ISSUES IN CONSOLIDATION AND COMPETITION: CASE OF POLISH BANKING SECTOR

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Abstract

The focus of the paper is to examine the extent and nature of the process of consolidation in Polish Banking Sector and its impact on efficiency and competition. The paper is organised into the following sections. After the introduction, the second section deals with the social role of the banks. Section three briefly sets out the theoretical underpinnings of the banking consolidation process. It also spells out the motives and factors driving mergers and acquisitions (M&As) and the various methods of consolidation. Trends in M&A activity and the progress in banking consolidation in Poland are detailed in next section. The impact of the consolidation process on competition in the Polish banking sector and efficiency of the merged entities is analysed in section five. The final section briefly sets out the conclusions.

Keywords: Banks; Mergers and Acquisitions; Consolidation Process, Efficiency, Competition

JEL Classification: G21; G34

1. Introduction

The world banking industry has undergone significant transformation since the early 1980s under the impact of technological advances, deregulation and globalisation (Shull, Hanweck, 2001; Sudarsanam, 1998; DePamphilis, 2008). Although the process of transformation began in the 1980s, it accelerated in the 1990s due to macroeconomic pressures and banking crises which forced the banks to change business strategies and the regulators to deregulate the banking sector at the national level and open up financial markets to foreign competition (Sharma, Manoj Kumar (2010). The competitive pressures on banks had as a result the deep changes in the structure of the banking sectors with privatisation of state-owned banks, mergers and acquisitions and increased presence of foreign banks. The financial value involved in the mergers and acquisitions multiplied over the years. As for other industries, mergers and acquisitions in the banking sector generate a trade-off between gains and adverse effects (Neviana, 2003). The effects of consolidation can be positive as larger banks may be more efficient and profitable than smaller ones and generate economies of scale and scope. Furthermore, the reorganisation of the merged/acquired bank can have a positive impact on its managerial efficiency. If the concentration generates efficiency gains and these are transferred to the customers, they may benefit from lower prices and higher quality services, as the range of products and services provided by larger banks is supposedly wider than what is offered by smaller banks.

On the other hand, the concentration may increase the market power of merged institutions. The process of consolidation can also cause a reduction in the credit supplied to some categories of borrowers, particularly small firms, new firms and those with a small numbers of lenders (Neviana, 2003). Financial consolidation has implications for competition and also for financial stability, monetary policy and efficiency of financial institutions (Prasad, Ghosh, 2005). Due to the diverse nature of financial institutions, different levels of financial development, different legal framework, the causes and impact of financial consolidation varies across the countries. For instance, financial consolidation led to higher concentration in countries such as US and Japan, though they continue to have much more competitive banking systems as compared with other countries (Kenneth, Critchfield, 2005). However, in several other countries, the process of consolidation led to decline in banking concentration, reflecting increase in competition (Prasad, Ghosh, 2005).

2. Social Role of Banks

Banks are a service industry which contributes to economic growth by providing the financial means to facilitate production in other industries. An efficient and competitive banking sector has a large contribution to economic growth. Among the main bank's function it is worth to mention that: 1. the banks provide financial services necessary for enterprises and consumers to undertake their business, 2. banks intermediate savings to productive investment through the supply of credit to businesses and consumers, and 3. they also, enable risk-sharing. The contribution of efficient functioning of these activities to economic growth has been established for some time in the empirical literature (King and Levine 1993; Levine 1997).

Traditionally banks have been considered to be more vulnerable to instability than other industries. The main reasons are: 1. Bank's balance sheet consists of short-term deposits on the liability side and long-term assets that can be difficult to liquidate quickly[1]. 2. Highly leveraged firms have an incentive to engage in risky behaviour. This known as agency problem is particularly strong for banks (Zawalinska, 1999; Kaufman, 1995). Banks potentially are more vulnerable and the instability in the banking system can have more debilitating effects than instability in other industries. Bank failures can have substantial economic costs and because the banks are connected through a variety of networks a shock to one bank can lead to shocks to other banks (Northcott, 2004). This can greatly increase the cost of a crisis. Policy-makers aim to facilitate a banking system that supports both economic efficiency and stability. The most important question is: what is the optimal competitive structure to promote efficiency and stability?

3. Consolidation – main issues

There are several alternative methods of consolidation. Each of them has its strengths and weaknesses, depending on the situation. The most common methods are mergers and acquisitions. The acquisition refers to acquiring control of one corporation by another and merger is a particular type of acquisition that results in a combination of both the assets and liabilities of acquired and acquiring firms (Hunsaker, Coombs, 1988). In an era of increasing globalization and competitiveness, mergers and acquisitions are considered as a strategic driver for market dominance, geographical expansion, competence, leverage in resource and capability acquisition (Cartwright, Cooper, (1994). M&As in the financial sector, in particular the banking sector, can increase expected profits by reducing expected costs or by increasing expected revenues or a combination of both. Cost reduction through M&As could arise for several reasons including economies of scale, economies of scope, infusing efficient management, reduction and diversification of risk due to geographic or product diversification (Rosenbaum, J.; Joshua P. (2009).

The success of mergers and acquisition depends on a number of factors, mainly: 1/. Development of a strategic program of an acquisition before its implementation, 2/. The optimal selection of a partner and accurate analysis, 3/. The appropriate evaluation of the expected synergies, 4/. The effective realization of the connection and 5/. Establishment of a reasonable transaction price *(Bertoncelj, Kovac, 2007; Chambers, Honeycutt, 2009; Pikula, 2008)*.. It is reported that one of the main reasons for failure of a merger or acquisition is based on human resources problems (Hyz, 2009). People issues have been the most sensitive but often ignored issues in a merger and acquisition *(Cartwright, Cooper, 1994; Wiley, 2004; Anderson, 1999)*. Mergers and acquisitions of foreign companies are much more complex than mergers and acquisition made on a domestic market. It is due to the differences in business environment (political, economic, organizational and cultural factors). *(Sudarsanam, 2003; Hyz.2009).*

4. Trends in Consolidation and Structure of Polish Banking Sector

In recent twenty years (1990-2010) Poland's economy recorded exceptionally rapid growth. In 1996-2009 average GDP growth in Poland was 4.5%. The maximum value was 7.1% in 2007, minimum was 1.2% in 1997 (see table 1).

Table 1. Main indicators of Polish economy, 2010

Variable	2001	2003	2005	2007	2009	2010
GDP (bn PLN)*	780	843	983	1,175	1,342	-
GDP change (preceding year=100)*	101.2	103.9	103.6	107.1	101.8	4.2[a)]
FDI inflow (EUR million)**	6,372	4,067	8,330	16,674	8,384	5,538
Unemployment rate (%)*	17.5	20.0	17.6	11.2	9.5	11.5[a)]
Exports (EUR million)**	46,537	53,836	77,562	105,893	96,326	90,077[a)]
Imports (EUR million)**	55,094	58,913	79,804	118,262	105,045	93,379[a)]
External trade turnover (EUR million)**	101,631	112,749	157,366	224,155	201,371	183,456[a)]
External trade balance (EUR million)**	-8,557	-5,077	-2,242	-12,369	-8,719	-3,302[a)]
Inflation rate (CPI, preceding year=100)*	105.5	100.8	102.1	102.5	103.5	102.6[a)]

In the early 1990s the banking sector in Poland was much more concentrated than those of other markets, and the second half of the decade saw a reduction in concentration.

[1] Assets and Liabilities Management is the ongoing process of formulating, implementing, monitoring and revising strategies related to assets and liabilities to achieve an organization's _financial objectives, given the organization's risk tolerances and other constraints. (Romanyuk, 2010)

In the mid-1990s, due to low market entry requirements, many small private commercial banks, which were frequently established by foreign banks seeking to enter the Polish market, operated alongside state banks. A wave of privatisation occurred in the banking sector, which was followed by a period of consolidation and restructuring. These processes, coupled with a simultaneous increase in foreign investor participation, enhanced management quality and banks' efficiency, primarily with regard to risk management. The years 1990-91 were in Poland a favourable period for foreign investors; different measures were used for encouraging investing, but these politics faced a limited interest from investors. In the years 1992-94 National Bank of Poland was reluctant to give licenses to foreign banks, which could pose a threat to the competition of polish banking sector. In the years 1995-1997 the National Bank of Poland subordinated giving licenses for the operation from the obligations of foreign investors to support Polish banks facing financial problems and from the participation in restructuring of the banking sector. Despite these restrictions the significant expansion of foreign capital in Polish banking sector has had occurred. On 1 January 1998 a new Act on Banking and a new Act on the National Bank of Poland came to force. The first Act introduced a minimum capital requirement at the minimum European Union level of 5 million ECU (*Balcerowicz, Bratkowski, 2001)*.

The Act obliged banks which on the day of its coming to force did not fulfil the minimum capital requirement to increase capital within two years. This requirements speeded up the growth of smaller banks and increased foreign capital involvement in the Polish banking sector, since banks with capital below the required level started to seek for foreign investors, offering them the purchase of their stock' block (*Kwasniak, 2000*). On 1 January 1999 Poland removed restrictions applied formerly to foreign banks, concerning purchases of bigger stock blocks, opening new branches and receiving a license to establish a bank in Poland. This liberalization was a consequence of commitments undertaken by Poland when joining OECD (*Sadowska – Cieslak, 1998*). As a result, the environment for business in the banking sector in Poland became more competitive. We can also observe the clear benefits which result from the above discussed capital structure of Polish banking sector, the benefits include the fact that the banking system is less dependent on the State Treasury, recapitalization, restructuring, the introduction and use of modern know-how including innovations in electronic banking, investment banking and financial and investment advisory. The inflow of foreign capital is an inevitable thing as it is a component of the ongoing process of integration of the Polish economy into the world economy. (For ownership structure of Polish Banking Sector see table 2).

Table 2. Ownership Structure of Polish Banking Sector (%)

	1996	2001	2006	2009
Banks directly owned by the State Treasury	28,9	12,4	11,2	10,3
Banks directly owned by National Bank of Poland	7,4	0,0	0,0	0.0
Other state-owned banks	10,3	2,2	1,8	1,5
Other domestic banks (private capital)	8,3	9,9	9,3	8,3
Foreign investors	28,1	58,5	60,5	63.1
Shareholders	11,3	12,5	13,0	12.0
Cooperative banks	5,7	4,5	4,2	4.8
Total	100,0	100,0	100,0	100.0

Source: Sytuacja finansowa bankow w 2010 r. , Synteza, NBP, Warszawa, 2007

The dominance of foreign strategic investors cause that to the Polish banking sector there are transferred the market processes which happen in a uniform European market, including the strategies of actions of international holdings and the effects of mergers and acquisitions among the strategic foreign investors. Acceleration of privatization after the year 1997 led to a further decrease in state-owned banks' share in the banking sector. Their share in assets decline to 22,0%, in credits to 21,2%, in deposits to 28,9%, and in capital to 14,3%. The latest nineties witnessed also changes in the structure of bank's activity. The share of credits had slightly increased in assets, whereas the share of securities had decreased. Retail banking was growing fast. The share of consumption credits had increased in the total credits. After a period of intensified development of branches in the previous years, banks have started to concentrate on the development of new IT. Due to the increase in M&A during the period (1997-2002) there was a significant reduction in the number of Polish commercial banks. The number of commercial banks fell from 83 at the end of 1997, to 64 at the end of 2009, from which 54 banks were controlled by foreign capital[2]. Institutions which invest in the Polish banking sector represent 15 countries. The value and structure of foreign core capital by country of origin can be seen in the table 3 below.

[2] Sytuacja finansowa bankow w 2010 r. , Synteza, NBP, Warszawa, 2007, p. 36

Table 3. Value and structure of foreign core capital by country of investor

COUNTRIES	SHARE IN FOREIGN CORE CAPITAL			SHARE IN CORE CAPITAL		
	in %					
	2005	2006	2007	2005	2006	2007
Total	100,0	100,0	100,0	61,1	60,3	58,2
of which:						
Belgium	X	19,9	20,3	X	12,0	11,8
Germany	14,2	13,4	15,2	8,7	8,1	8,9
France	9,6	7,5	8,0	5,9	4,5	4,7
USA	13,3	13,1	7,0	8,1	7,9	4,1
Netherlands	7,3	6,0	6,1	4,4	3,6	3,5
Italy	4,1	3,9	4,6	2,5	2,3	2,7
Sweden	X	2,0	2,7	X	1,2	1,6
Other	51,5	34,1	36,1	31,5	20,6	21,0

Source: Monitoring of Banks 2005-2007, Central Statistical Office

Concentration of the Polish banking sector is quite low. The concentration measured by the Herfindahl-Hirschman Index (HH)[3] is presented in table 4. In 2007 the share in the assets of five biggest banks was 46, 6%, in the case of credits 44, 6% and in the case of deposits 56, 9% (see table 5).

Table 4. Herfindahl-Hirschman Index (HH) of Polish Banking Sector

Year	Assets	Deposits	Credits (total)
2002	0,0792	0,1065	0,0671
2003	0,0753	0,1005	0,0628
2004	0,0692	0,0912	0,0628
2005	0,0650	0,0887	0,0640
2006	0,0599	0,0831	0,0609

Source: Sytuacja finansowa bankow w 2006 r. , Synteza, NBP, Warszawa, 2007, p. 11

Table 5. Concentration of Polish Banking System (Concentration Ratio)

	Number of biggest banks								
	Five			Ten			Fifteen		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
	%								
Number of branches	46.1	41.8	41.4	55.9	52.7	51.2	60.6	57.6	55.9
Number of employment	46.3	42.5	43.0	60.6	58.3	52.3	69.5	67.5	56.0
Share in value and dynamics of balance sheet total	48.6	46.5	46.6	69.3	66.7	64.5	78.2	76.6	73.9
Share in credits	45.0	44.0	44.6	63.8	61.7	60.8	75.6	75.2	73.3
Share in deposits	55.8	54.7	56.9	74.4	72.5	72.7	81.5	80.8	79.6
Share in value of share equity	47.5	45.0	47.9	67.3	65.7	65.1	76.2	76.3	75.5
Share in banking sector profits	57.2	54.5	49.6	75.4	77.6	65.6	82.9	86.1	85.2

Source: Monitoring of Banks 2005-2007, Central Statistical Office

3 The Herfindahl-Hirschman Index (HHI) is defined as the sum of the squares of the market shares of the 50 largest firms (or summed over all the firms if there are fewer than 50) within the industry, where the market shares are expressed as percentages. The result is proportional to the average market share, weighted by market share. Increases in the Herfindahl index generally indicate a decrease in competition.

A H* index below 0.01 (or 100) indicates a highly competitive index.
A H* index below 0.1 (or 1,000) indicates an unconcentrated index.
A H* index between 0.1 to 0.18 (or 1,000 to 1,800) indicates moderate concentration.
A H* index above 0.18 (above 1,800) indicates high concentration.
See: Capozza, D. R.; Lee, S. (1996); Hirschman, A. O. (1964); Kwoka, J. E., Jr. (1977)

5. Bank's Competition

The impact of consolidation through M&As on competition operates through a number of channels, and depends mainly on the market structure, the nature of competition and the regulatory and supervisory framework. Most of these studies find that M&As may have influenced market prices. In the US, a reduction in the interest rate on deposits is detected in markets that have been affected by consolidation (Prager, Hannan, 1998). Estimates of the impact of mergers on prices for the Swiss retail banking market indicate that concentration may have a negative effect on prices (Egli, Rime, 1999). In the M&As in Italy, loan rates increase when the market share of the acquired bank is large (Sapienza, 2002). The indirect approach using European data generally finds that higher concentration leads to less favourable conditions for bank customers (Hempell, (2002); Gutiérrez de Rozas, L. (2007). Market power in connection with prices for small business loans and retail deposits is found to exist in both US and Europe (Berger, Hannan, 1989). For the Latin American banking system, it was found that (i) concentration in banking markets did not necessarily lead to a lower level of competition and higher bank performance; and (ii) bank returns were negatively linked to the degree of competition and, to a lower extent, to foreign bank participation (Yildirim, Philippatos, 2007).

Furthermore, in the context of the Latin American banking system, Yeyati, Micco (2007) suggested that it was not at all clear whether competition and concentration should go in opposite directions. In a cross-country study using structural model covering 50 major advanced and emerging market economies[4] (Prasad, Ghosh. 2005), Claessens, Laeven (2003) found that lower activity restrictions in the banking sector and greater foreign bank presence make banking systems more competitive. However, they found no evidence that banking system concentration was negatively associated with competition. Taking into account the internationalisation of banking sector in Turkey, Abbasoglu, Aysan and Gunes (2007) found no evidence of the existence of relationship between consolidation and competition. However, even for countries where the consolidation process is more advanced, namely Argentina and Mexico, no obvious impact of consolidations on competition intensity has been found (Gelos, Roldos, 2002). Bank consolidation in most emerging economies has not yet been associated with any marked rise in concentration, as most mergers appeared to have involved smaller banks.

One reason for this pattern could have been reluctance on the part of the authorities to sanction mergers between the largest banks, which could raise both competition and moral hazard concerns. An important point that the recent literature on concentration-competition suggests is that the number of banks and the degree of concentration are not, in themselves, sufficient indicators of contestability. Other factors play a strong role, including regulatory policies that promote competition, a well-developed financial system, the effects of branch networks, and the effect and uptake of technological advancements (Northcott, 2004). Because concentration measures do not necessarily provide a good indication of market contestability, a number of recent studies of banking markets have applied techniques such as the Panzar-Rosse (1987) H-statistic. This is a measure of competition based on the estimated responsiveness of firm's revenue to changes in factor input prices[5]. The Panzar and Rosse (P-R) methodology enables to identify the nature of the market structure, i.e. oligopoly, monopoly competition or perfect competition, by applying the elasticity of total interest revenues function with respect to changes in the banks' input prices (Bikker, 2004).[6] Despite the limitations, the model's special advantages make it a valuable tool in assessing market conditions.

The P-R methodology analyses directly the competitive conduct of banks, based on the comparative static properties of reduced form of revenue function, without employing any structural measures (Koutsomanoli-Fillipaki, Staikouras, 2004). For the Polish banking sector the *H-statistic* has been estimated for the period 1997-2004, as well as for two sub-periods: 1997-1999 and 1999-2004 (Pawlowska 2003, 2005, 2008). The sample of commercial banks has been divided for the two groups, depending on the type of customer: retail banks, corporate banks. As a result of the panel analysis three values of H-statistic for all commercial banks, retail and corporate banks have been estimated. The values of the H-statistic, which specifies the level of competition in particular bank groups were as follows: Commercial banks – 0,71, Retail Banks – 0,74 and Corporate banks 0,54. The empirical results with respect to the H-statistic in the period 1997-2004, have shown monopolistic competition as a characteristic of the analyzed banks' behavior for all commercial banks and for each group.

[4] Emerging economies in the study included Argentina, Brazil, Chile, India, Indonesia, Malaysia, the Philippines, Russian Federation and Turkey, among others.

[5] The H-statistic is calculated by summing the estimated elasticities of revenue to factor prices, with a value of one indicating perfect competition, a value of zero (or less) indicating monopoly, and intermediate values indicating the degree of monopolistic competition.

[6] For more information see: Gelos and Roldos, 2002

The results of the estimation (H1 and H2) for two periods: 1997-1999 and 1999-2004 were Commercial Banks 0,49, Retail Banks 0,64 and Corporate Banks 0,45 in first period and 0,78, 0,74 and 0,63 respectively in second one (Pawlowska, 2008). The estimation results of the *H-statistics* for the two periods have shown a slight increase in competition in the second period: 1999 - 2004. It might mean that the increasing participation of foreign banks in the Polish banking sector, connected with the M&A process, and rapid changes in IT in Polish commercial banks have prevented a decline in competitive pressures. It seems also that the level of competition among the commercial banks operating in Poland does not diverge much from that observed among credit institutions in Western Europe, where monopolistic competition also prevails.

In the analysed period, the efficiency of Polish commercial banks was comparable strong. As at 31 December 2009, banking sector assets totalled PLN 1,060,7 billion and were 2,1% higher as compared to the preceding year[7]. The net financial result of the sector in 2006 turned out to be the highest since the beginning of transformation (16,9% higher than in 2005). In the commercial banks the net result increased by 17,9%, and in the cooperative ones it decreased by 0,5%. The profitability of the Polish banking sector has improved for another time since 2004. Return on assets (ROA) and return on equity (ROE) in the commercial banks increased as compared to 2005 by 0,2 pp and 1,8 pp, while in cooperative banks they decreased by 0,2 pp and 2,9 pp. . In 2009, the global financial and economic crisis affected the situation in the Polish banking sector. The financial results (net profits) were reduced by 36,3%[8] , yet its enjoyed a better standing than banks in developed countries. The main reasons for lower financial results of the banking sector were higher costs of credit risk and financing. The average efficiency of Polish commercial banks was close to the efficiency of euro area banking sectors.

Conclusions

Mergers & Acquisitions (M&A) in banking sector has become the most important strategic element driving business growth and excellence. Mergers and acquisitions will continue to be an ever-present characteristic of the modern corporate landscape. The organization taking place in the M&A aims to benefit from the synergies of merging firms by consolidation, rationalization and integration of the people, processes and technologies. Market structure and competition in the European financial sector are major economic policy issues. Competition in the financial sector matters for number of reasons. As in other industries, the degree of competition in the financial sector may influence the efficiency of the production of the financial services. Also, as in other industries, it can affect the quality of financial products and the degree of innovation in the sector. Specific to the financial sector is the link between competition and stability. The relationships between competition, banking system performance and stability have been extensively analyzed in theoretical literature. A good deal of debate on competition effects of bank consolidation has been phrased in terms of two competing hypotheses. The structure-conduct-performance paradigm argues that concentration will intensify market power and thereby stymie competition and efficiency.

In contrast, the efficiency paradigm argues that economies of scale drive bank mergers and acquisitions, so that increased concentration goes hand-in-hand with efficiency improvements. The empirical research on the issue of competition, particularly cross-country research, is still in an early stage. A number of analysts, who have investigated the trade-off between competition and concentration, have found that there is no evidence that the banking sector concentration relates negatively to the level of competition. Despite the accelerated pace of consolidation, competition in Polish banking sector increased. It was mainly because banks involved in mergers and amalgamations were small. Also, the concentration in the Polish banking sector was lower than that in many other market economies. It should be noted that the level of competition in retail banking is higher that observed in corporate banking.

[7] Total assets of the Polish banking sector, value (PLN billion)

	2000	2005	2006	2007	2008	2009
Total assets of the banking sector	450,9	586,4	681,1	792,8	1.041,9	1.060,7

Source: Annual Report NBP, 2001, 2006, 2008, 2009

[8] Profitability of the Polish banking sector (Rate of return, in %)

	2005	2006	2007	2008	2009
ROA - net	1,6	1,8	1,7	1,5	0,8
ROE - net	20,6	22,4	22,4	20,5	10,7

Source: Annual Report NBP, 2001, 2006, 2008, 2009

Also the efficiency level is higher in the segment of retail banking than in corporate banking. One of the reasons for improving efficiency of Polish commercial banks is foreign entry in the Polish financial market, which brings know-how and implementation of new solutions, connected with the M&A process and a rapid growth of IT technologies in Polish commercial banks. The same facts have also resulted in the increasing level of competition in the Polish banking industry.

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