The evolution of banking sectors in Central and Eastern Europe – the case of Poland

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Abstract

Changes in the Polish financial system were so rapid that some stages of financial development were skipped. At the beginning of the transformation process, banks' main balance sheet items were short-term loans and deposits. At the end of the 1990s, foreign investors started to rapidly increase their share of banking sector assets. And with the inflow of foreign capital came the transfer of technologies, know-how, and also business models from parent companies. These models were based on granting housing loans. As a consequence, it is households rather than enterprises that are now the most important customers for banks in the Central and Eastern European (CEE) countries. In fact, the share of household loans (mainly mortgage loans) in banking sector assets in the CEE countries is the highest among all EU countries. Banks financed their activities through a growing deposit base, later supplemented by loans from parent companies.

The future of the Polish banking sector will depend on the evolution of the global financial system. Banks will probably start to rely more on traditional sources of financing and their portfolio of liquid assets will be greater than before the outbreak of the global financial crisis. As for the asset side of the balance sheet, housing loans are likely to continue to occupy the dominant position. The overwhelming demand for housing (in Poland, as in other CEE countries, the vast majority of residential property is owned, rather than rented), coupled with very low average income relative to the price per square metre, make it impossible for banks to do without long-term financing. Covered bonds are a possible source of such financing.

It would be desirable to design and implement instruments which could change the current structure of banking sector assets (lower the share of household loans). The existing structure is clearly not conducive to the economy's international competitiveness. The question remains, however, as to how banks might be induced to steer their credit flows away from households and towards manufacturers.

Keywords: financial system development, banking sector, bank lending, CEE countries

JEL classification: F65, G21, N20, O16

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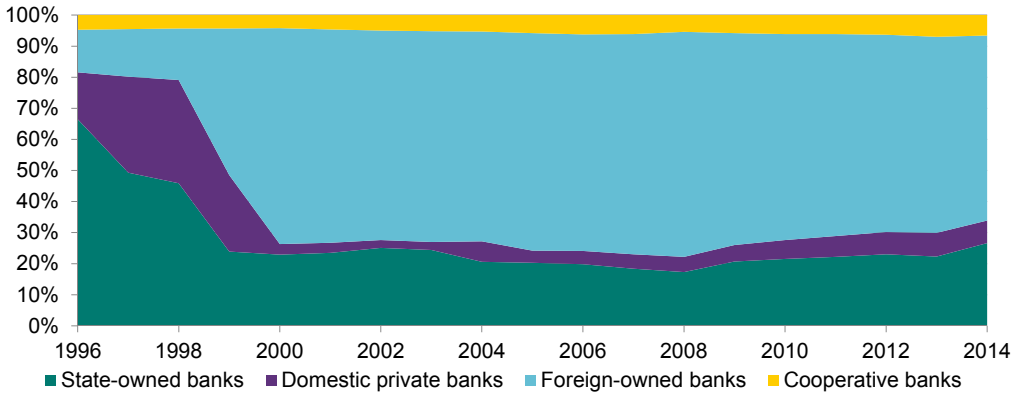
Prediction is very difficult, especially about the future. So before we try to do this, we have to take a look at the past. We strongly believe *historia est magistra vitae*, so we will start by presenting the evolution of the Polish banking sector over the last 20 years.

Changes in banking

The story of the Polish financial system is not long, but it is quite dynamic. During the economic transformation many things had to change. These changes were rapid and some stages of financial development were skipped. At the start of this process, the Polish banking sector resembled the old-fashioned banks of the 19th century. The main balance sheet items were short-term loans and deposits. Around the mid-1990s, revolutionary changes in the ownership structure were observed. Along with the inflow of foreign capital came the transfer of technologies, know-how, and also business models from parent companies. The IT revolution, for instance, allowed the Polish banking sector to practically skip the use of cheques. In the 21st century the ownership structure was already more or less fixed and a fairly uniform model of banking was established.

Polish banking sector assets – ownership structure — Graph 1



Source: Narodowy Bank Polski (NBP).

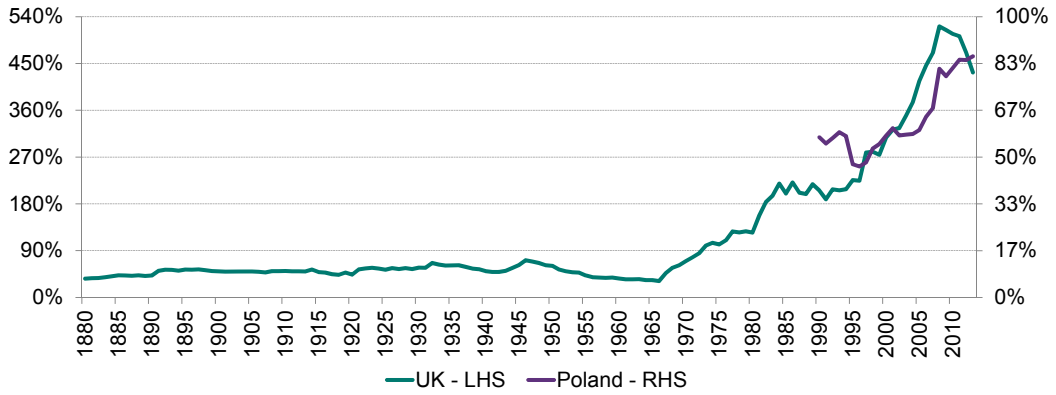
What was this model? Both research and practice confirm that, in the developed markets, the introduction of credit-scoring gradually pushed banks to grant loans to households rather than to enterprises.[2] This process was commonplace across Europe, but in the CEE countries the related adjustment was incredibly condensed. As a result, the structural changes that took dozens of years in Western Europe emerged in the CEE region very suddenly and were spread over just a few years.

The "invention" and rapid development of housing loans was just one of several important changes that were observed in the developed economies with respect to

[2] Building assets, building credit: creating wealth in low-income communities, N Retsinas and E Belsky (eds), Brookings Institution Press, Washington DC, 2005.

the structure of banks' balance sheets. The growing share of proprietary trading was another. These new business lines were often financed by an increase in short-term market liabilities (wholesale market), frequently from international sources. The above-mentioned changes dramatically affected the ratio of banking sector assets to GDP. Assets were increasing in line with leverage, especially in investment banks.[3] For instance in the UK this process started as early as the 1970s and lasted for more than 30 years. Interestingly enough, the same process was observed in some countries (eg Germany, the United States) before the Great Depression. The growth of leverage in the US banking sector was also similar.[4]

Banking sector assets to GDP in the United Kingdom and in Poland — Graph 2



Sources: UK (Assets) – Bank of England (Monetary financial institutions' balance sheets, income and expenditure); D Sheppard, *The Growth and Role of UK Financial Institutions 1880-1962*, Methuen, 1971; UK (GDP) – Office for National Statistics; Reuters; Bank of England (B Mitchell, *British Historical Statistics*, Cambridge University Press, 1988, J Sefton and M Weale, *Reconciliation of National Income and Expenditure: balanced estimates of national income for the United Kingdom, 1920–1990*, Cambridge University Press, 1995; Poland: NBP, GUS.

It is worth mentioning that the growth of banking sector assets shows only part of the financial intermediation implosion. Due to securitisation, some assets were moved to other financial institutions.[5]

The ratio of banking sector assets to GDP was also picking up in CEE countries, but for slightly different reasons.

The model of banking which involved promoting loans for households (mostly housing loans) on a large scale was imported from headquarters before a culture of cooperation with enterprises had sufficient time to emerge. As a consequence, households rather than enterprises have become the most important clients of banks in the CEE countries. In fact, the share of household loans (mainly mortgage loans) in the assets of the banking sector in the CEE countries is the highest among

[3] T Adrian and H S Shin, "Money, liquidity, and monetary policy", *American Economic Review*, no 99(2), 1999, pp 600–5.

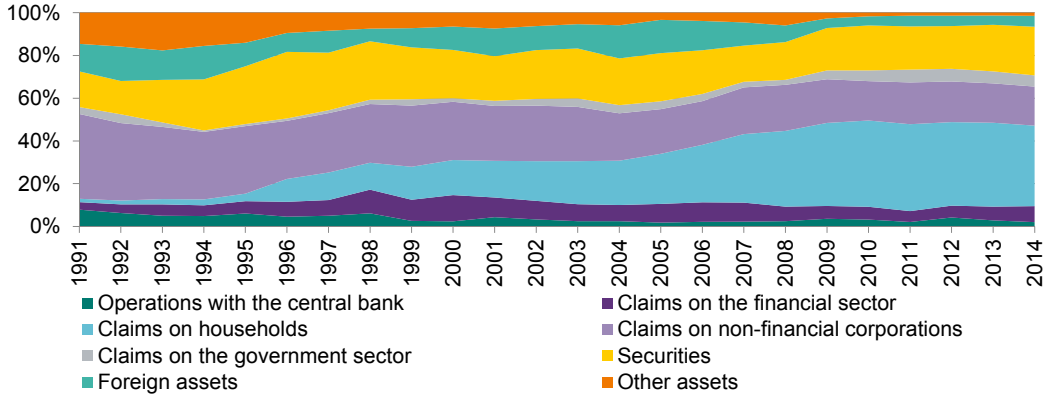
[4] C Borio, H James and H S Shin, "The international monetary and financial system: a capital account historical perspective", *BIS Working Papers*, no 457, August 2014.

[5] For instance, in the United States, the assets of non-banking financial institutions providing, among others, financing for banks were greater than the assets of banks themselves. See: T Adrian and H S Shin, "The changing nature of financial intermediation and the financial crisis of 2007–09", *Federal Reserve Bank of New York Staff Reports*, no 439, March 2010.

all EU countries. A similar picture emerges when comparing the ratio of household loans to loans for enterprises.

Structure of assets in the Polish banking sector

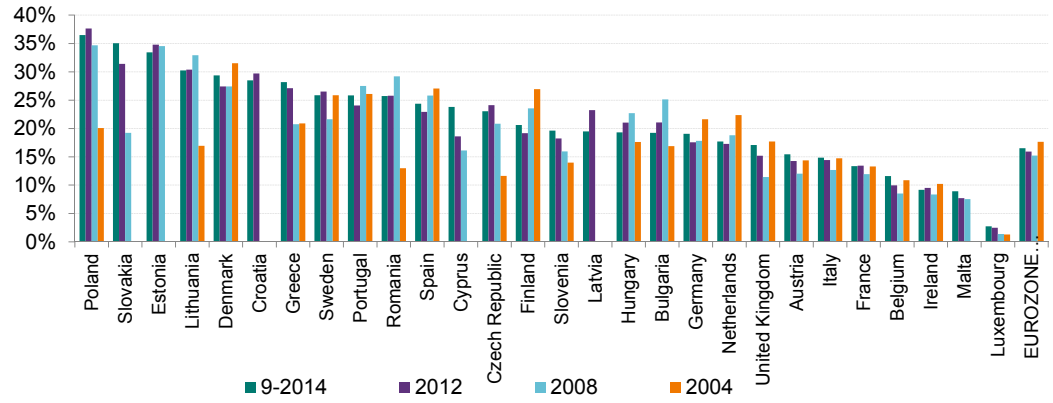
Graph 3



Source: NBP.

Share of household loans in banking assets

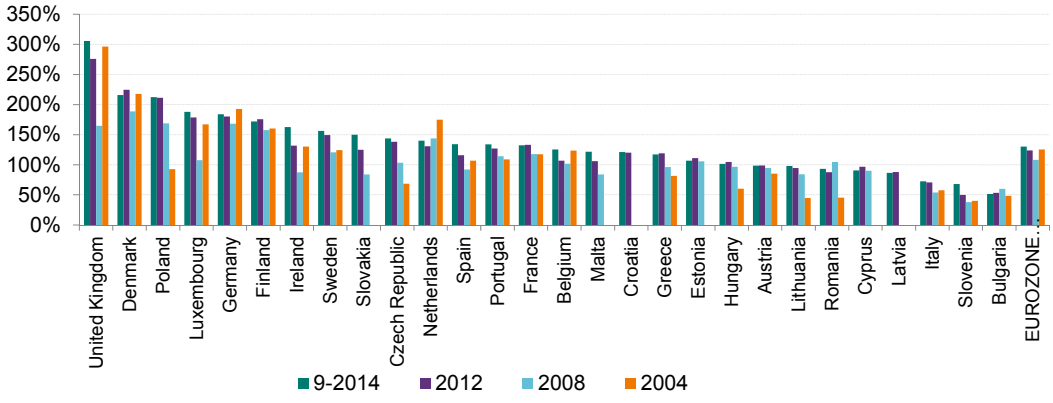
Graph 4



Source: ECB (Monetary, Financial Institutions and Markets Statistics – Balance Sheet Items Statistics).

Ratio of household loans to loans for enterprises

Graph 5

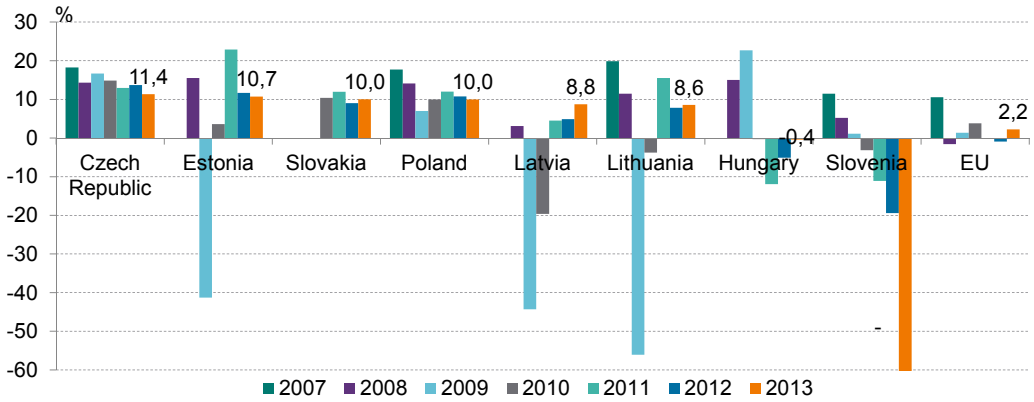


Source: ECB (Monetary, Financial Institutions and Markets Statistics – Balance Sheet Items Statistics).

Proprietary trading has not developed in the banking sectors of CEE countries. There are several reasons for this:

1. The traditional banking activities performed by banks in the region were highly profitable, so their parent companies did not insist on increasing profits by encouraging branches and subsidiaries to engage in excessive trading;
2. Parent companies wanted to centralise risk management and the most profitable trading activities in their headquarters; they did not want to share the sweets; and
3. Banks from the region were not prepared to speculate in the global financial markets and the potential for investing in regional markets was limited owing to the paucity of suitable instruments and relatively low liquidity of most market segments.

ROE in banking sectors of selected CEE countries — Graph 6



Note: Weighted average for the EU; data for Estonia (2007), Slovakia (2007–09), Latvia (2007) and Hungary (2007) were not available.

Source: Own calculations based on ECB consolidated data.

Contrary to what was observed in the developed banking sectors, banks in CEE countries did not rely on financing the increase of assets in different wholesale markets. They did not have to, because they were able to finance their activities through a growing deposit base, later supplemented by loans from parent companies. Subsequently, a huge inflow of capital to the region was observed. Financing credit expansion in the CEE countries from abroad was similar to the financing of German banks before the Great Depression.[6] Using the methodology proposed by J-H Hahm et al, both interbank loans and credit lines from headquarters might be classified as non-core liabilities. The growing role of non-core liabilities is a good measure of procyclicality of the banking sector.[7] This was also in line with the financial instability hypothesis of H Minsky.[8]

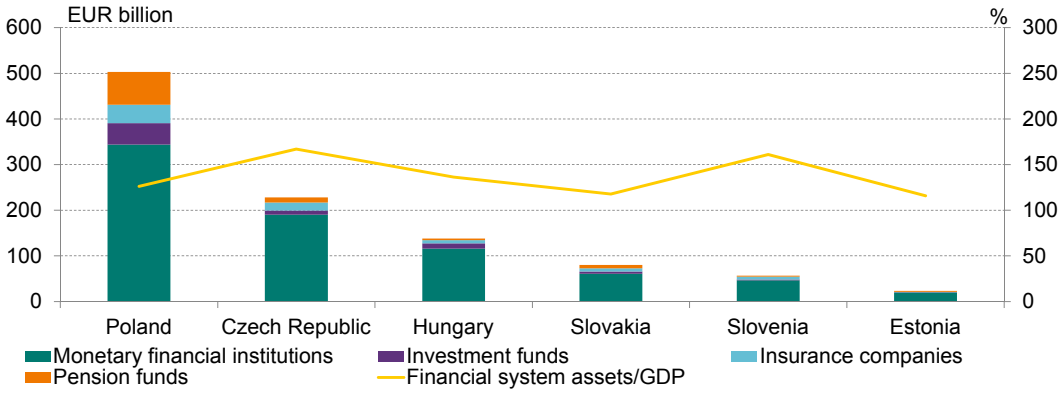
[6] C Borio, H James and H S Shin, op cit.

[7] J-H Hahm, F Mishkin, H S Shin and K Shin, "Macroprudential policies in open emerging economies", *NBER Working Paper*, no 17780, 2012.

[8] H Minsky, "The financial instability hypothesis", Levy Economics Institute, *Working Paper*, no 74, May 1992, pp 6–7, www.levyinstitute.org/pubs/wp74.pdf.

Before the global financial crisis, economists broadly agreed that the structure of a financial system was irrelevant for economic growth and that there was no single optimal structure suiting the needs of all countries.[9] Still, according to the available literature, market-oriented financial systems tend to behave better in unusual conditions.[10] This was confirmed during the global financial crisis: the economic slowdown in countries with market-oriented financial systems was shorter than in countries with bank-oriented financial systems.[11] Even though the Polish financial system is bank-oriented (banking loans are the main external source of financing for enterprises), it is the least bank-oriented in the region.

The structure of financial sector assets in selected CEE countries — Graph 7



Source: Own calculations based on ECB, Eurostat, GUS and NBP data, as well as data provided by national central banks.

Financial system development and economic growth

Before the global financial crisis there was broad agreement in the mainstream of the literature about a positive relationship between financial system development and economic growth.[12] This relationship was confirmed in empirical studies.[13] After

9 R Merton and Z Bodie, "The design of financial systems: towards a synthesis of function and structure", *NBER Working Paper*, no 10620, 2004; R Rajan and L Zingales, "Financial dependence and growth", *American Economic Review*, vol 88, 1998, pp 559–86.

10 F Allen and D Gale, "Diversity of opinion and financing of new technologies", *Journal of Financial Intermediation*, vol 8, 1999, pp 68–89.

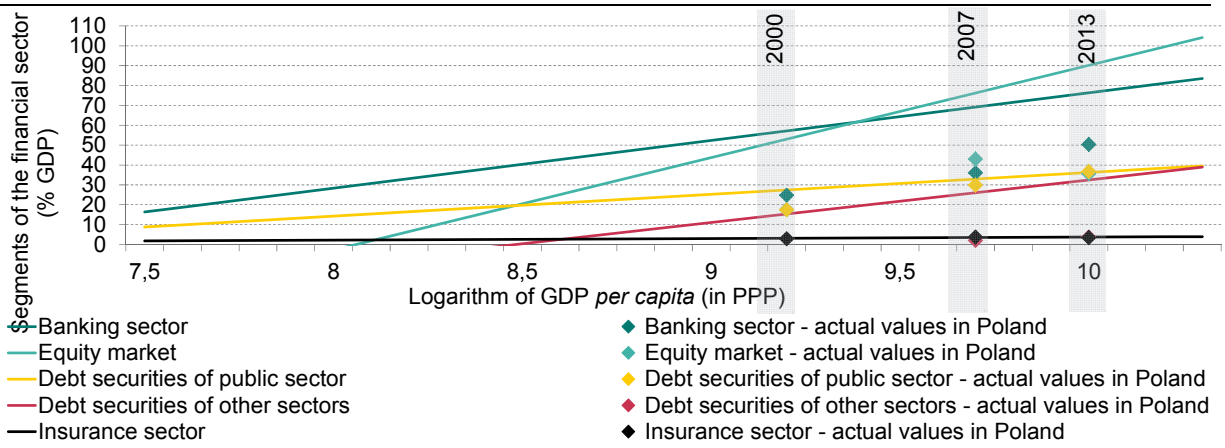
11 A Demirgüç-Kunt, E Feyen and R Levine, "The evolving importance of banks and securities markets", *Policy Research Working Paper*, no 5805, World Bank, September 2011.

12 M Miller, "Financial markets and economic growth", *Journal of Applied Corporate Finance*, vol 11, 1998, pp 8–14; K Neusser and M Kugler, "Manufacturing growth and financial development: Evidence from OECD countries", *Review of Economics and Statistics*, vol 80, 1998, pp 636–46; P Rousseau and P Wachtel, "Financial intermediation and economic performance: historical evidence from five industrial countries", *Journal of Money, Credit and Banking*, vol 30, 1998, pp 657–78; P Rousseau and R Sylla, "Emerging financial markets and early U.S. growth", *NBER Working Paper*, no 7448, 1999.

13 R King and R Levine, "Finance and growth: Schumpeter might be right", *Quarterly Journal of Economics*, vol 108, 1993, pp 717–38; R Levine and S Zervos, "Stock markets, banks, and economic

the outbreak of the crisis, this axiom was undermined, and many papers questioned the positive correlation between financial system development and GDP growth.[14]

The development of the financial system depending on GDP per capita — Graph 8



Note: The values of the regression function were estimated for panel data, which included the information on the financial systems of 209 countries in 1991–2012. The following development measures of the individual sectors of the financial system were used:

- banking sector: loans to non-public sector to GDP (for Poland – banking sector loans and advances to the non-financial sector in domestic and foreign currency),

- equity market: equity market capitalisation to GDP (domestic enterprises listed on the Main Market of GPW),

- insurance market: non-life and life insurance premium to GDP,

- public sector debt securities: outstanding value of general government debt securities to GDP,

- debt securities of other sectors: outstanding value of debt securities of financial institutions and enterprises to GDP.

More in: T Beck and A Demirgüç-Kunt, "Financial institutions and markets across countries and over time: data and analysis", *World Bank Policy Research Working Paper*, no 4943, May 2009.

The regression function was estimated using the Fixed Effects GLS method in relation to the banking sector and equity market, and the Random Effects GLS method in relation to debt securities of the public sector, other sectors and the insurance sector. The model was selected on the basis of the Hausman test (compare M Verbeek, *A guide to modern econometrics*, John Wiley & Sons, 2004, pp 351–52).

Source: "Rozwój systemu finansowego w Polsce w 2013 r.", P Sobolewski and D Tymoczko (eds), Narodowy Bank Polski, 2014.

In this context, the Polish banking sector's potential to support economic growth could also be examined, taking into account its size. Based on the assessment of the ratio of banking assets to GDP, it might be concluded that the critical thresholds pointed out in the literature still lay ahead.[15] A few years ago the Polish financial system was said to be underdeveloped as compared with the euro

growth", *American Economic Review*, vol 88, 1998, pp 537–58; R Levine, N Loayza and T Beck, "Financial intermediation and growth: causality and causes", *Journal of Monetary Economics*, vol 46, 2000, pp 31–77; R Rajan and L Zingales, "Financial dependence and growth", *NBER Working Paper*, no 5758, 1996.

[14] J Arcand, E Berkes and U Panizza, "Too much finance?", *IMF Working Paper*, no 12/161, 2012; *Is Europe overbanked?*, Report of the Advisory Scientific Committee, ESRB, no 4, June 2014.

[15] The above mentioned thresholds are elaborated upon in *Is Europe overbanked?*, Report of the Advisory Scientific Committee, ESRB, no 4, June 2014; S Law and N Singh, "Does too much finance harm economic growth?", *Journal of Banking & Finance*, vol 41, April 2014: S Cechetti and E Kharroubi, "Reassessing the impact of finance on growth", *BIS Working Papers*, no 381, July 2012. The calculation for Poland is based on "Rozwój systemu finansowego w Polsce w 2013 r.", P Sobolewski and D Tymoczko (eds), Narodowy Bank Polski, 2014.

zone financial system. Nowadays it has become obvious that excessive growth of the financial sector might be harmful for the economy and for economic growth.

Even though the Polish financial system was relatively small, fast-growing assets financed from abroad did cause imbalances, an example of what Borio and Disyatat have called "excess financial elasticity".[16]

The future of banking in Poland

The evolution of the Polish banking sector will depend on the evolution of the global financial system. Some changes are already observable. In the developed markets, banks have started to rely more on traditional sources of financing and their portfolio of liquid assets is bigger than before the outbreak of the crisis. The same trend is likely to emerge in Poland, as it is difficult to imagine that loans will continue to be financed using credit lines extended by parent companies, even though Polish banks – compared with those of other CEE countries – did not need to deleverage.

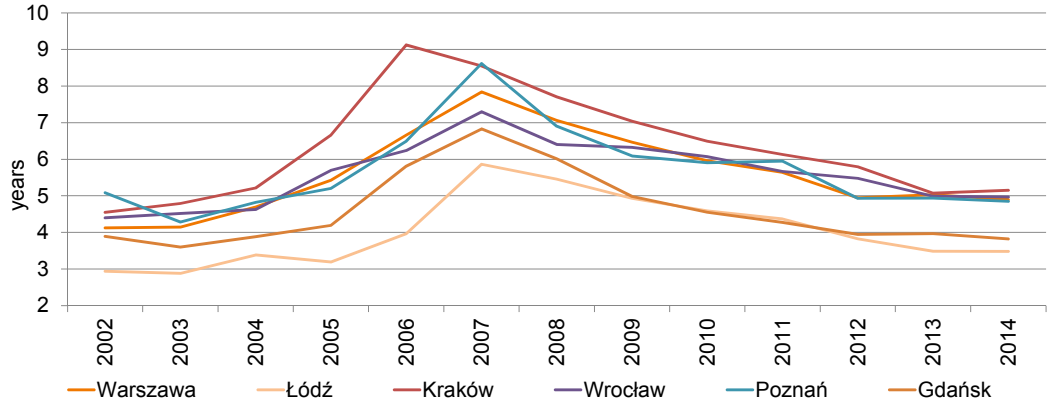
So what could be the source of financing for banks? Typically – deposits. However, banks are well aware of the limitations of this category of funding: deposits usually grow in line with income, and it is reasonable to assume that income grows in line with GDP. This means that it is impossible to dramatically increase the ratio of banking assets to GDP using only deposits as a source of funding. This is why banks invented securitisation, wholesale funding, rehypothecation and so on. But all these sources will be rather limited in the coming years, especially in CEE countries, where there is no tradition of financial engineering. Hence, whether they like it or not, banks operating in Poland will have to rely on traditional sources of funding, ie deposits.

As for the asset side of the balance sheet, housing loans are likely to retain their dominant position. The overwhelming demand for houses (not only in Poland, where the vast majority of real estate is owned, rather than rented), coupled with very low average income relative to the price per square metre, make it impossible to do without long-term financing from banks. The economic conditions behind the prospects for the evolution of both assets and liabilities of the Polish banking sector seem to form a vicious circle – demand for credit without the possibility of meeting it.

There is, however, one possible source of financing that does not require complicated financial engineering: covered bonds. In Poland only specialised institutions – mortgage banks (hypo banks) – are eligible to issue covered bonds. The legislation on hypo banks and covered bonds is now being amended to facilitate the issuance of those securities. Together with changes in European regulations (eg regarding NSFR), banks will have to rely to a greater extent on long-term financing, and covered bonds might be one solution to the problem. This prospective avenue of development has already been remarked, among others, by the largest Polish bank, which decided to establish a hypo bank.

[16] C Borio and P Disyatat, "Global imbalances and the financial crisis: Link or no link?", *BIS Working Papers*, no 346, May 2011.

Price to income in selected Polish cities Graph 9



Note: The price-to-income ratio is calculated as the price of an average dwelling (average usable area in sq metres multiplied by the average annual price – 50% primary housing market and 50% existing stock market) divided by the annual income of average household in the local market.

Source: NBP.

Even with a sufficient supply of securities such as covered bonds, the demand for them is crucial if the market is to develop. In Poland, pension funds could be interested in acquiring covered bonds. As they were obliged to remove Treasury securities from their assets, which automatically made their portfolios riskier, they might want to stabilise the return on their investment using assets with a relatively low volatility/risk. Covered bonds meet this condition. Voluntary pension funds, which need to emerge and develop to increase the replacement rate for future pensioners, could be another source of demand for covered bonds. These sources of demand might be supplemented by foreign investors.

Macroprudential policy and its role in influencing the development of the banking sector

There is an abundant literature on macroprudential policy instruments and rules for organising them.[17] Macroprudential policy can be divided into structural and cyclical policy. At present, there is no need to use macroprudential tools to limit the cyclical component of systemic risk in Poland. However, as mentioned before, the share of household loans in banking assets in CEE is one of the highest in the EU. Such a structure for banking assets is evidently not conducive to the economy's international competitiveness. For this reason, it would be desirable to design and implement instruments that could change this structure. On the one hand, the growth of mortgage loans at least in Poland is probably inevitable (as we pointed out earlier on in the text) but, on the other hand, banks should support GDP growth. This could be done not by investing in cement, but by financing innovative

[17] IMF, *Macroprudential Policy: An Organizing Framework*, March 2011; N Arregui, J Benes, I Krznar, S Mitra and A Santos, "Evaluating the net benefits of macroprudential policy: A cookbook", IMF, July 2013.

enterprises. Of course there remains the question of how to convince banks to steer their credit flows from households to manufacturers.

Unfortunately there seems to be no one good answer to this question. The history of using microprudential instruments for macroprudential purposes is very short. It is even not obvious whether macroprudential policy should indeed be used to influence the structure of banking sector assets (for this would not be a typical, conventional structural macroprudential policy). There is no doubt that one of the objectives of macroprudential policy is to limit systemic risk stemming from one kind of credit (mortgage loans are widely used as an example), but what about supporting the growth of another kind of credit? We believe it is the other side of the coin. And it seems to be in line with the recommendation of"putting in place adequate anchors in individual jurisdictions".[18]

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[18] C Borio, "The international monetary and financial system: its Achilles heel and what to do about it", *BIS Working Papers*, no 456, September 2014.

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