Knowledge as a Foundation of Resilience on Polish Banking Market

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Abstract: During the last few decades, banking market has changed significantly. Systematically increasing the complexity of new technology, development of information and communication's techniques, economy's networking, globalization and growth of customers' expectations combined with regulatory requirements make banks face new challenges. The most crucial of them is answering the question how to meet regulatory requirements (remain stable) and develop market performance (obtain a competitive advantage and gain profits). As a result, the concept of resilience must accommodate and balance the public interest focused on safety with individual bank's aims focused on value's creation, market position and profits. Defining the foundation for banking market resilience needs discussing these contradictory aspects. It is especially important as banks play a special role in society. They are crucial in financing the economy, settling payments and providing products that allow other entities to manage their financial risk and to develop their market activity. The resilience of the banking market influences not only financial system stability but the sustainable economic growth and the economy as a whole. That is why regulatory schemes should support it. On the other hand, creating value for customers and other stakeholders makes bank to keep customer experience and wider brand perceptions central to all strategic thinking. Meeting customers' needs and expectations requires flexibility, creativity, and innovativeness what today quite often means taking a risk. Thus, a resilient banking sector should create the conditions for the integration of safety and competitiveness. The purpose of the article is to define knowledge factors that influence resilience on banking market, from both perspectives. The paper presents the theoretical foundations for banking market resilience concept, knowledge factors used to establish resilience on Polish banking market and their impact on the banking sector and main challenges facing the Polish banking sector in the nearest future.

Keywords: banks' resilience, banks' stability, banks' efficiency, knowledge flows

1. Introduction - defining resilience on banking market

The resilience is usually defined as the actual ability of a system or an organisation to adapt itself to the consequences of internal or external changes and threats. It also means a capacity to anticipate disruptions, adapt to events, and create lasting value (Wieland and Wallenburg, 2013: 300-320). This definition is synonymous with the broad approach to defining a financial system stability. In Poland, as almost 70% assets of financial institutions belong to banks, the stability of the financial system equals the stability of the banking system. Thus the broad approach of defining financial stability bases on Polish banking system features that allow assessing a banking system as stable. This approach focuses on functions to be performed by the banking system and conditions suitable for maintaining them (Smaga, 2013: 108-109; Iwanicz-Drozdowska, 2011: 3; Schinasi, 2005a: 82; Issing, 2003: 1; Padoa-Schioppa, 2002:20). According to Schinasi (2005: 2) among these functions are a monetary function (supporting the role of money as a medium of exchange and store of value), capital and redistributive function (financial intermediation) and control function (control of cash flows). Those functions are interrelated, and their fulfilment by the banking system is essential for the smooth functioning of the economy and economic growth (Polański, 2008: 18-20). This approach indicates that a stable banking system is not the same as a static system. They emphasise the complex nature of financial system stability and the capacity of the system to absorb shocks through a self-correcting mechanism (Daltung, 2001: 6). A financial stability may be also considered from the perspective of its components and the multitude of factors determining it (Schinasi, 2004: 3-4). Concurrently a narrow approach defines a financial system stability as a situation (state) where there is no financial crisis.

The review of financial system stability definitions used by European System of Central Banks (ESCB) leads to the conclusion that most of them developed their definitions according to a broad approach. Most of the time, ESCB central banks correlate financial system stability with a proper functioning of the financial system, even in the case of shocks (Čihak, 2006: 7). The IMF (2011: 5) survey conducted after the outbreak of the crises, demonstrates that central banks in their definitions stress the system's resilience to shocks and its smooth functioning, understood just as a performance of its functions. The complex attitude to banking systems' resilience should take into account the interaction between structural factors (market structure), institutional factors (prudential regulation/supervision, monetary policy, competition regulation/supervision, tax policy, government subsidies, and the legal system) and bank-level enabling conditions (business model, organizational culture, corporate governance). The resilience of the banking systems is also influenced by the different interests of stakeholders (see figure 1). Thus, it depends upon a complex net of institutional arrangements rather than on one single source or factor.

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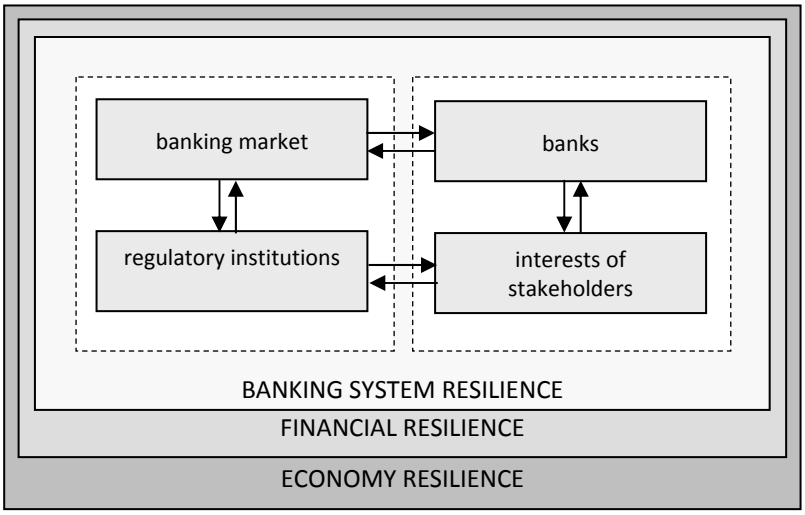

Figure 1: The complex framework of resilience concept on banking market

The paper presents the sophisticated approach to banking system resilience. The market structure and variables constitute the foundation for the description of institutions and banks' behaviour. The paper continues with the discussion of the knowledge factor influencing the banking market resilience. The analysis includes both the knowledge and information requirements of regulatory institutions and their impact on banking market resilience, and the knowledge factors enabling development of banks' market performance.

2. Structural factors influencing resilience on banking market in Poland

Banking market plays a special role in society. Banks are crucial in financing the economy, settling payments and providing products that allow other entities to manage their financial risk and to develop their market activity. During the last three decades, the banking market structure has changed remarkably. The history of a competition on Polish banking market started in 1989. The new Act of Banking introduced a regulation that enabled the establishment of non-state banks in Poland. From the very beginning, the National Bank of Poland (NBP) had pursued quite a liberal licensing policy. The market response was immediate. By the end of 1992, there were 54 domestic banks. They were in general very small and in many cases state-owned companies. In the first years, there was not much interest among reputable foreign banks in establishing activities in Poland. It may be easily explained by a poor macroeconomic situation, the country's indebtedness and an early stage of market reforms. It is worth noticing that Polish banks were teetering on the brink of failure then and possessed none of the practical knowledge necessary to operate in a free market. However, during the first two years of transition (1990−1991) there were four banking institutions which established in Poland three banks under their brand names. These were: Raiffeisen Zentralbank Osterreich AG and Centro Internationale Handelsbank AG (which together established one bank: Raiffeisen-Centrobank), Creditanstalt and Citibank. Two renowned banks: ING Bank N.V. and Societe Generale established branches in Warsaw. Seven other foreign banks were established in Poland in the years 1990−1993. Initially, a scope of their activities was very limited, and they concentrated on servicing foreign enterprises active on the Polish market. Therefore, at that early period foreign banks did not compete with state-owned and new domestic banks as they focused on different markets. Since 1995, as a result of an increase in the number of foreign banks and their shift from a narrow to a broad range of services, foreign banks have started to be perceived as competitors (Kureth, 2015; Bartol and Rapkiewicz, 2013: 8-9; Balcerowicz and Bratkowski, 2001: 13). Since then the process of mergers and acquisitions has become the most important methods for gaining a larger market share, as well as restructuring some of them. The Poland`s entrance to the European Union also resulted in cross-border consolidation. Development of European banking sector significantly contributed to mergers and acquisitions of Polish banks. Takeovers of parent banks resulted in immediate mergers of their subsidiaries, and the post-crisis recovery process resulted in a forced sale their subsidiaries, creating opportunities for consolidation and market expansion of some medium-sized Polish banks. In years 2009-2013, several bank mergers and acquisitions occurred in Poland, what significantly impacted the performance and structure of the entire banking sector. Some of them could be considered as a method of improving market position and moving a bank to a group of nationwide banks. Others introduced newly formed banks to the group of large and systemically important banks in Poland (Kozak, 2013: 16-36). Table 1 presents current data concerning Polish market structure.

Table 1: Polish banking market structural data based on data reported 5th January, 2016 (PFSA:4-39)

	2010	2011	2012	2013	2014	2015
Number of banks and credit institutions including:	**646**	**642**	**642**	**640**	**631**	**626**
- commercial banks	49	47	45	41	38	38
- co-operative banks	576	574	572	571	565	561
- branches of credit institutions	21	21	25	28	28	27
Banking offices	**6961**	**7056**	**10536**	**10386**	**10190**	**9852**
- number of branch offices	6 933	7 092	7 534	7 336	7 352	7 245
- number of agencies	28	27	3 002	2 950	2 838	2 607
Number of employees	**176 916**	**176 658**	**175 071**	**174 321**	**172 659**	**170 803**
- at the head office	70 806	72 045	72 615	72 258	72 758	74 381
- in Poland	105 982	104 466	102 307	101 838	99 671	96 159
Ownership structure						
- number of banks owned by Treasury	4	4	4	4	4	5
- number of banks under private control	582	580	577	577	571	567
- number of banks under foreign control (including branches of credit institutions)	60	58	61	59	56	54
Market share						
- share of 5 largest banks in assets	43,88%	44,32%	45,00%	46,08%	48,30%	48,09%

As a result the Polish banking sector's concentration is quite low, especially comparing with the majority of other former Eastern Bloc countries. The concentration ratio of Polish banking market is just 48,8% while in Estonia it comes to 89,9%, Lithuania – 85,7%, Slovakia – 70,7%, Latvia – 63,6%, Czech Republic – 61,3%, Bulgaria – 55%, Hungary – 52,5% and Romania – 54,2% (see figure 2). That creates new perspectives on further consolidations. The financial markets' uncertainty seems to be the only one barrier to large-scale mergers and acquisitions today. As an economy of scale result, they will influence the banks' efficiency as well as a pricing policy.

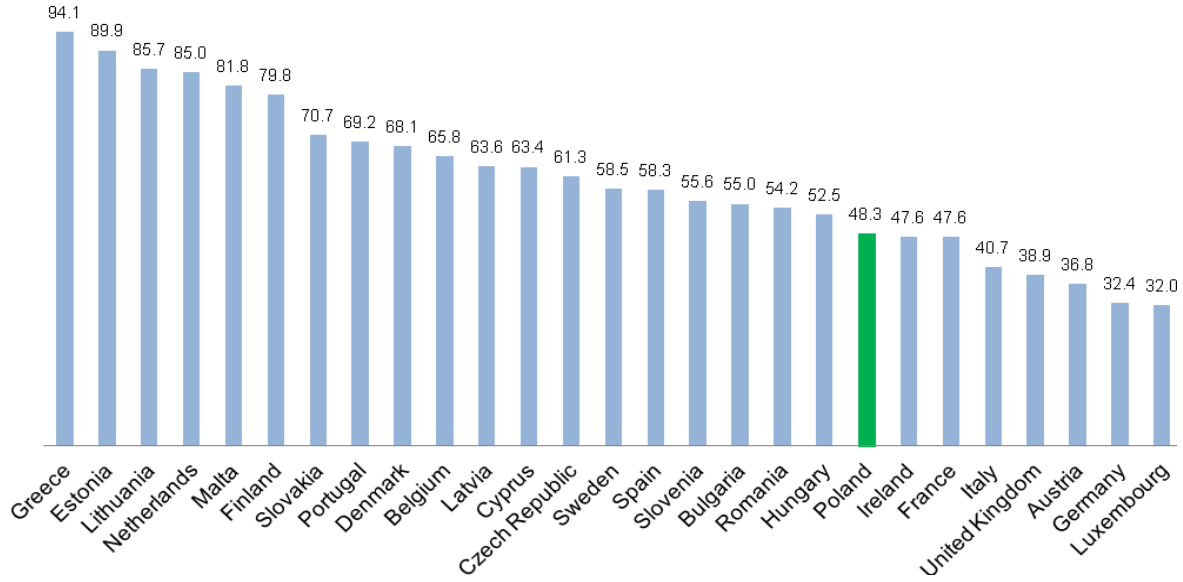

Figure 2: European banking markets' concentration ratio (CR^5) in 2014 (Structural Indicators for the EU Banking Sector on line, retrieved 26th January, 2016).

The current ownership structure of banking sector in Poland is a result of the regulatory policy. Today the Polish banking sector is mainly dominated by foreign-owned institutions. A considerable amount of Polish banks' equity (61,4%) is controlled by foreign investor (see Table 2). The banking sector's structure shows long-term stability although the share of banks controlled by domestic banks is slightly increasing year by year.

Table 2: The share in banking sector's assets (NBP, 2015: 99)

Share in the sector's assets	2009	2010	2011	2012	2013	2014
- banks controlled by domestic investors	31.9%	33.8%	35.0%	36.4%	36.8%	38,6%
- banks controlled by foreign investors	68.1%	66.2%	65.0%	63.6%	63.2%	61,4

The initial capital is mostly of European origin. The main investors are companies from Italy (13% market share), Germany (10,3% market share) and Spain (9,1% market share). Among other countries of capital's origin are France, Netherlands, USA, Portugal and Austria (see Figure 3).

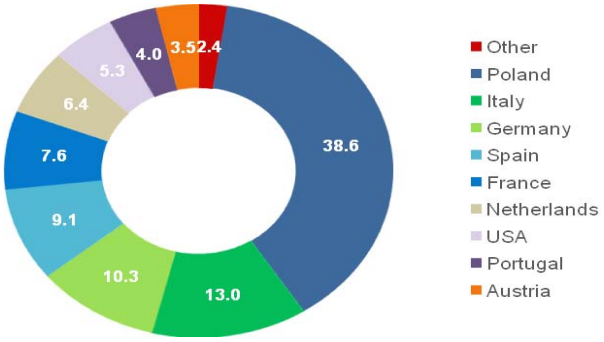

Figure 3: The share in banking sector assets by country of origin (NBP, 2014: 4-23)

Since the beginning of banking sector transition, the number of banks' assets and their value share in GDP has been systematically increasing. This ratio shows banking sector contribution to the building of economic growth (see Figure 4).

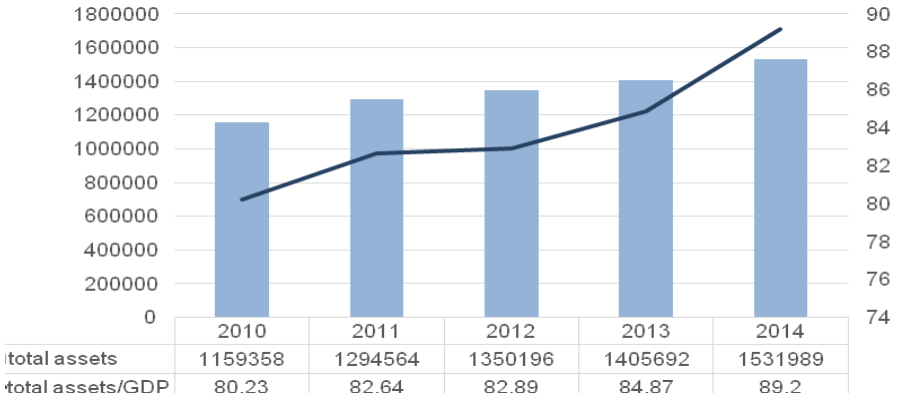

Figure 4: The value of banks' assets and assets to GDP ratio (NBP, 2015)

The scale of the turnaround is hard to overstate. Today the Polish banking sector is one of the most attractive financial market in Europe (Deloitte, 2012: 5). Despite the global financial crisis and a strong slowdown in the economic growth, it generates stable incomes (see Figure 5). Furthermore, the rate of equity (ROE) was 12% in 2011 and 11,95% in 2015.

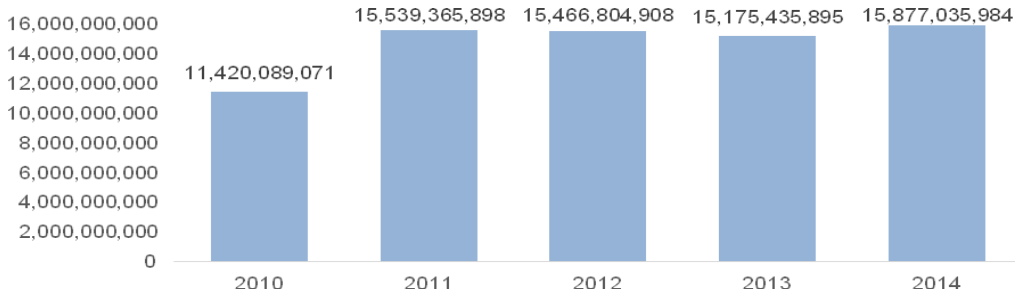

Figure 5: The value of banks' incomes (NBP, 2015)

Another structural factor that characterises banking market is the use and access to banking services. Comparing with western European countries the use of banking services is still low thus it will be increasing significantly and systematically. In 2013, it was 81% and reached the European average level. In comparison, in well-developed countries as Austria, Germany or France it comes almost to 100% (Austria - 99,4%, Germany – 99,2%, France – 98,7%). Over the next ten years despite the possibility of attracting new customers coming into the market is still unmistakable (Związek Banków Polskich, 2014: 7) - see Figure 6.

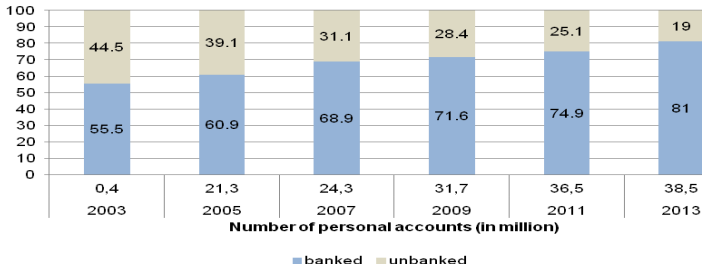

Figure 6: The use of banking services in Poland.

The success of Polish banking sector and relatively low market saturation makes the country very attractive to foreign investors. The appropriate combination of stability and profitability can also be an inspiration for other economies.

3. Institutional knowledge factors of Polish banking market resilience

The global financial crisis has reminded that banks are the critical actors within modern economies' institutional background. New categories of risk have been revealed. The crisis also showed that banks and the banking system are too important to be left to regulate themselves. The healthy banking system results from a network of institutional complementarities, in which divergent interests are negotiated and balanced without any one stakeholder dominating others. The integral components of resilience are the robust regulatory environment, and stable public and market institutions.

The regulatory environment includes regulations concerning equity capital and liquidity requirements. The existing capital framework for banks was developed by the Basel Committee on Banking Supervision. In 1988, the Base Committee implemented the most important, synthetic measure of the Capital Adequacy Ratio (CAR). It was implemented in the document known as Basel Capital Accord (Basel I) and is also known as Cooke ratio (Total Capital Ratio – TCR, Capital to Risk Weighted Assets Ratio - CRAR). The ratio determines how much capital a bank must hold to its activity was safe (Nocoń, 2015: 224-225). Initially, Capital Adequacy Ratio was referred only to credit risk, and, therefore, was defined as a relation between bank's capital base (own funds, consisting of Tier I capital, as a basis to cover losses, and Tier II capital as supplementary capital for a bank) to risk-weighted assets. Basel I requires that the capital adequacy ratio must not be lower than 8% (Iwanicz-Drozdowska, 2012: 132-137). The turbulent changes on banking market caused the necessity to include in the measurement of capital adequacy, in addition to credit risk, also price (market) risk and operational risk. The new framework known as Basel II - The New Basel Capital Accord was revealed in 2004. Its main foundation became the concept of economic capital, defined as the minimum value of own funds, which secures all unexpected losses, taking into account the bank's preferences regarding the accepted level of risk. Basel II was based on three complementary pillars:

- Pillar I - consists of setting the minimum requirements for capital adequacy, including credit risk, market risk and operational risk.
- Pillar II - giving supervision authorities the additional task of assessing, whether the own funds, hold by the bank, are sufficient concerning the scale and risk profile of its business.
- Pillar III - applies to a market discipline, performed by market participants, assessing bank's risk by obtained information.

Unfortunately, by entering the new recommendations, included in The New Basel Capital Accord, into force in early 2007, the first symptoms of the global financial crisis arose. It revealed many imperfections in risk management and existing supervisory regulations. Therefore, the international bodies, including the Basel Committee on Banking Supervision, were forced to revise the mandatory amount of banks' equity capital. All G-20 countries and 19 other nations asked for more sophisticated regulations. As a result, in the years of 2010-2011, the Basel III framework was presented, which will come into force successively until 2019. Their aim is to strengthen the security of banks, by tightening the rules for the calculation of capital requirements and liquidity risk management. Basel III has proposed two measures of liquidity - Liquidity Coverage Ratio (LCR) – relating to the current liquidity (up to 30 days) and Net Stable Funding Ratio (NSFR) – referring to structural liquidity). LCR provides that every bank must maintain the sufficient size of assets easy to liquidate, to secure financing for 30 days of potential problems with liquidity. The value of the LCR ratio should be estimated by a bank separately for each currency, in which it conducts operations. In turn, NSFR forces banks to finance those long-term assets, such as mortgages, by liabilities with maturity over one year. An important issue in estimating this indicator is to determine the level of available and required amounts of funding. As a part of financial management, banks should gather this information and monitor both of these two values. The Basel Committee has determined that the available stable funding (ASF) includes those positions that are treated as a stable source of funding in the period of at least one year during market turmoil. The implementation of minimum standards for LCR took place in 2015. In the case of NSFR, it will be completed in 2018. A distant perspective gives the possibility of some changes or adjustments, to adapt the most of the presented measures to the issue of effective liquidity risk management in banks.

Basel III also defined two capital buffers. Capital conservation buffer has protective character and refers to the level of capital protection at the level of the individual bank (microeconomic approach) while countercyclical buffer has countercyclical nature and focuses on the level of the banking sector of a country (macroeconomic approach). The protective buffer applies to all banks, regardless of jurisdiction, aiming to increase their resilience, expanding the capacity to absorb losses, as well as reducing the possibility of lowering the capital adequacy ratio below 8%. Capital conservation buffer will appear in 2016 at a level of 0.625%, in the following year it will increase to 1.25%, after that to 1.875%, and from the beginning of 2019 on, it will amount to 2.5%. Determining the appropriate level of the countercyclical buffer, supervisory authorities should monitor banks' lending activities and other indicators related to systemic risk. This is to determine whether credit growth is not excessive and does not cause an increase of systemic risk (Basel III, 2010). Since the beginning of the Basel capital regulations, Tier I capital had the task of absorbing losses incurred by a bank. The higher the level of Tier I capital in relation to the scale of its operations, the greater the ability to survive periods of instability. However, after the experience of the global financial crisis, the Basel Committee has proposed tightening the rules for qualifying particular positions as core capital, to fully meet the requirements associated with the ability to cover losses. The amount of the capital adequacy ratio was left at the current level of 8%. Nevertheless, Basel III regulations divided own funds into Tier I capital, described as going concern capital, and Tier II capital, described as gone concern capital. The foundation of this division bases on a situation in which the individual categories of capital may be used to cover losses. In the case of Tier I capital it is always possible, in the case of Tier II capital - only during bankruptcy or liquidation of a bank. In the existing regulations, the relation between the core and the supplementary capital may amount to a maximum of 50%. In turn, subordinated loans classified as Tier II capital could provide no more than 25% of core capital. This regulation meant that the capital adequacy ratio calculated for Tier I could not be less than 4%. Basel III has tightened existing recommendations, assigning a greater role of Tier I capital. Banks should, therefore, maintain capital adequacy ratios at the following levels (Basel III, 2010):

Common Equity Tier I ratio (CET1) ≥ 4,5%

Tier I Capital ratio ≥ 6%

Capital Adequacy Ratio (Tier I+Tier II) ≥ 8%

Despite the fact that the Basel Committee maintained the current level of capital adequacy ratio at a level of 8%, the sum of minimum Tier I ratio, minimum Tier II ratio and capital conservation buffer was set at a level of 10.5%, which means a real increase in capital charges for banks.

As a result of banks' very high level of leverage ratio before the global financial crisis, the Basel III also regulated the upper limit of banks' debt. The leverage ratio, as the average monthly value of leverage within one quarter, relates the Tier I capital to total exposure (Iwanicz-Drozdowska, 2012a: 53). The Basel standard defines the minimum requirement of 3% for the leverage ratio until its final calibration after 31st December 2016. This 3% level of the ratio will be the subject of observation, to determine the appropriate, applicable maximum value of this indicator. The function of the leverage ratio is to limit the tendency of banks to excessive leverage, by revealing the real degree of coverage of equity capital of total exposure.

In addition to requiring more and higher quality capital, it imposes higher capital charges for market activities and enhances rules on the management of liquidity risk. This regulation will provide for enhanced financial stability, more robust banking business models and stronger balance sheets.

The next banking sector resilience components are stable public institutions. Among the institutions constituting the Polish safety net are the National Bank of Poland (NBP), The Polish Supervision Authority (PFSA) and Bank Guarantee Fund (BGF). All their market activity must contribute to performing financial system functions such as (Schinasi, 2005: 2):

- efficient and smooth allocation (geographically and over time) of economic resources, which is financial intermediation
- correct assessment, allocation and management of financial risk.

They are one of the integral components of the stability definition adopted by National Bank of Poland (the NBP). The stability is of particular interest to the NBP due to its statutory tasks and is closely related to the primary task of the central bank. Banks play the unique role in the transmission of monetary impulses to the real economy. Instability on banking market may hamper the efficient implementation of the monetary policy. Despite the monetary policy, the NBP is also responsible for an efficient regulatory and supervisory policy what is a significant contribution to maintaining sustainable economic growth. Another reason for the involvement of the NBP in activities supporting the stable functioning of the banking system is the fact that the central bank is entrusted with the task of organising monetary clearing. An efficient and stable settlement system is one of the necessary conditions for the realisation of fast, safe and convenient payment operations.

Another, crucial institution for banking system stability, is the Polish Financial Supervision Authority. It was established in 2006 to ensure stability and safe development of the financial market. The KNF supervises the financial services industry in Poland. It is an independent body, whose tasks are aiming to limit excessive risk in operations of supervised entities, strengthen the transparency of the financial market and assist the market in building its position in Europe. The core values of the PFSA are professional expertise, impartiality, independence, openness and willingness to engage in a dialogue (PFSA, 2015).

The banking system and banks' resilience is also the interest of the Bank Guarantee Fund (the BFG). The BFG operates the deposit guarantee scheme in Poland. In establishing the Bank Guarantee Fund, the legislator specified the deposit guarantee principles and incorporated it into the system of institutions overseeing the safety of the financial sector.

The realisation of all safety net tasks (see Table 3) enables organising knowledge flows between market entities. Managing knowledge from the market systemic perspective leads to price stability, transparency, economic growth, lack of bailouts' necessity and banks' collapses and others (see figure 7). All institutions responsible for financial resilience in Poland take a conservative approach. They discourage banks from investing in the types of products that caused troubles in 2007, and pressure lenders to cut back on foreign-currency denominated loans. They have implemented such a recommendation before a surge in their popularity became a threat to the banking system.

The policy of supervisory authority in Poland supports the accumulation of top quality capital by banks, thus the leverage in the Polish banking sector equals 10.8, which taking into account the conducted analyses, significantly mitigates the risk of shifting costs of bank's failure to taxpayers.

Table 3: The Polish safety net tasks

Institution	Tasks
National Bank of Poland	- monetary policy - regulatory policy - supervisory policy - organising and maintaining monetary clearing
Polish Financial Supervision Authority	- ensuring stability and safe development of the financial market - limiting excessive risk in operations of supervised entities - strengthening the transparency of the financial market - undertaking measures aimed at ensuring regular operation of the financial market and at its development and competitiveness - undertaking educational and information measures related to financial market operation - participation in the drafting of legal acts related to financial market supervision - creation the opportunities for amicable and conciliatory settlement of disputes which may arise between financial market actors, in particular disputes resulting from contractual relations between entities covered by the KNF supervision and recipients of services provided by those entities
Bank Guarantee Fund	- reimburse deposits held in bank accounts, cooperative savings and credit unions in the event of fulfilment of the guarantee conditions, - provide financial assistance to banks, cooperative savings and credit unions facing the threat of insolvency or for the acquisition of stock or shares of another bank, - support restructuring processes, - extend a guarantee to increase the own funds of a bank to banks undergoing reorganisation, - purchase or assume stock, bonds or bank-issued securities in case of execution of said guarantee, - collect and analyse information about entities covered by the guarantee scheme.

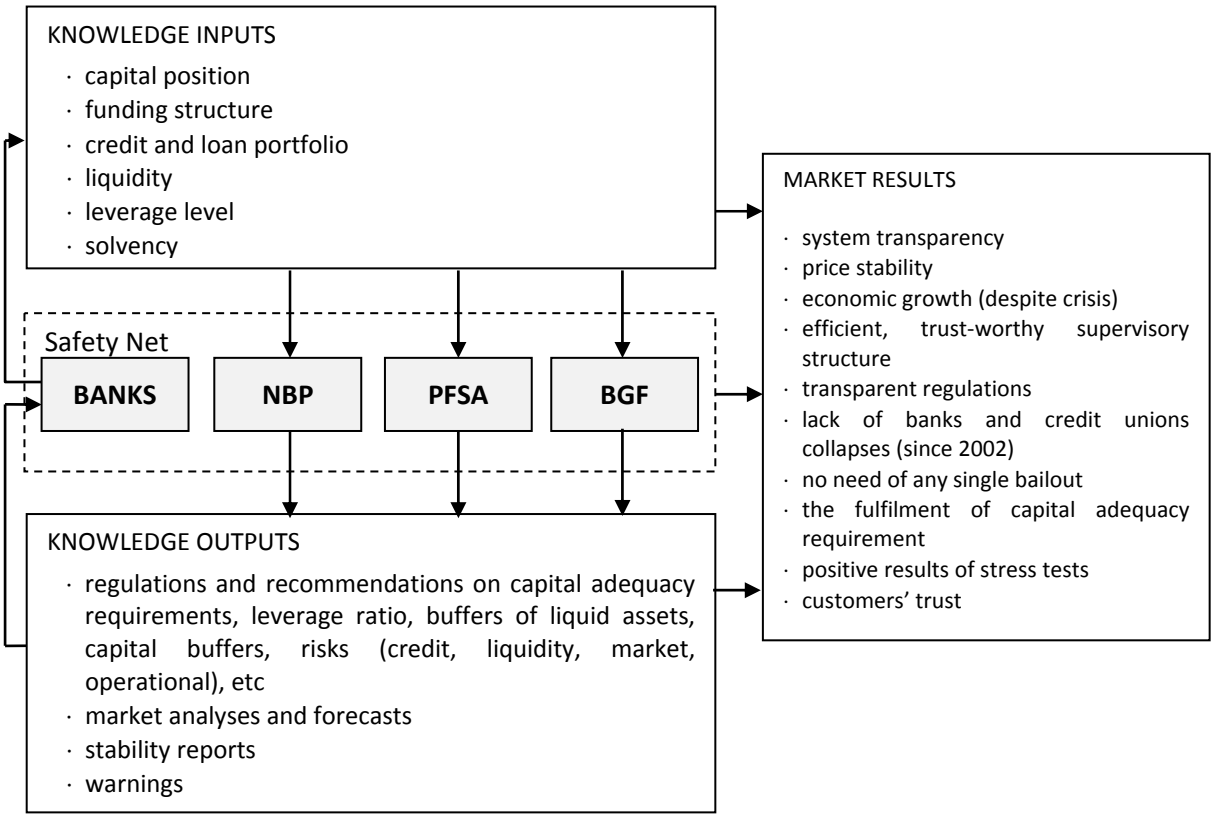

Figure 7: The knowledge-flows in Polish safety net (Klimontowicz, 2015: 432-441)

The strong capital base has been improved (own funds increased from PLN 90 billion as at the end of 2009 to PLN 136,8 billion as at the end of 2014). The solvency ratio increased from 13,29% to 14,69%. Based on 2014 forecasts submitted to the Polish Financial Supervision Authority by commercial banks, it can be concluded that banks expect a slight improvement in performance (see Table 4). On the other hand, recent forecasts indicate that, as a result of banking tax implementation, the rate of growth in the coming years will be significantly lower than during the boom of the past decade (BFG, 2015: 7-9; NBP, 2014: 4-23; PFSA, 2014: 4-39).

Table 4: Capital adequacy of Polish banking sector (PFSA, 2015:4-39)

Indicators	2009	2010	2011	2012	2013	2014*
Own funds for the solvency ratio (bln PLN)	90,0	100,6	110,7	129,0	138,6	136,8
Capital adequacy ratio	13,29	13,89	13,10	14,74	15,66	14,69
Tier 1 ratio	11,97	12,54	11,71	13,13	14,11	13,46

* On June 28th, 2014 a technical standard (ITS) concerning new reporting system under CRR/CRDIV package was published (*Commission Implementing Regulation (EU) No 680/2014 of 16 April 2014 laying down implementing technical standards with regard to supervisory reporting of institutions according to Regulation (EU) No 575/2013 of the European Parliament and of the Council*).

The result of severe and conservative approach is a risk-averse, stable, healthy and trustworthy banking sector. According to latest TNS Poland research (2014) 60% adults and 95% entrepreneurs declared that they trust their banks. Among trustworthy institutions, banks took the first place. The second place took the NBP with 54% adults and 84% entrepreneurs' trust. On the other hand, the costs of regulatory reform – through the negative impact on the real economy from reduced availability of bank lending and other banking services – might begin to exceed the benefits to financial stability. That is why the banking sector resilience concurrently needs to include the banks' organisational level.

4. Bank-level conditions enabling banking market resilience

Globalisation, technological complexity, interdependence and risk interrelation makes the resilience management a competitive differentiator for companies in the 21st century. Creating the right balance between security and competitiveness remains a critical challenge (Council on Competitiveness, 2007: 6-20; Parsons, 2010: 20-22).

Managing knowledge enabling banks resilience should include environmental, organisational and business units' perspective. A resilient bank must effectively adapt its strategy, operations, management systems and governance structure to changing risks, disruptions and its primary earnings drivers to create advantages over less adaptive competitors.

The environmental perspective of bank's resilience must incorporate knowledge concerning economic, political, social, technological and legal factors (see Figure 8) with a bank's culture, attitudes and values.

The organisational capacity of resilience needs creating appropriate knowledge that enables a bank to build ability to survive the turbulence. Thus, the bank's resilience should rather be viewed from a developmental perspective, as an ability that develops over time from continually handling risks (Sutcliffe and Vogus, 2003: 94-110).

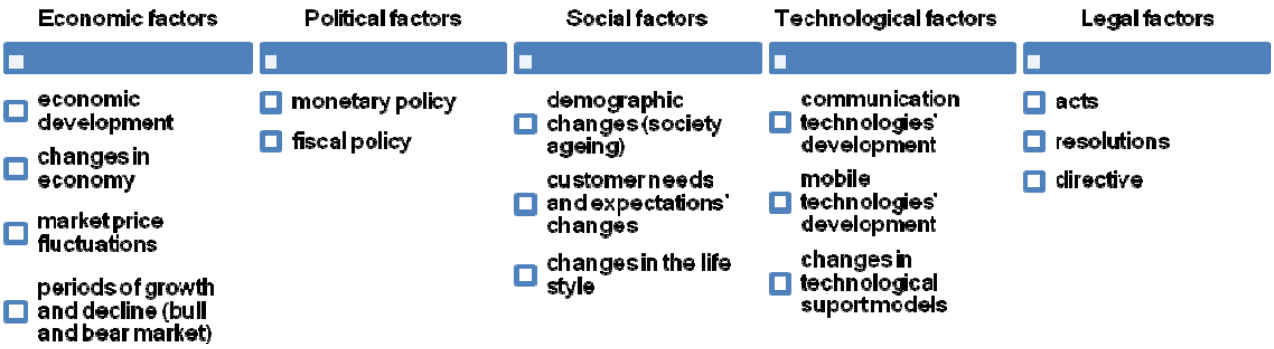

Figure 8: The knowledge environmental factors.

Developing bank's resilience means the continuing ability to use internal and external resources. The current analysis of environmental factors combined with the efficient management and continuous development of its strategic resources (see Figure 9) let a bank resolve new, even unexpected, issues and achieve sustainable competitive advantage. It is especially important to base the process of building bank's competitiveness on resources which will not be easily duplicated or imitated by other banks (Porter, 2008: 40-42). Attributes which other not have and cannot duplicate, such as a structure of relational contacts within or around an organization with employees and with customers and suppliers, reputation and innovativeness are called a distinctive capability. The other attributes, called reproducible capability, can be created (or purchased or leased) by any company with reasonable management skills, skills of observation and financial resources, thus by themselves cannot be a source of competitive advantage. Many technical, financial and marketing capabilities are of this kind. Distinctive capabilities need to be supported by an appropriate set of complementary reproducible capabilities to enable a company to sell its distinctive capabilities in the market it operates.

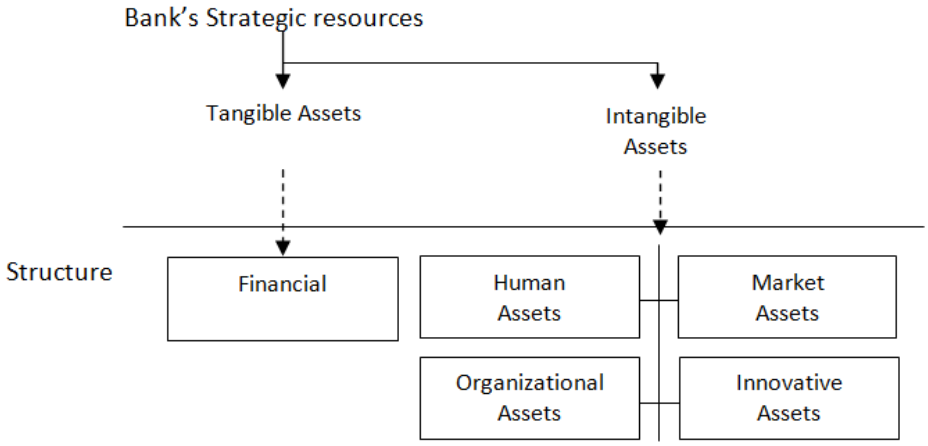

Figure 9: Banks strategic resources (Klimontowicz, 2015: 432-441)

Over the two last decades, intangible assets have become a crucial factor that is directly connected with banks' competitiveness. Competitive intangibles directly impact effectiveness, productivity, wastage and opportunity costs within an organization and finally the general financial results. They lead to potential future benefits which cannot be taken by others and are not imitable by competitors, or substitutable using other resources. They are not tradable or transferable on markets due to corporate control. Because of their intangible nature, they are non-physical, non-financial, are not included in financial statements and have a finite life. In order to become an intangible asset included in financial statements, these resources need to be clearly linked to a company's products and services, identifiable from other resources, and become a traceable result of past transactions (Kristandl, Bontis, 2007: 1510-1524). Comparing concepts of intangibles it should be stressed that as far as intangibles' components have been described precisely in the industry, they are rarely examined in the banking sector (Klimontowicz, 2011: 123-127). The structure of bank's intangibles must reflect its specific character and take into account factors which create its long-term value. From that perspective the most important items are human and market assets. In banking sector achieving a market success is impossible without proper reputation and clients' trust. Today the process of increasing

bank's value is undoubtedly connected with process optimization and service technology. That is why the structure of bank's intangible assets should also include organizational assets and innovative assets (see Figure 10).

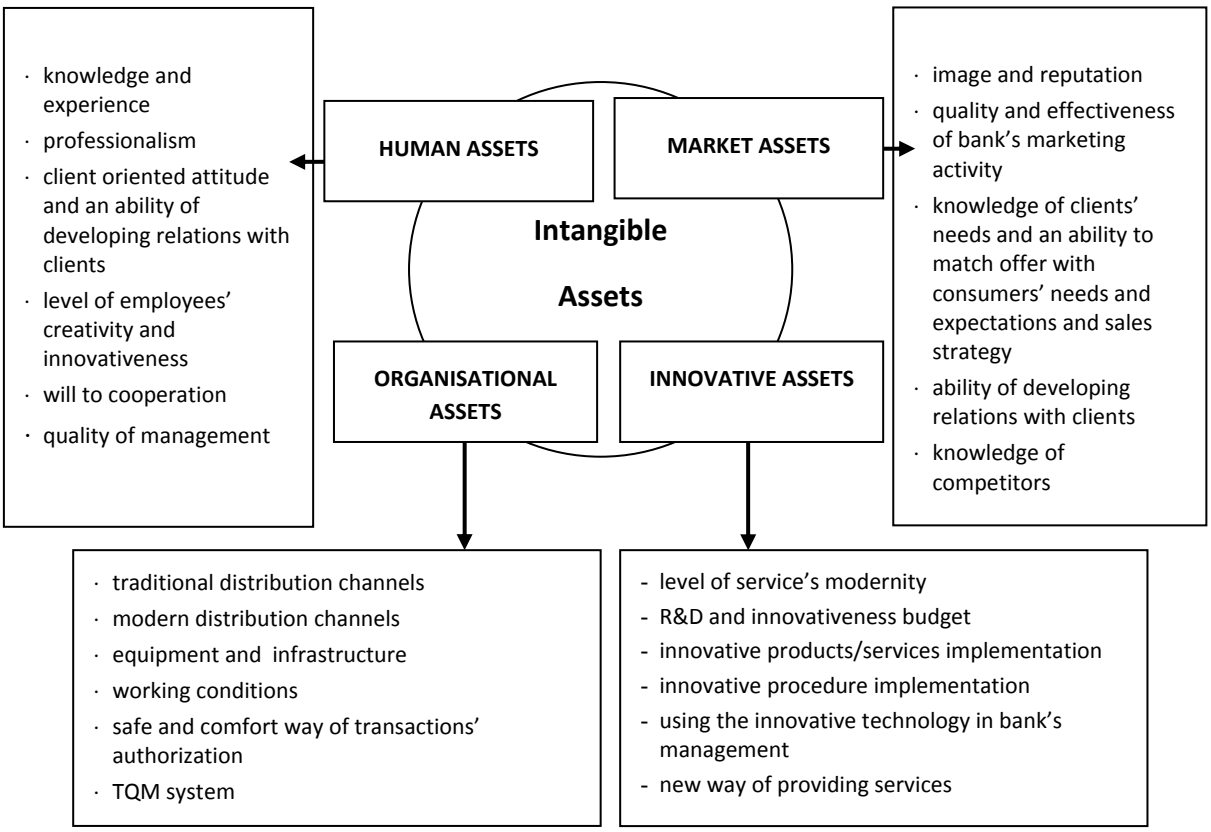

Figure 10: The structure of bank's intangible assets

Research continually confirms the increasing role of intangible assets in the process of gaining competitive advantage. The specific characteristic of banking market makes the financial assets of the same importance both for banks' managers and clients. The necessity to meet regulatory requirements concerning capital and liquidity makes banks' manager treat them even as the most crucial assets influencing the banks market performance (see Figure 11).

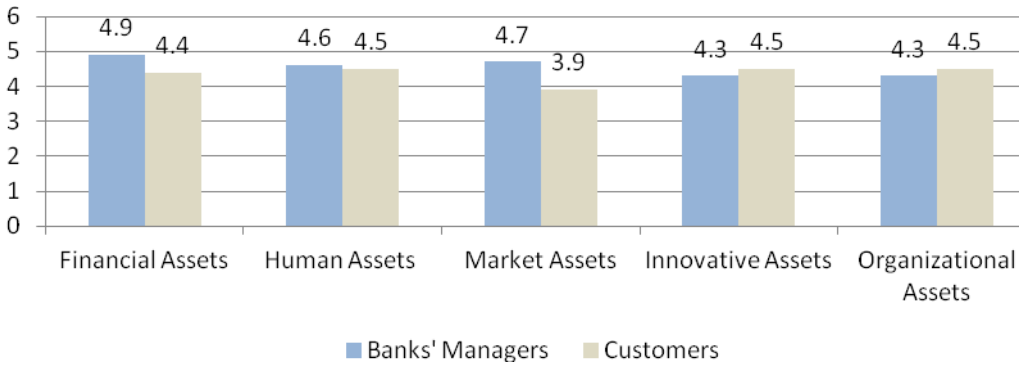

Figure 11: The significance of bank's assets (Klimontowicz, 2013)

The regulatory pressure and related reform initiatives will have an unprecedented impact on the costs of banking activities. Overall, these costs will be huge and will force many banks to scale back some of their business, while seeking opportunities to maintain or expand other activities through aggressive cost-reduction, deleveraging and restructuring (KPMG International, 2011: 8). Banks face a pressing need to reassess the viability of their current strategies and business models in response to a myriad of regulatory pressures, and to other factors such as macro-

economic developments in the countries in which they operate. Concurrently, despite the environmental factors, banks have to deliver value and build strong relationships with customers. In the Bain benchmarking survey, banks acknowledge that managing the customer experience is the most important factor of success (Symons et al., 2007). To deliver enhanced customer value, banks' approach to market strategy has to be customer-driven and be clearly visible to customers through easier, faster, cheaper, or value-added services. The key issues that need to be addressed as the retail banking industry of the future takes shape are: refocusing on the customer relationship, paying particular attention to clarity of language, transparency of pricing and simplicity of interaction, focusing on loyalty by building customer insights, tailoring offerings, incentivizing customers to access more products and effectively responding to complaints and enhancing the customer experience by investing in branches, delivering personal attention across channels and combining customer insights with technology to improve offerings.

The proposal of value is a core for the organizational business model. The bank's business models are thought to be long-term methods of using and increasing resources in the process of value creation for clients or other stakeholders. They can be considered as means through which banks want to fulfill their objectives and gain certain outcomes such as financial performance, risk profile, and contribution to financial stability as well as the economy, which can change over time. In practice, business models are supported by operational models focusing on the way how a bank acts on the market and interact with other entities and between particular elements of the model (see figure 12). During the last few decades, value proposals have changed remarkably. Today, to a large extent, the business models can be distinguished by the nature and scope of the activities and funding strategies. Most retail-oriented banks, including commercial, savings and cooperative banks, provide traditional banking services to the general public. Investment-oriented banks focus more on trading activities, relying on a variety of funding sources and often maintaining a retail network of their own. Other banks provide services to their institutional clients, including large and mid-sized corporations, real estate developers, international trade finance businesses, network institutions and other financial institutions.

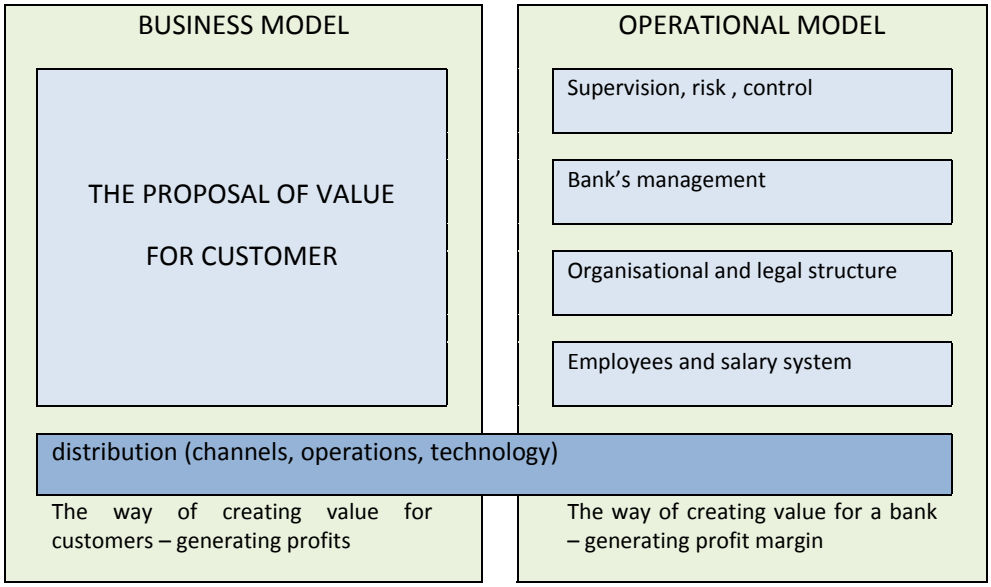

Figure 12: Relations between bank's business and operational model (Nosowski, 2012: 44)

According to Banking Business Model Monitor 2014, four primary business model can be distinguished on European banking market – investment banks, wholesale banks, diversified and focused retail banks. Model 1 groups together large investment-oriented banks regarding total and average assets. They have substantial trading activities and focus on less stable and less traditional sources, such as debt liabilities and repurchase agreements.

Model 2 includes banks with a heavy reliance on interbank funding and lending. The liabilities of an average bank under this bank model to other banks, including both deposits and other interbank debt, represent, on average, 37.4% of the total balance sheet, towering above the interbank liabilities of other bank models. In turn, traditional customer deposits represent only 16.0% of the total balance sheet—the lowest among the four groups. Other funding sources come from debt liabilities, which exclude traditional deposits and interbank funding. Following this model banks are also very active in non-traditional uses of funds, including trading assets (i.e. all assets excluding cash, loans and intangible assets).

Model 3 and 4 are composed of retail-oriented banks. Both groups are comprised of banks with 60% or more of the balance sheet totals in both groups. Moreover, the ratio of cash and cash-like liquid assets remains above the sample average. Models 3 and model 4 also spend about twice as much as an investment and wholesale banks on staff. The higher employment costs may reflect a larger geographical coverage through a larger number of branches and personnel. However, the two models do differ in funding sources. While the Model 3 banks have a greater reliance on debt markets, Model 4 banks rely primarily on customer deposits. To distinguish between the two retail-oriented groups, model 3 and model 4 will be referred to as the 'diversified retail' and 'focused retail' models, respectively.

The characteristic presented above gives divides bank into banks that engage in riskier and less stable funding and trading activities and banks which remain closer to their traditional roots, relying more on retail funding and customer loans. According to Accenture research (2012), it is high time for banks to change. Taking into account all environmental changes current models are no longer sustainable and are unable to meet the rapidly evolving customer needs. The next generation banking will build resilience by following business models:

- the "Intelligent Multichannel" Bank characterized by integrated multichannel architecture, powered by analytics (real-time event management, etc.), advanced digital advisory and need-based offerings optimized by channels,
- the "Socially Engaging" Bank that will base on customer engagement where they spend their time (e.g. on social media) based on personal interests, leverage influencers, co-creation based on increased customer intimacy,
- the "Financial/Non-financial Digital Ecosystem" Bank that will serve as trust center with an extended proposition (financial and non-financial) wherever the customers leverage the power of mobile and offer m-payment services.

As the regulatory requirements cause that the capital base will be the same for all banks, the market differentiation has to be based on customer-oriented factors. Among considered changes in banks' business models are (KPMG, 2012: 8):

- becoming smaller and safer, with lower but less volatile profits,
- defining a narrower set of core activities, becoming more specialised, and exiting from non-core activities
- moving away from universal and full-service banking,
- focusing narrowly on the traditional core banking activities of deposit-taking, retail and corporate lending, and payment system services,
- increasing market share in chosen core activities, through consolidation, mergers and acquisitions, to boost margins from economies of scale and market power,
- retrenchment of international and cross-border activities,
- geographic focus on a small number of high-growth markets.

Despite the general trends, each bank must develop its individual business model based on the knowledge factors concerning market position, strategic resources and investment affordability.

5. Conclusions

Globalization, technological complexity, interdependence, and other environmental changes are increasing the level of risk that societies and organizations now face. Risks are also increasingly interrelated; disruptions in one area can cascade in multiple directions. The ability to manage emerging risks, anticipate the interactions between different types of risk, and bounce back from disruption will be the crucial economies and firms' capacity called resilience.

The financial sector resilience is a situation when the system performs systemic or organisational functions in a continuous and efficient way, even when unexpected and adverse disturbances occur on a significant scale. In Poland, it is based on banking sector stability. The framework of resilience must allow to prevent, avoid, resist damage and recover stability quickly. Resilience includes the awareness of the current situation, risks, vulnerabilities, the capability to deal with them and to make informed tactical and strategic decisions. It incorporates knowledge of the economic environment, firm' strategic resources and customers' needs and expectations.

The institutional knowledge transfer framework implemented on Polish banking market cause that banking system is functioning in a stable manner. Its condition is thought to be favourable, and the only one significant risk factor for its

stability is the situation in the Polish economy. Despite a relatively low economic growth outlook and a persistent euro area debt crisis, banks as a key segment of the Polish financial market are resilient to shocks.

Undoubtedly Polish banking system and Polish banks' experience might be an inspiration for other European banks and all over the world. Twenty-five years after Poland's political and economic transformation, the country's banking sector is one of the most stable and attractive financial markets in Europe. Poland's banks have gone through several global downturns, including the recent economic crisis, without the need of a single bailout. The high level of resilience of Polish banks is confirmed by the regular stress tests. Additionally, despite the crisis it generates increasing incomes and this year is poised to bring in record profits. At the other hand, higher equity capital and liquidity requirements can influence the scale of financing the real economy. Banks aim to pass over additional regulation costs to customers by increasing credit profit margin. The increased demand for equity and the necessity to extend the liabilities' maturity will cause the tightening of capital on financial markets and the capital cost's increase what will influence the costs of refinancing banks' loan operations. As a consequence, the cost of acquiring capital by enterprises will increase, and the demand for credits will reduce.

All these factors make bank rethink their market strategies and business models. Combing safety and competitiveness remains the crucial challenge in the nearest future. Among other challenges facing banks in Poland over the next few years are: financial standing of Polish banks' parent companies, implementation of further regulations concerning consumer loans, mortgage credits denominated in foreign currencies, maintenance of banks' long-term liquidity, changes in consumer market behaviour and increasing competition of nonbanks as social media, telecom providers, peer-to-peer lending organizations, group purchase organizations, etc. Responding to these changes will force banks to manage different kinds of knowledge factors.

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