprises and in banks, the following profitability can be examined:

a) economic profitability (of assets) measuring the effectiveness of the use of assets,
b) financial profitability measuring the effectiveness of involved equity,
c) commercial profitability, that is profitability on sales.

In the above studies, the ROA (Return On Assets) indicator described with the formula 1 below is used for the evaluation of the effectiveness of the use of assets of both banks and enterprises.

$$ROA = \frac{\text{Net Income}}{\text{Average Total Assets}} \quad (1)$$

The effectiveness of equity capital employed is measured with the ROE (Return on Equity) in both groups, formula 2.

$$ROE = \frac{\text{Net Income}}{\text{Book Value of Equity}} \quad (2)$$

The effectiveness of bank services generating interest is of fundamental importance in evaluating its functioning as it answers the question on economic sense of an undertaken economic activity in a given market segment (Gemzik-Salwach, 2010). Net Interest Margin constitutes the measure of income effectiveness of a bank. It measures the income generated by a bank when providing financial intermediation services, therefore also the costs incurred by the society for using those services. For that reason the indicator constitutes a very good measure of effectiveness of the banking system (Golędzinowski, 2009). The NIM (Net Interest Margin) ratio, which measures the interest income minus the interest paid to the value of assets, is used for the evaluation of the profitability on sales in the case of banks in this article – formula 3.

$$NIM = \frac{\text{Investment Returns} - \text{Interest Expenses}}{\text{Average Earning Assets}} \quad (3)$$

The NTP (Net Turnover Profitability) indicator is used to evaluate the profitability on sales in the case of non-financial enterprises. It is relation of net financial result to revenues from total activity (Sierpińska, Jachna, 2004, p. 197) – formula 4.

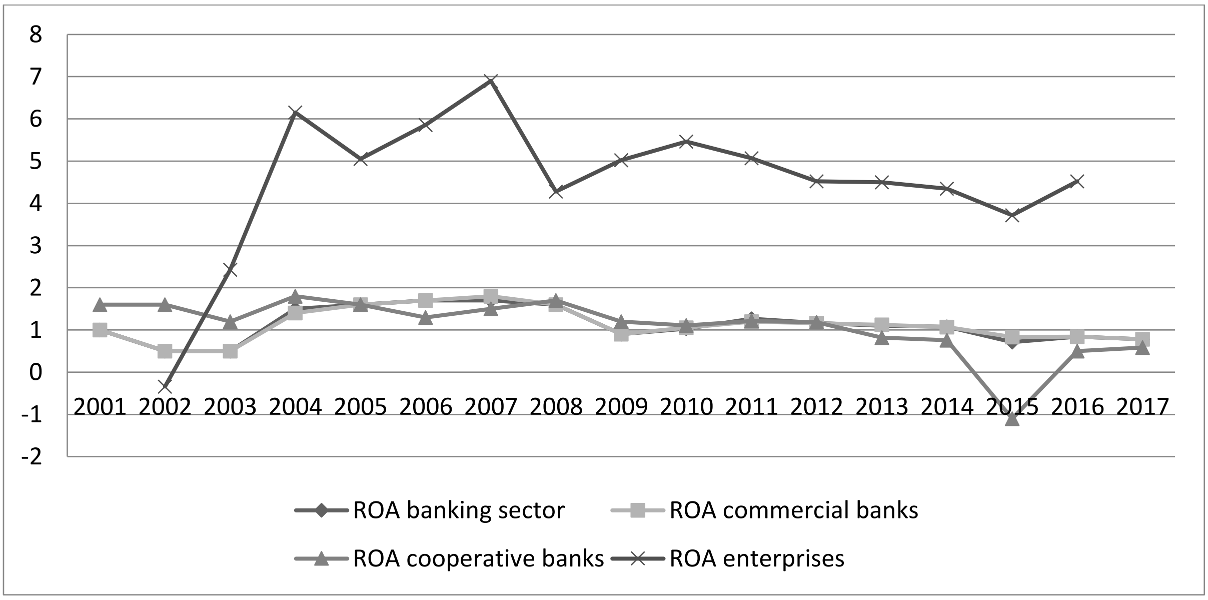
$$NTP = \frac{\text{Net Profit}}{\text{Revenue from the Sale of Products, Goods and Materials} + \text{Other Operating Income} + \text{Financial Income}} \quad (4)$$

The above ratios will be used further on in the study to evaluate the profitability of the sectors of banks and non-financial enterprises in Poland.

3 Analysis of the Banking Sector Profitability and Non-financial Enterprises Sector Profitability

The following section includes a comparative analysis of economic, financial and commercial profitability of the discussed sectors.

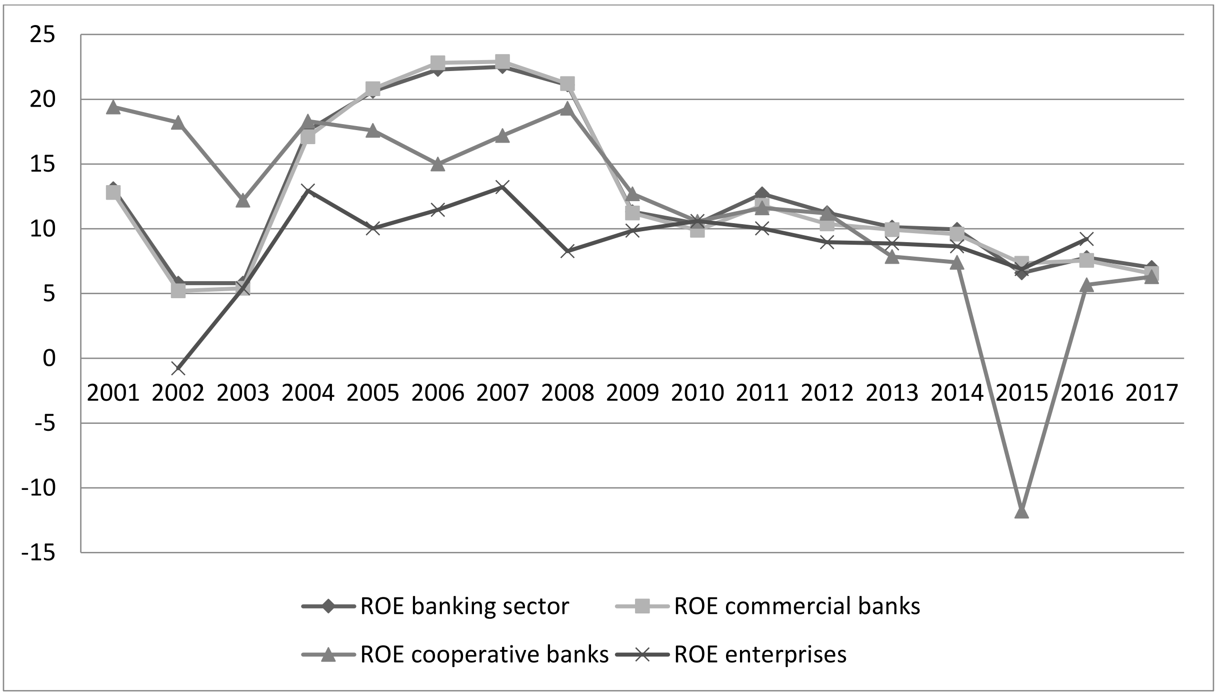
Graph 1: Economic profitability of banking sector and non-financial enterprise sector in the years 2001 – 2017 (in percent)



Source: Own calculations based on the data of KNF, NBP, GUS.

Economic profitability of the non-financial enterprises sector considerably exceeded the profitability of both the whole banking sector and that of commercial and cooperative banks for the whole analyzed period of time. However, it must be noted that in the case of the enterprises sector, a more significant dynamics of changes can be observed when it comes to the ROA indicator (dynamics indicators calculated in relation to the previous year) than in the banking sector, in which a slow decline in the level of assets profitability took place.

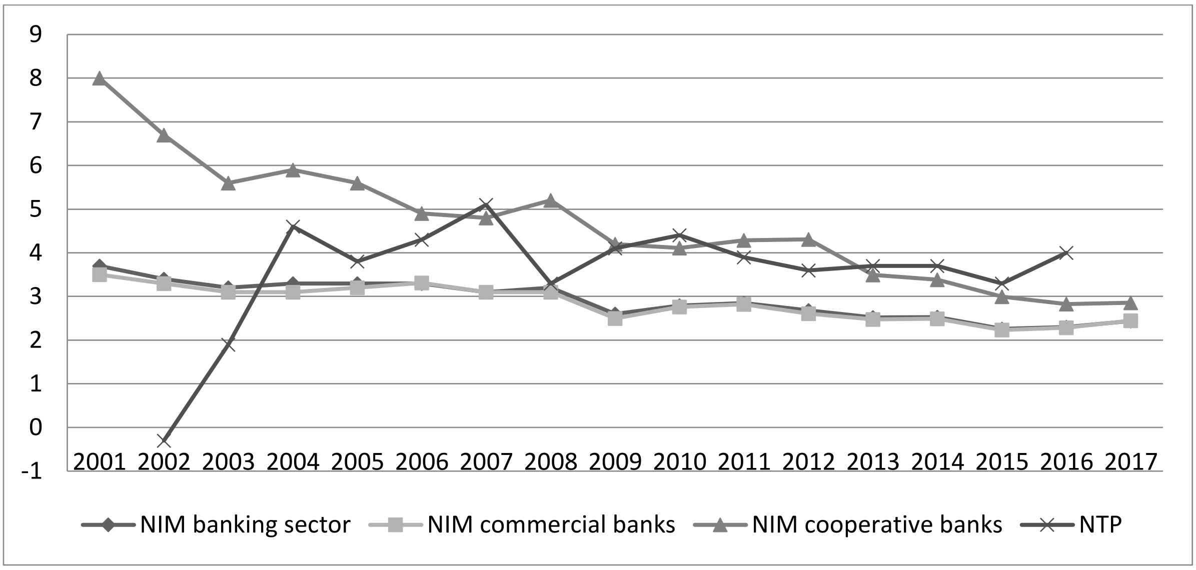
Graph 2: Financial profitability of banking sector and non-financial enterprise sector in the years 2001 – 2017 (in percent)



Source: Own calculations based on the data of KNF, NBP, GUS.

Financial profitability in the analyzed period manifests different trends than economic profitability. Before 2008 the ROE indicator for the banking sector exceeded the ROE indicator for the enterprises sector by over 10 percentage points. The most significant disproportion happened in 2008 and it amounted to 12.84 percentage points. In the years that followed, the economic profitability of both sectors was of a similar level. In 2015 for the first time the ROE indicator for the banking sector fell below the ROE indicator for enterprises by 0.31 of a percentage point. The situation intensified in the following year, when the financial profitability of banking sector was by 1.42 percentage points lower than that of enterprises.

Graph 3: Commercial profitability of banking sector and non-financial enterprise sector in the years 2001 – 2017 (in percent)



Source: Own calculations based on the data of KNF, NBP, GUS.

Graph 3 presents commercial profitability of banking sector and non-financial enterprise sector in the years 2001 – 2017. During the whole period the banking sector manifests decrease in profitability of both the whole sector and that of commercial and cooperative banks. The above situation was influenced by the environment of record low interest rates, but most of all by additional burden falling upon banks in the form of a bank tax as well as additional provisions for funds in connection with the consequences of failures among cooperative banks and credit unions (called SKOK), which will be discussed in detail later.

Table 1: Change of NIM and NTP dynamics in years in percentage points (previous year = base year)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NIM banking sector	3.1	0.0	0.0	-6.1	3.2	-18.8	7.2	2.3	-5.9	-6.2	0.5	-10.7	1.7
NIM commercial banks	0.0	3.2	3.5	-6.4	0.0	-19.4	10.5	2.2	-7.7	-4.9	0.5	-10.4	2.4
NIM cooperative banks	5.4	-5.1	-12.5	-2.0	8.3	-19.2	-2.1	4.2	0.5	-18.8	-3.3	-11.4	-5.7
NTP enterprises	142.1	-17.4	13.2	18.6	-35.3	24.2	7.3	-11.4	-7.7	2.8	0.0	-10.8	21.2

Source: Own calculations based on the data of KNF, NBP, GUS.

2009 was the year in which the most significant decrease in the NIM ration was observed (Table 1). It was connected with the financial crisis, which affected Polish banks as well. Net Interest Margin strongly decreased in 2015 as well. However, commercial profitability of the enterprise sector was characterised by a bigger dynamics throughout the whole period.

4 Changes of the Central Bank Interest Rates and Other Factors Significantly Determining the Profitability of Polish Banks

The significant reductions in interest rates by the central banks of big developed economies such as that of the USA, Japan and also by the European Central Bank for the Eurozone in reaction to the financial crisis from 2008 created conditions for similar actions also in Poland (Huterski, 2018). A common, far-reaching and prolonged reduction in interest rates as a significant factor capable of determining the profitability of banks has been reflected in numerous scientific studies internationally (Bikker & Tobias, 2018; Sääskilahti, 2018). A synthetic overview of changes in the Poland's central bank interest rates with the indication of potential problems in the light of the impact of those changes on the profitability of Polish banks can be found below (NBP interest rates, 2018).

After the period of raising of interest rates by NBP from March 2006 to June 2008, when the reference rate rose from 4% to 6%, November 2008 started a period of reduction in interest rates, which resulted in the reference rate of the central bank amounting to 4% again in April 2011. From May 2011 to May 2012 the interest rates were again raised by NBP and at the end of this period the reference rate amounted to 4.75%.

Another long series of cuts in interest rates began in November 2012 and after ten reductions the reference rate reached the level of 1.50% in March 2015. As many as six cuts from the mentioned series took place in 2013, and one of them was as significant as 0.5 of a percentage point. The last two reductions made in November 2014 and in March 2015 also amounted to 0.5 of a percentage point, which in relation to already low base constituted a strong signal for the banking sector and the economy sent by the central bank. From the last reduction of interest rates by NBP in March 2015 to the moment of finalization of this article in April 2018, the central bank interest rates were unchanged.

When evaluating the impact of changes in interest rates introduced by the Poland's central bank on the profitability of banks, potential time delays in the reactions of banks to the decisions issued by the Monetary Policy Council of NBP about this matter should be taken into consideration. On the one hand, the changes in bank profitability ratios such as ROA, ROE or NIM might reflect delays in the adjustment of their interest rates by banks to the NBP rates for natural organizational reasons. On the other hand, with long series of changes in interest rates in the same direction (such as one series of six reductions of interest rates by NBP in 2013), an effect of banks' anticipation in relation to future decisions of the central bank might appear, which means that the above delays may be reduced or may even disappear (Arteta et al., 2018). A parametric analysis of this issue would require creating a relevant econometric model based on quarterly or monthly data, which exceeds the scope and capacity of this paper.

When considering the impact of the environment of low interest rates on bank profitability in recent years in Poland, other factors not connected with the activities of the central bank cannot be omitted. In the case of Poland the following factors should be taken into account:

- enforcement of heightened capital requirements by the Polish Financial Supervision Authority (KNF),
- the effects of KNF credit recommendations disciplining banks in providing loans,
- periodically increased bank burden in connection with stabilizing the situation in the banking sector and the sector of credit unions after the failures of some of them,
- alleviation of clients' burden under current mortgage payments denominated or indexed in the Swiss francs because of their appreciation, and also
- introduction of a bank tax (WIB, 2016).

In 2015 a particular concentration of the above non-interest factors apart from a bank tax took place and reduced bank profitability. Only due to the participation in payouts of deposits for the failed biggest Polish cooperative bank (SK Bank), banks raised additional costs to PLN 2 billion. It was followed by increased burden for banks for the Bank Guarantee Fund due to an annual fee and a prudential fee as well as initiating the reduction of burden for clients due to loans in Swiss francs, which reduced the income of banks by PLN 1 billion for 2015. The decrease in the profitability of non-financial enterprises measured by ROA and ROE was in 2015 much smaller and happened for different reasons (the result on other operating activities decreased).

In 2016 a tax on certain financial institutions was introduced and in that year it amounted to PLN 3.2 billion for banks. An increased capital requirement due to a conservation buffer, higher that that required in the European Union, started to be applied (Bitar et al., 2018). Bank profitability for 2016 would have been much worse if it had not been for included in that year one-off high income due to sale of shares in VISA Europe, which increased banks' income by nearly PLN 2 billion. Year 2017 brought relative stabilization of the profitability of Polish banks despite further adjustments to capital requirements and dividend policy resulting in decrease in ROE ratio (KNF, 2017).

A dynamic growth of the society's disposable income, and as a result a growth of the expenditure of households, constitutes an additional factor, difficult to interpret, that could influence the change in relationship between bank profitability and non-financial enterprise profitability. Income generated by a good economic situation is magnified by the effects of increased social benefits. The most prominent example is the Family 500+ program initiated in April 2017, which introduced additional social benefits for children with the total nominal value of about PLN 25 billion (WIB, 2016). The balance of advantages from that growth for the profitability of non-financial enterprises will result from other mechanisms than those with respect to banks.

Conclusions

Against the background of the analyzed data, in the light of the controversy about the possibility of using profitability measures such as ROA and ROE both for the banking sector and non-financial enterprises, the far-reaching convergence of the trajectories of these indicators for both such different groups of entities in Poland in 2009-2016 is surprising. The ROA and ROE ratios do not show significant discrepancies in the directions of changes in the profitability of non-financial enterprises compared to the banking sector as a whole and commercial banks that are joint stock companies dominating in this sector. Discrepancies in the ROE and ROA measures are clearly visible only in relation to non-financial corporations and the cooperative banking sector in 2015. However, this is due to the exceptional situation resulting from the bankruptcy of large cooperative banks, as on the scale of this sector.

The impact of the accumulation of fiscal and non-fiscal burdens imposed by public authorities on banks in Poland coincided with further interest rate cuts in 2015. However, at the same time, the profitability of non-financial enterprises measured by various indicators decreased. Based on the profitability measures used in the article, the impact of the above-mentioned bank-specific fiscal and non-fiscal factors is visible only on the basis of the NIM indicator. While in the case of non-financial enterprises the NTP indicator in 2016 showed strong positive dynamics, the NIM ratio slightly improved in relation to commercial banks and the banking sector as a whole, and in the case of the cooperative banking sector showed a decline.

Based on the above conclusions, it should be noted that the cumulative fiscal and non-fiscal burdens specific for the banking sector are not reflected in the banks' profitability rate against the background of enterprises' profitability.

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