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The impact of selected recommendations of Polish banking supervision on banks' credit exposure secured by mortgage

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Abstract

Trends in the segment of credit exposures secured by mortgage are subject to detailed analysis both in Poland and in other countries. This interest results from the often unfavourable structure of this type of exposure, which constitutes a high share in banks' loans in total. This situation stems from the predominantly improper lending policy of banks depending their activity on lending in the real estate market, mainly houses. Too high a concentration in one segment of activity exposes banks to too great a risk. To reduce the risk, international and national financial supervision introduces regulations which touch on many aspects of housing loans. The aim of the article is to assess and analyse the impact of selected regulations of the Polish financial supervision on the banks' credit exposure secured by mortgage. The study covered the years 2006-2015. The analysis has shown that the recommendations of the banking supervision with regard to credit exposures secured by mortgages are not an entirely effective instrument. On one hand, the banks react thereto by limiting lending, whereas they do not take into consideration the exact recommendations as to the structure of these exposures. Perhaps the manner of enforcing recommended changes or the character thereof, adopting a form of solely recommendations of good practices, might be inefficient.

Introduction

At a certain point of increasing incomes within the activity of an entity focused on maximising profit, the reasonableness of activity might decline, which, in the case of banks as public trust institutions, can cause adverse consequences for the whole economy. The collapse of Lehman Brothers, which in 2008 started the global financial crisis, constituting a threat to European banking institutions, constitutes an example of the aforementioned.

The impulse that sparked the crisis comprised increasing regulations in the banking sector. The process of tightening regulations was initiated by international organisations and predominantly by the Basel Committee on Banking Supervision regulations, which were adopted by national banking supervision institutions.

Supervision institutions should avoid over-regulation so that established prudential standards can contribute to the improvement of banks' safety, protection of their clients, and to prevent crises. Overregulation can manifest itself in too detailed and not transparent enough norms. Such a complaint was made against European regulations owing to too many recommendations and directing the same requirements towards small banks providing loan and deposit services as well as towards investment institutions (Koleśnik 2014).

One of the highest shares in the total number of loans is the exposure of mortgages, that are subject to frequent analyzes[1]. This interest results from the often unfavourable structure of this type of exposure, which constitutes a high share in banks' loans in total. This situation stems from the predominantly improper lending policy of banks depending their activity on lending in the real estate market, mainly houses. Too high a concentration in one segment of activity exposes banks to too great a risk. Therefore, they should diversify undertaken activities while being governed by rationality (Rolski 2014). Supervisory regulations, both international and domestic, could prove helpful. In the case of credit exposures secured by mortgage, these are quantitative and qualitative regulations that should be adhered to by the banks in order to protect themselves against the insolvency of borrowers and, as a consequence, their own. Recommendations touch on many aspects of housing loans. Among others, it is recommended to stipulate in detail the longest possible period of lending, the LTV[2] ratio, and to limit granting foreign currency loans. These elements constitute components of calculating creditworthiness in banks.

The aim of the article is to assess and analyse the impact of selected regulations of the Polish financial supervision on the banks' credit exposure secured by mortgage. The study covered the years 2006-2015, that is, the period during which the Polish Financial Supervision Authority undertook enhanced activities in order to regulate the situation in the mortgage market. These activities adopted, among others, a form of new or updated directives in recommendations targeted at banks in Poland. Additionally, for comparison purposes, the Polish mortgage market was presented against the mortgage market in the European Union.
The introduction of recommendations was compared with the quantitative and qualitative status of housing loans in consecutive years, which allowed the assessment of their impact on the mortgage market.

1. A review of the most important regulations of the banking supervision with reference to mortgages

The development of the banking sector, the most important segment for raising capital in every economy, is conditioned predominantly by an effective financial supervision, the reform of which has been conducted in recent years by virtually every country. The effectiveness of the banking supervision impact in some aspects has many times been subjected to research and publications, mainly foreign ones. On the grounds thereof, many weaknesses of the supervision, which failed to limit the consequences of the crisis from the years 2007-2008, were indicated. These include, among others, ineffective communication between the domestic supervisor and foreign bodies, a lack of awareness of the risk resulting from the development of innovative financial services, as well as reasons originating from the banking system (e.g. banks' lending policy). Researchers concluded that the effectiveness of the banking supervision is decided by several key features. These include: up-to-date regulations, continuous activity of the supervisor, and reacting in advance (Zamorski, Lee 2015). The supervisor should detect early both negative and positive signals of the economic situation, not only in its own country, but also in the international arena. Such impulses can swiftly transfer via various transmission channels between countries.

Foreign authors have been studying, among other things, the impact of the Basel regulations on domestic supervisory regulations. Studies on the effectiveness of the banking supervision were undertaken both before and after the crisis period. An example can be

[1] Credit exposure related with financing real estate with regard to which a collateral has been established in the form of a mortgage, or a mortgage constitutes a target collateral.
[2] Ratio expressing the relation of the value of credit exposure to the value of the real estate.

provided by the study on the impact of three pillars of the Basel II recommendations on selected European countries in the years 2000-2006 with the use of the Data Envelopment Analysis (DEA) model. The results of the analysis indicated that bigger banks acting in more competitive countries operate under more effective supervisory institutions. Moreover, the effectiveness of regulations is also influenced by the political climate (Chortareas, Girardone, Ventouri 2010).

The subject of the effectiveness of regulations with regard to the banks' lending policy is often touched on. The authors of the report published by the Capgemini Group[3] consider the impact of the regulations of the banking sector on the volume of loans and interest rates thereof. The regulations can influence the decrease in the volume of loans in a short period of time due to the pressure of banks to diminish highly risky assets in their portfolios. Simultaneously, increased capital requirements can contribute to an increase in granting loans in other economy sectors, while withdrawing from risk sectors, mainly the commercial real estate sector and loans granted to entrepreneurs. In the long term, the number of granted loans is re-increased. On the other hand, the increased capital requirements also result in an increase in the interest rates of loans. Conducted studies proved that this effect is greater in the USA than in Europe or Japan (Capgemini 2014). With regard to the immense pressure on the regulations of the mortgage market, attempts to analyse relations in this scope have also been undertaken. Such studies were also conducted in India in 2014. The period from 1995 to 2010, when the government introduced mortgage market regulations, was considered. The studies were based on a non-continuous regression model, the results of which proved that even small amendments of regulations can have a significant impact on the situation and risk of mortgages (Campbell, Ramadorai, Ranish 2014).

In Poland the mortgage market is also subjected to analyses of the impact of regulatory factors on the condition thereof. According to Szponarowicz, determinants of the unfavourable situation in the mortgage market stem from the demand (buyers) as well as the supply (banks). He classified a change in mental attitudes taken from Western markets, a change in the place of residence as a result of starting studies in another city or town, treating a flat as an investment, as well as an improvement in the general macroeconomic situation (an increase in GDP and people's incomes with a simultaneous drop in unemployment) as demand factors. Whereas, the banks were liable for enabling borrowers to run into debt by taking a mortgage in the form of lower margins, a lower value of required mortgage collateral, or a prolonged lending period (Szponarowicz 2010, Grzelec 2007). Furthermore, bank entities over-positively assessed the future macro-economic situation that was supported with an increase in the prices of flats (Kowalczyk-Rólczyńska 2011). The aforementioned considerations imply that the consequences of the situation should not only be attributed to the banks depending on relatively stable economic conditions and bigger willingness to undertake risk resulting from the desire to increase profits. Real estate buyers who had disregarded the risk of long-term indebtedness and undertook such obligations are also responsible.

With regard to the impact of the regulations on the market of housing loans in Poland, the analysis of the results of Recommendation S as the most important regulation in the area of housing loans is underlined (Kurkliński 2012, Willmann 2013, Grzelec 2007). Sometimes, it is also compared with Recommendation T, which mainly refers to retail loans in total. In these articles, the authors analyse the international regulatory environment (mainly the decisions of the Basel Committee on Banking Supervision), then they refer in detail to the changes in the enumerated recommendations by referring them to the structure of granted mortgages (Willmann 2013, Kurkliński 2012). A similar attitude is presented by the majority of studies

[3] Capgemini Group, an enterprise providing integrated services in the scope of: consulting, IT and outsourcing; publishes reports from various areas.

on the Recommendations of the Polish Financial Supervision Authority. Such analyses are of a comparative and descriptive character and do not go into too much detail with regard to other reasons for the status of the housing loans market. According to Kasiewicz, this character of the conducted studies constitutes a great weakness thereof. This author deplores the advancement of methods applied in the assessment of normative acts, including banking regulations. He rightly observes that statistical and econometric models are no longer used in assessing the effectiveness of regulations (Kasiewicz 2012). He proposes the use of the method of analysing the benefits and costs. Furthermore, he presents the use of the model of assessing the adherence to the proportionality principles with an example of an analysis of Recommendation U (Kasiewicz 2014). This method constitutes an interesting approach, however, the difficulty of such an analysis is the lack of access to the majority of detailed information being in the sole possession of banks, and the subjectivity of the scoring system.

The review of the methods of the assessment of the impact of banking supervision regulations on the phenomena constituting the subject thereof, both by Polish and foreign authors, implies that the descriptive and comparative methods are the most frequently used. This method, with the addition of econometric methods, shall also be used in these studies.

In the scope of the banking supervision over the European Union Member States, the European Commission pays particular notice to the protection of consumers, both in the consumption and housing loans market. Nevertheless, the emphasis is put on the issues related with housing loans, since they are related with a much higher risk in comparison with other transactions. The indebtedness of the residents of the European Union under a housing loan agreement constitutes the biggest liabilities (Penczar 2010). In relation to growing European integration, demonstrated by an increase in the relations of the Member States in all areas of activity, the concept of establishing a uniform mortgage market has also occurred.

In Poland the supervision over the financial market, including the banking sector, has been conducted since 2006 by the Polish Financial Supervision Authority. The financial crisis constituted a period of trial for a relatively new institution that had been in existence for only two years. The new authority predominantly focused on regulating the situation in the mortgage market. The most popular instrument that enables it to influence banks comprises recommendations, despite the fact that, as in the whole of the European Union, they are not of a binding character. The most important regulations in the scope of housing loans include:

- *Recommendation F regarding basic criteria used by the Polish Financial Supervision Authority while approving the rules of stipulating a banking – mortgage value of the real estate issued by mortgage banks.*

This recommendation entered into force on 12 November 1998 and was amended in 2014. It is related with the Banking Law Act, in which the term “banking - mortgage value of the real estate” was used for the first time, and it was defined as the maximum amount for which a mortgage can be granted. This recommendation is targeted only at mortgage banks. It is of a purely qualitative character as it constitutes a set of guidelines regarding the process of stipulating the “banking – mortgage value of the real estate”.

- *Recommendation J concerning the principles of storing and processing data on real estate by the banks*

This Recommendation was established in 2000 and it was amended only once – in 2012. It is especially targeted at banks engaged in credit exposures secured by mortgage, and also at mortgage banks. It underlines the importance of reliable databases on real estate in a credit assessment.

The amendment of this Recommendation entirely altered its structure. It supplements Recommendations S and T and includes information on the requirements against reliable databases as well as specific features of real estate, and underlines the meaning of properly conducted databases on real estate. Similarly as Recommendation F, it also does not include

quantitative criteria that would enable an assessment of its direct impact on the housing loans market.

- *Recommendation K regarding the principles of conducting a registry of securing mortgage bonds by mortgage banks*

The first version of this recommendation comes from 2001, whereas, its amendment comes from 2014. Similarly as Recommendation F, it solely refers to mortgage banks by regulating collaterals of the issuances of mortgage bonds. Whereas the first version of Recommendation K focuses solely on the account of the collateral of mortgage bonds, its amendment also concerns the register of mortgage bonds, since both categories are tightly correlated. This recommendation concerns the issue of safety, protection against losing data, the scope of authority for persons who have access to the registry, etc.

Recommendation K, similarly as F and J, constitutes a set of qualitative requirements as to particular aspects of the internal activity of banks. Therefore, the assessment thereof is hindered to a great extent owing to the lack of quantitative data available in databases. The level of execution thereof can be assessed solely by a supervisory authority by conducting internal controls of a bank, e.g. in the form of "onsite inspections".

- *Recommendation S regarding good practices in the scope of managing credit exposures secured by mortgage*

This recommendation entered into force in 2006. Owing to its key meaning for the development of the structure of credit exposures secured by mortgage, it is quite often updated. It constitutes a set of good practices of managing exposures secured by mortgage, not only financing real estates. It explains a set of reasons that contribute to the risk of such exposures directly related with the bank's financial situation. These include: the relatively young mortgage market, and thus the lack of earlier experience in the scope of mortgage banking, a lack of proper procedures as to the assessment of the risk of volatility of exchange rates and interest rates, as well as reliable databases on real estates and a lack of developed practices within relations with clients in comparison to countries where it constitutes a traditional form of banking, an improperly operating land and mortgage system, as well as an unregulated status of ownership.

The enumerated factors hinder proper assessment of the level of harmfulness generated by the mortgage portfolio. This recommendation constitutes a set of good practices for entities dealing with mortgages. However, due to the differences between the banks and the diversity of conditions in the local market in which they operate, and the directions and intensity of the lending policy applied by them, it should be based on both recommended regulations and the internal conditions of banks (*Recommendation S*, 2013).

From among the discussed recommendations, this one is the only one that includes quantitative requirements regarding the quality of newly granted mortgages, and therefore the results thereof are analysed in many publications. The Polish Financial Supervision Authority amended the aforementioned recommendation three times, and its particular components are discussed later on herein, while discussing changes in the housing loans market.

2. The assessment of the effectiveness of supervisory recommendations on the grounds of an analysis of the situation in the Polish housing loans market

2.1. The situation of the housing loans market in Poland in comparison with the European Union

Housing loans constitute 50% of the GDP of the whole European Union. With regard to disposable income this share amounts to 70%. These high shares prove that housing loans

play a significant role in the European Union's economy. Considering particular states of the Community, Denmark and Holland have the biggest share in generating GDP; these shares exceed 100%. In the majority of countries housing loans' share in GDP and in relation to disposable incomes has been growing. Some Central-Eastern Europe countries, i.e. Bulgaria, Estonia, Lithuania, Latvia, Portugal and Spain constitute exceptions. In Poland, the share of housing loans in GDP constitutes approximately 20%. Considering other European Union Member States, this share is not too high. Nevertheless, in comparison with disposable incomes, it is a decreasing, over 80% share (Table 1).

Table 1. Housing loans share in GDP and in relation to disposable incomes, in %, in the European Union Member States, in the years 2010-2014

	Housing loans share in GDP					Relation of housing loans to disposable incomes				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Austria	27.2	27.2	27.2	27.1	27.5	43.3	44.4	43.7	44.3	45.1
Belgium	44.2	45.3	47.3	47.9	49.1	73.3	76.2	79.6	81.4	83.1
Bulgaria	10.1	8.9	8.7	8.5	8.3	17.4	15.6	15.1	n/a	n/a
Croatia	18.3	18.7	18.9	18.5	18.3	27.8	28.2	28.2	28.1	25.9
Cyprus	62.5	64.4	65.3	65.4	66.4	88	90.1	96	94	98.9
The Czech Republic	11.7	12.1	13.5	13.8	16.6	21	21.9	24.4	25.5	31.2
Denmark	114.5	114.8	114.1	114.3	114	235.4	233.4	231	234.6	237.4
Estonia	40.6	35.9	33.1	31.5	31.1	70.9	64.4	61.1	57.1	54.1
Finland	41	41.5	43.2	43.6	43.7	69.5	71	72.8	72.8	73.7
France	39.8	40.9	41.7	42.6	43.3	59.9	62.3	63.9	65.8	66.4
Germany	44.7	43.1	43	42.9	42.4	68.1	66.2	66	66.1	66
Greece	35.6	37.7	38.4	38.9	38.8	50.9	53.4	54.8	58.2	58.7
Hungary	25.2	21.9	20.2	18.4	16.6	44	36.9	33.9	31.3	29.1
Ireland	63.2	59.5	57.1	54.9	49.4	117.9	117.1	113.4	109.2	101.7
Italy	21.9	22.4	22.6	22.5	22.2	32.1	32.6	33.3	32.9	32.6
Latvia	36.4	29.7	24	21.8	19.5	56.2	50.4	42.1	36.6	32.9
Lithuania	21.4	18.8	17.4	16.7	16.4	31.1	29	27.6	26.2	n/a
Luxemburg	47	48	49.8	50.5	50.7	118.1	123.9	127.4	144.1	153
Malta	40.4	42	42.9	43.7	45.4	205	204.5	208.1	199.7	197.3
Holland	100.1	100.6	101.2	97.1	95.7	29.8	31.2	33.7	33.7	34
Poland	**18.8**	**19.1**	**20.6**	**20.4**	**20**	**88.3**	**91.1**	**91.7**	**88**	**83.9**
Portugal	63.6	64.7	65.6	62.9	59.2	8.8	9.7	n/a	n/a	n/a
Romania	5.3	5.7	6.6	6.5	6.7	25.6	28.5	31.3	33.9	37.6
Slovakia	16.1	17.6	19	20.8	23.1	20.9	21.9	22.9	23.3	23.5
Slovenia	13.4	14	14.6	14.7	14.4	97.9	94.3	93.6	89.7	84.6
Spain	62.9	62	60.8	58.4	55.4	159.7	151	151.7	149	151
Sweden	79.2	76.2	79.1	78	78.8	117.4	121.3	113.8	115.4	116.4
Great Britain	79.3	80	76.1	76.1	75	43.3	44.4	43.7	44.3	45.1
EU 28	50.3	50.2	50.3	49.8	49.6	71.2	71.1	71.8	71.4	70.7
Euro zone	45	44.7	44.9	44.6	44.1	78.5	78.9	79.1	78.7	n/a

Source: author's own study on the grounds of Hypostat 2015 data.

The calculated correlation indexes for all European Union Member States provided the image of the dependency of the housing loans market on the condition of the economy. A strong correlation between the value of these loans and GDP indicates a positive dependency, which implies the statement that an increase in GDP causes an increase in the value of housing loans. The more developed the country, the bigger the volume of loans in this segment. The situation is similar in the case of the correlation of the value of loans and the number of people over 18 years of age and disposable incomes. A bigger number of adult

citizens and growing disposable incomes contribute to increasing the value of housing loans. The correlation between housing loans and their average interest rate is established in the other direction. Its negative value proves that lower interest rates enable increasing the value of housing loans (Table 2).

Table 2. Factors of the correlation of particular ratios constituting the value of housing loans for the European Union Member States

	The value of housing loans and the interest rate	The value of housing loans and GDP	The value of housing loans and the number of people over 18 years of age	The value of housing loans and the amount of disposable income
Austria	-0.64	0.99	0.98	0.99
Belgium	-0.57	0.99	0.41	0.99
Bulgaria	0.33	0.43	-0.16	0.73
Croatia	-0.33	0.94	0.82	0.99
Cyprus	-0.68	0.94	0.95	0.94
The Czech Republic	-0.51	0.92	0.98	0.92
Denmark	-0.50	0.97	0.87	0.97
Estonia	0.07	-0.09	-0.10	-0.09
Finland	-0.02	0.96	0.98	0.99
France	-0.51	0.99	1.00	0.99
Germany	-0.80	0.68	0.12	0.71
Greece	-0.29	0.21	0.82	0.52
Hungary	-0.64	0.82	0.87	0.78
Ireland	0.50	0.70	0.49	0.85
Italy	-0.30	0.86	0.91	0.73
Latvia	0.16	-0.55	0.33	-0.57
Lithuania	-0.03	0.88	0.36	-0.58
Luxemburg	-0.66	0.99	0.99	-0.79
Malta	-0.95	0.99	1.00	n/a*
Holland	0.01	0.97	0.88	0.97
Poland	**-0.44**	**0.97**	**0.96**	**0.96**
Portugal	-0.08	0.93	0.96	0.96
Romania	-0.89	-0.73	0.32	0.01
Slovakia	-0.99	0.96	0.99	0.96
Slovenia	0.13	-0.65	-0.65	-0.65
Spain	0.16	0.93	0.91	0.96
Sweden	-0.36	0.88	0.88	0.88
Great Britain	-0.25	0.79	-0.14	0.85

**not available*

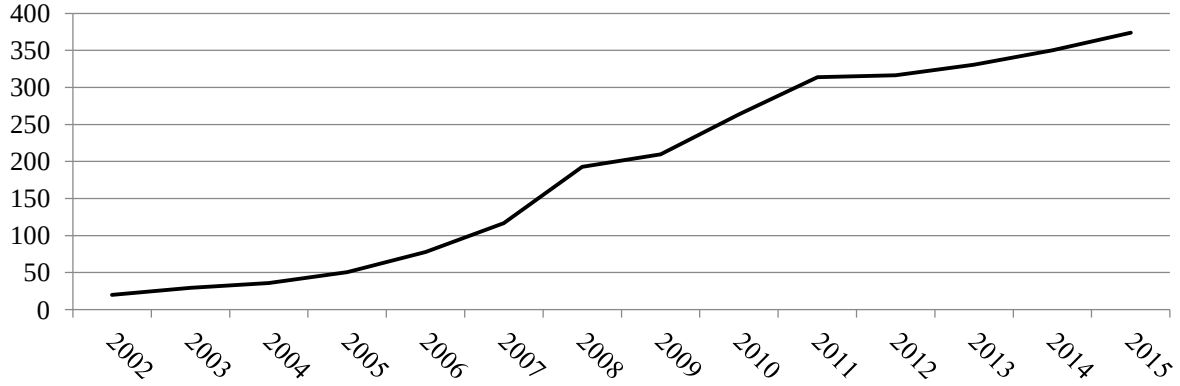
Source: author's own study on the grounds of Hypostat 2015 data.

In the analysed ratios Poland does not stand out in comparison with the other EU states. A study on the correlations: the value of housing loans to GDP (0.97), the value of housing loans to the number of people (0.96), the value of housing loans to the amount of disposable income (0.96) have a similar value to the majority of highly-developed states in the EU, whereas they are different from the majority of countries from Central-Western Europe. This might mean that the mortgage market is more mature in Poland than in the former Eastern Bloc countries. The value of the correlation – the value of housing loans to the interest rate was established at the level – 0.44 and is situated in the middle of rates of the EU Member States.

2.2. Changes in recommendations of the financial supervision and the Polish housing loans market

The level of households' indebtedness due to housing loans in Poland has been growing since the 90s of the 20th century. The biggest dynamics of indebtedness growth occurred in the years 2006-2008. On one hand, it was encouraged by the relatively stable macro-economic situation of Poland, increasing the positive approach of banks to the future economic situation. On the other hand, the unabated willingness of households to have their own flat strengthened with the low level of interest rates for loans. While observing the development of the status of indebtedness in consecutive years starting as of 2002, three periods of growth can be differentiated. The first one covers the years 2002-2008, on an annual average the increase in indebtedness amounted to approximately 46%, then, as of 2008 until 2012 – an average increase by approximately 18%, and as of 2012 until 2015 – the last year taken into consideration in the analysis, when the indebtedness dynamics decreased on an annual average to 4.5%. Each of these increase periods ended with an event. In the first case, it was a breakdown caused by the financial crisis, and in the second one, probably banks' adjusting to the update of the Recommendation S (Diagram 1).

Diagram 1. Total status of indebtedness due to mortgages (in billion PLN) in Poland, in the years 2002-2015

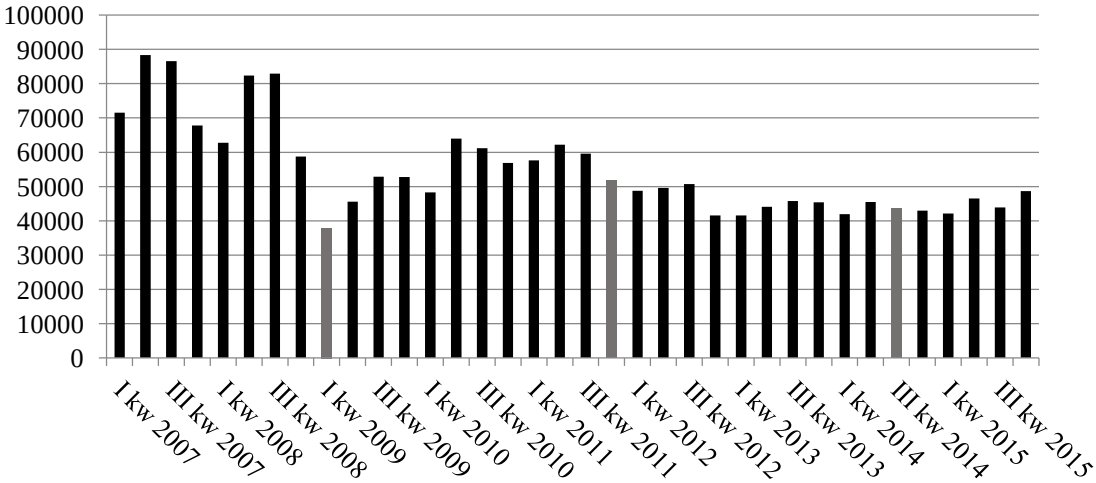


Source: author's own study on the grounds of *Ogólnopolskie raporty o kredytach mieszkaniowych i cenach transakcyjnych nieruchomości (All-Poland reports on housing loans and real estate transaction prices)* of ZBP.

The introduction of new supervisory regulations against mortgages is often related with waiting until they contribute to a decrease in the absolute number of loans granted as a result of tightening loan requirements. The dynamics of the housing loans market is best characterised by the analysis of quarterly fluctuations of the number of granted loans. While analysing the consequences of introducing the first version of Recommendation S from 2006 in this aspect, one may state that it did not bring about effects in the form of a slowdown of loans granted by banks. The increase in granted loans continued until the 3rd quarter of 2008, i.e. the decrease occurred at the moment of implementing an amendment of the Recommendation discussed, that is Recommendation S (II). Nevertheless, a commonly known reason does not originate from an attempt to re-regulate this market, but from the financial crisis started by the downfall of Lehman Brothers in the United States. Another quarter brought even bigger dynamics of the decrease in granted loans. Consecutive quarters were characterised with an increase. However, since then, the dynamics have not returned to

the level from before the crisis. The 2nd and the 3rd quarters of 2011 brought about a decrease in loans granted, which coincides with the exact binding period of the second amendment of Recommendation S. Therefore, the reason for this decrease can certainly be connected with an update in supervisory recommendations. The 3rd quarter of 2014 was indicated as the period of implementing all recommendations of the third, final amendment of the discussed Recommendation. In the meantime, in the 3rd quarter of 2012 the amendment of Recommendation J underlining the importance of real estate databases entered into force (Diagram 2).

Diagram 2. The number of newly granted housing loans per quarter in Poland, in the period between the 1st quarter of 2007 and the 4th quarter of 2015



As results from the supervisory recommendations, the absolute dynamics of lending is important. However, the structure of granted housing loans is more important. One of the key aspects of the structure of lending loans is the relation of the amount borrowed to the value of the real estate constituting a collateral of the loan, that is the LTV (loan-to-value) ratio. In each consecutive amendment of the recommendation, the Polish Financial Supervision Authority changed the value thereof. This ratio indicates which part of the real estate value will finance the loan, and which part should be paid as the borrower's own contribution.

The amendment of Recommendation S of 2013, as other versions, recommends directing the offer of foreign currency loans only to persons with permanent incomes in a specific currency. Moreover, new requirements regarding the maximum level of housing loans (LTV) with a three-year transitional period were introduced, i.e. until the end of 2014 up to a level of 95%, until 2015 - 90%, until the end of 2016 - 85%. The tightening of these requirements was aimed at encouraging clients to take a loan as soon as in 2013, when a lower level of borrowers' own contribution was required. (HYPOSTAT 2014). While comparing the recommendation from the last amendment with granted housing loans, one can notice that as of 2014 a decreasing trend started in the scope of loans with LTV over 80%, a few with 50-80%, and a double increase in the low percentage of loans with LTV up to 30% (Table 3).

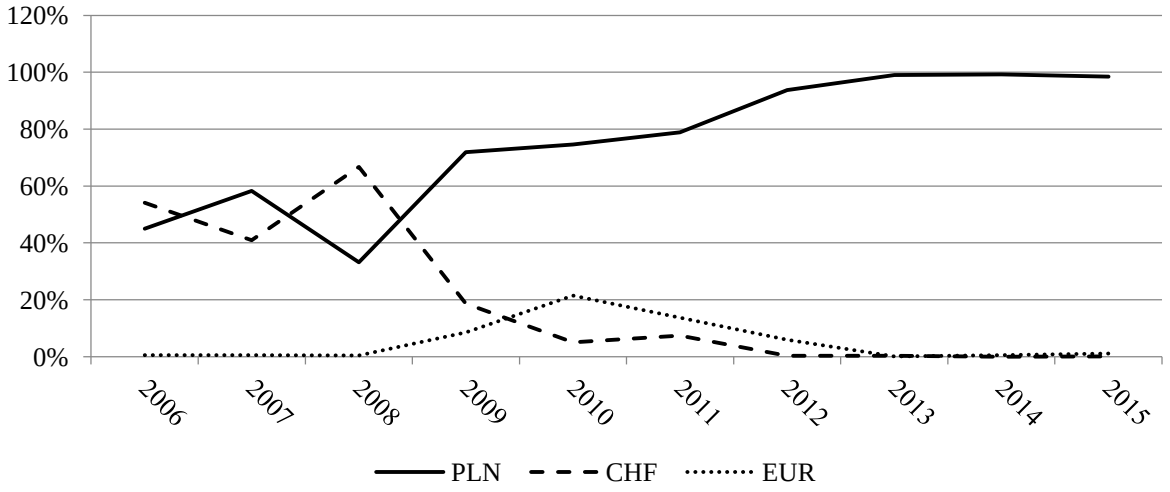
Table 3. The structure of housing loans in Poland in the years 2008-2015 in compliance with the LTV ratio

	0-30%	**30-50%**	**50-80%**	**80%+**
2008	7.83%	20.09%	39.76%	32.32%
2009	8.70%	18.27%	46.79%	27.00%
2010	6.01%	14.34%	36.43%	43.23%
2011	4.79%	10.67%	32.16%	52.53%
2012	4.64%	11.52%	33.81%	49.81%
2013	3.96%	9.48%	33.60%	52.97%
2014	3.74%	9.33%	36.87%	50.07%
2015	7.51%	7.26%	36.10%	49.13%

Source: author's own study on the grounds of *Ogólnopolskie raporty o kredytach mieszkaniowych i cenach transakcyjnych nieruchomości (All-Poland reports on housing loans and real estate transaction prices)* of ZBP.

The currency structure of housing loans constitutes one of the most important factors influencing the risk of a bank's credit exposure. Recommendation S clearly stipulates that loans should be offered in foreign currency to persons who obtain permanent incomes in a given currency in order to protect clients against the exchange rate risk. While analysing housing loans in the sector with regard to currency volumes, it can be stated with certainty that Recommendation S was effective. Until 2012 loans were granted in Swiss francs, whereas, as of the end of 2009, a majority of loans were granted only in Polish currency. As of 2013 loans in foreign currency constitute a marginal share (up to 2%) in the whole amount of mortgages (Diagram 3).

Diagram 3. The structure of mortgages in the years 2006-2015 in accordance with currencies in Poland



Source: author's own study on the grounds of *Ogólnopolskie raporty o kredytach mieszkaniowych i cenach transakcyjnych nieruchomości (All-Poland reports on housing loans and real estate transaction prices)* of ZBP.

The amendment of Recommendation S as of 2013 also set limits as to the lending period, i.e. the maximum period should amount to 35 years. However, 25 years should be proposed to clients. Also, the time of reaching pension age should be considered as the time of obtaining incomes. The Polish Financial Supervision Authority also dealt with the DTI ratio revoking limits set in the previous version of the recommendation, while leaving the level of this ratio to the decision of the management board of the bank (HYPOSTAT 2014). The structure of granted housing loans is alarming due to the structure of the lending period.

With respect to the aforementioned, the year 2013 was the worst probably due to the previously mentioned tightened requirements; ¼ of the number of loans granted in that year constituted ones with a lending period of over 50 years. In the remaining years the loans with a period of 40 to 50 years prevail. Only in the years 2008-2009 did the banks grant over 80% of loans with a period of up to 30 years, yet, most probably, the crisis constituted the reason thereof (Table 4).

Table 4. The structure of housing loans in Poland in the years 2008-2015 in compliance with the lending period

	up to 30 years	**30-40**	**40-50**	**50+**
2008	81.98%	12.16%	5.01%	0.85%
2009	84.40%	10.87%	1.64%	3.09%
2010	13.95%	24.27%	56.63%	6.66%
2011	10.67%	20.31%	60.22%	8.76%
2012	10.65%	24.19%	62.28%	2.89%
2013	11.61%	25.34%	61.37%	25.69%
2014	11.44%	25.05%	62.16%	1.36%
2015	10.27%	24.88%	63.94%	0.92%

Source: author's own study on the grounds of *Ogólnopolskie raporty o kredytach mieszkaniowych i cenach transakcyjnych nieruchomości (All-Poland reports on housing loans and real estate transaction prices)* of ZBP.

Summary

One of the key conditions for the safety of the financial sector comprises the effectiveness of the impact of the financial supervision regulations on the market. With regard to credit exposures secured by mortgages, the security is stipulated with the amount of the exposure share to GDP, its structure and level of security. These factors are directly or indirectly influenced by the banks' lending policy, which should be a derivative of the directives included in the recommendations of the Polish Financial Supervision Authority.

As was proven by the studies, the share of housing loans in the GDP of the European Union Member States as at the end of 2004 was approaching and even exceeding the general value of GDP of these states (Sweden, Holland, Denmark). In Poland, this share constituted 20%, which, in comparison with the European market, constitutes a small share. However, the structure of these loans is unfavourable due to a big share of foreign currency loans. It is impossible to alter the structure of loans that have already been taken. Therefore, the supervision priority was to develop proper proportions of new loans granted in the future. In the studied period the level of LTV ratio had been gradually growing in the whole exposure. At the end of 2015, over 80% of exposures had a ratio of 49.13%.

Conducted studies of comparisons and correlations between particular ratios provided grounds for noticing that the housing loans market operates properly, and in comparison with a majority of the EU states has a possibility to develop further.

It should be stated that the impact of housing loans regulations in the form of recommendations issued by the Polish Financial Supervision Authority, constituting the subject of the analysis, did not always provide the expected results in all areas. The analysis of the number of exposures in particular quarters proved that the banks react almost immediately to new recommendations or amendments of the recommendations already binding, while decreasing the number of granted housing loans and the dynamics thereof in the consecutive quarters. Together with a decrease in granted loans, the dynamics of the indebtedness volumes due to the exposures secured by mortgages was also decreasing.

However, the Polish Financial Supervision Authority did not intend to limit the lending, but to increase the security thereof. The improving currency structure of the studied exposures constitutes a positive aspect. At the beginning, almost ¼ of housing loans were granted in foreign currencies. Whereas, as of 2013 it constitutes a marginal share not exceeding 1-2%, which provides grounds for the assumption that this situation is not going to return to the previous status. The share of loans with LTV ratios over 80%, which constitutes almost a half of all housing loans, is quite alarming. The lending period constitutes another unfavourable aspect. It turns out that over 60% of all loans are grounded for a repayment period of over 40 years, with the recommended highest period of 35 years.

The Recommendations of the banking supervision with regard to credit exposures secured by mortgages are not an entirely effective instrument. On one hand, the banks react thereto by limiting lending, whereas they do not take into consideration the exact recommendations as to the structure of these exposures. Perhaps the manner of enforcing recommended changes or the character thereof, adopting a form of solely recommendations of good practices, might be inefficient.

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