

Iwa Kuchciak

University of Łódź

AN EVALUATION OF CREDIT RISK MANAGEMENT IN THE POLISH BANKING SECTOR

Abstract: Polish banks have been affected by the repercussions of the financial crisis so they have to respond to new market conditions by changing the risk management style. The aim of this paper is to present the challenges in credit risk management facing the Polish banking sector now. This paper deals with one of the strongest kinds of risk affecting Polish banks. The attention will be focused on the factors responsible for an increase in credit risk in the Polish banking sector and its influence on the financial results achieved by banks.

Keywords: Polish banking sector, credit risk, management of credit risk, loans quality.

1. Introduction

Banking activity is constantly connected with risk. In the process of providing financial services banks assume various kinds of financial risks, one of the most important is credit risk. Credit risk is identified as a change in net asset value due to change in the perceived ability of counterparties to meet their contractual obligations [Sanomero 1997, p. 3].

The recent financial crisis pointed out a need of various forms of credit risk management. In response to this, banks have almost universally embarked upon an upgrading of their credit risk management and control systems. Banks try to satisfy these needs by identifying key credit risk factors, obtaining consistent, and understandable, risk measures, and establishing procedures to monitor the resulting risk position.

Risk management contains identification, measurement, aggregation, planning and management and monitoring of the risks arising in banks (more: [Bessis 2002]) The adequate credit risk management must include many aspects such as: legal requirements, supervising prudential standards and reconciliation between the capital and liquidity requirements with profit gathering. All of them show the importance of and difficulties in the management of this type of risk.

Polish banks have been affected by the repercussions of the financial crisis so they have to respond to the new market conditions by changing the risk management style. The aim of this paper is to assess the effects of credit risk management in the

Polish banking sector. This paper deals with one of the strongest kind of risk affecting Polish banks. The attention will be focused on the factors responsible for an increase in credit risk in the Polish banking sector and its influence on achievable financial result.

2. Credit risk versus other risks in the Polish banking sector

The main types of risk connected with banking activity have been noticed in the Polish banking sector with different intensity in particular years. The level of risk is shaped by macroeconomic indicators, legal, demographic, social and cultural factors as well as by competition in the banking sector and the strategies chosen by banks [Jajuga (red.) 2007, pp. 18-25].

Banks should be able to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred. The commercial banks' own funds enable them to cover their current activity risk. By 2008 a very stable capital buffer growth had been visible. In 2009 there occurred a significant strengthening of the capital basis of the commercial banking sector influenced by an increase in banks' own funds together with the weakening of credit action. Owing to that the stability of the

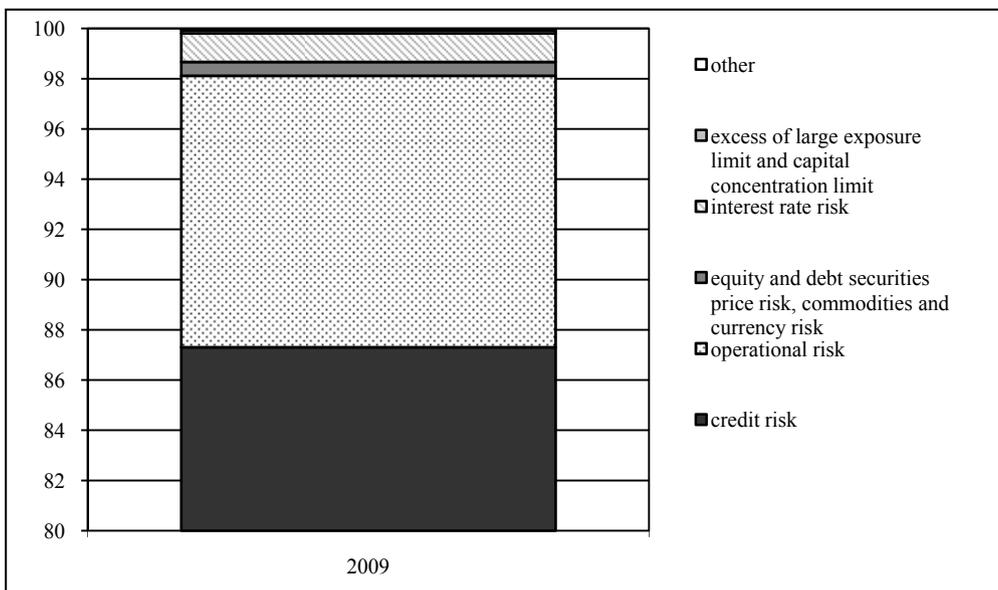


Fig. 1. Percentage structure of total capital requirements of commercial banks in 2009

Source: on the basis of [Report on the Condition of Polish Banks in 2007; Report on the Condition of Polish Banks in 2009].

banking sector grew, with the capability of absorbing potential losses. Given the macroeconomic situation and the growing risk resulting from it, banks should continue steps towards keeping up the strengthened capital basis [Altunbas et al. 2009, p. 7].

The full capital requirement is an important element ensuring, first of all, the security of banks whereas its structure points at the most serious risks in the sector.

Credit risk is the main risk to financial stability in Poland. The credit risk constituted 87.3% in 2009. The order of the other risks comprised the operational risk, interest rate risk, excess of large exposure limit and capital concentration limits, equity and debt securities price risk and currency risk, and others. Thereby, these risks constitute a smaller source of potential danger in the banking sector than credit risk.

3. Factor responsible for the level of credit risk

The greatest impact on the level of credit risk was exerted by a systematic increase in loans in the banks' balance sheet. The measure used to assess the scale of credit risk in the commercial banking sector is the share of impaired loans in the total sum of loans. The data are shown in Fig. 2.

The basic source of credit risk in the banking sector is the loans for the non-financial sector [*Financial Stability Report 2005*, p. 51]. It is a result, first of all, of the structure of assets of the banks' balance sheets, in which loans from subjects in this sector prevail, as well as of the traditionally better quality of loans from subjects in the other sectors. The concentration of credit risk in the portfolio of loans from the non-financial sector leads to the potentially highest banking costs connected with the insolvency of borrowers from this sector. In recent years there appeared the problem of excessive liabilities as an effect of the spread of consumer loans and the growth of consumer expenses [Wyżycki, Słoniewicz 2010, p. 28].

The quality of all categories of loans except the loans from credit institutions constantly improved in 2005-2008, whereas the indices in the segments of particular groups of borrowers improved to various degrees. In each year the greatest share in the loans by subsectors were those from enterprises. The share of impaired loans from non-commercial institutions gradually decreased to as low as 1.8% in 2009. The quality of these loans worsened already in 2008. The worsening of the other groups of borrowers was noticeable in 2009.

Taking into consideration the quality of loans the number of banks can be shown in separate brackets.

In both years the most numerous group in the commercial banking sector in terms of the quality of loans was that of the banks whose index was below 10%. That group grew by another 6 banks in 2009. The smallest group of banks were those

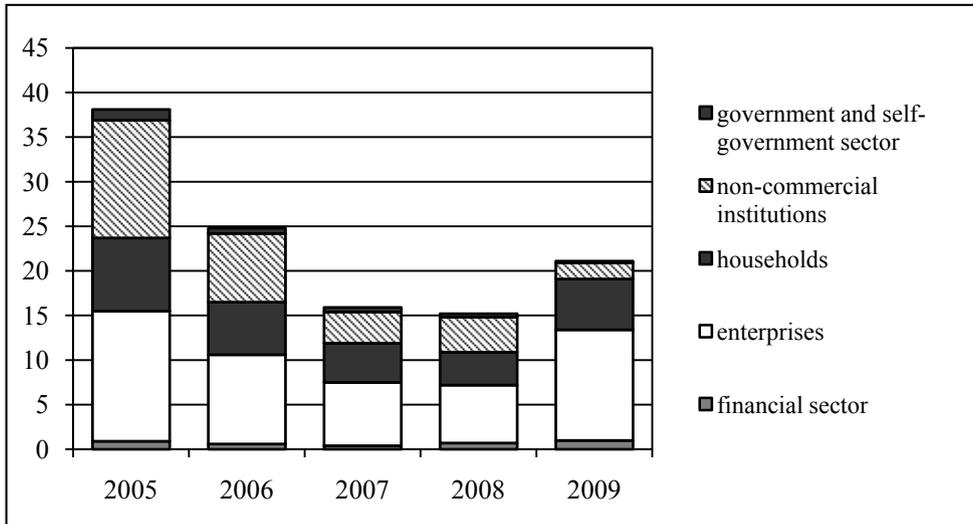


Fig. 2. Percentage share of impaired loans of commercial banks in the total loans (by subsectors of borrowers) in 2005-2009

Source: on the basis of [*Report on the Condition of Polish Banks in 2007; Report on the Condition of Polish Banks in 2009*].

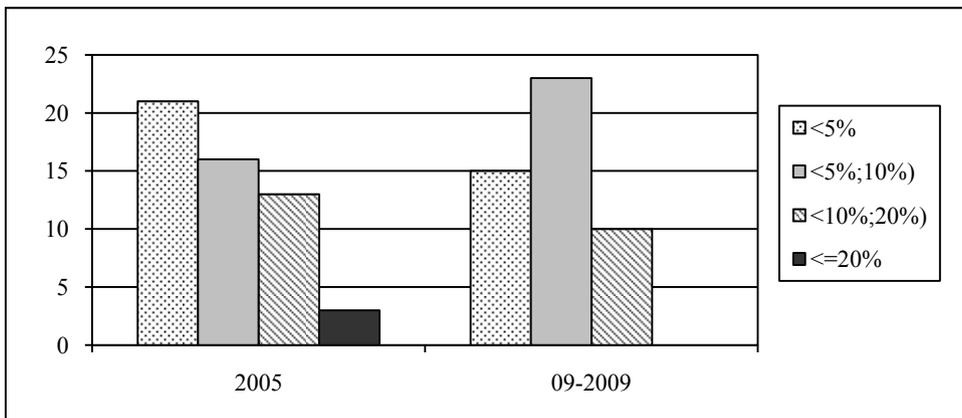


Fig. 3. Number of commercial banks by brackets of loan qualities

Source: on the base of: [Bugajny et al. 2006; *Analiza zagrożeń...*].

whose indices were above 20%; in 2005 that group consisted of only 3 banks. Comparing both graphs it should be noticed that there was a shift of a number of banks to the brackets characterized by the lower indices of the quality of loans.

4. Quality of enterprises loans

As the greatest share in the commercial banks' loans is constituted by the non-financial sector, especially by household and corporate loans, credit risk in commercial banks is formed to the greatest degree by these two groups of borrowers.

The hitherto tendencies in the shaping of the quality of credit portfolios in PLN and foreign currencies indicate that the quality of foreign currency loans has been higher than that of loans in PLN, both for loans given to enterprises and households.

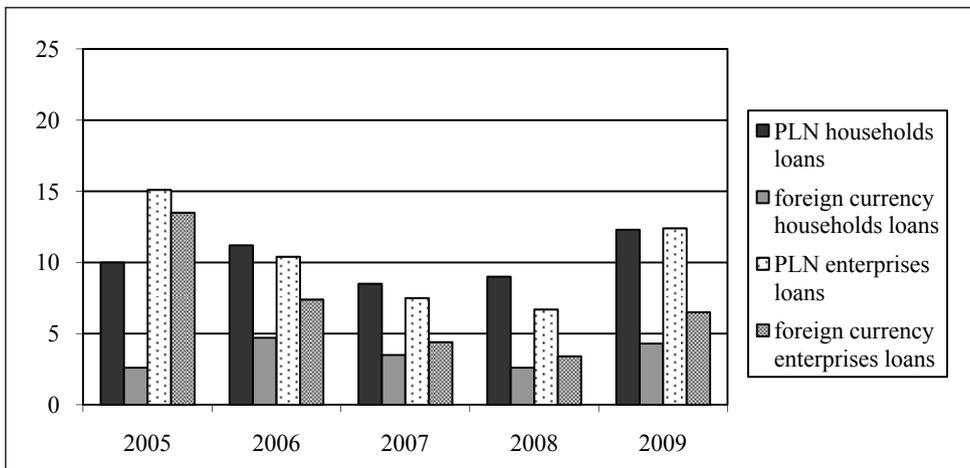


Fig. 4. Indices of impaired housing and corporate loans in PLN and foreign currencies (in %)

Source: on the basis of: [*Financial Stability Report 2007*; *Financial Stability Report July 2009*].

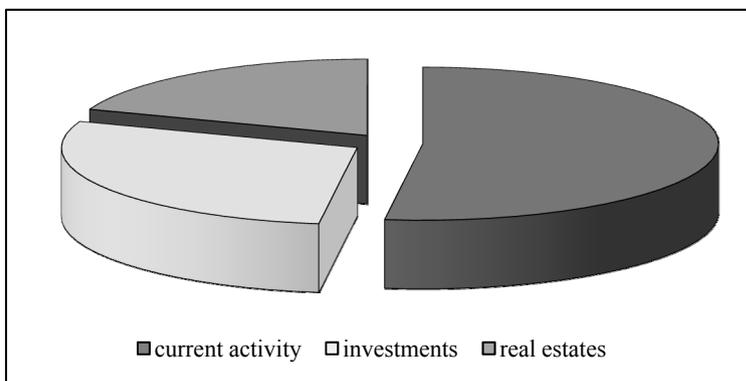


Fig. 5. Structure of chosen types of impaired corporate loans in 2009 (in %)

Source: on the basis of [*Report on the Condition of Polish Banks in 2009*].

The better quality of foreign currency loans can be explained by the fact that they are given to subjects possessing a higher credit capability.

Since 2008 an increase in the scale of realization of credit risk has occurred. This period has seen the growth of indices of impaired loans for both groups of borrowers. The structure of impaired loans given to economic subjects is shown in Fig. 5.

Within the impaired loans given to economic subjects the majority (52.06%) are loans designed for the current activity, which can be associated with the worsening of the current financial situation of enterprises. The percentage of impaired loans designed for investment amounted to the level of 28.51% whereas those designed for real estates – to 19.42% (more: [Informacja o kondycji... 2010]).

5. Quality of households loans

Loans for households have been characterized by the higher rate of growth than corporate loans. In the case of households a more detailed analysis of the quality of loans of chosen kinds of loans is possible.

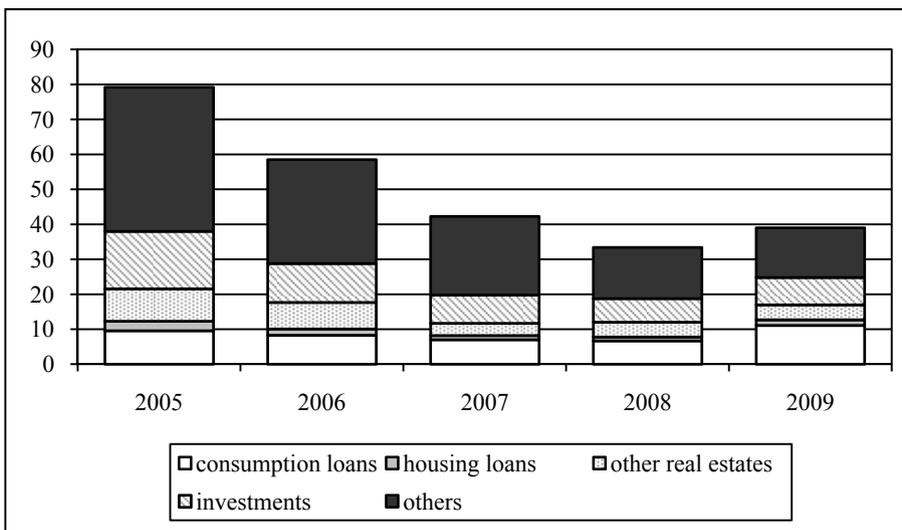


Fig. 6. Structure of chosen types of impaired housing loans in commercial banks in 2005-2009

Source: [Report on the Condition of Polish Banks in 2007; Report on the Condition of Polish Banks in 2009].

In all these years the loans classified as the remaining ones were characterized by the greatest share of impaired loans [Statystyczny obraz... 2010, p. 38]. In 2005-2008 there was visible the improvement of particular kinds of loans except of those for the remaining real estates in the value of particular loans. The year 2009, however,

saw the worsening of the quality all of loans except investment ones. The percentage of impaired loans in the category of consumer and household loans was markedly higher.

The variable level of LtV can be pointed out as one of the determinants of the shaping of risk in the case of household loans. The ratio of the amount of a loan to the value of required securities is shown in Fig. 7.

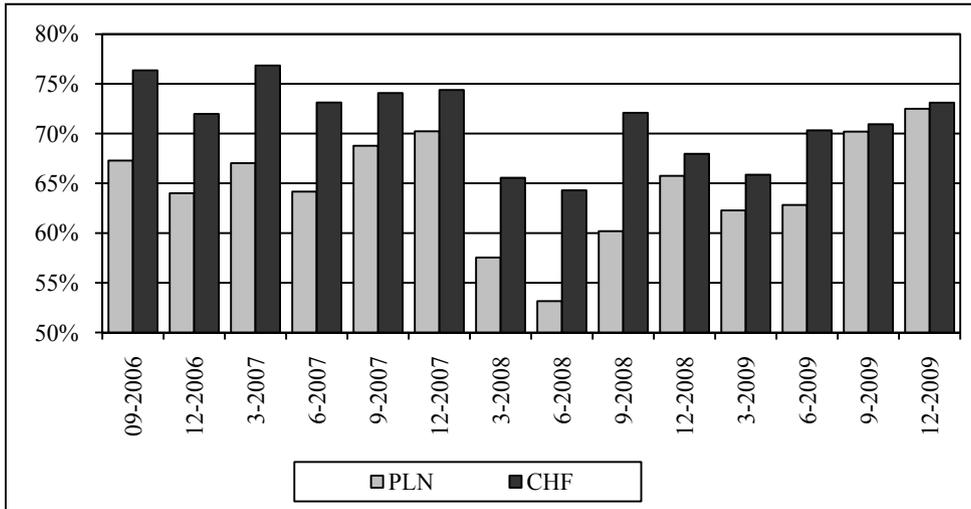


Fig. 7. Average values of LTV for PLN and CHF – denominated housing loans by quarter of loan origination in 2006-2009

Source: on the basis of [*Financial Stability Report July 2010*].

The characteristic feature is the lower level of LtV in the case of credits in PLN than in foreign currencies, nevertheless the equalizing of these levels should be noticed. The height of LtV is regulated and thus the consecutive supervisory recommendations exerted an influence upon its shape in particular years [Lagenda 2010, p. 25]. Similar supervisory adjustments as well as difficulties in access to financing sources in foreign currencies have affected the structure of credits given in foreign currencies.

In recent years considerable fluctuations in the structure of household loans in foreign currencies have been visible. A source of danger for the quality of bank assets can be loans in foreign currencies taken by households on the basis of expected observable appreciative continuation tendencies of the rate of a given currency.

By 2008 the greatest number of loans were given in the PLN and CHF. Then the gradually growing share of loans in the EUR could be visible. The lowest percentage of loans in PLN appeared in the middle of 2008 and amounted to 30.5% whereas

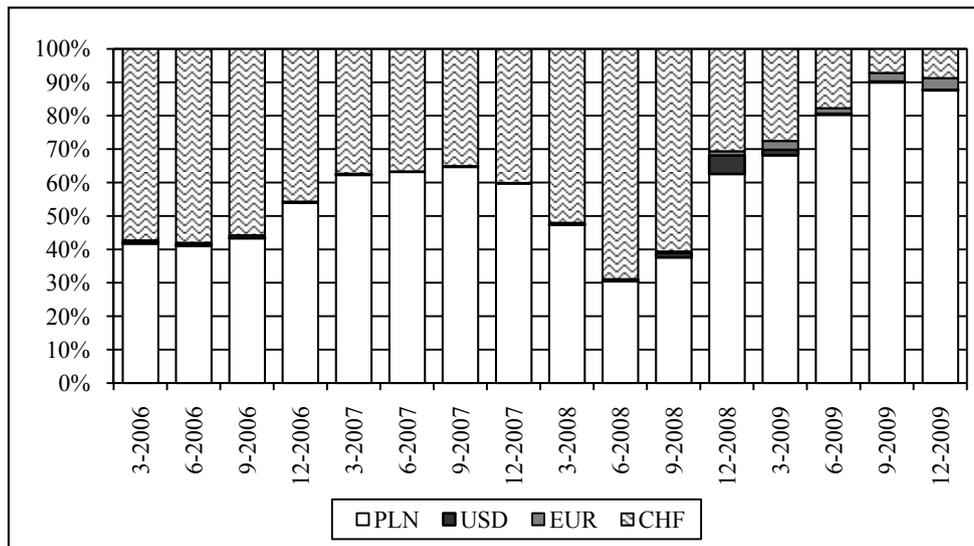


Fig. 8. Structure of new housing loans for households by currencies

Source: on the basis of [*Raport AMRON-SARFiN...; Financial Stability Report July 2010*].

loans in PLN grew to 87.6% and parallelly, the share of CHF credits fell to 8.7%. The influence on such a shape of the currency structure was exerted by the growing credit risk as well as supervisory recommendations [*Informacja dotycząca... 2010*].

6. Quality of non-balance

Apart from liabilities it is also the quality of non-balance loans that exerts an influence on the shaping of risk. The number of commercial banks by brackets according to non-balance loans in 2005 and 2009 is shown in Fig. 9.

Both periods were characterized by the greatest number of banks with the index of the quality of off-balance loans below 5%. Comparing the fluctuations in the amounts of particular brackets, it should be pointed out that there was the shift of banks to the brackets with the lower level of the index of the quality of off-balance loans [*Ogólna informacja...*]. The worsening of the credit portfolio was reflected in an increase in the deducted amounts because of the loss of the value of loans and an increase in the bank liabilities by these deductions.

Impaired loans are covered first of all with created purpose reserves (deductions updating the value of loans), only in second turn with securities [Kałużny 2009, p. 135]. The characteristic feature is the reversed tendency related to the degree of coverage of loans, namely, together with the growth of the degree of coverage of loans impaired by purpose reserves coverage with securities falls. The reserve

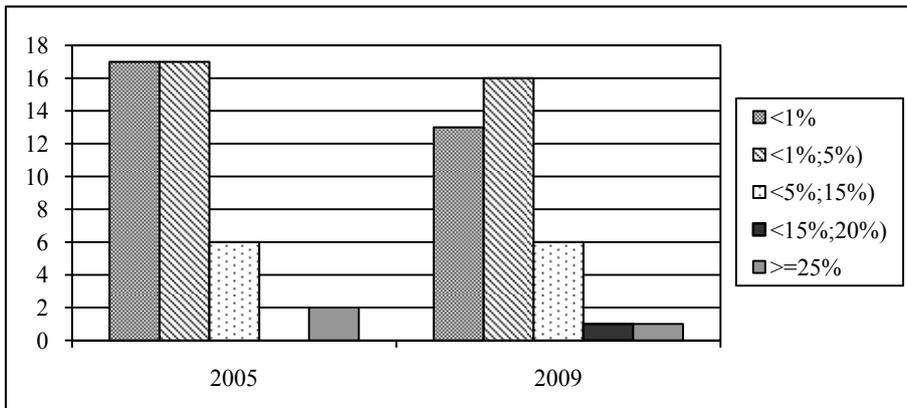


Fig. 9. Number of commercial banks by brackets of the quality of off-balance loans in 2005 and 2009

Source: on the basis of [Bugajny et al. 2006].

balance burden on the effect of banking activity amounted to 8.55% by the end of 2004, whereas in 2009 it grew considerably to 23.34% [*Report on the Condition of Polish Banks in 2009*, p. 37].

7. Summary

The factors determining the level and fluctuations of credit risk in banks characterized above exert an influence on the achievable financial result. The reward for banks for carrying credit risk as well as liquidity risk can be seen in the position “interest effect” and “net interest margin.”

The growth of the impaired loans index exerts an influence on the credit policy of banks discouraging them from running too much credit risk. In 2008 and 2009 the credit risk realisation costs (of the contracting party) turned out to be substantial, i.e. the risk associated with *risk reversal* contracts in foreign currencies entered into with enterprises (more: [Stopczyński 2009]). The impact on the fall of the adjusted net interest margin was also caused by the growth of competition for sources of financing activity in the banking sector. It is corroborated by the presentation of the interest margin and credit risk costs [*Report on the Condition of Polish Banks in 2008*, p. 40].

Competition among banks for the deposits of non-financial sector customers has led to a considerable increase in interest costs. The worsening of the quality of loans is reflected in the higher amount of deductions caused by the loss of the value of loans [*Przegląd stabilności... 2008*, p. 21]. Negative trends in the area of credit risk have influenced the decrease of interest profits and as a result were reflected in the

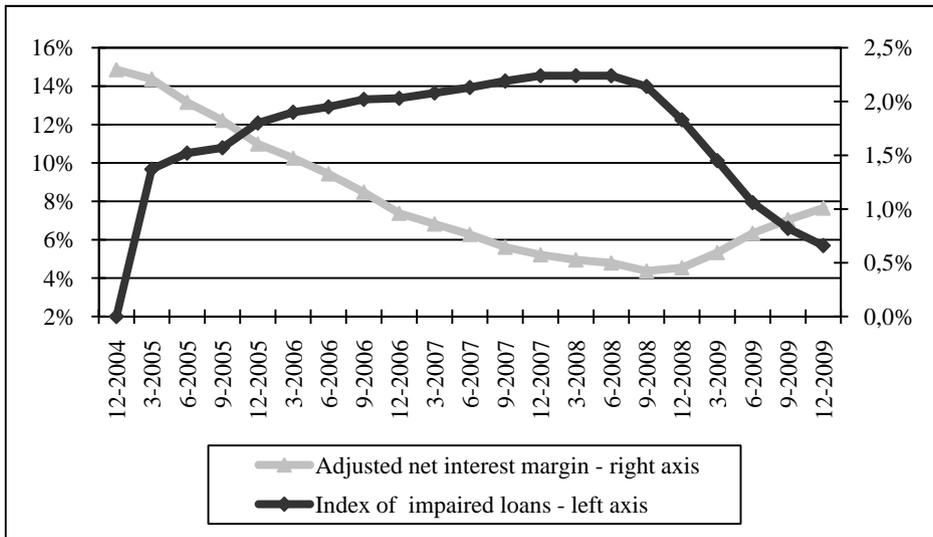


Fig. 10. Adjusted net interest margin and the share of impaired loans in the loan portfolio

Source: on the basis of [*Financial Stability Report July 2010*].

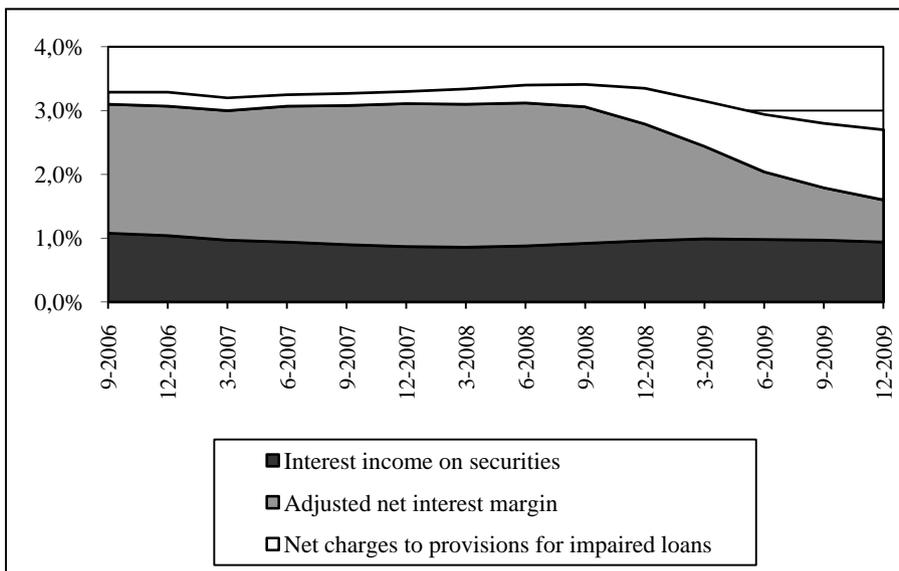


Fig. 11. Net interest margin and credit risk costs

Source: on the basis of [*Financial Stability Report December 2009; Financial Stability Report July 2010*].

fall of the adjusted net interest margin, measuring the profitability of mediation between savings holders and borrowers.

Summarizing, the increase in credit risk cost, resulting from the worsening financial position of borrowers and the rise in the value of irregular loans, was particularly visible in the segment of consumer loans and corporate loans. In the analyzed period, the rising costs of credit risk were the main factors contributing to the decrease of banking sector earnings.

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EFEKTY ZARZĄDZANIA RYZYKIEM KREDYTOWYM W POLSKIM SEKTORZE BANKOWYM

Streszczenie: Światowy kryzys finansowy wywarł wpływ na polski sektor bankowy, zmuszając go do reagowania na zmieniające się warunki rynkowe. Celem opracowania jest wskazanie na wyzwania, jakie stoją obecnie przed polskim sektorem bankowym w zakresie zmiany stylu zarządzania ryzykiem. W artykule zostanie poruszone zagadnienie jednego z najsilniej wpływających na sektor bankowy ryzyk, jakim jest ryzyko kredytowe. Uwaga zostanie skoncentrowana na czynnikach odpowiedzialnych za wzrost tego ryzyka w polskim sektorze bankowym oraz na wpływie ryzyka na osiągnięte przez banki wyniki finansowe.