

**Financial and Banking Services Market**

Bartosz GODZISZEWSKI,
Michał KRUSZKA

**BANKING SYSTEM IN POLAND:
STABILITY OVER THE CRISIS****Abstract**

The paper introduces performance of banking system in Poland during the period of European economic crisis. It also contains presentation of influence of financial supervisor on financial market and the real sector of the economy and possible threats to the institutional framework of financial supervision in Poland. Article presents how microeconomic changes of parameters of mortgage granted in foreign currency can be transformed into bank's capital needs. Some details about resolutions and recommendations issued by the Polish Financial Supervision Authority (KNF) are also magnified in the paper. The practice of last years indicates that activity of the supervisory authority is an important determinant of financial stability.

Key words:

Financial supervision, Poland, FX lending, macroprudential regulations.

© Bartosz Godziszewski, Michał Kruszka, 2014.

Godziszewski Bartosz, Research Assistant, Poznan University of Technology, Poland.
Kruszka Michał, Associate Professor, Vistula University, Warsaw, Poland.

JEL: G21, G18, K23, O11.

Introduction

This paper introduces performance of banking system in Poland during the period of European economic slowdown, i. e. years 2007–2012. Main aim of authors is to present a stability of Polish financial market and to show influence of financial supervisor on financial market and the real sector of the economy. Moreover an attempt has been made to find out what are possible threats to the institutional framework of financial supervision in Poland. Authors present also how microeconomic changes of parameters of mortgage loans granted in foreign currency can influence bank's capital needs. Such an attitude is very important when one consider that in Poland some problems with mortgage lending (less serious than in the other EU countries) stemmed from changes of exchange rates rather than burst of housing bubble. The paper is divided into four parts. The first contains short presentation of key macroeconomic figures, the second is aimed at performance of banking sector, the third presents an example of FX lending problem while the last presents some details about resolutions and recommendations issued by the Polish Financial Supervision Authority (KNF).

1. Macroeconomic outlook

Poland macroeconomic performance over the period 2007–2012 can be considered to be favourable, especially if country is compared with the European Union and Euro zone. Polish economy avoided recession and output growth was resilient remaining above EU average. (see graph 1).

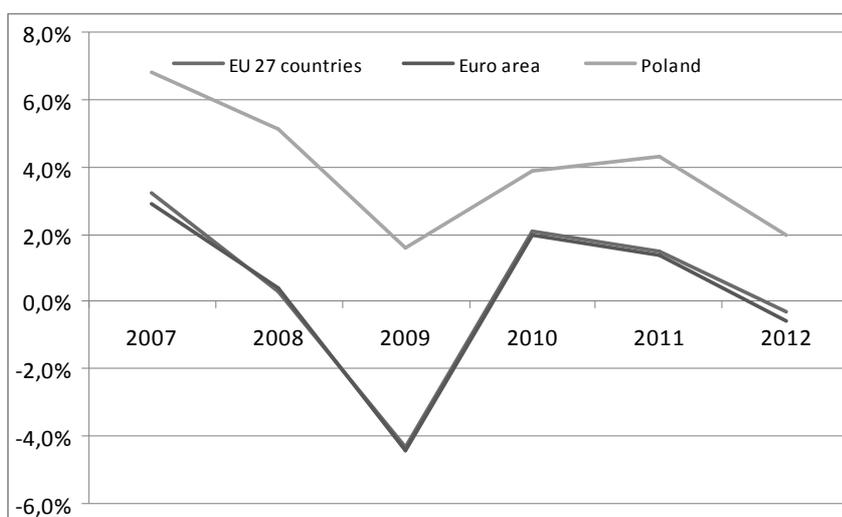
However, despite output growth, labor market remained relatively weak: economic activity did not rise substantially, suggesting so called jobless growth¹. This kind of problem had already emerged around ten years previously when Poland was hit by an economic slowdown (although there was no recession), and when weak output development was followed by an extremely high unemploy-

¹ Referring to the term «jobless growth» or «jobless recovery» one has to remember that both definition and causes of such phenomenon are controversial even among economist (Cantore, Levine, Melina, 2013; Aaronson, Rissman and Sullivan 2004).

ment rate of around 20 percent. It should be noted that policymakers were aware of it (Ministry of Economy, 2004). However there have been no significant changes to labor market institutional framework over last years. A deep sensitivity of employment to business cycles may curb demand for credit and pose problems with loan repayments.

Graph 1

Output growth in Poland and EU (in percent)



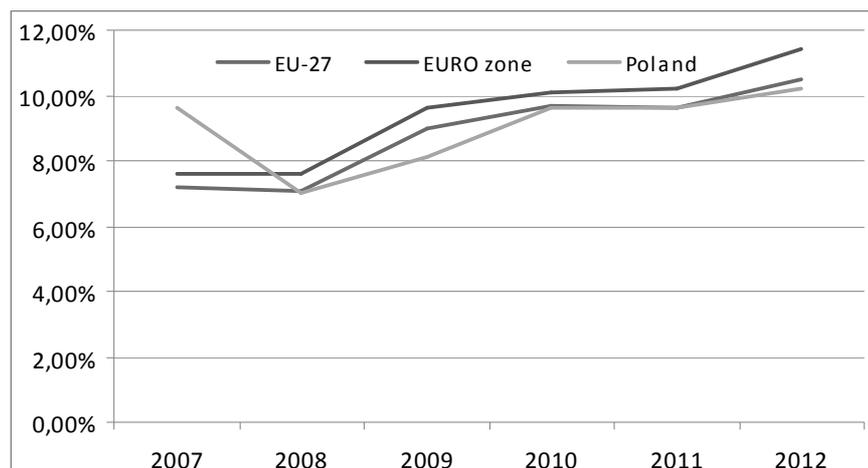
Source: Eurostat.

The adverse performance of economy is forcing banks to develop and use proper risk assessment models combined with cautious credit policy in order to minimize nonperforming loans ratio. On the other hand the authority responsible for financial supervision should develop proper requirements for the banking sector in terms of capital adequacy ratio or liquidity performance while also making recommendations covering the provision of credits and the assessment of borrowers' creditworthiness. Such an issue is extremely important when one con-

sider effects of loose mortgage lending policy, which resulted in housing bubbles followed by deep recession in Ireland and Spain².

Graph 2

Unemployment rate in EU and Poland (percent)



Source: Eurostat.

In the views of threats linked with vague assessment of the creditworthiness of borrowers it should be noted, that unlike in some other EU countries (for example United Kingdom)³, all potential borrowers in Poland were subject to income verification. As a result, even deterioration of labor market situation do not lead to sharp increase of nonperforming loans ratio. In the mortgage sector relationship between provisions for impaired loans and net value of credits was lower than 0,5 percent in Poland. This figure suggests proper attitude towards credit scoring policies and risk assessment in case of both supervision and of banks. In Spain, on the other hand, the ratio of nonperforming mortgages rose from 0,8 percent to 7,6 percent during the period 2005–2011 (IMF, 2012).

² Housing Prices Index published by Eurostat shows that average rate of house prices decrease for the period IV Q 2009- IIIQ 2012 accounted for 7 percent in Spain and 13 percent in Ireland.

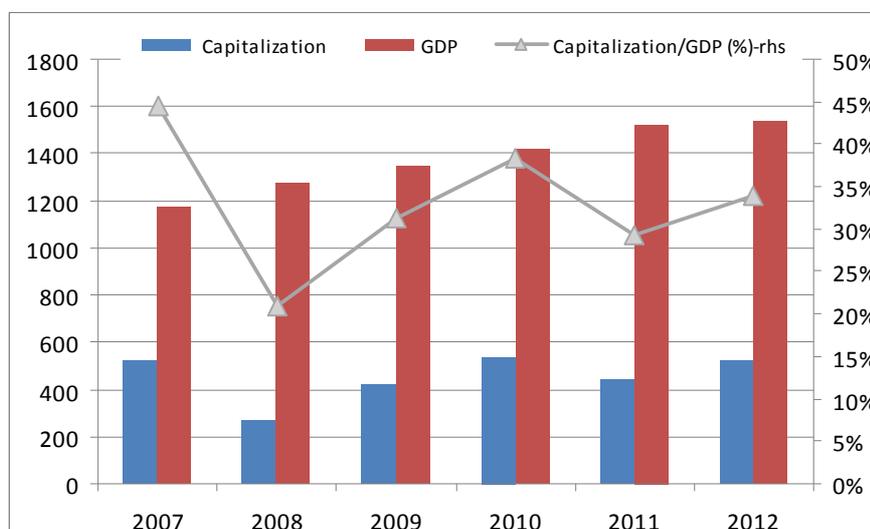
³ FSA (2012) data shows that income verification in UK ranges from 70 to 87 percent of potential borrowers.

Contrary to relatively sound situation in the real sector of the economy, the global financial crisis hit capital market in Poland substantially. In 2007 the capitalization of domestic enterprises listed on Warsaw Stock Exchange accounted for 45 percent of GDP but it fell 10 percentage points to 35 percent of GDP in 2012 (see Graph 3). The sharpest decrease was observed in 2008 when value of companies from WSE was below 30 percent of GDP (in nominal terms it expressed downwards movement from 500 billion PLN to around 250 billion PLN) However one should consider that WSE is classified together with other CEE stock exchanges in spite of the fact that its performance and size is much different from other similar institutions in the region. But for global capital market there is no clear distinction between Budapest stock exchange (where for example main market indicator-BUX is composed in 90 percent by four companies) or Prague stock exchange and WSE.

Yet it has to be stated that such a poor performance on the part of capital market was not accompanied by deterioration in the overall economic and did not amplify some adverse trends in the real sector. Data about capital market in Poland is presented on Graph 3.

Graph 3

Capitalization of domestic enterprises listed on WSE (PLN billion)



Source: WSE data.

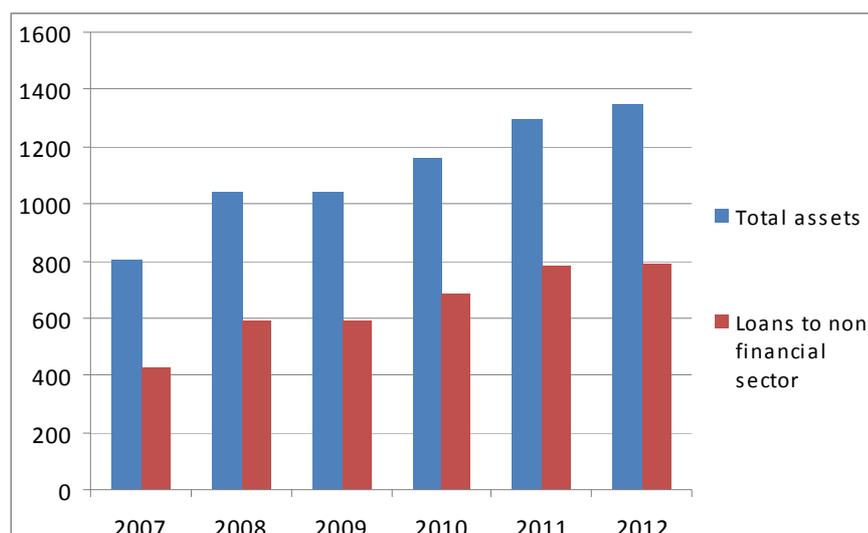
2. Banking sector performance

In the period from 2007–2012 the development trends in the banking sector can be assessed as fairly positive. In these years assets grew by 68 percent which implies a solid 13 percent of annual growth rate. In absolute terms such change means increase balance sheet increase from around 800 billion PLN in 2007 to 1,35 trillion PLN in 2012 (see Graph 4).

Growth of total assets was followed by increase of loans to non financial sector. The latter grew faster than sum of assets: the total increase reached 83 percent (i.e. 13,8 percent per year) rising from 430 billion PLN in 2007 to 788 billion PLN in 2012. Growth also expressed in absolute terms was rapid soaring from 36 percent in 2007 to 60 percent in 2012 as compared to GDP, whereas credit as a share of GDP equaled to 60 percent (in 2012) and was thus much smaller than many other EU countries⁴

Graph 4

Assets of banking sector in 2007-2012 in (PLN billion)



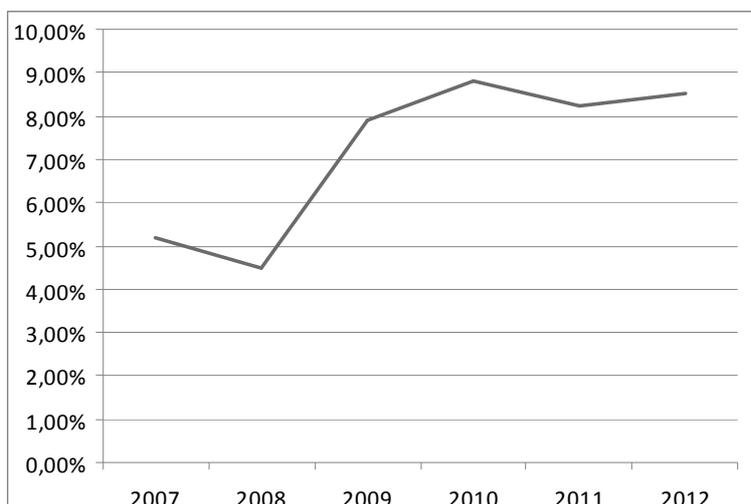
Source: NBP and KNF.

⁴ According to World Bank such ratio for UK was 186 percent, 208 percent in Denmark and 104 percent in Germany.

It is important to observe that such rapid growth in exposure was not associated with a worsening of credit portfolio. The share of nonperforming loans grew from 5,2 percent to 9 percent between 2007 and 2012. At the end of 2012 total nonperforming loans amounted to a total of 71 billion PLN. One serious problem that has recently emerged is the relatively large exposure of banks in lending to the construction industry. Many construction enterprises lost their financial liquidity in the second half of 2012 and some of them (like PBG) declared bankruptcy. Others were liquidated while several restructured their debt. Such loans reached 60 billion PLN (the so called «large exposures») which account for 11,2 percent of total large exposures. It should be also underlined that construction sector accounted for 24 percent of impaired loans.

Graph 5

Share of nonperforming loans in total exposures (nonfinancial sector)



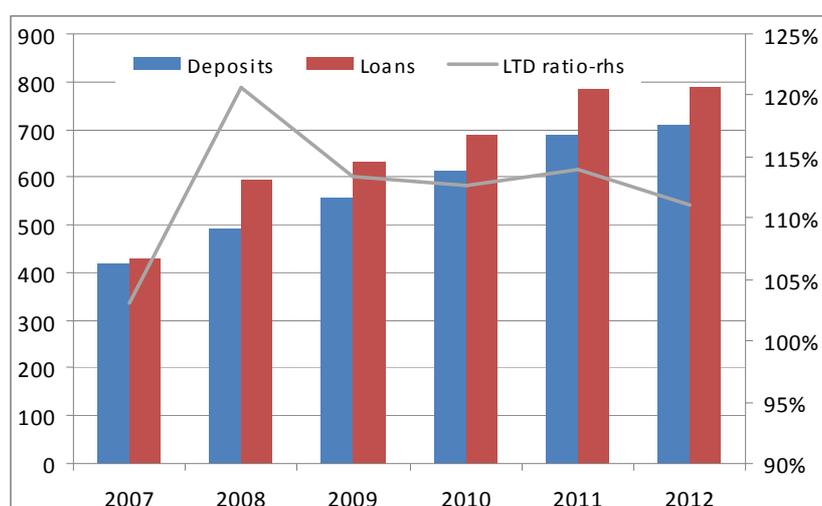
Source: NBP and KNF.

Changes in the assets were followed by increase of owners' equity and liabilities. Total amount of deposits grew from PLN 419 billion in 2007 to 931 billion in 2012. (=120 percent). Such numbers confirm the sustainable growth of banking sector in Poland in recent years. LTD (loans to deposit) ratio was around 110 percent. One flaw was the fact that majority of long term loans (especially

mortgages) were financed by short term deposits. As a result, the Polish Financial Supervision Authority (Komisja Nadzoru Finansowego – KNF) recommended strengthening the capital base, primarily by means of retention of profits, in order to stabilize situation of banks. The resilience of banking sector is also confirmed by Anayiotos at al (2010). They showed that bank efficiency increased in Poland during the boom, and even improved during the crisis.

Graph 6

Value of deposits and loans (PLN billion) and LTD ratio



Source: NBP and KNF.

Very interesting information is provided by Financial Stability Reports which is published semi annually by the National Bank of Poland. For the purposes of analyses conducted by the NBP three main strategies of banking asset financing are separated: (1) deposit based, (2) foreign financing and (3) mixed (NBP, 2012). Share of main financing sources (deposits and claims of non residents) in the balance sheet depends on strategy. In case of deposits such share is around 70 percent (deposit strategy), 40 percent when mixed strategy is applied and 30 percent when bank rely on foreign financing. In cases when another significant component –the claims of non-resident financial companies (usually parent companies) against banks- is considered, the share is 8 percent for the

deposit strategy, 16–18 percent for mixed strategy, and 46 percent for foreign financing. When the structure of total assets financing is analyzed, the corresponding numbers are 51 percent, 27 percent and 22 percent respectively. The dominance of a deposit based strategy is very important when one considers that majority of Polish banks are subsidiaries of foreign institutions: this made it possible to avoid sudden outflow of funds during economic slowdown when parent companies needed liquidity support – see Lahnsteiner (2010).

Polish banking sector maintained adequate capital buffers, which were higher than those recommended by Basel Committee. Moreover CAR (capital adequacy ratio) in Polish banks based mainly on Tier I capital which makes banks even more resilient to adverse economic conditions (see Table 1).

Table 1

Capital Adequacy Ratio

YEAR	2007	2008	2009	2010	2011	2012
CAR	12,0	10,8	13,3	13,9	13,1	14,7

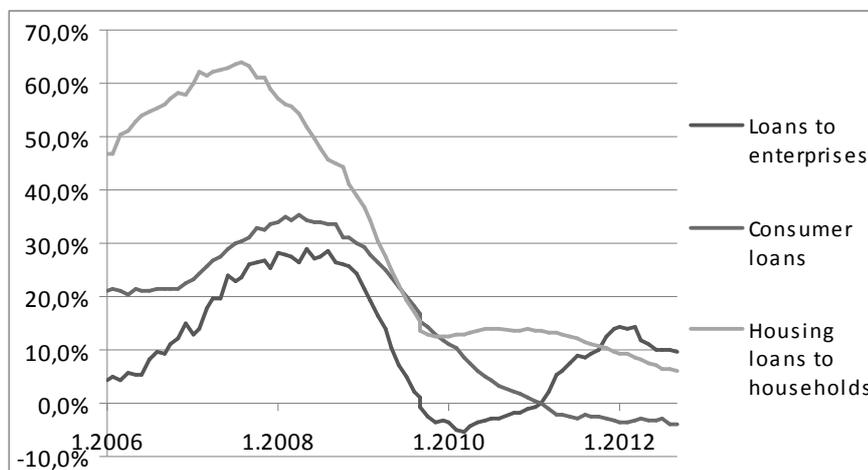
Source: NBP and KNF.

The value of CAR calculated for Polish banks over the period 2007–2012 was always above 10 percent⁵ and Piątkowski (2011) indicated that a relatively high capitalization of banks must be recognized as an important determinant of maintaining banking system stability. Moreover relatively high CAR did not lead to drastic reduction in credit supply (see Graph 7). The decrease in its growth stemmed mainly from economic slowdown and was not primarily caused by supervisory regulations. Such a slowdown is clearly visible in the case of mortgages (especially FX mortgages) which can be triggered by rational restrictions imposed by supervision. The Polish real estate market behaved similarly to the markets in the other countries, however downwards movement of housing prices was neither very deep nor possessed any threat to the stability of the banking system. With regard to the data presented above on nonperforming mortgage loans it is important to underline once again that the relatively conservative lending policy of Polish banks and provisions introduced by regulator protected Polish economy against substantial «bubble» in the real estate market. Problem of estate financing will be broader discussed in the next section.

⁵ According to Basel Capital Accords CAR should not to be lower than 8 percent, since 2011 the KNF has recommended to maintain at least 12 percent level.

Graph 7

Growth of credit (y/y)



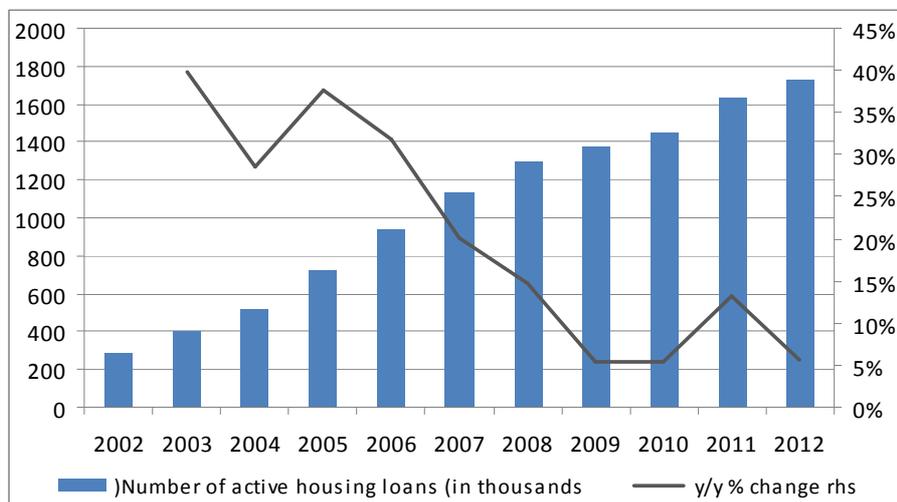
Source: NBP.

3. A problem of FX Housing Loans

Interesting element of the Polish financial market is estate financing. One can observe rapid growth of the mortgage lending which started prior to the economic slowdown in 2009. Mortgage lending was associated with broader phenomenon - a rising importance of credit to private sector in the Polish economy. As far as at the beginning of XXI century the ratio of domestic credit to GDP was roughly below 30 percent but it started to rise sharply after 2004. In 2012 the credit-to-GDP ratio reached 60 percent threshold. Low significance of credit stemmed from high interest rates and unemployment. Such an adverse situation changed after the EU enlargement, when Poland benefited from EU funding associated with outflow of labor force. Emigration, simultaneously with inflow of EU funds and foreign transfers from Polish citizens boosted economic growth. The good economic situation, deep fall of interest rates and availability of FX lending (in CHF) encouraged numerous Polish households to take out a mortgage credit. As a result number of active housing loans rose from around 200 thousands in 2002 to somewhat below 1, 8 million in 2012.

Graph 8

Number of housing loans in the period 2002–2012



Source: AMRON-SARFiN.

Yearly changes of such loans accounted up to 30–40 percent per year prior to economic slowdown in 2009 and tend to stabilize at 10 percent after 2009. Growing supply of mortgage lending resulted in rising estate prices which may eventually lead to so called «housing bubble». Data from AMRON-SARFiN⁶ reports show that in the 8 biggest Polish cities estate prices over the period 2006-2012 rose from modest 20 percent in case of Kraków to over 100 percent in case of Łódź.

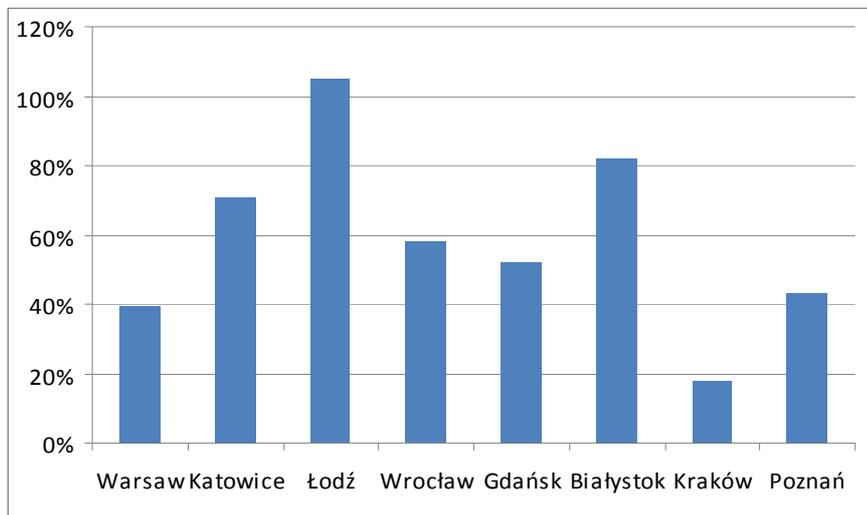
Due to a relatively cheap lending in CHF, compared to PLN⁷, majority of housing loans was granted in Swiss currency. The unlimited increase of FX credit posed possible threat stemming from rising CHF/PLN exchange rate. Especially when it is considered, that according to AMRON-SARFiN reports over 50 percent of total housing loans had LTV ratio over 50 percent while in case of 27 percent of total loans LTV was higher than 80 percent. Analysis of CHF/PLN exchange rate volatility in the period 2007–2012 confirms partial materialization of such risk.

⁶ AMRON is a database developed by the Polish Bank Association. The database contains information regarding characteristics of real estate, their location and information on transaction prices from deeds.

⁷ Swiss frank interest rate is much lower than WIBOR, i. e. Warsaw Interbank Offer Rate.

Graph 9

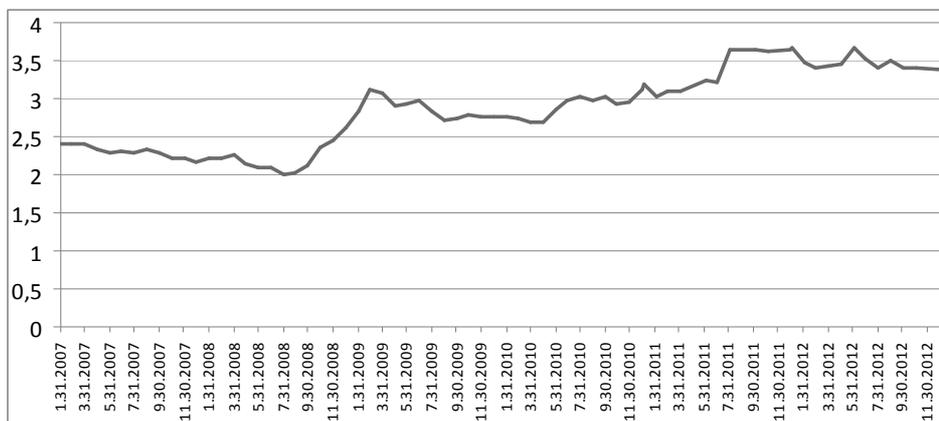
Change of real estate prices in selected Polish towns in (2006–2012)



Source: AMRON-SARFiN.

Graph 10

Exchange rate CHF/PLN



Source: NBP.

In order to magnify threats associated with combining high LTV with FX lending authors prepared a simple simulation. Main assumptions are:

- Household bought a 300 000 PLN worth dwelling in Warsaw at the beginning of 2007
- Purchase was financed through 125 000 CHF loan with monthly installments
- At the beginning of simulation CHF/PLN exchange rate was 2,40
- Initial LTV was 100 percent
- Household pays installments in CHF.

Over the analyzed period LTV raised from 100 percent when loan was activated to around 135 percent at the end of 2012. Such rapid growth of LTV ratio stemmed from change of CHF/PLN exchange rate which was around 3,5 CHF/PLN at the end of period. One should notify that there was no major decrease of real estate's value in spite of minor price correction (around 12 percent between 2008 and 2012). Vives (2006) underlined that sustaining of such trends might possess a serious threat to individual household and to banking system in case of labor market slump, further decrease of real estate prices or depreciation of local currency. However Poland avoided turmoil on financial market, mainly due to prudential activity of financial supervisor which prevented sector from risky behavior.

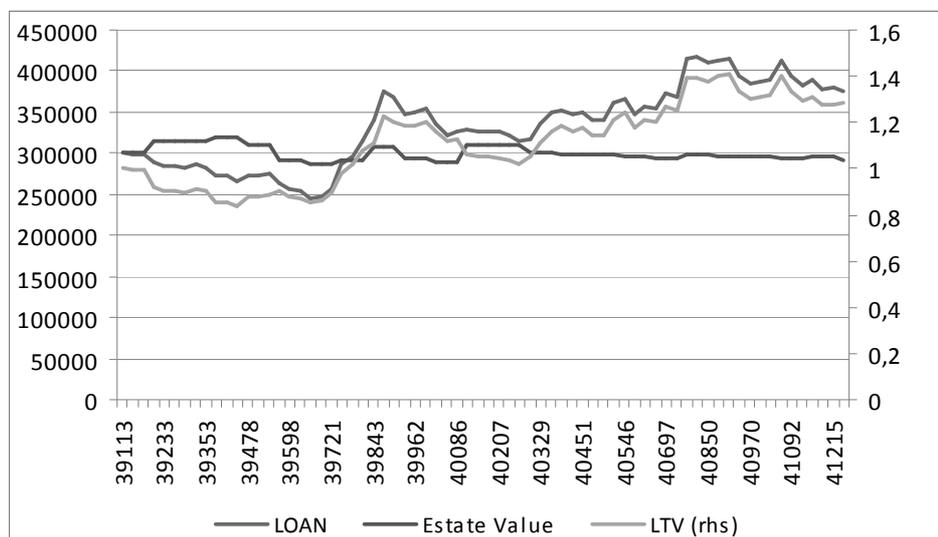
The above presented simulation refers to simple customer case. One has considered that if such behavior of market is countrywide there is a significant risk of contagion. In order to magnify this threat one more simple calculation can be used. Assume that one bank has 1/3 of its assets in CHF mortgage loans. Bank is financed through foreign financing strategy. For simplification it is assumed that financing is also provided in CHF and all assets are not risk weighted. CAR requirement is assumed to be 10 percent.

Increase of exchange rate from 2,40 to 3,50, ie. depreciation of Polish currency yields to decrease of CAR by around 1,4 percentage points which gives additional need for 4,5 unit of capital accounting for 15 percent of core capital. Such situation may result in curbing credit activity of banks and boost economic slowdown.

Being aware of such adverse conditions Polish financial supervisor issued recommendation aimed at limiting availability of FX housing loans (Kowalczyk, Kruszka, 2011). Such document was passed in 2010 and sales of new credits in CHF were curbed. This action reduced possible loss from changes of exchange rate. One has to remember that in the period 2008–2009 up to 60 percent of new sold mortgages was granted in CHF.

Graph 11

Changes of LTV over the period 2007–2012



Source: own calculation.

Table 2

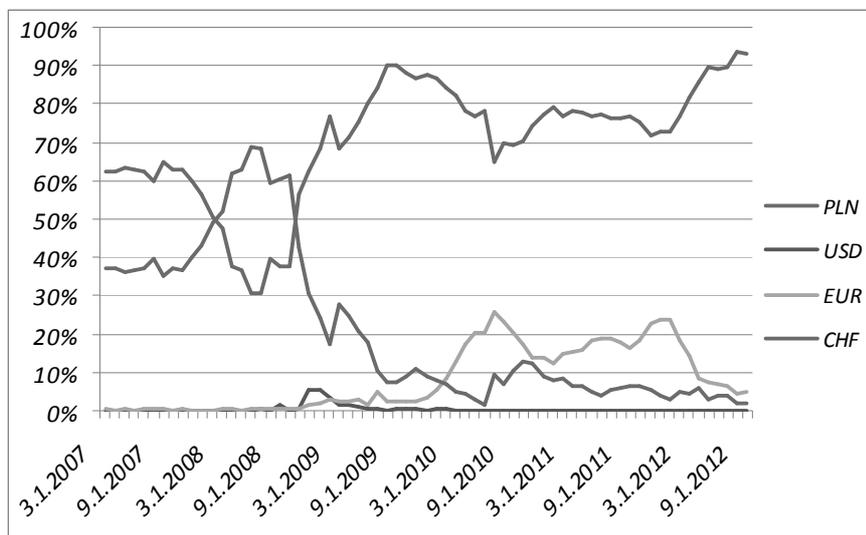
Influence of FX rate on CAR

CHF/PLN = 2,40				CHF/PLN = 3,50			
CHF assets	100	CHF liabilities	200	CHF assets	145	FX liabilities	290
PLN assets	200	PLN liabilities	70	PLN assets	200	PLN liabilities	70
		Core capital	30			Core capital	30
		CAR	10 percent			CAR	8,6 percent
				Additional Capital Requirement	4,5	As percent of core capital	15 percent

Source: Own calculation on the basis Cayazzo et al (2006)

Graph 12

Structure of new sold mortgages (according to currency)



Source: NBP.

After 2010 such share fell to below 10 percent. Banks resigned from massive FX lending after changes imposed by KNF resolution, the 75 percent weight of FX loans were replaced by the 100 percent weight (despite Basel requirement on 35 percent). This suggest proper, active behavior of KNF which managed to protect market against housing «bubble» and major turmoil on financial market.

4. Activities of the KNF during economic slowdown

The Polish integrated financial supervision system was established in 2006 when securities commission and insurance authority were merged under one roof of the KNF. The integration process concluded on January 1, 2008, when the KNF took over the tasks performed by the Commission for Banking Supervision, which functioned under the auspices of the National Bank of Poland. Such an action should improve the performance of the authorities and prevent the

country's economy from succumbing into crisis (Čihák and Podpiera 2006). In general integrated supervision in Poland operated properly because:

- there has not been any bank failure since the beginning of the global financial crisis and none of the banks in Poland required recapitalization using public funds;
- Polish banks are well capitalized, liquid and fully capable of satisfying ongoing credit demand;
- The off balance sheets positions of Polish banks are mainly financing provisions or guarantees, but there are virtually no OTC (over-the-counter) derivatives;
- Despite of weak labor market conditions the number of nonperforming loans did not rise sharply; and
- The balance sheets of Polish banks were free of any burdens stemming from investment in the securities or governmental bonds issued by countries struck by financial crisis (peripheral euro area countries, for example Greece or Spain).

In the period 2007–2012 the KNF drafted a numerous recommendations and resolutions aimed at stabilizing the situation in the banking sector. An important solution aimed at stabilizing the Polish banking sector was establishment of legally binding liquidity norms in 2008 – see NBP (2009). It is worth noting that such a solution was introduced prior to the issue of liquidity norms by Basel Committee. Its recommendations defining LCR (Liquidity Coverage Ratio) and NSFR (Net Stable Funding Ratio) were proposed in 2010 (BIS, 2010).

Stoica et al (2011) emphasized that financial system stability supported by proper supervision is an important factor for economic growth. From this point of view - in general - the activities of the Polish financial supervisor deserves a positive opinion not only because there was no financial crisis caused by of banks pursuing flawed policy but also because the probability of such threat in the future was reduced. Banking supervision in Poland has been active instead of being reactive. This is very important when Poland's' rating position is considered. A good rating is one of the factors confirming the soundness of an economy and financial supervision performance is significant element in rating methodology. Rating agencies assess the activity of supervision and consider its results when determining overall rating score (S&P, 2011). In other words if any particular country suffered from financial crisis, especially in cases where banks required state-backed assistance or nationalization (see for instance TARP in US) then overall grade for supervision is poor. From this perspective one can state that the KNF effectively fulfilled its mission (Fitch, 2013).

Other important issues deserving further analysis are the role and position of the KNF in the new institutional framework proposals of the European Com-

mission linked with the Banking Union, or the way that Basel III and CDR IV have been implemented. Veron and Wolff (2013) pointed out the main pillars of the Banking Union: common supervision rules (single rulebook), the single supervision mechanism for the entire euro area, the common deposit guarantee scheme, and the harmonized framework for the recovery and resolution of financial institutions. Such supra national proposals, especially when one looks into intragroup financing, appear to change position of the KNF (as a host supervision authority) in the future. Yet it is premature to discuss this issue in detail since the majority of draft proposals require further analysis (some recommendations are controversial even for members of Eurozone, like Germany⁸) Moreover several foreseen instruments are mandatory for Euro zone members while other countries can voluntarily participate in this framework.

Conclusions

In Poland credit to GDP ratio rose from about 36 percent in 2007 to 60 percent in 2012. Such an increase itself might potentially be a source of risks to financial stability, but it was also coupled with relatively new phenomena, and above all – massive foreign currency lending. Thanks to proactive attitude of Polish authorities and sound economic fundamentals, the risks largely failed to materialize. In its recommendations for banks financial supervisor has addressed the problem of FX lending which contributed to the high quality of the portfolio. Before the economy slowed down, the KNF – Polish Financial Supervision Authority persuaded banks to accumulate an additional capital buffer that helped to protect them from negative consequences of the downturn. Some regulatory concepts that have been put into practice in Poland in recent years, including quantitative liquidity requirements, are now being implemented globally.

Poland participates in international (especially on the EU level) debates on a new regulatory regime for the financial system. The major message that Poland should to convey is that all new regulations must be tailored very carefully. Regulators should strive to ensure that the benefits of a higher quality capital base or of the countercyclical buffer are not compromised by international overregulation that could undermine national authorities' ability to pursue effective country-specific policies.

⁸See, press release from G. Fahrenschon, President of Deutschen Sparkassen- und Giroverbandes (DSGV), http://www.dsgv.de/_download_gallery/Pressemitteilungen_2012/121213_Einigung_zu_EU-Aufsicht_122.pdf

Bibliography

1. Aaronson D., E. Rissman, D. G. Sullivan (2004), *Assessing the jobless recovery*, Economic Perspectives Vol. 28.
2. Anayiotos G., Toroyan H., Vamvakidis A., (2010), The efficiency of emerging Europe's banking sector before and after the recent economic crisis, *Financial Theory and Practice* Vol. 34.
3. BIS (2010) *International Framework for liquidity risk measurement, standards and monitoring*.
4. Cayazzo J., Garcia Pascual A., Gutierrez E., Heysen S. (2006), *Toward an Effective Supervision of Partially Dollarized Banking Systems*, IMF Working Paper WP/06/32.
5. Čihák M., R. Podpiera (2006), *Is One Watchdog Better Than Three? International Experience with Integrated Financial Sector Supervision*, IMF Working Paper WP/06/57.
6. Cristiano C., P. Levine, G. Melina (2013), *A Fiscal Stimulus and Jobless Recovery*, IMF Working Paper WP/13/17.
7. Fitch, (2013), *Fitch Affirms Bank Millennium at «BBB-»; Outlook Stable*, credit action press release.
8. FSA (2012), *Mortgages Product Sales Data (PSD) Trend Report 2005–2012*, <http://www.fsa.gov.uk/static/pubs/other/psd-mortgages-2012.pdf>.
9. IMF (2012), *Spain, Financial System Stability Assessment* Country Report No. 12/137.
10. Kowalczyk M., Kruszka M. (2011), *Macro-Prudential Regulation of Credit Booms and Busts: The Case of Poland*, World Bank Policy Research Working Paper No. WPS 5832.
11. Lahnsteiner M., (2010), *The refinancing structure of banks in selected CE-SEE countries*, in: *Capital flows to converging European economies – from boom to drought and beyond*, European Commission Directorate-General for Economic and Financial Affairs Occasional Papers No 75.
12. Ministerstwo Gospodarki (2004), *Analiza sytuacji Gospodarczej Polski w 2003 roku*, http://www.mg.gov.pl/NR/rdonlyres/6363FCE9-C130-41EA-9529-E45A2AFBBE4A/4248/6486_4q2003.pdf.
13. NBP (2009), *Financial Stability Report*, December.
14. NBP (2012), *Financial Stability Report*, December.

15. Piątkowski M., (2011), *How the Polish banking sector has survived the global crisis*, Enterprise Science Quaterly No. 21.
16. S&P (2011), *Banking Industry Country Risk Assessment Methodology and Assumptions*.
17. Stoica O., Diaconășu D.-E., Scântee R. (2011), *Financial Supervision in Central and Eastern Europe*, in: *Lessons Learned from the Financial Crisis*, Proceedings of 13th International Conference on Finance and Banking, eds. S. Polouček, D. Starek, Silesian University in Opava, Karvina.
18. Veron N., Wolff G.B., (2013), *From Supervision to Resolution: Next Steps on the Road to European Banking Union*, Peterson Institute for International Economics, Policy Brief No PB13-5.
19. Vives X., (2006), *Banking and Regulation in Emerging Markets: The Role of External Discipline*, World Bank Research Observer Vol. 21.

The article was received on October 30, 2013.