

## ФІНАНСОВИЙ АНАЛІЗ БАНКІВСЬКОГО СЕКТОРА В ПОЛЬЩІ

Наведено специфіку та спектр фінансового аналізу банків як фактор впливу на їх імідж та стабільність, а таким чином – і на стабільність всього фінансового сектора. Проаналізовано вибрані сфери діяльності банківського сектора Польщі в 2010–2013 рр.

Ключові слова: банківський сектор, банківські установи Польщі, діяльність, стабільність, імідж, фінансовий аналіз, методи, підходи.

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## FINANCIAL ANALYSIS OF THE BANKING SECTOR IN POLAND

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In the market economy, banks act as financial intermediary. On one hand, they want to make profit, but on the other hand they are called public-trust institutions. Since profit maximization is not possible without taking risks, that is why risk taking must be controlled. The activity of banks is therefore supervised by the Commission for Financial Supervision, the National Polish Bank or Bank Guarantee Fund. Other participants in the economic process must also have a clear picture of their financial position and management results. In the context of increasing competition and increasing the risk of making decisions by banks, an access to objective assessments of the economic – financial situation of banks is of particular importance. The assessments should be based on the analysis of the data presented in the financial statements. Since the credibility of carried out evaluations is determined by the credibility and reliability of data on which they were made, the bank financial statements are subject of examination, the purpose of which is to express an opinion by the auditor, whether it is consistent with the applicable accounting rules (policy) and whether it fairly and clearly shows the asset and financial situation, as well as the bank profit.

Financial analysis can reduce the risk and eliminate the consequences of bad decisions, makes it possible to take appropriate action in order to improve efficiency, better utilization of resources, to meet the expectations of the owners and to ensure an appropriate level of liquidity and capital adequacy. Apart from the bank managers, others use it as well. The main objective of such tools is to assist the processes of decision-making at various levels. Furthermore, financial analysis has an impact on shaping the image of the bank and the evaluation of its credibility. Presentation of the characteristics and scope of the banks financial analysis, as a factor affecting their image and their stability, is therefore the aim of the author's article. This is of particular importance due to the fact that at the end of 2013 the value of the assets of the financial system in Poland (without NBP) was nearly 2.3 billion zł, of which 62.2% was in the banking sector. Moreover, taking into account the relations between banks and other entities of the financial market, it can be concluded that the stability of the banking sector is crucial for the stability of the entire financial system in Poland.

The scope of the financial analysis is related to the macro scale and covers the entire banking sector, i.e. commercial banks (state-owned and joint-stock companies), credit units and credit institutions. The paper presents the structure of the sector (including the

participation of foreign capital and the directions of its origin) and its place in the Polish financial system taking into account the amount of assets.

The subject matter of the scope includes preliminary financial statements analysis (the analysis of dynamics and structure of the balance sheet and profit and loss account - without the report of funds flow and the statement of changes in equity - and capital adequacy) and ratio analysis on the basis of data from financial statements. The ratio analysis was limited to the assessment of the most important spheres of bank activities, i.e. solvency ratios, liquidity measures and efficiency. The source of the pooled data for the banking sector have been reports published by the FSA.

The time period of the analysis covers the years 2010–2013, and the spatial range takes into account system solutions in assessing the solvency and liquidity of banks and the already mentioned above, position in the Polish financial system. Due to limitations in the volume of the article, the analysis of the competition from other institutions has been omitted.

The analysis leads to the following conclusions: number of entities conducting banking activities remains stable, while there was a slight increase of the contribution of banks controlled by domestic investors; the banking sector in Poland is characterized by maintaining strong capital position. Throughout the period there was a growing surplus of own funds in relation to the entire capital requirement, which means that the amount of own funds was appropriate to the scale of the risk involved; the balance sheet structure confirms the dominant contribution of traditional banking operations (deposit and credit activities) in shaping the balance sheet total. The effect of this is also the predominant contribution of income interests in shaping banking activity profit and – indirectly – banks profit; the banks compliance requirements for solvency and liquidity should be assessed positively. Both capital adequacy ratios (CAR and Tier 1) and shorter-term liquidity measures were maintained at the required level; despite difficult external conditions, the net profit achieved by the banking sector in 2012-2013, fell only slightly, the consequence of which was, however, worsening of the main measures of effectiveness; the analysis confirmed the key role of banks for the stability of the financial system in Poland. At present and in the near future, the stability of the banking sector does not seem to be threatened.

**Key words:** banking, banks Poland, activity, stability, image, financial analysis, methods, approaches.

**Introduction.** At the end of 2013, the value of the assets of the financial system in Poland (without NBP) was nearly 2.3 billion zł, but 62.2% was in the banking sector<sup>1</sup>. Considering the relations between banks and other entities of the financial market, it can be concluded that the stability of the banking sector is crucial for the stability of the entire system. The stability of banks is determined, inter alia, by assessing their credibility as an institution of public trust. Their activity is therefore supervised by the Financial Supervision Authority, NBP, and BFG. Other participants of the financial market also must have a clear picture of their financial position and management results. Therefore, the results of the economic – financial bank analysis which have an impact on shaping their image and credibility, are addressed to different audiences. Presentation of the specifics and scope of financial analysis of banks, as a factor affecting their stability, became the target of the author's article.

## **1. Theoretical basis of the financial analysis of banks**

### ***1.1. The financial analysis as part of the economic analysis***

Economic analysis is a method involving division of economic processes into individual components in order to examine the relationship between them, and it is generally referred to study the quantitative phenomena<sup>2</sup>. This method measures relationships and dependencies between these phenomena and

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<sup>1</sup> *Raport o sytuacji banków w 2013 r.*, KNF, Warszawa 2014., p. 23

<sup>2</sup> *Encyklopedia Popularna PWN*, PWN, Warszawa 1982, p. 30

assesses the validity of their formation<sup>3</sup>. It also deals with searching and measurement of banks characteristic features and their response to external stimuli<sup>4</sup>. It is one of the basic management tools which makes the decision-making possible.

Taking into account the scope of the economic analysis, it is possible to differentiate between technical – economic and financial analysis. The first involves an assessment of real bank activities, which are of marginal importance for the banks. The other one shows assets and capital condition of banking company, financial performance and the overall financial situation by showing its value. It can have a temporary, spatial, objective and subjective dimension<sup>5</sup>.

### ***1.2. The nature and scope of the financial analysis of the bank***

The financial analysis was established as the analysis of financial statements, but present business conditions require its wider recognition. Provided information makes it possible to assess the activity effectiveness, the rational use of resources, the factors determining the amount of profit or loss and decision-making<sup>6</sup>.

Assessment of the financial situation can refer to macro and micro scale. In the first case, the analysis covers the entire banking system, specific sectors of banks (cooperative, commercial, general and special), or their groups (with the majority of Polish and foreign capital, individual associations, holding companies). The micro scale assessment involves analysis of individual banks or their units (branches)<sup>7</sup>.

### ***1.3. The financial bank statements, as a source of data for financial analysis***

Banks are obliged to prepare, audit and publish financial statements. By the end of 2012, the financial statements were announced in Official Journal "Polish Monitor B", and in the case of cooperative banks in the "Cooperative Monitor"<sup>8</sup>. From 01.01.2013<sup>9</sup>, the banks covered by the National Court Register, do not need to publish reports in this form. There is still the obligation to audit the statements and transfer them to National Court Register, and the mention of the entry is forwarded for publication in the "Court and Economic Monitor".

Banks operating in Poland are subject to different accounting standards. Some of them apply MSR / MSSF, which do not provide any reporting models, leaving freedom in this regard to issuing entities. This allows to present the entities specifics here, but makes difficult to compare the data. Other banks use national standards<sup>10</sup>. They make, in accordance with the Accounting Act, financial statements, which include: balance sheet, profit and loss account, extra notes, statement of changes in equity and a report of cash flow<sup>11</sup>.

In addition to making statements, banks provide the NBP data necessary to determine monetary policy and periodic assessments of the monetary balance in the country, to make balance of payments and international investment position and to assess their financial situation, the stability and the risk of the banking system<sup>12</sup>. What is more, they pass the information to the Fund (BFG)<sup>13</sup>. They also draw up reports connected with monetary, banking and financial statistics, for the need of EBC<sup>14</sup>.

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<sup>3</sup> W. Gabrusewicz, *Podstawy analizy finansowej*, PWE, Warszawa 2007, p. 11

<sup>4</sup> A. Kopiński, *Analiza finansowa banku*, PWE, Warszawa 2008, p. 9

<sup>5</sup> Ibidem, pp. 16, 19, 23

<sup>6</sup> B. Pomykalska, P. Pomykalski, *Analiza finansowa przedsiębiorstwa*, PWN, Warszawa 2007, p. 15

<sup>7</sup> M. Zaleska, *Ocena sytuacji ekonomiczno – finansowej banku*, [in:] *Współczesna bankowość. Tom 1*, edited by M. Zaleska, Difin, Warszawa 2007, pp. 596-597

<sup>8</sup> *Ustawa z dnia 29.09.1994 r. o rachunkowości*, Dz. U. 2013 No 0, pos. 330 [t. j.] as amended, art. 64 par. 1, art. 69 par. 1, art. 70 par. 1 and 2

<sup>9</sup> *Ustawa z dnia 16.09.2011 r. o redukcji niektórych obowiązków obywateli i przedsiębiorców*, Dz. U. 2011 No 232, pos. 1378, art. 4 point 6

<sup>10</sup> M. Iwanicz – Drozdowska, W. L. Jaworski, Z. Zawadzka, *Bankowość. Zagadnienia podstawowe*, Poltext, Warszawa 2006, p. 210; E. Popowska, W. Wąsowski, *Rachunkowość bankowa po zmianach*, Difin, Warszawa 2008, p. 29

<sup>11</sup> *Ustawa z dnia 29.09.1994 r. o rachunkowości*, Dz. U. 2013 No 0, pos. 330 [t. j.] as amended, art. 45 par. 2 and 3

<sup>12</sup> *Ustawa z dnia 29.08.1997 r. o NBP*, Dz. U. 2013 No 0, pos. 908 [t. j.] as amended, art. 23 par. 2 and 3

<sup>13</sup> *Zarządzenie nr 3/2014 Prezesa NBP z dnia 5.02.2014 r. w sprawie zakresu, trybu i terminów przekazywania przez banki objęte obowiązkowym systemem gwarantowania informacji do BFG*, Dz. Urz. NBP 2014, pos.1

<sup>14</sup> E. Popowska, W. Wąsowski, op. cit., p.460

## 2. Operating banks as an entity of the financial analysis

### 2.1. Definition and scope of the bank activity

According to the law, "the bank is a legal person established in accordance with the provisions of laws, acting on the basis of authorization to perform banking activities which are exposed to risk of financial repayable resources entrusted in any way"<sup>15</sup>

Banks belong to the monetary financial institutions participating in the creation of money. Credit value has an impact on consumer spending and investment, and - indirectly - on the processes taking place in the sphere of real economy. An important feature is the fact that performing a function of the intermediary banks make the transformation of funds, deadlines and risk<sup>16</sup>.

Closed catalog of banking operations that can be performed after obtaining FSA permission are in the Act<sup>17</sup>. The first group of banking operations are those, whose execution is only reserved for banks. These are the activities, which can be done directly by other entities, if they are authorized by law. (for example granting of loans by credit unions<sup>18</sup> or providing consumer loans<sup>19</sup>) The second group of banking operations (in the broad sense) are those, which under the act of law become banking activities, if carried out by the banks.

Banking operations can be defined as an agreement between the bank and the client, in which the bank offers its services, and the client is the recipient. From the point of view of the main subject of the article, the classical division of banking operations originating from the balance division into active and passive, will be the most useful<sup>20</sup>. According to that we can differentiate:

- Passive operations - they involve the accumulation of foreign capital in order to invest it in active operations. They are reflected in the balance sheet liabilities of the bank, which become customers' debtor. They are the source of the costs associated with raising capital, such as Custody, issue of securities, refinancing loan.
- Active operations – they involve the use of funds in the form of grant loans and placing them at profitable ventures. They are reflected in the balance sheet assets, which become their client's creditor. A characteristic feature is that the bank acts on its own account and risk. They are the source of revenue.
- Intermediary operations - off-balance sheet, involving clients' orders fulfillment. They are the source of income in the form of fees and charges. An example of that might be maintaining bank accounts and clearing, indirectly in securities, providing guarantees and warranties, financial advice, etc.

### 2.2. Characteristics of the banking sector in Poland

The Polish banking sector consists of state-owned banks also in a form of joint-stock companies (classified as commercial banks), cooperative banks and credit institutions. The number of banks and credit institutions and the number of branches and the level of employment is shown in Table 1.

Table 1

Selected operating characteristics of the banking sector in Poland in 2010-2013

Item	2010	2011	2012	2013
1	2	3	4	5
Number of banks and credit institutions	646	642	642	640
Number of commercial banks	49	47	45	41
Number of credit institutions	21	21	25	28
Number of cooperative banks, including:	576	574	572	571
- Affiliated to the BPS SA	359	366	365	364

<sup>15</sup> Ustawa z dnia 29.08.1997 r. Prawo bankowe, Dz. U. 2012 No 0, pos. 1376 [t. j.] as amended, art. 2

<sup>16</sup> M. Iwanicz – Drozdowska, W. L. Jaworski, Z. Zawadzka, op. cit., pp. 19-20; R. Rumiński, *Banki i systemy bankowe* [in:] *Elementy finansów i bankowości*, edited by S. Flejterski, B. Świecka, CeDeWu, Warszawa 2007, pp. 136–137

<sup>17</sup> Ustawa z dnia 29.08.1997 r. Prawo bankowe, Dz. U. 2012 No 0, pos. 1376 [t. j.] as amended, art. 5 par. 1 and 2 and art. 6

<sup>18</sup> Ustawa z dnia 5.11.2009 r. o skok, Dz. U. 2012 No 0, pos. 855 as amended, art. 3 p. 1

<sup>19</sup> Ustawa z dnia 12.05.2011 r. o kredycie konsumenckim, Dz. U. No 126, pos. 715 as amended, art. 1 and art. 5 point 2 and 3

<sup>20</sup> M. Iwanicz – Drozdowska, W. L. Jaworski, Z. Zawadzka, op. cit., pp. 115-116

Continue of table 1

1	2	3	4	5
- Affiliated to the GBW SA (SGB Bank SA)	150	207	206	206
- Affiliated to the MBR SA	66	-	-	-
- not- affiliated	1	1	1	1
The level of employment in the banking sector	176.916	176.658	175.094	174.331
Number of branches in the banking sector	14.207	13.921	15.412	15.297
Share in the assets of the banking sector banks controlled by foreign investors (in%)	66,2	65,0	63,6	63,2

Source: Author's own elaboration based on the *Raport o sytuacji banków w 2012 (2013) r.*, KNF, Warszawa 2013 (2014), pp. 22 (21).

Number of institutions in the banking sector is slowly reduced. Among the commercial banks, one is an entity of the state (BGK) and the rest are joint stock companies, most of which (like all credit institutions) are controlled by foreign investors. In 2013, controlling stakes were owned by investors from 17 countries, with the dominant role played by investors from Italy, Germany, The Netherlands and Spain<sup>21</sup>. In the analyzed period the number of cooperative banks was still decreasing and only one of them operates independently. The rest is now affiliated in two affiliated banks: BPS SA and SGB Bank SA (resulting from the combination of GBW SA and MBR SA). They are entirely owned by domestic investors. The position of the banking sector in the Polish financial system measured by the value of assets is included in the Table 2.

Table 2

**The assets of the financial system in 2010-2012 (in billion zł.)**

Item	2010	2011	2012	2013
The financial system in total	1660,1	1791,1	2093,5	2261,9
The banking sector	1159,4	1294,6	1350,2	1407,2
Credit unions	14,0	15,2	16,9	19,1
The insurance sector (insurance companies)	145,2	146,2	162,7	167,6
Pension fund management companies (assets of members)	221,5	224,7	269,6	299,3
Investment funds	120,1	114,4	159,8	212,2
Customer assets in brokerage houses	-	-	134,4	156,5

Source: Author's own elaboration based on the *Raport o sytuacji banków w 2012 (2013) r.*, op. cit., p 24 (23).

As shown in the table, the assets of the banking sector constitute, throughout the whole period, more than 60% of the assets of the financial system in Poland. At the same time the assets of the largest banks were comparable or higher than the assets of other segments. It must be kept in mind that some of the entities from other segments of the financial market are also controlled by the banks.

### **3. Analysis of the operating banks sector in 2010-2012**

#### **3.1. Preliminary analysis of financial statements**

To measure reporting data changes in the preliminary analysis of the bank financial statements, similar method as in the case of other units, i.e. absolute indicators, structure indicators and dynamics indicators, are used.

Analyzing data from the balance sheet, the attention should be paid to changes in liquid assets, those at risks, operating and non-performing, and the size and structure of own funds and liabilities, with particular emphasis on deposits<sup>22</sup>.

<sup>21</sup> *Raport o sytuacji banków w 2013 r.*, KNF, Warszawa 2014, p. 22

<sup>22</sup> K. Jankowska, K. Baliński, *Rachunkowość bankowa. Podręcznik*, Difin, Warszawa 2004, p. 228; A. Kopiński, op. cit., pp. 82-101

Preliminary analysis of the profit and loss account makes it possible to identify the determinants which influence mostly financial profit of the bank, or the level of revenues or incurred costs.

Preliminary analysis of the cash flow statement can help to determine from which areas of activity, the bank obtained the cash/funds and in which activity areas the funds were invested<sup>23</sup>. Besides it enables to assess the bank taking into account using liquid assets and funds disposing. On the other hand, the analysis of the statement of changes in equity, shows the changes of its level in the given period, indicating their reasons, such as loss cover, allocating part of the profit to increase its own funds, and a new issue of shares<sup>24</sup>.

Due to the limitation of the article capacity, the preliminary analysis will only be subjected to a balance sheet and profit and loss account. The size and dynamics of the financing sources are included in the table 3.

Table 3

**Selected liabilities of the banking sector**

Description	The billion zł				Dynamics in %		
	2010	2011	2012	2013	2011/ 2010	2012/ 2011	2013/ 2012
LIABILITIES IN TOTAL	1159,4	1294,6	1350,2	1407,2	111,7	104,3	104,2
LIABILITIES	1043,5	1165,7	1203,7	1253,3	111,7	103,3	104,1
1. Deposits and loans of the financial sector	244,8	266,6	252,1	257,6	108,9	94,6	102,2
2. Deposits of non-financial sector, including:	620,4	698,7	724,0	775,4	112,6	103,6	107,1
- Households	422,4	477,4	516,0	548,2	113,0	108,1	106,2
- Enterprises	182,8	206,0	191,3	209,7	112,7	92,9	109,6
- Various not - for - profit institutions	15,2	15,3	16,7	17,5	100,7	109,2	104,8
3. Budget sector deposits	53,0	49,0	59,8	55,4	92,5	122,0	92,6
4. Liabilities due to own emissions	24,4	42,8	52,7	53,8	175,4	123,1	102,1
5. Subordinated liabilities	9,7	10,1	8,0	7,0	104,1	79,2	87,5
6. Other	91,2	98,5	107,1	104,1	108,0	108,7	97,2
EQUITIES	115,9	128,9	146,5	153,9	111,2	113,7	105,1

Source: Author's own elaboration based on the *Raport o sytuacji banków w 2012 (2013) r.*, op. cit., pp. 24 and 60 (23 and 52).

In the analyzed period, with the increase of the total balance sheet, both the capital and bank liabilities were growing, while from 2012 the growth rate of capital was higher than the growth rate of liabilities. Among the liabilities, the main item were the deposits, and in particular the non-financial sector deposits, the amount of which gradually grew. The structure of the liabilities is shown in graph 1.

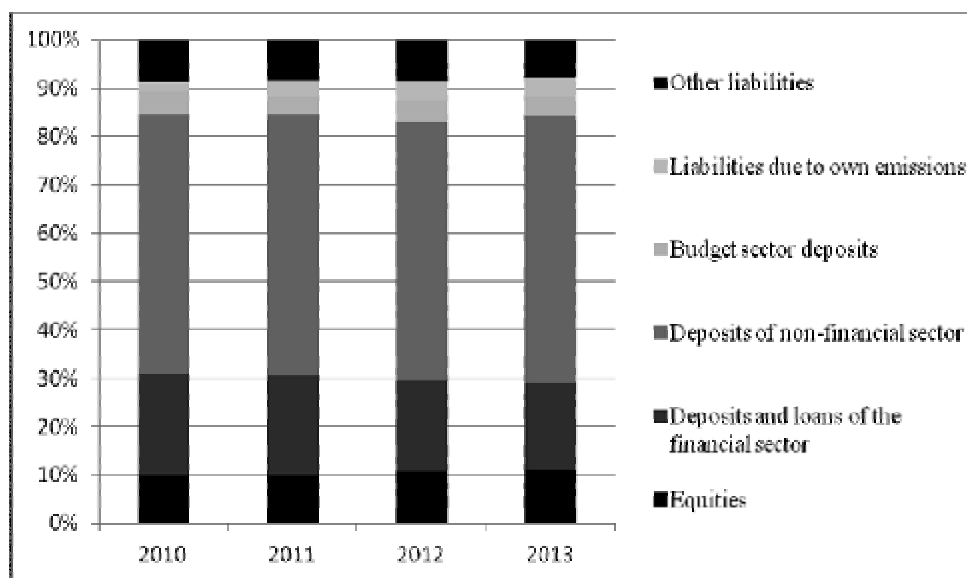
Throughout the period, the share of own equity in financing sources fluctuated around 10%. The largest share, within the limits of 53,5–55,1% had the deposits of non-financial sector and in second place – there were deposits and loans of the financial sector (18-21%). Table 4 shows the account of capital adequacy of banks.

<sup>23</sup> See more: A. Kopiński, op. cit., pp. 125-131

<sup>24</sup> M. Iwanicz – Drozdowska, W. L. Jaworski, Z. Zawadzka, op. cit. p. 213; see more: A. Kopiński, op. cit., pp. 132-135

Graph 1

## The structure of banks activities financing sources



Source: Author's own calculations based on Table 3

Table 4

## Capital adequacy of banks (in billion zł)

Item	2010	2011	2012	2013
Own funds	100,6	110,7	129,0	139,4
The total capital requirement, including:	58,2	67,6	70,0	70,8
- credit risk	50,9	59,7	60,9	61,8
- operational risk	6,1	6,4	6,5	6,7
- other types of risk	1,2	1,5	2,6	2,3
Surplus/shortage of own funds	42,4	43,1	59,0	68,6

Source: Author's own elaboration based on the *Raport o sytuacji banków w 2012 (2013) r.*, op. cit., p. 26 (25)

From year to year, both the level of own funds<sup>25</sup> and total capital requirement were increasing, and the credit risk had the greatest impact on that. The appearing of own funds surplus means that banks' capital was maintained at adequate level to the taken risks.

As part of bank active operations, the obtained funds are engaged primarily in credit activity. The amount and dynamics of the assets is shown in Table 5.

Table 5

## Selected assets of the banking sector

Description	In billion zł				Dynamics %		
	2010	2011	2012	2013	2011/ 2010	2012/ 2011	2013/ 2012
Assets in Total	1159,4	1294,6	1350,2	1407,2	111,7	104,3	104,2
LIQUID ASSETS	350,1	355,4	383,0	410,2	101,5	107,8	107,1
1. Cash and deposits in the central bank	50,4	40,3	71,4	55,0	79,9	177,2	77,0
2. Receivables from banks	68,5	71,8	73,6	76,6	104,8	102,5	104,1
3. Debt and equity instruments	231,2	243,3	238,0	278,6	105,2	97,8	117,1

<sup>25</sup> As a result of funding, a part of the profits for 2012 and 2013, the sale of shares held in other banks, which resulted in decrease of their position reducing their own funds and obtaining additional resources from the owner, *Raport o sytuacji banków w 2013 r.*, op. cit., p. 25

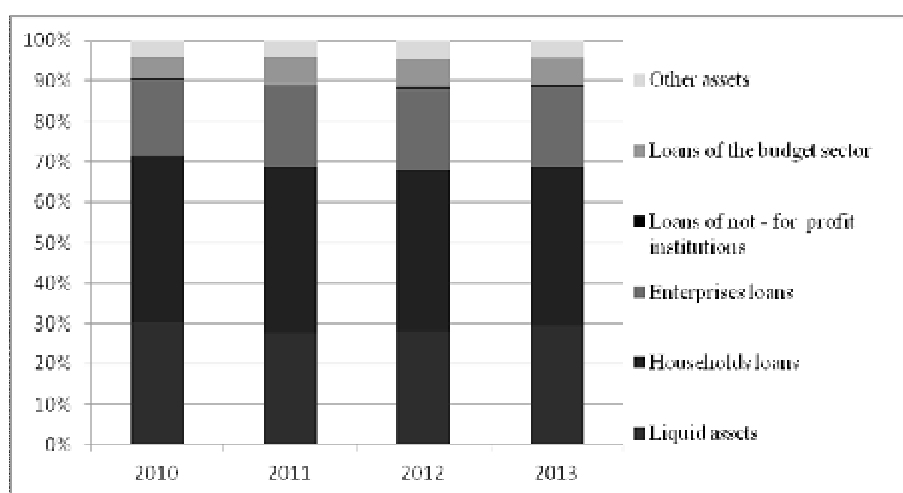
LOANS OF THE NON - FINANCIAL SECTOR	698,5	800,7	810,3	838,8	114,6	101,2	103,5
1. Households	475,4	532,0	533,2	555,5	111,9	100,2	104,2
2. Enterprises	219,7	264,5	272,2	278,0	120,4	102,9	102,1
3. Not - for profit institutions	3,4	4,2	4,9	5,3	123,5	116,7	108,2
LOANS OF THE BUDGET SECTOR	63,4	84,8	92,0	92,7	133,8	108,5	100,8
OTHER ASSETS	47,4	53,7	64,9	65,5	113,3	120,9	100,9

Source: Author's own elaboration based on the *Raport o sytuacji banków w 2012 (2013) r.*, op. cit., pp. 41 and 58 (40 and 50)

As the table shows, in the analyzed period, both liquid assets and the loans of non-financial and budget sector gradually increased. The structure of assets in the period between 2010-2013 is shown in graph 2.

Graph 2

The structure of assets in the banking sector



Source: Author's own elaboration based on Table 4

The largest share of the assets had the loans of non-financial sector, including households loans (39,5-41,1%) and enterprise loans (18,9-20,4%) and liquid assets (27,5-30,2%). In 2013, the share of loans to non-financial assets, for the first time in several years, fell below 60% (59.6%)

In addition to the balance sheet, the level of financial profit and the factors that influenced its amount, will be subject to a preliminary analysis. The data source in this case is going to be the profit and loss account whose selected items were included in the Table 6.

Table 6

Selected items of the profit and loss account of the banking sector

Description	In million zł				Dynamics in %		
	2010	2011	2012	2013	2011/ 2010	2012/ 2011	2013/ 2012
NET BANKING OPERATIONS	53083	57305	58773	55496	107,9	102,6	102,6
1. From the interests	30899	34979	35484	34141	113,2	101,4	96,2
2. From fees and commissions	13755	14283	14336	14002	103,8	100,4	97,7
3. Other items	8429	8042	8953	7353	95,4	111,3	82,1
OPERATING COSTS	25477	26864	27785	27558	136,1	103,4	99,2
NET PROFIT	11420	15539	15467	15426	136,1	99,5	99,7

Source: Author's own elaboration based on the *Raport o sytuacji banków w 2012 (2013) r.*, op. cit., pp. 32 and 38 (31).



The financial profit of the banking activities increased, but the net profit between 2012 and 2013, fell slightly. The largest factor in creating the result of the banking activity was the profit from interests (58-61%). The profit from fees and commissions was shaping up at the level of 24,4-25,9%. Banks tried to stop reducing the financial profit by controlling the costs more, so in 2013 the operating costs were significantly lowered.

Opinions formulated at the stage of preliminary analysis should be verified further in ratio analysis, which will be discussed below.

### 3.2. Ratio analysis of financial situation

In the case of ratio analysis financial indicators are calculated, illustrating the relationship between the tested amounts. They are used to assess different areas and aspects of the bank's activities. They can be compared in terms of dynamic, relationship to other banks of a similar scale and profile of activities and planned and recommended amounts<sup>26</sup>.

One of the key areas is the evaluation of solvency and liquidity. Banks are obliged to maintain capital adequacy ratio at the required level<sup>27</sup>. From 01.01.2014 the new rules, however, apply to capital adequacy, determined by the so-called package CRR / CRD IV<sup>28</sup>. CRR Regulation took effect immediately in all EU Member States, while the CRD IV directive requires adjustment to the Polish law. Until that time, the Chairman of the Financial Supervision Authority upheld the recommendation that all banks should have capital adequacy ratio (CAR) of 12% and the Tier 1 ratio of 9%<sup>29</sup>. The measures of liquidity and solvency of banks are presented in Table 7.

Table 7

**The measures of liquidity and solvency of the banking sector**

Item	2010	2011	2012	2013
Capital adequacy ratio (in %)				
CAR	13,8	13,1	14,7	15,8
Tier 1	12,4	11,7	13,1	14,2
Selected measures of liquidity				
A. Short-term liquidity gap (in billion zł)	142,4	140,2	154,2	156,0
B. Short – term liquidity ratio	1,56	1,46	1,53	1,50
C. Surplus/shortage of deposits from non-financial sector to the loans of that sector (in billion zł)	-49,4	-102,0	-86,3	-63,4
D. Loans/deposits ratio (in %)	107,9	114,6	111,9	108,2

Source: Author's own elaboration based on the table 3 and 5 and the *Raport o sytuacji banków w 2012 (2013) r.*, op. cit., p.29 (29)

Both capital adequacy ratios are maintained at a level higher than required. Despite good current situation it is recommended to maintain a strong capital base, and in the case of other banks further strengthening is recommended. The level of short-term liquidity is satisfactory. Banks maintained positive liquidity gap and liquidity ratio > 1. Since 2012, the gradual reduction of deposits shortage and the improvement of the ratio of loans to deposits have been a positive phenomenon.

To evaluate the efficiency of banks, measures included in Table 8, are used.

<sup>26</sup> See more: T. Galbarczyk, *Analiza finansowa przedsiębiorstwa bankowego a jego wizerunek* [in:] *Audyt zewnętrzny sprawozdania finansowego a wiarygodność [wizerunek] przedsiębiorstwa*, edited by H. Żukowska, A. Janik, wyd. KUL, Lublin 2012, pp. 433-455

<sup>27</sup> *Ustawa z dnia 29.08.1997 r. Prawo bankowe*, Dz. U. 2012 No 0, pos. 1376 [t. j.] as amended, art. 128 par. 1 point 3

<sup>28</sup> The CRD IV / CRR includes: Regulation of the European Parliament and of the Council (EU) No 575/2013 of 26.06. 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 and Directive of the European Parliament and of the Council of 26.06.2013 2013/36/UE on the conditions for admission to the activity of credit institutions and prudential supervision of credit institutions and investment firms and amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

<sup>29</sup> *Raport o sytuacji banków w 2013 r.*, KNF, Warszawa 2014, p. 28

Table 8

## Selected measures of the efficiency of the banking sector

Item	2010	2011	2012	2013
CI (cost/income)	52,26	50,61	50,86	53,25
NIM (net interest income/average assets interest income)	3,20	3,27	3,19	2,81
ROA (net income / average assets)	1,03	1,26	1,22	1,10
ROE (net income/ average equity fund)	10,21	12,30	11,16	10,09
Assets per employee (in million zł)	6,6	7,3	7,9	8,1
Personnel costs per employee ( in thousands zł)	81,0	83,0	89,9	88,5
Gross profit per employee ( in thousands zł)	89,0	112,8	114,5	111,2

Source: Author's own elaboration based on the Raport o sytuacji banków w 2012 (2013) r., op. cit, p 38 (37).

The consequence of the weakening of the financial profits was the deterioration of the basic measures of effectiveness, in particular, the net interest margin (from 3.27% in 2011 to 2.81% in 2013) and the increase in the cost ratio (from 50.61 to 53.3) despite the limitations of operating costs. In the case of ROE, an additional factor that influenced its reduction (from 12.3 to 10.1) was the increase of equity which was a positive phenomenon.

**Summary/Conclusions.** The role of banks in the economy is steadily growing. To prove that we can observe a growing share of banking sector assets to GDP (from 55% in 1999 to 86% in 2013) in recent years<sup>30</sup>. In the analyzed period, the capital base strengthening and improving of the main measures of capital adequacy, have been noticed. The characteristic feature of the capital structure of Polish banking sector is the dominance of the equity of the highest quality, which enhances its stability and security<sup>31</sup>. The situation regarding the current liquidity remains good, but further efforts to increase the stability of funding sources are necessary. The financial profit of the banking activities in subsequent years was increasing, but the net profit in years 2012 and 2013 fell slightly. The consequence of the financial profit weakening was deterioration of the key effectiveness measures, and in particular, the net interest margin and the cost increase, despite the limitations of operating costs. In years 2012-2013 ROA and ROE ratios also deteriorated. Although in the second half of 2012 and the first half of 2013 a strong slowdown of the Polish economy was observed, the situation of the banking sector remained stable.

1. *Encyklopedia popularna PWN*, PWN, Warszawa 1982. 2. *Gabrusewicz W., Podstawy analizy finansowej*, PWE, Warszawa 2007. 3. *Galbarczyk T., Analiza finansowa przedsiębiorstwa bankowego a jego wizerunek (in:) Audyt zewnętrzny sprawozdania finansowego a wiarygodność (wizerunek) przedsiębiorstwa* edited by H. Żukowska, A. Janik, wyd. KUL, Lublin 2012. 4. *Iwanicz – Drozdowska M., Jaworski W. L., Zawadzka Z., Bankowość. Zagadnienia podstawowe*, Poltext, Warszawa 2006. 5. *Jankowska K., Baliński K., Rachunkowość bankowa. Podręcznik*, Difin, Warszawa 2004. 6. *Kopiński A., Analiza finansowa banku*, PWE, Warszawa 2008. 7. *Pomykańska B., Pomykański P., Analiza finansowa przedsiębiorstwa*, PWN, Warszawa 2007. 8. *Popowska E., Wąsowski W., Rachunkowość bankowa po zmianach*, Difin, Warszawa 2008. 9. *Raport o sytuacji banków w 2012 r.*, KNF, Warszawa 2013. 10. *Raport o sytuacji banków w 2013 r.*, KNF, Warszawa 2014. 11. *Rumiński R., Banki i systemy bankowe (in:) Elementy finansów i bankowości* edited by S. Flejterski, B. Świecka, CeDeWu, Warszawa 2007. 12. *Ustawa z dnia 29.09.1994 r. o rachunkowości*, Dz. U. 2013 No 0, pos. 330 (t. j.) as amended. 13. *Ustawa z dnia 29.08.1997 r. o NBP*, Dz. U. 2013 No 0, pos. 908, (t. j.) as amended. 14. *Ustawa z dnia 29.08.1997 r. Prawo bankowe*, Dz. U. 2012 No 0, pos. 1376 (t. j.) as amended. 15. *Ustawa z dnia 5.11.2009 r. o skok*, Dz. U. 2012 No 0, pos. 855 as amended. 16. *Ustawa z dnia 12.05.2011 r. o kredycie konsumenckim*, Dz. U. No 126, pos. 715 as amended. 17. *Ustawa z dnia 16.09.2011 r. o redukcji niektórych obowiązków obywateli i przedsiębiorców*, Dz. U. 2011 No 232, pos. 1378. 18. *Zaleska M., Ocena sytuacji ekonomiczno – finansowej banku (in:) Współczesna bankowość. Tom 1* edited by M. Zaleska, Difin, Warszawa 2007. 19. *Zarządzenie nr 3/2014 Prezesa NBP z dnia 5.02.2014 r. w sprawie zakresu, trybu i terminów przekazywania przez banki objęte obowiązkowym systemem gwarantowania*, Dz. Urz. NBP 2014, pos.1

<sup>30</sup> Ibidem, p. 24

<sup>31</sup> *Raport o sytuacji banków w 2012 r.*, KNF, Warszawa 2013, p. 63