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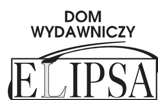

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A word from the Editor

In the foreword to the 4th issue of Safe Bank at the end of 2018, I posed a rhetorical question: is there an institution that could attempt to repair the world's issues, focusing on social and environmental risks? A year has passed and a number of initiatives, both global and regional, have been launched to reduce the risk of destabilisation and to promote sustainable development. At the 10th Congress of Polish Economists in November 2019, it was stressed that economics cannot deal primarily with efficiency and growth, instead it must focus on quality of life and sustainable development, not only on a regional but also on a global scale. This, however, requires a shift of the paradigm towards a value economy. Such an approach is consistent with the Principles for Responsible Banking launched by 130 banks from 49 countries, representing more than USD 47 trillion in assets, on 22 and 23 September 2019 in New York City, during the annual United Nations General Assembly. The Principles provide the framework for a sustainable banking system, and help the industry to demonstrate how it makes a positive contribution to society. They are accelerating the banking industry's contribution to achieving society's goals as expressed in the Sustainable Development Goals and the Paris Climate Agreement. Against this background, the dilemma '*to be or to have*' should be replaced with the principle '*in order to survive you have to learn from the future, not from the past*'.

In this issue of Bezpieczny Bank, we have published seven studies on various aspects of the financial market, with particular emphasis on the banking sector. Supervision of the financial market increasingly acquiring regulatory power, *inter alia*, through the extensive application of self-produced 'soft' regulatory norms. It is progressively moving away from passive compliance checks towards an active influence of the financial markets reality. The opening paper provides a synthetic review of principal challenges currently facing financial market supervision.

Recently, integration of the EU financial sector has been very popular in public policy debate. In the second paper, we look at the current state of financial integration in Europe and examine the arguments for and against the use of waivers and discuss alternatives to the use of waivers, based on expanding the use of branches and indicate incentives, which can play a role in shaping the quality of cooperation between home and host supervisors.

Dynamic changes and new entities in the financial markets using modern technologies require non-standard responses from links within the security network. The third article in this issue is devoted to challenges generated by FinTech for central banks.

In an attempt to show our concern for the risk of catastrophic climate change and the emerging consensus of the presidents of central banks in the European Union on using the financial sector as a measure to counteract this change, we have published a text on this subject. The article is devoted to the identification of risks in the financial sector related to climate change on Earth.

Despite of the mass media stereotype, surveys indicate that banks in Poland have a good reputation. An attempt to explain this paradox can be found in the paper that examines determinants of the Polish banking sector's reputation and suggests societal segmentation according to the factors that shape this reputation.

As in the past year, we published the results of the next edition of the panel research devoted to *Macroeconomic Challenges and Forecasts for Poland,* which emerged from the work of experts from the European Financial Congress. In addition to the factual message, the applied methodology should be highlighted, specifically the diversity of experts participating in the identification of challenges and formulation of forecasts, as well as the procedure used to determine the final results.

Traditional principles of subsidiarity and territoriality in cooperative banking remain valid despite the globalisation of financial markets, but they are not always properly used for the benefit of stakeholders. Polish cooperative banking also faces the dilemma of remaining in a relatively small market niche, with an ageing population as the dominant customers and shareholders. Additional challenges include boldly meeting development challenges, modernising the business model and gaining possible market share and recognition of potential stakeholders. These problems are discussed in the study "*Towards a new business model of cooperative banks",* which was based on the debates that took place during the 13th Forum of Cooperative Bank Leaders held in September 2019 in Warsaw.

Wishing you a Happy New Year and interesting reading! I encourage you to participate in the discussion on the problems of stability and security of the financial systems all over the world.

Jan Szambelańczyk
Editor-in-Chief

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Problems and Opinions

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Financial market supervision: recent developments and challenges ahead

Abstract

Supervision of the financial markets has become over the last twenty years or so, an increasingly important element of the financial system. It is progressively moving away from passive compliance checks, towards becoming a real and active influence of the financial markets. It is encompassing a growing range both of issues and entities and is undertaking an ever-deeper insight. Financial supervision is also increasingly acquiring regulatory powers through the extensive application of self-produced 'soft' regulatory norms as well as accumulation of resources. (proliferating particularly after the recent global financial crisis).

The goal of this article is to provide a systematic review of principal challenges currently facing financial supervision. The article is split into three parts. Its first part discusses the theoretical foundations of the supervisory system trying to indicate the sources of its powers, including its societal role. It deserves more attention in view of the unprecedented powers acquired by supervisors over supervised institutions and the financial markets. In the second part we take a close look at the changing supervisory paradigm in its current form. The third part reviews the new challenges facing financial supervision in its search for innovations which adapt to new requirements, and the available opportunities in the development of its new toolkit.

Key words: supervision, supervisory paradigm, supervisory toolbox, macroprudential approach

JEL: G18, G22, G28

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1. Introductory remarks

Supervision of the financial markets has become over the last twenty years or so, an increasingly important element of the financial system. It is progressively moving away from passive compliance checks, towards becoming a real and active influence of the financial markets. It is encompassing a growing range both of issues and entities and is undertaking an ever-deeper penetration into the material processes of the financial market and in the activities of the financial institutions. Amongst other things, supervision of the market is also increasingly acquiring regulatory powers of the financial markets through the extensive application of self-produced 'soft' regulatory norms. Supervisory activities should therefore attract growing attention of both theoreticians and practitioners.

All of this results in the increasing importance of the supervisory system and both its old and new institutions (proliferating particularly after the recent global financial crisis), and of the resources that are allocated to them. The US Securities and Exchange Commission, the most powerful financial supervisor in the world may be taken as a good example of the existing situation. It currently oversees over 4300 stock listed companies with a capitalisation level of over US $30 trillion. It supervises the equity market of an annual value of around US $80 trillion and of an approximate debt market of US $40 trillion. It also directly supervises over 26000 registered investment companies. It has on its payroll over 4500 people of which 1200 are in enforcement alone.

The goal of this article is to provide a strategic overview of principal challenges currently facing financial market supervision. Its first part discusses the theoretical foundations of the supervisory system trying to indicate the sources of its powers, including its societal role. It deserves more attention in view of the unprecedented powers acquired by supervisors over supervised institutions and the financial markets. In the second part we take a close look at the changing supervisory paradigm in its current form, which emerged in the aftermath of the recent global financial crisis. The third part of the paper reviews the new challenges facing financial supervision in its search for innovations and adequate supervisory tools, all while adapting to new needs and available opportunities.

2. Theoretical foundations – why is financial supervision needed

The oversight of the financial market, referred to as supervision over the financial sector, or simply financial supervision, means application by the State of administrative law vis a vis financial markets and financial institutions, to ensure that their activities comply with the law. Today this formal compliance is frequently broadened to also include the adequate method of business.

This oversight may relate to various areas of financial activity and may be exercised by either a single, a few, or by more numerous specialised entities.

Contrary to what one might think, neither the concept itself nor the premises of supervision over the financial markets are based on uniform understanding and interpretation. Theoretically, achievements with regard to supervision are particularly poor[1].

The principal components of supervision consist of controlling supervised entities and the modification of their activities by means of applied supervisory instruments. Thus, supervision not only checks for compliance with the requirements of the law and method of business, but must also have the means of influencing the behaviour of the supervised entities. In other words, it needs to possess the measures to enforce its will. Without such measures, the supervising authority is no more than a passive observer of the events. At the same time, supervised entities must accept the supervisory activities undertaken by the oversight organs and cooperate with them in the course of their activities.

The special role of the public oversight system includes its powers with regard to financial institutions as well as its far-reaching quasi-ownership rights. This role however, is currently incomparable to any other sectoral solutions, and has not yet been the subject of intense theoretical interest[2]. A lot more consideration is devoted to the issue of how to perform various supervisory tasks than to the premises of special supervisory powers and their boundaries[3].

Most often, the particular importance of the financial system and financial institutions in the operation of microeconomic and macroeconomic systems, as well as the need for the protection of clients' funds are given as the justification of its unique role[4]. This is not a convincing argument, as there are many examples of equally important human activities. Some examples of these exist in the areas of health, safety, energy, transport, nuclear energy, operation of the internet, and the digital economy, where public regulatory and supervisory intervention is much weaker, if any exists at all. There is no control and certification of their market access, no control and certification of the qualifications of their shareholders and no control and certification of key people including members of the management board and supervisory boards in the institutions concerned. There is also no control and certification of internal corporate governance and applied business models, no control and certification of IT systems used, and an absence of rules for leaving the market or administrative control of product policy etc.

1 D. Masciandaro, M. Quintyn, *The evolution of financial supervision: the continuing search for the Holy Grail*, 263–318, [in] Balling M., Gnan E. (ed.), *50 Years of money and finance: lessons and challenges*, Vienna: Suerf, Larcier, 2013.

2 J. Monkiewicz, *Wyzwania współczesnego nadzoru nad rynkiem finansowym*, [in:] L. Gąsiorkiewicz, J. Monkiewicz (red. nauk.), *Wyzwania współczesnych rynków finansowych*, Wydział Zarządzania, Politechnika Warszawska, 2019, pp. 61–74.

3 W. Szpringer, *Instytucje nadzoru w sektorze finansowym. Kierunki rozwoju*, Poltext, 2014.

4 P. Zawadzka, *Modele nadzoru rynku finansowego*, Cedewu, 2017, pp. 24–25.

So, what exactly is the problem with the financial markets and financial institutions? Why have these special rules emerged and why are they are tolerated and expanded?

The best-known theoretical attempt to address this issue is perhaps the theory of representation which was formulated in 1994[5].

In line with this concept, the special powers of public supervision in the financial market is the result of the coexistence of a series of unique factors. The most important of them is the fact that basic financial institutions such as banks, in addition to insurance and investment funds, apply a specific business model. The essence of the model relies on the financing of their operations to a large extent by debt, rather than by their own funds. They are the debt driven institutions. The financial leverage ratio, measured as the ratio of assets to equity, is usually above the level of 10 and can reach much higher levels.

This debt is incurred mostly from unprofessional market participants who are unable to control and effectively influence the way it is used by financial institutions, as banks do in the case of non-financial corporations. It would require, among other things, that they receive adequate information from the boards, possess appropriate competencies as well as adequate economic potential to perform monitoring duties.

In practice, such a business model may produce a strong tendency in financial institutions to excessively charge their resources with risk. The reason is that the bulk of possible losses is borne by clients who, with their funds, finance the lion's share of the banks' activity. On the other hand, if this activity brings positive results then the entire surplus falls to the financial institutions, ultimately to its investors, who do not share such financial success with others. This asymmetrical balance in the financing of losses and the appropriation of additional benefits may ultimately induce shareholders of financial institutions to exert undue influence on their management boards to take excessive risk.

Additionally, the boards themselves may be the source of an excessive level of risk accepted by the institutions managed by them. This is due to the architecture of their remuneration systems. Its characteristic feature is the widespread use of variable remuneration elements, which depend on the current (and thus short-term), economic results of the institutions they manage. Such management policy is further favoured by the fragmentation of the shareholding structure and its high fluidity due to the predominance of speculative thinking among investors. It results in a significant autonomy of management structures in relation to their shareholders and limits the possibility of the effective corporate control in the entities owned by such a shareholder base.

When taking into account the macroeconomic importance of the financial system and threats to financial stability resulting from its improper functioning, in certain situations it is justified to limit ownership rights and the economic freedom of fi-

[5] M. Dewatripont, J. Tirole, *Prudential Regulation of Banks*, MIT Press, 1994.

nancial institutions. This can be done by creating a public system that will exercise supervision over the risk management system in financial institutions in the name of their clients, and to an increasing level, in the name of their owners. This is precisely why supervisory systems grow, prosper and gain in importance with subsequent financial crises. The growing degree of supervisory penetration into modern financial systems indicates that such a direction of thinking is finding increasing acceptance.

3. New paradigm of the financial markets supervisory model

The pillars of the financial sector supervisory system are in keeping with the dominant view of the features and characteristics of financial activities. It should be noted that the basic components of this view are (at least from the 1980s), common to all segments of the financial market, including the banking, insurance and securities markets. To elaborate, the banking sector has for a long time enjoyed a special role, thus leading to the dominance of other related areas by the banking model. It is still also the case today.

The model, sometimes referred to as a paradigm, always changes as a result of a change in dominant views, which most often occur as a result of some external shocks. These especially occur in the form of a financial crises. Testing its resilience by these external shocks is probably the best way to check its correctness and to formulate possible normative proposals aimed at modifying the existing regulatory and supervisory model. In this sense, it is legitimate to treat the existing regulatory and supervisory model as a cumulative set of responses to crises experienced in the past.

As a result of the experience of the last global financial crisis, there is a rapid and deep change in the paradigm that had been in force before its outbreak. This paradigm, called the Washington consensus, due to the special role of the International Monetary Fund in defining global financial standards, was in force since the 1980s[6]. Boiled down to its essence, it is an absolute belief in the rationality of financial markets. They were considered to be essentially effective, although prone to short-term turmoil. Their proper functioning required only good access to market information by market participants. The functioning of these markets should not be disturbed by public intervention. It was viewed that only the efficient operation of their own mechanisms should be enabled. This consistently meant assigning the main role to market discipline, supported only in a second row by regulatory discipline. This consensus acknowledged that the financial system is safe through private risk management at the level of individual financial institutions. The quality of this management was guaranteed by public financial supervision systems in the form of micro-prudential supervision. The supervisors focused mainly on the financial sta-

[6] E.A. Helleiner, *Bretton Woods Moment? The 2007–2008 crisis and the future of global finance*, International Affairs, 86(3), 2010, pp. 619–636.

bility of individual entities without taking into account their external links and the external consequences of their decisions. However, their task was not to interfere in the internal corporate governance of these entities, their risk culture, or the business models adopted by them.

It was also believed that financial innovations are by definition good as they increase the resilience of financial systems to shocks and increase the quality of risk management. They were viewed therefore as a desirable element of financial development and financial systems.

Supervision in this system was formal and superficial, with no special material powers and the sole object of its care was the safety of individual financial institutions. There was a belief that the whole system would then be safe.

In general, the heart of the Washington consensus constituted a kind of 'regulatory trilogy' – greater transparency, more disclosure, and better risk management by financial institutions[7].

The crisis has led to the underlying belief in the rationality of markets and financial institutions to be questioned. Before the crisis, it seemed that possible problems related to insolvency might affect rather small, 'lower-grade' institutions of the system. It was believed that large, first-class financial entities had their own experts, excellent risk management systems, flawless procedures of conduct, and were basically resilient to eventual instability. However, the crisis showed that this did not work and that the biggest problems came from large, rich and innovative institutions. Their risk management systems proved to be unreliable and provided improper information and false solutions when they started to operate under stressful conditions.

The new consensus, known as the 'Basel' consensus – from the place where the centre of global regulatory solutions in the financial sector is now located, is based on quite a different premise. Its starting point is the assumption that the financial market is fundamentally unstable and pro-cyclical, with a tendency towards herd behaviour. Its instability is further increased by the excessive complexity of financial systems and by the business models used, as well as by the financial innovations introduced into circulation[8].

This may sometimes require appropriate public intervention prohibiting the use of certain solutions in financial models or the prohibition of – or restrictions on – the sale of certain products. By definition, innovation has ceased to be something good and sought after, but has become as an element increasing the complexity of the financial system and in some cases increasing its instability. In addition to this, internal corporate governance and internal risk management by financial institutions have become elements subject to the assessment and validation processes of supervisory bodies.

[7] J. Eatwell, *Practical proposals for regulatory reform*, [in] P. Subacchi, R. Monsarrat (eds.), *New ideas for the London summit: recommendations to the G20 leaders*, Royal Institute for International Affairs, Chatham, The Atlantic Council, 2009, pp. 11–15.

[8] A. Baker, *The new political economy of the macroprudential ideational shift*, New Political Economy, 18(1), 2013, pp. 112–139.

Table 1. Elements of the old and new supervisory paradigms of financial markets

Areas	Perception of financial markets	Enforcement Instruments used	Characteristics of supervision
Old consensus	– rational, wise and self-healing – financial innovations as an important component of financial stability and safety – corporate governance and business models subject to free private choice	– market discipline supported by regulations – extensive market transparency – private management of financial risk	– formal and superficial – micro-prudential perspective – safety is a private domain – supervision isolated from politics
New consensus	– pro-cyclical, often unreliable, without warranty of self-repair – financial innovation a possible factor of the destabilization of the financial system – corporate governance and business models subject to public scrutiny	– regulatory discipline supported through the market as well – extensive supervision powers – public management of financial risk	– material, deep and multi-pillar – macro-prudential perspective taking into account mutual connections – safety of the public domain – consumer protection an important component of the supervisory system – supervision linked to politics

Source: own elaboration based on A. Baker, *The new political economy of the macroprudential ideational shift*, New Political Economy, 18(1), 2013, pp. 112–139.

The Basel consensus is giving the macro-prudential perspective a fundamental role, which in reality constitutes a call for the public risk management of the financial system. In this way, financial safety becomes a public domain, and financial supervision over the market is justified to become material and deep. This approach transfers to the state huge responsibility and a huge reputational risk that it will have to face. Such an approach also gives a new role to central banks, which necessarily become the most natural macro-prudential institutions in national financial systems.

The new consensus places regulatory discipline at the forefront of market enforcement measures, which is supposed to correct market mechanisms. By doing so it also strongly increases the role and responsibility of supervisory systems. This also

includes questioning the principle of the inviolability of private ownership and the consent in crisis management to the application of solutions clearly limiting ownership rights. These are the so-called recovery and resolution procedures and in particular special recovery and liquidation procedures in the event of a systemic threat to the financial system[9]. The systems in question have been developed so far mainly in the banking sector, but the intention of global regulators, is that they are also meant to function in the insurance market and some parts of the capital market. Decision-making powers in this area are located either in special institutions created for this purpose or become part of the architecture of existing financial supervision. In Poland, for example, the functions of resolution management have been taken over by the Bank Guarantee Fund.

Another fundamental element of the new supervisory paradigm in finance is the dissemination of multi-pillar supervisory systems. Thus, apart from the classic micro-prudential bodies (which became common in the financial markets in response to the wave of their liberalisation as early as in the 1980s), macro-prudential supervision, which was previously unknown, is quickly appearing. In addition to the supervision of consumer rights and interests it is becoming more visible as a separate area of supervision.

Table 2. Micro and macro-prudential supervision – basic characteristics

Specification	Micro supervision	Macro supervision
Direct purpose	Limiting the risk for a single financial institution	Limiting the threat to the financial system as a whole
Final purpose	Protection of clients and investors	Avoiding the macroeconomic costs of the crisis
Correlations and mutual relations between financial institutions	Not significant	Very important
Perspective of risk assessment for financial stability	From the point of view of risk for a single institution ('bottom up')	From the point of view of the risk to the stability of the whole system ('top down')
Subject of analysis	Individual institutions	Entire financial system
Time perspective of analysis	Approach based on the past ('backward looking')	Approach based on the future ('forward looking')

Source: C. Borio, *Implementing a macroprudential framework:blending boldness and realism,* BIS, 2010, p. 18; M. Kabza, *Źródła ryzyka systemowego i metody jego ograniczania na przykładzie kredytów walutowych w systemach bankowych krajów Europy Środkowo Wschodniej,* Key Text, 2014, p. 63.

[9] Directive 2014/59/EU of the EP and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.

Macro-prudential supervision has different objectives, a different analytical perspective and a different subject of interest from micro-prudential supervision, although it often uses the same instruments. Its main goal is to avoid the macroeconomic costs of financial crises, and its area of interest is the entire financial sector.

Macro-prudential supervision also has a different manner of accomplishing its tasks than micro-prudential supervision does. It is fundamentally based on applying to the world of financial institutions, new regulation standards that address identified aspects of systemic risk. This may concern, for example, new capital requirements towards the supervised institutions, the introduction of anti-cyclical buffers, new border levels of their debt, leverage ratios, the introduction of LTV or DTI thresholds, etc.[10]. In principle macro-prudential supervision decisions assume therefore, the form of new regulations introduced to the financial system. It is thus, contrary to micro-prudential supervision, directly related to regulatory rights that have a legislative character. Basically, it is a legislative-supervisorial hybrid. It must thus remain in close relation to entities from the legislative world, which practically means its strong institutional relationship with governmental institutions from the world of politics.

This supervision has no controlling or sanctioning instruments over the financial institutions which it supervises, which are so typical of micro-prudential supervision. That is why for its operational activity it must remain in close cooperation with supervisorial systems of a micro-prudential character, which perform tasks of a direct enforcement type.

Along with supervision of a macro-prudential character, a characteristic of modern supervisory systems is the appearance – increasingly independent and separate – of supervision over the protection of the rights of consumers[11]. This is connected not only with the regulatory need in this evermore complex world of more protection for consumers, but also of the growing awareness of the fact that insufficient protection for consumers can lead to the destabilisation of the entire financial system. Its proper formation is thus not only in the interest of private parties but of the public as well[12].

The increase in the authority of supervisory systems accompanies their growing politicisation that pertains not only to the stage of crisis management but also to the conducting of normal supervision in normal times[13]. One way in which this manifests itself is in the direct participation by representatives of governmental insti-

[10] D. Schoenmaker, P. Wierts, *Macroprudential supervision: from theory to policy*, ESRB, WPRS 2, 2016, pp. 5–10.

[11] J. Monkiewicz, M. Monkiewicz, *Ochrona konsumentów w nowym paradygmacie regulacyjno-nadzorczym rynków finansowych*, [in:] J. Monkiewicz, M. Orlicki (eds), *Ochrona konsumentów na rynku ubezpieczeniowym w Polsce. Współczesne wyzwania*, Poltext 2015, pp. 13–38.

[12] Global survey on consumer protection and financial literacy: oversight frameworks and practices in 114 economies, The World Bank, 2013.

[13] S. Gadinis, *From independence to politics in financial regulation,* California, California Law Review 2013, pp. 327–406.

tutions, in the process of exercising supervision, as well as in the process of undertaking decisions. This is a fundamental change in relation to the old consensus in which the basic characteristic of financial supervision was its broad understanding of political neutrality[14].

4. Innovations in the supervisory toolbox

Since the recent global financial crisis fundamental changes taking place in the general supervisory paradigm have been accompanied by the application of many new innovative supervisory tools, frequently described as supervisory instruments. They are supposed to enhance the effectiveness and efficiency of the supervision and better reflect the new market reality. They are also a pragmatic reflection of the new tasks and powers allocated to the supervisory institutions. Interestingly enough they are so far not subject to comprehensive analysis and empirical evaluations, either in Polish or international studies. This is in spite of their frequently repressive nature and deep influence on the material processes taking place in the financial markets. Let us briefly elaborate on their spectrum. We will concentrate our attention on early supervisory powers, stress tests, supervisory technology (suptech) and whistleblowers, which are the cornerstone of the new supervisory toolbox.

a. Early supervisory powers

As a matter of principle this is about undertaking supervisory interventions before there is a breach of prudent conduct[15]. The aim of these activities is to limit the impact of the material effects of bankruptcy on the stability of the financial system. Early supervisory powers have been applied initially in the supervision of banking to accelerate the actions against banks where weaknesses have been identified, even though no formal breach of law has taken place. Thereafter this instrument has been applied to other segments of the financial sector, in particular the sectors of insurance and securities.

Historically this instrument was first applied in the United States back in 1991, in response to the financial crisis taking place in the late-1980s in savings and loan associations. This crisis led to the bankruptcy of around 1000 savings and loan associations out of a total of over 3200. It resulted in the public bailout to the value of over US$130 billion. As a result, the US Congress approved new regulations which effectively reinforced supervision of the banking institutions and subjected them to federal oversight. It included inter alia annual supervisory reviews, auditing and risk evaluation as well as Prompt Corrective Actions (PCA). Thereafter this instru-

[14] D. Masciandaro, R.V. Pansini, M. Quintyn, *The economic crises: did financial supervision matter?* IMF, WP 11/261.

[15] Framework for early supervisory intervention, BIS, BCBS, 2018.

ment became popularised by the recommendation of the Basel Committee and became approved in 2014 as part of the supervisory practice of the EU[16].

The essence of this tool lies in the possibility of undertaking supervisory actions of either a corrective or liquidating nature through a supervising body, before an institution falls into the state of formal insolvency. It means that the point of activation is not a breach of prudential regulatory prescriptions and non-compliance with existing regulations, which is the norm in standard supervisory instruments. It means that the actions are taken due to the non-compliance with the spirit of regulation and possible threats which may materialise in the future[17]. It effectively means allocating to the supervisory system, the rights to act on the basis of expert assessments and undertake decisions in the administrative process.

Undertaking such measures frequently means the limitation of the ownership rights of the shareholders and boards of the institutions involved. In extreme cases it may mean the effective transfer of the said rights to the supervisory institutions or other indicated bodies[18].

An extremely important consequence of applying this tool is the transferring of bankruptcy decisions from civil judicial process and private law, to administrative procedures and public law. Amongst other things, this provides different priorities to the process. The major aim of the whole process becomes the lowering of the bankruptcy process costs, the protection of the critical functions of the institutions involved and financial stability. These aims are not always in the interests of individual claim holders.

b. Stress tests

Stress testing is a technique, whereby an early measurement is taken of the sensitivity of individual financial institutions and/or their groups. The entire financial system may be affected by the events characterised by having a small probability of their appearance, but by having great importance once they come up[19].

Stress tests encompass the techniques of both a quantitative and qualitative nature. They are used to assess the degree of impact on a selected institution in a defined time horizon, of unfavourable factors, in particular the change in risk level.

Stress tests are an extremely important tool of forward-looking supervision in the process of a risk management process within financial institutions. They allow taking supervisory action before negative scenarios may take place. It is an important

[16] Understanding bank recovery and resolution in the EU; a guidebook to the BRRD, World Bank Group, April 2017.

[17] Frameworks for early supervisory intervention, BCBS, BIS, March 2018, p. 4.

[18] J.P. Svoronos, *Early intervention regimes for weak banks*, FSI Insights, BIS (April 2018), pp. 18–34.

[19] M. Borsuk, K. Klupa, *Testy warunków skrajnych jako metoda pomiaru ryzyka banków*, Bezpieczny Bank, 3(64), 2016, p. 29.

supervisory innovation which negates the reactive supervisory model, which in essence lies in the taking of measures post factum. Hence, the supervision is frequently in hindsight and thus less effective.

Stress tests came into national regulation and supervisory practice after adoption of Basel III. The US was the pace setter, introducing this tool in the Dodd-Frank Act of 2010. The EU followed with CRD I[20].

The aim of stress tests includes:

- the identification of key risk factors within an institution
- the assessment of the institutional sensitivity regarding changes in the institution's key risk factors
- the evaluation of the impacts of potentially unfavourable changes in factors surrounding institutions in their risk profiles[21].

Stress tests may be carried out in different planes. In this regard, the EBA recommends four different approaches:

- a solvency stress test, which assesses the impact of future macro and micro factors upon the general capital position of the institution, including its minimum capital needs.
- a liquidity stress test where changes taking place both within the institution and outside it are evaluated from the point of view of its liquidity.
- a scenario analysis where the subject matter of the analysis is the resistance of the institution against the appearance of different scenarios which rely on the simultaneous change in a range of factors. The scenarios may be based on historical events or be of a completely hypothetical nature.
- a sensitivity analysis where the subject matter of the investigation is the impact on the institution of a single risk factor.

c. Supervisory technology (suptech)

Simply speaking, suptech is a copy of fintech in the area of supervision. It is defined as the application of innovative technological solutions in financial supervision. It may entail the digitization of supervisory reporting and the implementation of other supervisory processes like monitoring, predictive analysis and use of robo-advisors[22].

Basically, the aim of suptech application is a more effective and proactive monitoring of risk and compliance issues in the supervised entities. Its development is a natural consequence of the digitisation of financial market activities.

[20] Final report on guidelines on institutions stress testing, EBA, GL-2018-04.
[21] E. Renz, M. Tarnowska, *Testowanie warunków skrajnych*, KNF, 2011, p. 3.
[22] D. Broeders, J. Prenio, *Innovative technology in financial supervision/suptech/-the experience of early users*, FSI Insights, No 9, BIS, FSI, July 2018, p. 1.

There are two principal areas of suptech application – aggregation of data and the processing of this data. New applications are widely utilised for supervisory reporting, management of data bases and virtual assistance. An example is the utilisation of supervisory data directly from the information systems of financial institutions, their automatic validation and consolidation. Additionally, they can be used to communicate with customers and with the processing of their claims, to better detect eventual irregularities and fraudulent activities of the supervised entities.

In the second area, data analytics, suptech applications may be used for the monitoring of the processes taking place in the financial markets. They may also be used for the detection of improper market conduct, utilisation of the system of enhanced risk indicators or systems of early warning. Examples include detection of insider trading activities or identification of money laundering incidents. Finally, it may find its direct application in micro and macro supervisory processes.

d. Whistleblowers

A more recent supervisory tool rapidly gaining importance in supervisory practice of the financial markets and its institutions, relies on making use of the system of reporting on financial abuses by outsiders to the supervisory bodies. These people are referred to as being part of the whistleblower's community. The notion of whistleblowers may be defined in many different ways which we will omit here. Its essence however always lies in the reporting of illegal, improper, dangerous or unethical practices of employers. These practices may have been revealed by their current or past employees, and which provide such information revealing their identity to the appropriate supervisory authority[23].

The proportion of people covered by this notion may be of course much larger, including all those which voluntarily provide the tips on identified irregularities. Such an approach is for example used by US Dodd-Frank Act of 2010.

The whole concept of whistleblowing is very simple. It effectively entails the socialisation of the part of the supervisory system which becomes co-generated by private people. It is interesting to note that these people are frequently top experts in financial matters, often more superior than officials from the supervisory institutions. They might be unwilling to work within these institutions due to their uncompetitive work terms and limits associated with their public duties. Use of whistleblowers allows supervisory bodies to effectively enhance their resources and keep the costs down. In reality, the practical implementation of a whistleblowing system is not an easy task and principally requires the provision of a protective system to the whistleblowers from the actions taken against them by the affected subjects. Its effective use may also require the application of a special rewarding system.

[23] Ł. Cichy, *Whistleblowing w bankach*, KNF, Warszawa 2017, p. 6.

Initially a new tool was developed in US in the course of the dotcom financial scandals of 2001–2002.The scandals led to the enactment in 2002 of the Sarbanes-Oxley Act which amongst other things substantially reinforced the corporate governance rules within public companies. The introduction of a whistleblowing system also became a part of the new system. It was also given new life with the subsequent enhancement of the Dodd-Frank Act in 2010, which provided a formal rewarding system for the whistleblowers. According to the new rules all tips which result in the penalty of over US $1 million are rewarded by US SEC, which supervises the system. The reward is in the range of 10–30% of the payments received. In effect the whistleblowing became a very effective supervisory tool. According to the available statistics an annual delivery of tips amounts to over 5000. The total amount of remuneration paid between 2010–2018 accounted for over US $326 million. The highest single reward paid so far amounted to US $35 million[24].

5. Concluding remarks

As follows from the considerations provided in this article, supervision over the financial market is currently undergoing a period of dynamic change. It is becoming an increasingly important component of the financial system. It is moving progressively away from the role of a passive guardian of compliance with regulatory requirements, to the active shaping of reality. It is also covering an increasingly broad range of subject areas and is making deeper and deeper inroads into the material processes of the financial market and in financial institutions. Its internal structure is becoming more and more complex and extensive. It is also becoming an increasingly important market regulator, with growing technical competence, extensively applying soft regulation. Everything indicates that after the central bank, we are witnessing the birth of the second public pillar of the financial system, and a successive stage of the limitation of economic freedom in the financial market.

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Should supervisors allow capital waivers to be used within European cross-border banking groups?[1]

Abstract

A common theme in recent public European Union (EU) policy debates is improving integration of the EU financial sector. The suggestion is that the Euro area should be treated as if it were a single jurisdiction, across which banks should be able to centralise management of capital and liquidity. Financial fragmentation is said to trap capital and liquidity in local subsidiaries in Host countries which is suboptimal, hindering the cross-border provision of credit, and resulting in an inefficient economic allocation, with higher costs for customers, and lower profitability for the industry in the EU. The proposed policy involves measures to counteract ring-fencing of subsidiaries by Member States (MS), curtailing national options and discretions that limit the harmonization effects of the EU's Single Rulebook, and other regulations and supervisory practices that reduce banking groups' cross-border freedom. However, some of the national options affecting banks in the EU are still supported by MS as needed due to local risks, financial stability concerns.

Cross-border banking, often used as a yardstick to gauge the level of financial integration in the EU, can currently be realized in the EU in three basic forms: via subsidiaries, via passported branches or via cross-border provision of services. Among the solutions to fragmentation that many EU policy makers and governments focus on, at least in the Eurozone (EZ), are: completion of the Banking Union (BU), adopting regulations allowing capital, liquidity and MREL waivers in subsidiaries across borders, and the reduction of national options.

In November 2016, the European Commission (EC) proposed changes to Capital Requirements Regulation (CRR), Capital Requirements Directive IV (CRD IV) and Bank Resolution and Recovery Directive (BRRD) which would have allowed, under certain conditions (e.g.

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1 The article does not necessarily presents the opinions and position of PwC. The authors express appreciation for the comments received from colleagues in PwC network and from anonymous reviewers of the journal.

subject to guarantees), the application of capital, liquidity and MREL (Minimum Required Eligible Liabilities) waivers in the subsidiaries of EU banks operating in EU MS. These propositions faced strong opposition and were not ultimately adopted in the recently published CRR 2.0, CRD V and revised BRRD, due to lack of consensus among MS. But the arguments in favour of change have not disappeared.

In this paper, we start with a look at the current state of financial integration in Europe. We then examine the arguments for and against the use of waivers. Building on these arguments, we subsequently explain sensible preconditions that should be put in place – in addition to completing the BU – to allow the prudent use of such waivers. We also discuss alternatives to the use of waivers, based on expanding the use of branches and indicate incentives which can play a role in shaping the quality of cooperation between Home and Host supervisors.

Key words: capital and liquidity waivers, EU financial sector integration, SSM waiver, CRR 2.0, CRD V, BRRD, resolution, financial sector fragmentation, Home-Host supervisors, SRB, SSM, ECB

JEL: G18, G21,G28

Introduction

This paper examines the arguments for and against the use of waivers within European cross-border banking groups, and explains some sensible preconditions that should be put in place – in addition to completing the BU – to allow the prudent use of such waivers.

The debate over SSM waivers has become an important area of focus in the EU, as policymakers search for ways to improve economic growth via more efficient capital allocation across borders – using measures of financial integration to assess progress. So we start with a look at the data on financial integration and the most recent legislative efforts to address fragmentation, including by completing the Banking Union, as well as proposals for the use of capital waivers to enable more centralized pan-European banking. We then look at the arguments which have been deployed by both supporters and opponents of allowing, under waivers, the free flow of capital and liquidity within international banking groups in the EU..

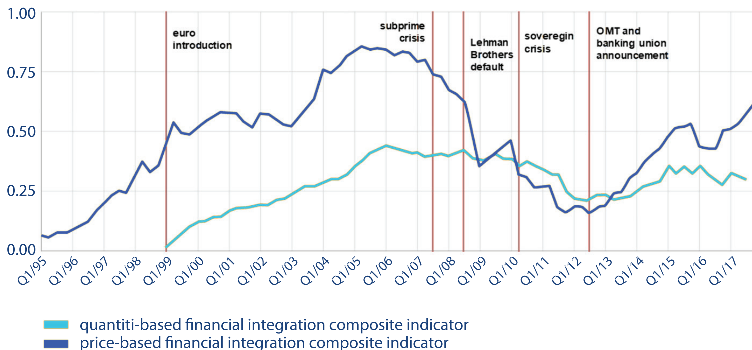
We note that alternatives to waivers are available – such as expanding the use of branches. We suggest that if future legislative efforts to enable capital waivers are to succeed, there needs to be more confidence in countries that primarily host cross-border banks, that tools and resources will be available in these host countries to ensure that a banking crisis could be managed smoothly.

Financial integration vs fragmentation – what does the data say?

Since financial fragmentation is one of the key concerns used to justify proposals circulating in the EU for centralization of capital and liquidity at group (parent bank) level under the concept of capital and liquidity waivers, we will look first at the level of fragmentation in EU and then ask whether the capital waiver is the right response to the issue.

The European Central Bank (ECB) uses two major indicators of financial integration (price-based and quantity-based), to assess the aggregated post-crisis integration. These indicators show improvement mostly in terms of ***price integration***, but not in ***quantity-based integration***. The ECB's price-based indicator illustrates clear increases during 2017 (see yellow line in the chart), after a correction in the period of 2015 to the end of 2016. But the quantity-based financial integration indicator has not improved much, and even decreased recently (blue line in the chart). The ECB explains the reduction as being a consequence of lower cross-border interbank lending. It says that its monetary policy has supported money market integration but that "injection of excess reserves – as expected – has reduced counterparties' needs to trade across borders within the euro area money market".

Figure 1. Price-based and quantity-based composite indicators of financial integration

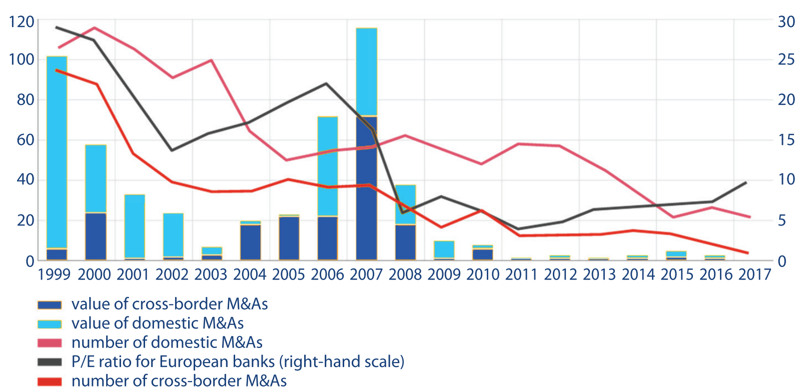


Source: Financial integration in Europe, ECB 2018; The price-based composite indicator aggregates ten indicators covering the period from the first quarter of 1995 to the quarter of 2017, while the quantity -based composite indicator aggregates five available from the first quarter of 1999 to the third quarter of 2017. The indicators are bounded between zero (full fragmentation) and one (full integration). Increases in the indicators signal greater financial integration.

Thus, the picture illustrates that prior to the financial crisis, integration was increasing steadily. But since the crisis the price and quantity-based indicators are both still below pre-crisis levels, and although price-based integration has been improving steadily since its post-crisis the quantity-based integration measures show no sign of increasing.

Another indicator of integration is cross-border merger and acquisition (M&A) activity. As illustrated in Figure 2, both the number and value of M&A activity are very low, only a fraction of their pre-crisis levels. These very low levels have been continuing for several years, since the financial crisis.

Figure 2. Bank M&A activity and bank valuations



(left-hand scale: number per year, € billions; right-hand scale: P/E ratio in multiples of earnings)

Source: Schmitz Martin, Tirpák Marcel (2017), Cross-border banking in the euro area since the crisis: what is driving the great retrenchment? Financial Stability Review, ECB 2017; M&A data cover the EU28. Values only include transactions for which data are available. The value spike in 2007 reflects one very large deal (the acquisition of ABN Amro by a consortium comprising Royal Bank of Scotland, Fortis and Santander).

There may be many reasons why cross-border M&As (a measure of financial integration) are so low in the EU. Among them are poor financial results translating (in connection with growing capital requirements) into low bank ROE levels, often below costs of capital[2], poor dividend payment track records in recent years (also due to increasing capital requirements), concerns about persistent low interest rates resulting from long lasting monetary policy impact on banks' profitability, prolonged issues in banks (high legacy Non-Performing Loans (NPLs), in some countries, Anti-Money Laundering(AML) issues and resulting fines and reputational damage, etc.), absence of sizeable enough targets (to achieve desired C/I and economies of scale), and lack of real expansion opportunities combined with the perceptions of uncertain net benefits. The existence of SSM waivers may not have much impact, if these other factors remain unresolved. Other factors such as rising banks' capital requirements or special taxes imposed on banks or transactions, growing costs related to new consumer protection in the financial sector might also play additional role.

[2] The detailed status of some aspects of the current Home-Host arrangements after final version of CRR 2.0 and CRD V and BRRD 2.0 is issued has been expressed in EC communique http://europa.eu/rapid/press-release_MEMO-19-2129_en.htm which clearly indicates that MREL will be required at subsidiary level.

One of the conclusions that was drawn after crisis was that the EU needs a more diversified banking system and to avoid too much bank concentration at national and cross-border levels. In that respect, M&A has the potential to impact financial stability as a factor leading to greater concentration of banking systems in the EU, even if emergence of even bigger EU banks would lead to EU banking champions better able to compete globally. Before the financial crisis of 2007–2009, M&A activity, as illustrated in the Figure 2, resulted in the emergence of several large, cross-border banks (e.g. Royal Bank of Scotland, Fortis), which proved difficult to handle in the crisis, and which ultimately required public bail-outs.

Proponents of cross-border M&As indicate that they would results in much greater economies of scale, better profitability and the emergence of stronger global EU banks (EU champions). They add that post-crisis measures substantially reduce the potential impact of the failure of such EU champions. These measures include: a strong SSM – independent of (at least direct) political pressures, much higher capital requirements for Global and Locally Systematically Important Banks (Total Loss-Absorbing Capacity/TLAC, systemic buffers), and – in some countries – implementing separation between investment banking and deposit taking (UK), and much greater scrutiny of the risk models for capital optimization.

With the decline in M&A activity, questions about the profitability of EU banks, and their growing capital requirements (sometimes driven locally – e.g. via local buffers or other capital add-ons), a new policy debate started in 2016 with the first draft of CRR 2.0. Many EU policy makers (both at EC, EEA and from some Member States) argued in support of capital, liquidity and MREL waivers for local subsidiaries of home country parent banks, saying that such wavers could be an important factor in overcoming financial fragmentation. However, other participants in the discussion indicated that alternative issues may play a role in the lower than expected level of cross-border integration, such as overbanking, legal and economic uncertainties (e.g. over insolvency or foreclosure regimes), and an unattractive fiscal environment. The lack of SSM waivers may not be the most important of such factors.

The benchmark given in many discussions about integration vs. fragmentation by both EU policy makers and some major EZ banks is the United States of America (US)[3], with its federal system, common institutions and agencies, underpinned by strong, popular political buy-in to the mutualisation of risk mitigation and support. But Europe, unlike the US[4], is still a union of sovereign Member States, whose common institutions and support mechanisms, even within the 19 EZ countries, are not endowed with the same level of popular, political commitment to extending support across borders. The project of centralising capital and liquidity in European banking groups, or making it moveable across such groups, will therefore need

[3] See for example EGOV Briefing ("Liquidation of Banks: Towards a FDIC for the banking Union").

[4] In the US there is also state level licensing and supervision process for certain segments of banks, mostly local banks, while the Federal Reserve, the Office of the Comptroller of the Currency and the FDIC play more nation-wide, federal roles.

a different system of controls and commitments. A solution to the fragmentation issue will need to be acceptable to both Home and Host MS, which means carefully planning how to withstand crises which can affect any banking system.

Legislative efforts to address financial fragmentation

As mentioned above, efforts to address fragmentation were part of the initial 2016 legislative proposals to amend the CRD IV [5]. In that first legislative proposal for an amended CRR (and BRRD in respect of MREL) some new solutions were tabled to help European cross-border banking groups, especially in the BU, to manage liquidity, capital and MREL in more efficient, centralised ways[6]. The idea was to allow management of capital, liquidity and MREL at the level of EU banking groups, so they could be allocated efficiently to the various parts of the group, instead of holding capital and liquidity at subsidiaries in EU Host countries. The idea was to give such the option of granting capital and liquidity waivers for cross-border banks to Competent Authorities. Nevertheless, the EC in its Explanatory Memorandum, recognized that even in the BU, there were concerns among the Host MS. The latter indicated that insufficient liquidity or capital at the level of subsidiaries might have adverse fiscal consequences for such host MS, in the event of problems. The Commission believed that these concerns were addressed in the CRR 2.0 (Nov 2016) proposal via safeguards requiring the parent to support the subsidiaries, and by guaranteeing the whole amount of the waived requirement, collateralized by at least half of the guaranteed amount. Nevertheless, the proposed safeguards did not convince enough MSs, and the provision was eventually deleted from final version of CRR 2.0.

Despite being deleted, the idea is still supported in principle by some MS and larger banking groups. They have suggested starting first with the BU countries, and so the approach is called an "SSM waiver", as it would be applied only to banks which are supervised commonly by the ECB (as a Single Supervision Mechanism/SSM).

[5] Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements and amending Regulation (EU) No 648/2012, Brussels 23.11.2019.

[6] See REPORT on the proposal for a regulation of the European Parliament and of the Council amending Regulation (EU) No 575/2013 of June 28, 2018 – Preamble, Recital (56) stipulating that "In light of the strengthened group supervision resulting from the reinforcement of the prudential regulatory framework and the establishment of the Banking Union, it is desirable that institutions take ever more advantage of the benefits of the single market, including for ensuring an efficient management of capital and liquidity resources throughout the group. Therefore the possibility to waive the application of requirements on an individual level for subsidiaries or parents should be available to cross-border groups, provided there are adequate safeguards to ensure that sufficient capital and liquidity will be at the disposal of entities subject to the waiver. Where all the safeguards are met, it will be for the competent authority to decide whether to grant such waivers. Competent authorities' decisions should be duly justified." http://www.europarl.europa.eu/doceo/document/A-8-2018-0242_EN.pdf

To summarise, arguments in favor of capital and liquidity waivers for cross-border banks were/are:

- The BU should allow banks to benefit from the Single Market, including by ensuring efficient management of capital and liquidity resources across the group entities located in various MS of the Union
- The SSM has sufficiently strengthened group supervision in the BU, having a better knowledge and direct powers over group entities situated in different MS in BU
- To some extent the BU has already become a "single jurisdiction", with a few important, common institutions (Single Resolution Board*SRB), ECB, Single Resolution Fund(SRF))
- Such an approach promotes risk-sharing and helps to create pan-European banks of a new type which can easily reallocate resources across EU jurisdictions, ensuring greater efficiency of capital, liquidity and operations in general
- Precedents for SSM waivers exist – under existing legislation (e.g. in CRR), competent authorities have the power to waive the application of requirements on an individual level for subsidiaries or parents within a single Member State or in part of a liquidity sub-group spread across several Member States. These waivers could also be made available, as an option, for competent authorities of the Member States outside the BU, subject to their explicit agreement
- Technological developments increasingly facilitate centralised management of capital and liquidity management in a group as well as cost cutting, optimizing processes and avoiding, for instance, ICAAP, ILAAP and other liquidity reports prepared on a local basis
- Greater centralisation could free up assets trapped in subsidiaries. France's Minister of Finance, Bruno Le Maire[7] has suggested there are some €300bn of liquid assets inefficiently trapped in EZ subsidiaries of EZ banks that could be more efficiently deployed
- Capital and liquidity managed at group level would be more optimally allocated by parent banks to grow the EU economy, and more effectively deployed to deal with crisis scenarios, too. Managing efficiently financial resources within cross-border groups by moving capital and liquidity in optimal way would also contribute to mitigate the home bias in banks' balance sheets through greater geographical diversification of banks' exposures, including to sovereign debt
- Strengthening parent bank capital and liquidity would help to make regional EU banking champions truly global players, better able to compete with non-EU banks
- Such an approach allows banking groups in a crisis to move capital and liquidity where they are needed – potentially making the groups more resilient.

[7] In his speech during EUROFI conference in Budapest in April, 2019.

Concerns about change

Even though much support for integrated financial markets exists, a number of predominantly Host Member States and some international institutions have raised concerns about premature implementation of SSM waivers due to:

- Incompleteness of the BU (i.e. lack of a mutualised deposit guarantee scheme and/or fiscal backstop); for example, in EZ, the combination of centralised supervision (ECB) and resolution (SRB) authorities and national deposit insurance and liquidation (MS) might result in incoherent incentives for various authorities, and in extreme cases lead to local systemic disruptions (e.g. no resolution of a bank at EZ level which might mean liquidation at local level with negative consequences[8]); it should be remembered that before and during the recent financial crisis (2007–2009) it was no so much insufficient Home and Host supervisors cooperation as a problem but rather the lack of clear answer to the question of "who pays the bill ?" or ex-ante burden sharing arrangements which were not in place. These and other factors, contributed to often non-coordinated actions towards problem cross-border banks operating across EU. The question of paying the bill is a key challenge here.
- Waivers could radically change the hard-won, negotiated prudential framework for EU banks which was based on compromises among many EU MS around CRR and CRD, in which they have already sacrificed important 'national options.' Waivers introduce a new division of powers and responsibilities – an asymmetry in the position of Home and Host countries. In case of waivers, responsibility to a large extent stays with the Host country (i.e. via deposit insurance) while the powers (regarding capital, liquidity flows) and resolution options (closely related to the capital and liquidity) are shifted to the parent bank Home supervisors (in case of the largest EZ banks, to the ECB) and away from Host MS. It should be no surprise that Host MS suggest that before waivers are implemented, additional reform is needed, including harmonization of insolvency laws and a much stronger SRF with a fiscal backstop in place.
- Too much centralisation, including substantial or complete elimination of local capital, liquidity, and MREL might hamper separability and sales potential of parts of the business (e.g. local subsidiary in Host MS as a whole) during a resolution process; as separability is an underlying principle in case of the transfer

[8] An illustration of the divergences in approach to the collapse of Latvia's third-biggest bank – ABLV Bank (accused by US authorities of money laundering, breach of sanctions against North Korea, etc.). Following the decision by the European Central Bank to declare ABLV Bank, AS and its subsidiary ABLV Bank Luxembourg S.A. as 'failing or likely to fail', the Single Resolution Board (SRB) decided that resolution action by the SRB is not necessary as it is not in the public interest. As a consequence, the winding up of the bank took place under the law of Latvia. However, the request of Luxembourg's Commission de Surveillance du Secteur Financier (CSSF) to liquidate ABLV's Luxembourg branch was rejected by a Luxembourg court. ABLV said its Luxembourg branch had a strong financial standing, which was recognized by the court, and it would now look for new investors.(see: https://www.reuters.com/article/us-latvia-bank-luxembourg/court-rules-latvian-bank-ablv-may-keep-luxembourg-branch-idUSKCN1GM0HM and https://srb.europa.eu/en/node/495?mod=article_inline).

or asset sale as resolution tools then interdependencies so much present in centralized model might create a true roadblock to resolution[9].

- Some credible research shows that the "correlation between parent banks' and foreign subsidiaries' default risk is lower for subsidiaries that have a higher share of retail deposit funding and that are more independently managed from their parents." This is even more evidenced "for subsidiaries operating in countries that impose higher capital, reserve, provisioning, and disclosure requirements, and tougher restrictions on bank activities"[10].
- Lack of adequate safeguards for Host MS where systemically-important subsidiaries operate (local SIIs); in such cases Host MS would still supervise such subsidiaries (as they collect local deposits and often have minority listings on local exchanges, but no longer have capital or liquidity to guarantee safety of the local deposits in a crisis). This issue of Home-Host share of responsibilities and powers boils down to the fundamental question "who pays the final bill" in case of bank failure.[11]. The question becomes especially important where foreign banks have systemically-important local roles. The argument that "banks are international in life but national in death" is still raised and continues to carry importance.
- Insufficient safeguards for Host countries – the waivers as initially proposed in CRR 2., CRD V and BRRD draft law were not supported by adequate safeguards to allow subsidiaries in Host jurisdictions to apply them – i.e. legislative provisions to require banking groups to provide guarantees/obligations of support for subsidiaries did not (yet) provide legal certainty that they would function as needed in a crisis. Transferring capital or liquidity from a parent bank to subsidiary might not always be possible, if it jeopardizes the group's position. En-

[9] But these obstacles could be mitigated at least partially if a parent bank holds enough equity (to be used to rescue subsidiary with no legal impediments for transfer in Home MS) and debt issued by the subsidiaries. Such debt should rank lower to claims on the subsidiary by third parties. In case of resolution such debt is written down and converted into equity in order to recapitalize the subsidiary in case of need. In such a model, a parent bank should provide liquidity and access to key services and market infrastructures to its subsidiaries. For example, in the UK it is called intra group liquidity modification i.e. the legal obligation to support UK entity must be fulfilled in BAU and stress situation. On the other hand, we need to bear in mind fiduciary responsibility that boards and directors of individual legal entities are normally under. Such an obligation makes the boards to act solely in the interests of their shareholders and while the failure of a subsidiary would cause a parent company to lose its equity in the subsidiary (plus any other exposures), it is possible that during a financial stress, directors of an individual entity may determine that the financial costs of supporting another group entity would outweigh the reputational damage of allowing the other entity to fail. See for example the case of Croatian Rijecka Banka, where the parent bank – Bayerische Landesbank, having own problems, did not decide to support failing subsidiary and walked away (The Economist 12.02.2002, Rogue trader, rogue parent).

[10] see IMF Working Paper Research Department *"Foreign Bank Subsidiaries' Default Risk during the Global Crisis: What Factors Help Insulate Affiliates from their Parents?"* Prepared by Deniz Anginer, Eugenio Cerutti, and Maria Soledad Martinez Peria (2017).

[11] See for example: P. Bednarski, G. Bielicki, *Home and Host supervisors' relations from Host supervisors' perspective*, [in:] *Cross-border banking. Regulatory challenges*, ed. G. Caprio, D.D. Evanoff, G.G. Kaufmann, World Scientific (2007).

forceability of safeguards for Host MS is uncertain: legal effectiveness of strong guarantees from parent banks and the effectiveness and credibility of the Home MS deposit insurance schemes require further legal analysis[12].

- NPL problems in some banks are yet to be resolved – although efforts are underway to do so, and progress continues. Subsidiaries of groups with NPL problems elsewhere might be left with insufficient liquidity or capital in a crisis, which could then translate into a need for local fiscal support by the Host Member State.
- EU resolution authorities are still relatively new – their effectiveness and operational capability to deal with crisis remains (thankfully) untested. Some central bankers have posed a hypothetical scenario about what would have happened if, when Banco Popular (BP) failed in Spain, Santander Group had decided not to buy BP's Portuguese operations. If this had then put the Portuguese banking system into further crisis, the central bankers suggested there are questions about whether the SSM or the SRB would have sufficient tools or resources to work with the Portuguese central bank to deal effectively with it.
- The SRF, even at its ultimate capacity of €50–60bn, may not be enough to deal with a major systemic crisis. To support the SRF, the European Stability Mechanism (ESM) backstop to SRB might need to be used. Such a backstop as well as its application by SRF/SRB at an institution level, will be dependent on meeting several conditions (e.g. on macro-level reduction of NPLs, level of NPL provisioning, meeting MREL targets, on micro-level: compliance with BRRD, MREL, etc.) and on its early introduction (in 2021 or 2022)[13].
- The ECB is not a lender of last resort for banks in the euro area and the national central banks are still in charge of Emergency Liquidity Assistance (ELA). Therefore, there may still be barriers to the use of local subsidiary funds (capital and liquidity moveable in cross-border group), with central banks needing to fund deposit outflows in other jurisdictions. Clarification by the ECB about the availability or/and commitment of ELA in case of problems in subsidiaries would be helpful.

[12] This is supported by some historical examples eg. from Iceland where after the Lehman Brothers collapse, all 3 internationally active Icelandic banks failed, and local deposit insurance fund was not able to reimburse depositors in failing banks and their foreign branches (incl. single passport branches in the UK and NL) for some years or the US Savings and Loans crisis (the 1988 failure of the First Republic Bank) which demonstrated weakness of similar intra-group guarantees; The Icesave case illustrates the fact that the ruling of international courts as regards obligations of the deposit guarantee schemes might be also less predictable as illustrated by EFTA Court judgement of 28 January 2013, Case E-16/11, EFTA Surveillance Authority, supported by the European Commission versus Iceland, link https://eftacourt.int/download/16-11-judgment/?wpdmdl=1260&masterkey=, see also, Iceland triumphs in Icesave court battle, Financial Times 2013, link Iceland triumphs in Icesave court battle.

[13] Current discussions in Eurogroup are reflected in the public documents such as https://www.consilium.europa.eu/en/press/press-releases/2018/12/04/eurogroup-report-to-leaders-on-emu-deepening/.The detailed status of some aspects of the current Home-Host arrangements after final version of CRR 2.0 and CRD V and BRRD 2.0 is issued has been expressed in EC communique http://europa.eu/rapid/press-release_MEMO-19-2129_en.htm which clearly indicates that MREL will be required at subsidiary level.

- The capacity of local deposit guarantee schemes (DGS) varies – resources are not yet sufficient in all countries, and the buildup of financial capacity needs to continue.
- Uncertain European economic growth prospects continue – which may also affect banks' standing. In such an environment, large transfers of capital and liquidity to parent banks or other entities in a cross-border group become a political, as much as a prudential issue. With subsidiary banks in most cases largely funded by local deposits that are also insured locally (and thus subject to local fiscal backstop in a crisis), local concerns cannot be easily dismissed.
- Local subsidiaries may have local stock exchange listing and minority shareholders, such as local pension funds and other institutional investors, who will be cautious about the use of SSM waivers.
- Depositors may not want to put money in banks with no capital even if the deposits are guaranteed under local DGS in Host country.
- The legal framework for cross-border insolvency of EU banks presents obstacles – today, local operations would be dealt with under each country's insolvency regime. Creditors in Host countries need confidence in equitable treatment.
- The International Monetary Fund (IMF) suggests that any changes to capital, liquidity or governance requirements should be mindful of financial stability in individual member states and be made gradually, to minimize the risk of unintended consequences. The concern about financial stability is particularly relevant for systemically important subsidiaries.
- The "Basel Committee Core Principles of Effective Banking Supervision (BCP)" set standards for supervisors, together with the criteria of their assessment[14], and are used by the IMF in its periodical Financial Sector Assessment Programs (FSAPs) in various countries. These typically suggest that banks (and by definition, bank subsidiaries in Host countries) should have adequate capital and liquidity[15].
- The IMF in the *Financial Sector Assessment Report for Belgium*, while addressing the question of capital and liquidity movable from subsidiaries to the group (in the context of EC CRR draft proposal of November 2016), stipulated in a broad terms that the question of liquidity and capital in subsidiaries could be approach in a more flexible way. IMF noted in the Report that "while the EC proposal [EC draft proposals CRR 2.0 and CRD 5 of 23, November 2016] is not inconsistent with the Basel standard, the quality of monitoring and supervisory intervention at the subsidiary level will be important to ensure that the EU supervisory framework meets these standards". The CRR allows national supervisors to waive the capital adequacy requirements on a solo basis for cases where the parent and subsidiaries are established in the same country.

[14] Core Principles Methodology, Basel Committee on Banking Supervision, 2006.

[15] Laws or regulations require all banks to calculate and consistently maintain a minimum capital adequacy ratio.

Expanding the debate

The debate over SSM waivers has been joined by the EBA and the SSM. In 2018 public speeches by the Chairs of both institutions (Andrea Enria and Daniel Nouy respectively) clearly supported such waivers, at least within the BU. Both defined integrated EU markets as markets where asset transfers or SSM waivers should take place. Truly European, integrated banking would happen when cross-border business could predominantly take the form of single passport branches or “quasi branches” i.e. subsidiaries which are not required to hold capital or liquidity, or are allowed to move capital, liquidity and MREL from subsidiary to the group (sister companies) or parent bank domiciled in BU (after being granted SSM waivers).

At a global level, the FSB is also increasingly concerned about trends in fragmentation of the global financial system. Its Chair, Randal Quarles, and Secretary General, Dietrich Domanski, have been speaking recently about fragmentation and the need for greater international cooperation and trust between bank regulators and supervisors.[16, 17]

Despite its directional support for capital and liquidity waivers, the SSM, in its ***Guide on options and discretions*** available in the Union law (for EZ countries) indicates as one of the conditions for Art. 7 (1) allowing waiver on capital requirements – that “there should be an evidence that the parent undertaking has guaranteed all the obligations of the subsidiary, by means, for example, of a copy of a signed guarantee or an extract from a public register certifying the existence of such guarantee or a declaration to such effect, which is reflected in the parent undertaking’s articles of association or has been approved by the general meeting and reported in the annex to its consolidated financial statements. As an alternative to a guarantee, credit institutions can provide evidence that the risks in the subsidiary are negligible”.

The debate has been actively followed and in some cases joined by policymakers, politicians, and the industry, itself. At the Eurofi conference in April 2019 in Bucharest, divisions between countries that are predominantly “exporters” of banking services and those which are “importers” of banking services (i.e. being Host jurisdictions with foreign banks holding a substantial share of local bank assets), were on clear display.

SSM waivers were promoted by governments, supervisors, central banks and leading banks from EZ countries which are home to large cross-border banks, and opposed by those from other Host countries where large cross-border banks hold significant shares of the market. For these Host countries, SSM waivers are

[16] Quarles Randal K., *Government of Union: Achieving Certainty in Cross-Border Finance – remarks at Financial Stability Board Workshop on Pre-Positioning*, Ring-Fencing, and Market Fragmentation Philadelphia, Pennsylvania, September 26, 2019, link: https://www.fsb.org/wp-content/uploads/S260919.pdf

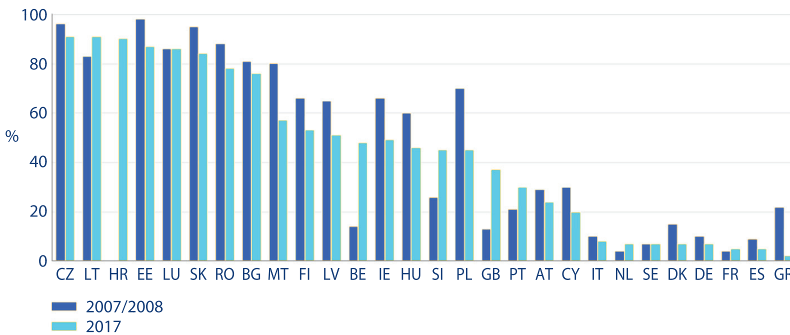
[17] Domanski D., *Three priorities for international regulatory and supervisory cooperation*, Financial Stability Board, remarks delivered at Eurofi conference, September 13, 2019, link: https://www.fsb.org/wp-content/uploads/S130919.pdf

considered a radical move that would transform existing large credit institutions operating in their territories, into quasi branches, still holding local licenses and subject to the local deposit guarantee system, but operating without local capital, liquidity and MREL. Therefore, it is not surprising that SSM waivers faced stiff resistance[18].

A senior European cross-border banker stated that the "solo approach is a contradiction of the BU and a retrenchment to national borders which affects growth in EU". And he presented arguments for waivers based on overcoming the suboptimal allocation of capital and liquidity, and providing for a greater supply of capital to European economies. But a central banker from a smaller Host country argued that foreign bank subsidiaries in his country should not be just left without capital and liquidity, and no other strong safeguards.

It is interesting to look at this discussion through the lens of ownership structure of banks in the countries active in the debate on SSM waivers and in general on the Home-Host themes. In many (if not all cases) the countries that raise objections and concerns to allow free movement of capital and liquidity from subsidiaries to parent bank or other entities in the same group (which would leave such subsidiary without capital and liquidity) are mostly countries with a dominant presence of foreign banks, mostly Belgium, Member States from Central, Eastern or Southern Europe (with foreign banks in many cases controlling close to 100% of the local banking markets), and the UK.

Figure 3: Foreign banks in EU Member States in 2008 and 2017
(% assets of banking systems in EU Member States controlled by foreign banks)



Source: ECB, PwC.

[18] J. Deslandes, C. Dias, M. Magnus, *Banking Union: What next?*, European Parliament, ECONOMIC GOVERNANCE SUPPORT UNIT (EGOV), Directorate-General for Internal Policies PE 634.374 (2019).

As a context for the analysis of the arguments raised above, it makes sense to note that currently in the EU, three groups of countries can be identified with respect to the foreign banks penetration:

- Countries with a high level of foreign banks (CZ, LT,HR, EE,LU, SK, RO, BG), most of them are new members of the EU from Central, Eastern and Southern European countries
- Countries with more balanced share of foreign and local banks – MT, FI,LV, BE, IE, HU, SI, PL and UK, a mixture of old and new MS
- Countries with low to very low presence of foreign banks – mostly old EU countries: PT, AT, CY, IT, NL, SE, DK, DE, FR, ES, GR.

The countries with low level of foreign banks dominate in the EU both in terms of their size and voting power in the EU institutions.

It is also worth noting that Belgium, UK, SI and PT experienced important increases, within the last 10 years, of the size of foreign vs. local banks in terms of total assets. At the same time, presence of foreign banks assets dropped visibly in Poland, MT, Greece, DK, ES and less in CY, IE, HU, DE.

The concerns of Host MS found also understanding in the ardent proponent of SSM waiver, the Chair of SSM, Andrea Enria who while at EBA, recognized that ring-fencing approaches of Host MS (such as increased capital and liquidity requirements, limits on intra-group cross-border transfers and dividend payouts) were means "to better safeguard the interests of local stakeholders – shareholders, creditors and depositors, as well as deposit insurers and taxpayers – mitigate spillovers and cross-border contagion and support credit supply at the national level".[19]

So where to from here?

Making progress from here surely means recognising that the use of waivers represents a significant change. As previously mentioned, the prevailing regulatory arrangement in the EU is based on "freedom of service provision" and "freedom of establishment," which allows banks to operate in Host jurisdictions via subsidiaries, via passported branches, or via direct provision of service from another EEA country.

The use of passported branches, in particular, warrants more consideration. Branches allow cross-border banks to operate in another EU jurisdiction without fragmenting capital and liquidity, and to achieve operational efficiencies, but with crisis responsibility resting clearly with the parent group, and its home state supervisors and resolution authorities. Without agreement to a shared European Deposit Insurance Scheme (EDIS), Home MS deposit insurance schemes bear responsibility for those depositors in the Host MS. The distribution of responsibilities and powers in such a framework is clear and well-established, though not without certain problems

[19] Enria Andrea, Fragmentation in banking markets: crisis legacy and the challenge of Brexit, September 2018.

in the past (e.g. the Icelandic banking crisis in 2008–2009). There is also a well-established regulatory regime for insolvency of a bank with single passport branches (Winding-up directive)[20]. In such a legal set up, there are no impediments to the free flow of liquidity across borders, and the deposit insurance responsibility framework is well established, too (usually the Home country Deposit Guarantee Scheme). But in the case of subsidiaries in Host countries, unless and until a system is designed to include workable crisis funding guarantees of subsidiaries by parent banking groups, clarity about crisis liquidity provision by the ECB for banking operations in Host MS states, and political commitment to a more-mutualised EDIS, it seems likely that MS which predominantly act as Hosts for banks, will continue to oppose change.

The steps to move the debate forward were raised in the report of the Chair of the High Level Working Group on EDIS, issued in June 2019. The report recognises the interests of Host supervisors that would need to be factored into "a new balance in the Home-Host equilibrium"[21] and it makes reference to the safeguards above and also adds formalisation of the parent support (introduction of legally certain and enforceable intra-group parent support mechanisms) as well as the governance of the SRB to assess whether appropriate safeguards are in place for Host Member States.

So if the full benefits of the Single Market are to be realised via waivers, and especially in the EZ, then the next, 2019-24 Commission should look again at these policies and measures, when it again revises the CRR to implement the remaining elements of the Basel III Accord (more commonly known as 'Basel IV').

At this juncture though, operating through single passport branches, represents the most realistic option for quick wins in cross-border integration of banking groups. 'Brachification' may not be achievable for all banking groups – e.g. where there are minority interests, or where large, systemic subsidiaries are listed on local stock exchanges. And certain issues also can emerge (see Annex 2) as described in literature[22]. But 'branchification' of many groups is surely feasible, and would provide a good test of the importance of the various factors which seem to contribute to fragmentation. Based on this evidence, further moves to allow SSM waivers could then be taken with confidence. It may be insightful to see whether the transformation into branches would boost cross-border lending, especially when large exposure regime is waved in case of passported branches[23].

Other policy initiatives to improve deposit guarantee schemes (DGS) – alternatives to a full EDIS – could also be considered, such as a more transparency and dynamic

[20] Some more research is needed: how this framework worked during the recent financial crisis in the case of Icelandic banks branches in UK, NL and other countries.

[21] Considerations of the further strengthening of the Banking Union, including a common deposit insurance scheme, June 2019, Report of the HLWG Chair.

[22] K. D'Hulster, *Cross Border Banking Supervision Incentive Conflicts in Supervisory Information Sharing between Home and Host Supervisors*, The World Bank, Policy Research Working Paper 5871 (2011).

[23] As the large exposure and other concentration limits are calculated at Headquarters level. Passported branch, as opposed to a local subsidiary, does not need to keep local capital and is not bound by the large exposure limits, all should allow for grater expansion of lending in Host country.

replenishment of the funding of national DGS. A regular buildup of resolution funds could play an important role too, in mitigating fears about transfers across borders in a crisis. These fears might have root in historical examples, such as the inability of the Iceland deposit insurance scheme to fulfill its obligations (resulting from membership in EEA and necessary compliance with EU directives, including DGS directive) towards foreign depositors of Icelandic banks during the last financial crisis (2008–2009)[24].

An approach promoting single passport branches, which are well grounded in the existing EU legislation and practice, could help push forward, at least at this stage, cross-border banking and a reduction in fragmentation within the EU. Some situations and scenarios will present opportunities for branch expansion which are more attractive than others – for Home and Host supervisors. One of the key factors contributing to the success of bank to branch transformation and then smooth cooperation between parent bank (Home) supervisor and branch supervisors is right the alignment of incentives. The alignment of incentives is not always easy and tensions may emerge between supervisors. In Annex 2, we assess a number of such scenarios, and summarise the prospects for transformation or establishment a branch instead of a subsidiary based on the likely incentives for smooth cooperation between Home and Host supervisors under such scenarios. A real life illustration of large banks transformation into branches in EU is the case of Nordea, which transformed its banks which were systemic institutions in Scandinavian countries into branches and then relocated the headquarters of the Nordea Group to Finland. Therefore, the whole groups is now subject to SSM and SRB supervision and resolution powers respectively. The transformation of a systemic bank into a branch has several macro- and micro-prudential as well as capital markets implications. This includes responsibility for ELA where the responsibility for providing ELA stays with the Bank of Finland, which will be expected to provide liquidity if requested by Nordea under the Nordic-Baltic central bank MoU from December 2016.[25]

In the context of the current rules, branch oversight puts the Home supervisor almost entirely in control of crisis situations. “Branchification” will be attractive to authorities where the financial stability interests and incentives between the Home and Host countries are aligned and both countries share a strong interest in

[24] This was closely related to aggressive lending of major Iceland banks, weak supervision in the years preceding the crisis, and the eventual collapse on the Icelandic DGS. These events had tangible effects on some EU countries with Iceland not paying its deposit insurance obligations for several years.

[25] In September 2017, the Board of Directors of Nordea Bank AB (Nordea) decided to move the parent company to Finland and thereby to the European Union’s (EU’s) banking union. This decision was preceded by the earlier decision to convert Nordea’s subsidiaries in Finland, Denmark and Norway into branches of Swedish Nordea. This transformation into a branch structure entered into force on 1 January 2017. As a consequence of the transformation the responsibility for supervision, resolution and deposit guarantee is moved to Home country, which means that ECB/the Single Supervisory Mechanism and Single Resolution Board in addition to Finish Deposit Guarantee Scheme have the main responsibility for Nordea as a result of the transformation. For discussion of micro- and macro-prudential aspects see : *Statement of opinion with regard to Nordea Bank AB’s application for permission to implement merger plans,* Finansinspektionen, July 4, 2018, link: https://www.riksbank.se/globalassets/media/remisser/riksbankens-remissvar/engelska/2018/statement-of-opinion-with-regard-to-nordea-bank-abs-application-for-permission-to-implement-merger-plans.pdf

effective supervision, including commitment of adequate resources, including from a Home country DGS and Resolution Authority, to deal with a bank in crisis[26].

But divergences of Home and Host country interests can arise, for example, when local businesses are of systemic importance to a Host country, but considered marginal to the overall group and/or where the home country DGS is poorly funded, and both supervisors and DGS lack resources to deal with a wider crisis. Where the interests of Home and Host supervisors and resolution authorities diverge, there is a greater possibility of tensions emerging which can affect the functioning of such branches.

Conclusion

The debate over SSM waivers, allowing banking groups to move capital, liquidity and MREL freely across borders within the EZ, is polarised between Member States which are largely Home and Host countries. The crucial test for such policies is to consider what would happen in a crisis situation, how authorities in largely Host countries can be assured that the deposits in banks are safe, local financial stability not endangered, the local companies have steady access to credit, and that they will have the tools and resources to deal with any crisis.

This is an important debate, which underpins the structure and efficiency of the highly regulated financial services industry in Europe. To approach existing fragmentation from a largely political perspective – seeking to unlock the perceived potential of cross-border banking in a Single Market in order to symbolise progress towards a more integrated Europe – might carry unintended financial stability risks to predominantly Host Member States.

To ensure these risks are properly understood, more examination of themes such as a cross-border insolvency regime for foreign bank subsidiaries operating in the EU, the quality and conditionality of support guarantees from parent banks, and how the crisis tools and resources of the SRB and the ECB may be deployed, needs to take place to ensure cross-border failures will be managed smoothly.

As we have identified, a quick win strategy for deepening European financial integration and achieving many of the same benefits of capital waivers would be to facilitate greater use of single passport branches which already benefit from stable, transparent, and predictable (after incorporating lessons learnt from recent financial crises) regulatory frameworks. There are a number of cases where the interests of Home and Host MS align, and this will be feasible (see Annex 2 for details). A road map with sequencing of further measures, bringing together other related policies such as the Capital Market Union, would be a useful direction for the new EC to take, as it begins its new mandate in 2019.

[26] K. D'Hulster, *Cross Border Banking Supervision Incentive Conflicts in Supervisory Information Sharing between Home and Host Supervisors*, The World Bank, Policy Research Working Paper 5871 (2011).

Annex 1. Cross-border operation of EEA banks: key features of the forms available

Form of cross-border operations	General legal basis	Detailed legal basis	Licensing	Supervision	Regulation
Subsidiary	Freedom of establishment – art. 49 of TFEU*	CRD IV (art. 33 and other)	License issued by Host Member State (MS), ECB in a EZ MS	Host MS supervisor leads; coordination with Home supervisor (via colleges)	EU prudential framework for banks (e.g. directly applicable EU regulations such as CRR, locally transposed EU directives) and local laws and guidelines; all prudential norms (capital, liquidity, MREL, large exposure, etc.) on Host country level; local & group prudential reporting
Single passport branch	Freedom of establishment – art. 49 of TFEU*	CRD IV (art. 17, 33–38, 40–41 and other)	No license. Notification only needed from Home to Host MS	Home MS supervisor leads and Host MS relies Home MS to supervise and enforce the conditions for authorisation or approval. Host MS might carry out on-site inspections. Home supervisor and Host coordinate their activities, esp. for *significant branches*+	EU prudential framework for banks applies, as well as Home MS prudential requirements. Host MS local requirements limited to "general good"** considerations (e.g. financial consumer protection) No prudential numerical norms at branch level (no capital, liquidity, MREL requirements, no large exposure limits); limited host country reporting – mostly statistics (monetary policy and payment) for host central bank

Form of cross-border operations	General legal basis	Detailed legal basis	Licensing	Supervision	Regulation
Cross-border provision of services	Freedom of services – art. 56 of TFEU*	CRD IV (art. 33, art. 39)	Notification from Home to Host MS	Home MS supervisor leads and Host MS relies Home MS to supervise and enforce the conditions for authorisation or approval. No reporting, no prudential norms in Host MS.	EU prudential framework for banks as applicable in Home MS only applies. Host MS local requirements limited to "general good"** considerations (e.g. financial consumer protection on cross-border business)

* Treaty on the Functioning of the European Union (TFEU); + Art. 51 and 158 CRD IV defines "significant branch" using one of 3 criteria: a) representing 2% share in the Host country deposits or b) likely having important impact in case of closure on systemic liquidity and the payment, clearing and settlement systems, c) significant size and the importance of the branch in terms of number of clients within the context of the banking or financial system.

** "General good" consideration usually cover professional rules to protect the recipient of services, protection of workers and consumers, preservation of the good reputation of the national financial services sector, fraud prevention, social order, intellectual property protection, preservation of national historical and artistic heritage, cohesion of the tax system or road safety.

Annex 2: "Branchification" scenarios and assessment of the potential for smooth Home-Host cooperation after transformation of subsidiaries into branches in Host countries

Type of branch business and significance of a branch in Home and Host country	Home country perspective*	Host country perspective**	Potential for smooth cooperation between home and host: conversion of a subsidiary into a branch or branch notification and supervision of a branch as a consequence of convergent or divergent of interests of home and host	Comments
Non-material for Home MS, non-material for Host MS *Type of business*: small or medium scale wholesale business, no open position trading, no or small scale of deposit taking (mostly from corporates)	Low risk Low allocation of resources (supervision, resolution) No or limited risk to Home DGS	Low risk Low allocation of resources (supervision) due to low impact on local markets No risk to Host DGS as deposits insured in Home DGS	High	Interest of Home and Host mostly aligned, no triggers to disputes

* In case of banks directly supervised by SSM, the Home supervisor is ECB.

** In case of smaller MS (such as Baltic countries, Malta, Cyprus) operating as Host countries, their assessment of risk and negative impact of the potential cross-border turbulences might be more cautious than in the case of larger and economically strong countries. Host MS in such cases would look also into the capacity and strength of parent bank, Home country' DGS.

Annex 2 – cobtinued

Type of branch business and significance of a branch in Home and Host country	**Home country perspective***	**Host country perspective****	**Potential for smooth cooperation between home and host: conversion of a subsidiary into a branch or branch notification and supervision of a branch as a consequence of convergent or divergent of interests of home and host**	**Comments**
Non-material for Home MS, medium to high material for Host MS *Type of business:* Wholesale business, no deposit taking, important player on the local market (e.g. market maker in Host country in financial instruments such as derivatives, contributor to local benchmarks such as interest rates, fulfilling critical (systemic) function in Host financial system)	Low risk Low allocation of resources (supervision, resolution) No risk to Home DGS	Low to medium risk Medium allocation of resources (supervision) due to impact on markets (local interbank, capital markets, critical functions) Low to medium financial (systemic) stability risk to Host No risk to Host DGS but potential risk to financial stability if the bank performs poorly and have impact on the market; Host might look to the capacity of parent bank	Medium	Interest of Home and Host, only partially aligned, some triggers to disputes if Home does not supervise sufficiently the branch and branch de-stabilizes local markets through mis-selling of financial products or other activities

* In case of banks directly supervised by SSM, the Home supervisor is ECB.

** In case of smaller MS (such as Baltic countries, Malta, Cyprus) operating as Host countries, their assessment of risk and negative impact of the potential cross-border turbulences might be more cautious than in the case of larger and economically strong countries. Host MS in such cases would look also into the capacity and strength of parent bank, Home country' DGS.

Annex 2 – cobtinued

Type of branch business and significance of a branch in Home and Host country	**Home country perspective***	**Host country perspective****	**Potential for smooth cooperation between home and host: conversion of a subsidiary into a branch or branch notification and supervision of a branch as a consequence of convergent or divergent of interests of home and host**	**Comments**
Non-material for Home MS, low to medium material for Host MS *Type of business:* Low to medium scale of corporate, SME, micro business, incl. modest deposit taking locally	Low risk Low allocation of resources (supervision, resolution) Limited risk to Home DGS; in case of smaller countries with limited resources in DGS and insufficient quality of supervision, aggressive growth of deposits in branch might create potential burden for Home DGS and questions from Host authorities	Low risk Low allocation of resources due to low impact on local markets (supervision); mostly "general good" considerations, fair sales and trading practices, AML, etc. No risk to Host DGS but Host authorities might look to the capacity of parent bank and the strength of Home country DGS in case of a problems	Medium	Interest of Home and Host generally aligned, no major triggers to disputes but potential issues with aggressive lending and growing local deposit taking, especially when the potential for regulatory arbitrage between Home and Host countries, as Home requirements less restrictive than Host, triggering unlevel playing field (and raise to the bottom questions) and other issues

* In case of banks directly supervised by SSM, the Home supervisor is ECB.

** In case of smaller MS (such as Baltic countries, Malta, Cyprus) operating as Host countries, their assessment of risk and negative impact of the potential cross-border turbulences might be more cautious than in the case of larger and economically strong countries. Host MS in such cases would look also into the capacity and strength of parent bank, Home country' DGS.

Annex 2 – cobtinued

Type of branch business and significance of a branch in Home and Host country	Home country perspective*	Host country perspective**	Potential for smooth cooperation between home and host: conversion of a subsidiary into a branch or branch notification and supervision of a branch as a consequence of convergent or divergent of interests of home and host	Comments
Material for Home MS, Material for Host MS *Type of business*: large wholesale/trading business as assessed from Home and Host perspective, important role in Host market (e.g. market making in financial instruments, contributor to benchmarks, limited or no deposit taking (if any, wholesale, large corporate deposits)	High risk*** Moderate to high allocation of resources (supervision, resolution) Limited risk to Home DGS	High risk*** Medium to high allocation of resources (supervision of some aspects due to market impact) No risk to Host DGS but potential negative impact on the market and financial stability implications; Host might look to the capacity of parent bank to support branch liquidity and help to limit negative impact on the local market	High	Interest of Home and Host generally aligned, no triggers to disputes as both Home and Host interested in soundness of the branch and Home more likely to allocate sufficient resources for branch supervision; if a subsidiary bank is systemic in Host country there still might be some resistance on the part of Host to transforming it into single passport branch

* In case of banks directly supervised by SSM, the Home supervisor is ECB.

** In case of smaller MS (such as Baltic countries, Malta, Cyprus) operating as Host countries, their assessment of risk and negative impact of the potential cross-border turbulences might be more cautious than in the case of larger and economically strong countries. Host MS in such cases would look also into the capacity and strength of parent bank, Home country' DGS.

*** This rough risk level assessment focus only on inherent risk and does not consider quality of risk management and mitigating measures applied.

Annex 2 – cobtinued

Type of branch business and significance of a branch in Home and Host country	Home country perspective*	Host country perspective**	Potential for smooth cooperation between home and host: conversion of a subsidiary into a branch or branch notification and supervision of a branch as a consequence of convergent or divergent of interests of home and host	Comments
Non-material for Home MS, Material for Host MS *Type of business:* Large deposit taking from retail clients – market share of deposits of 2% or more, also corporates, SME and micro-firms deposits, active role in the local markets, medium to large wholesale business and trading (back-to-back), impact on the market	Low risk Low allocation of resources (supervision, resolution) Modest risk to Home DGS in case of problems in the branch	High risk Medium to high allocation of resources (supervision of some aspects due to market impact and consumer protection) No risk to Host DGS if the Home DGS well funded; Host might look to the capacity of parent bank, quality of Home supervision, and the strength of Home country DGS	Medium	Interest of Home and Host partially misaligned, potential disputes if Home does not supervise effectively the branch and branch de-stabilizes local markets, or Home DGS poorly funded; if a subsidiary bank is systemic in Host country there still might be some resistance on the part of Host to transforming it into single passport branch

* In case of banks directly supervised by SSM, the Home supervisor is ECB.

** In case of smaller MS (such as Baltic countries, Malta, Cyprus) operating as Host countries, their assessment of risk and negative impact of the potential cross-border turbulences might be more cautious than in the case of larger and economically strong countries. Host MS in such cases would look also into the capacity and strength of parent bank, Home country’ DGS.

Annex 2 – cobtinued

Type of branch business and significance of a branch in Home and Host country	Home country perspective*	Host country perspective**	Potential for smooth cooperation between home and host: conversion of a subsidiary into a branch or branch notification and supervision of a branch as a consequence of convergent or divergent of interests of home and host	Comments
Non-material for Home MS, non-material for Host MS (but important from consumer protection point of view) *Type of business*: *providing investment services, limited or no deposit taking*	Low risk Low allocation of resources (supervision, resolution); potential reputation and lawsuit risks in case of misseling of financial products; No or limited risk to Home DGS	Low to medium risk, mostly resulting from sales or broking of financial instruments to non-professional investors (potential issues with MiFID II, MiFIR, local consumer protection laws)	Medium to High	Interest of Home and Host partially misaligned, potential disputes if Home does not supervise effectively the branch in the area of financial instruments sale or broking to non-professionals (an area under regulated in EU laws), the manner of branch resolving consumers' complaints, especially when supervision over investment activities of the branch may be outside Home legal mandate, interest,and capacity

* In case of banks directly supervised by SSM, the Home supervisor is ECB.

** In case of smaller MS (such as Baltic countries, Malta, Cyprus) operating as Host countries, their assessment of risk and negative impact of the potential cross-border turbulences might be more cautious than in the case of larger and economically strong countries. Host MS in such cases would look also into the capacity and strength of parent bank, Home country' DGS.

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Challenges of central banks as regulators to the development of the FinTech sector

Abstract

Companies from the innovative technologies sector implement their solutions on the financial market. Their dynamic development is, amongst other things, caused both a loss of trust in traditional financial market entities and a change in consumer preferences related to the increasing use of financial services through electronic banking, specifically mobile banking. These trends, as well as legal regulations (e.g. the PSD2 Directive), and also the possibility of obtaining banking licenses by FinTech, have led to revolutionary changes on the financial markets. This is why there is a great challenge for central banks in the regulation and constant monitoring of entities from the FinTech sector that provide financial services. In connection with these changes, a survey was conducted among central banks asking them for opinions on the FinTech sector. As part of the research, numerous opinions were obtained which according to central banks indicate, among others, on:

- the positive impact of the FinTech sector on the banking market
- the need for cooperation between the banks and the FinTech sector, rather than establish competition
- the specific analysis of cybernetic risk as a threat due to the growing scale of FinTech's operations

Key words: central bank, FinTech sector

JEL: E58, G21

Introduction

Companies from the FinTech sector are among the most rapidly developing institutions operating in the financial market. Their dynamic development is possible using technology that is playing an increasingly important role in the world of fi-

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nance. The growth of internet and mobile phones users has had an impact on the growing number of electronic banking users, especially mobile banking. Therefore, innovative companies implementing new solutions in the field of financial services, offer their services mainly through a mobile access channel. Therefore, they incur relatively low costs associated with their operations than traditional financial institutions – especially banks – which must maintain their branch network and incur other costs related to their operations. FinTech companies are changing the financial market, but they can also pose a type of threat to the stability of the entire sector. Therefore, the role of central banks as regulators/supervisors, may significantly affect the scale of operations of these entities, as well as play a key role in ensuring the security of the entire financial system. The aim of this study was to analyse the opinions of central banks as market regulators in the field of FinTech market development. The article consists of an introduction and an analysis of the subject literature related to the definition and classification of FinTech companies. It also describes elements of the services provided by the FinTech sector for market regulators. Finally, it presents surveyed opinions of central banks on changes taking place in the financial market under the developmental influence of companies from the FinTech sector. The article is then finalised with a summary and conclusion.

1. FinTech sector – a definitional approach

Traditional banks play a key role in the financial market. However, the rapid technological development has affected the functioning of the economic world so significantly that electronic banking channels are the *main* channel of providing financial services[1]. This has influenced the dynamic development of companies from the FinTech sector, which provide their services mainly through this access channel. In addition, the digitisation of financial services favours and accelerates the development of financial innovation. Following the financial crisis of 2007–2009, there was a crisis of confidence in financial institutions around the world that were responsible for the turmoil in the financial markets. The main goal of FinTech companies is to compete with traditional methods of financial service delivery[2]. According to de Hann and others, one of the reasons for the fast expansion of the FinTech sector is the decline in public confidence in traditional financial institutions, which occurred as a result of the financial crisis[3]. All of these variables lead to the dynamic development of the so-called FinTech market. The term FinTech is an abbreviation of the term 'financial technology', which means companies or representatives of companies that combine financial services relying on modern, innovative techno-

[1] J. Skan, J. Dickerson, S, Masood, *The future of fintech and banking: Digitally disrupted or reimagined?* Tech. rept. Accenture, 2015, http://www.accenture.com/us-en/Pages/insight-futurefintech-banking.aspx (access 10.01.2019).

[2] W. Szpringer, *Fintech i blockchain – kierunki rozwoju gospodarki cyfrowej*, Studia BAS, nr 1(57), Warszawa, 2019, p. 9.

[3] J. de Haan, S. Oosterloo, D, Schoenmaker, *Financial markets and institutions, a European perspective*, Cambridge: Cambridge University Press, 2015, pp. 54–60.

logies[4]. Defining the concept of 'FinTech' is extremely difficult due to its different interpretation[5]. According to the FSB, an entity from the FinTech sector is most often defined as a company that offers innovative technology in financial services. These may result in the emergence of new business models, mobile applications, processes and even products that have a significant impact on the provision of financial services by financial institutions[6]. FinTech companies are also described as companies operating on the financial market, whereby constituting a new special category of parabanks[7].

FinTech can be considered as a wide and heterogeneous ecosystem that consists of different articulations or structures, more or less diffused on the market, that can be considered as financial activities which provide an added value by means of digital technologies[8]. The main goal of companies from the FinTech sector is certainly the maximisation of value and/or profit. The services offered by these companies on the financial market lead to a reduction in costs. They also lead to an improvement in the provision of services as well as faster access to them[9]. The development of the FinTech sector has been possible through the clear advantages of this sector (over the banking sector) in the so-called IT infrastructure[10]. Financial market regulations that enable the provision of banking services to companies from the FinTech sector affect the ability of these entities to conduct their business (e.g. including the PSD2 Directive). In addition to this, special attention should also be paid to the changing preferences and lifestyles of customers in the banking sector[11]. The speed of receiving services and conducting real-time transactions has accustomed consumers to standards that have not yet been offered. The FinTech firms have the necessary resources and in-house skills to develop their new or revamped products and services internally. This is because this approach is considered to provide more agility and flexibility in terms of business development than partnerships, which may be more time-consuming[12].

[4] G. Dorfleitner, L. Hornuf, M. Schmitt, M. Weber, *FinTech in Germany*, Springer International Publishing, 2017, p. 5.

[5] J. Harasim, K. Mitręga Niestrój, *FinTech – dylematy definicyjne i determinanty rozwoju*, [w:] Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 531, Wrocław, 2018, p. 171.

[6] FSB, *Financial Stability Implications from FinTech*, June 2017, p. 7.

[7] W. Szpringer, *Nowe technologie, a sektor finansowy. FinTech jako szansa i zagrożenie*, Wydawnictwo Poltext, Warszawa 2017, p. 9.

[8] European Parliament, *Competition issues in the Area of Financial Technology (FinTech)*, July 2018, p. 47.

[9] *The FinTech revolution: A wave of startups is changing finance – for the better*, The Economist 2015, 415(8937), p. 13.

[10] M. Laven, D. Bruggink D, *How FinTech is transforming the way money moves around the world: An interview with*, Journal of Payments Strategy & Systems, 2016, pp. 6–12.

[11] B. Nicoletti, *The Future Of Fintech: Integrating Finance And Technology In Financial Services*, Nicoletti, Bernardo, n.p.: Cham Springer, HoWeR, EBSCOhost, 2017, p. 4.

[12] EBA, *Report on the impact of FinTech on payment institutions' and e-money institutions' business models*, July 2019, p. 15.

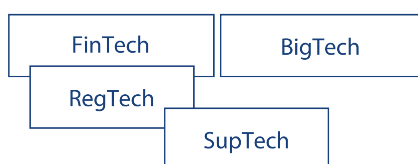
Therefore, FinTech's business models are mainly based on offering a pre-paid service free of charge or a much cheaper service. Companies from the FinTech sector can change the shape of the entire financial system by reducing the costs of doing business and accessing services, whereby improving the quality of financial services offered and by creating a more diversified and competitive financial system[13].

In addition, blockchain technology is revolutionising the financial services market. Banks often charge high fees and commissions for transactions – especially in the payment sector – and blockchain allows such transactions to be carried our virtually free of charge and in real time. As stated by J. Stiglitz, the banks before the financial crisis 2007–2009 did their best to increase the costs of transfers in every possible way[14]. According to the creators of one of the most popular publications[15] on blockchain technology, this system will revolutionise the entire financial services market. According to the authors, the blockchain technology will not only break the monopoly on the financial market, but will also significantly affect the revenues of banks and their business models. There are several key aspects that emphasise the role of blockchain technology and its impact on the financial sector, which can include: trust, transaction cost, speed, risk reduction, and open software.

The dynamic development of FinTech services results in the lack of a standard classification of this sector. As part of the work of the European parliament the following classification of areas within which FinTech sector entities operate[16] are presented as follows: retail banking (deposits and loans), payments, cash flow, Forex market, digital currencies, asset management, personal finances, InsurTech (insurance markets), and infrastructure for new technologies.

In the FinTech sector, numerous subsectors can be distinguished, which due to cooperation on the financial market, affect financial innovations in various market segments (Figure 1).

Figure 1. Division of the FinTech sector



Source: own based.

[13] *The FinTech revolution: A wave of startups is changing finance – for the better*, The Economist 2015, 415 (8937), p. 13.

[14] J.E. Stiglitz, *Lessons from the Global Financial Crisis of 2008*, s. 321–339, https://www8.gsb.columbia.edu/faculty/jstiglitz/sites/jstiglitz/files/2010_Lessons_Global_Financial_Crisis_Seoul.pdf (access 10.01.2019).

[15] D. Tapscott, A. Tapscott, *Blockchain. Rewolucja*, Wydawnictwo PWN, Warszawa 2019.

[16] *Competition issues in the Area of Financial Technology (FinTech)*, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, July 2018, p. 13.

As a result of numerous proposals for defining companies in the FinTech sector and their classification, one of the most complete market segmentations was carried out at the Basel Committee on Banking Supervision (BCBS). Within the FinTech sector classification, were entities dealing with[17]:

- credit, deposit, and capital-raising services (crowdfunding, marketplace lending, mobile banks, credit scoring);
- payments, clearing and settlements services:
  - retail (mobile wallets, peer-to-peer transfer, digital currencies);
  - wholesale (value transfer networks, FX wholesale, digital exchange platforms);
- investment management services (high-frequency trading, copy trading, e-trading, robo-advice);
- market support services (portal and data aggregators, ecosystems, data applications, distributed ledger technology, security, cloud computing, mobile technology, artificial intelligence).

Interestingly, the phase of digital financial technology illustrates that products and services in the entire financial industry may be supported by IT. This has also led to considerations whether the regulatory institutions were in place to take advantage of these innovations and to contain the risks inherent in activities that occurred electronically[18]. If existing financial regulations, (for example consumer protection rules or prudential requirements), do not apply equally to BigTech/FinTech firms entering financial services, then this can lead to lower costs and a competitive advantage for BigTech/FinTech. This however, may also lead to higher risk-taking[19].

2. Central banks and the FinTech sector

The rise of FinTech – the use of technology and innovation to provide financial products and services – is transforming the financial services landscape and will be a key economic growth opportunity[20]. Very often, banks in Poland did not pay attention to companies from the FinTech sector, claiming that they were not a threat to them. Nevertheless, the operational scale of these entities in addition to the increasing number of banking licenses granted to FinTech companies, constitutes a significant competitive challenge for the banking sector. Bank licenses granted to FinTech companies have led to the formation of modern banks. These are primarily the so-called neobanks/challenger banks that offer banking services without incurring such banking costs as traditional banks. Therefore, FinTech companies that

[17] Basel Committee on Banking Supervision, *Implications of fintech developments and bank supervisors*, Sound Practices, Basel Committee on Banking Supervision, 2018, p. 9.

[18] R. Alt, R. Beck, M.T. Smits, *FinTech and the transformation of the financial industry*, Electronic Markets, August 2018, Volume 28, Issue 3, pp. 235–243.

[19] J. Frost, L. Gambacorta, Y. Huang, H. Song Shin, P. Zbinden, *BigTech and the changing structure of financial intermediation*, BIS Working Paper, no 779, 2019, p. 10.

[20] *Delaware in the FinTech future*, June 2019, p. 4.

can offer a full range of banking products that have achieved lasting competitive advantages. In addition to the received license, the deposit guarantee in the EU affects the increase of consumer confidence in the services offered by neobanks. The wide range of activities evident in British and German neobanks may pose a significant threat to the stability of the entire financial sector.

The threat related to the more extensive operations of FinTech is one of the key tasks in the field of monitoring of their activities by the central banks. Nevertheless, companies from the FinTech sector also implement their innovative solutions in central banks and supervisory institutions. *Regulatory Technology* (RegTech), defined as a FinTech subassembly, is a sector that has been dynamically developing in recent years. It has attracted not only numerous start-up companies, but also companies such as IBM and other global consulting companies. Companies from the RegTech sector are very difficult to define, because it is a relatively young sector. Nevertheless, *The Institute of International Finance*, defines RegTech companies as entities using technology to more effectively address regulatory requirements and compliance with applicable law[21]. Entities in the RegTech sector focus on solutions that are based on technology, whilst mitigating or solving regulatory and supervisory problems faced by financial institutions. Very often such companies use digital data and complicated computer programs to replace old processes, organisational and IT structures, and analytical tools. They improve on the decision-making process in traditional financial institutions. As part of the RegTech sector, two segments of activity of these companies can be distinguished:

- RegTech for financial institutions, supervisors and regulators
- RegTech for supervisors and regulators – SupTech.

The FinTech sector has a significant impact on the shape of the financial sector around the world. Its offering of its solutions to central banks and supervisory institutions signals the need for a thorough analysis of these entities, as well as constant monitoring of their situation.

3. Opinion of central banks on FinTech in the light of the survey

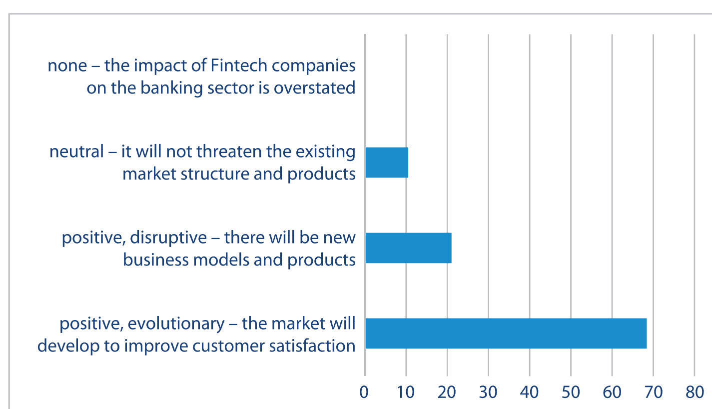
The disruptive implication of FinTech is often accompanied heated debate with different orientations on its purposes, potentialities and related benefits, but above all on its relative risks for consumer protection and financial stability. The debate focuses on regulatory approaches to adopt. FinTech is building consensus in support of digital innovation and new technologies applied to the financial sector, but is also meeting the dissent of those who believe there is evidence that it risks the financial system as a whole[22]. The dynamic development of the FinTech sector is a challenge

[21] Institute of International Finance, *RegTech: Exploring Solutions for Regulatory Challenge*, October 2015, https://www.iif.com/topics/regtech/regtech-exploring-solutions-regulatory-challenges.

[22] M.T. Paracampo, *FinTech between regulatory uncertainty and market fragmentation. What are the prospects for the technological single market of financial services?* Studia prawno – ekonomiczne, T.CX, 2019, p. 119.

especially for central banks, which must consider the level of regulation of this sector and supervise the developmental scale of individual institutions. Therefore, in the period December 2018 – January 2019, a survey was conducted. It was addressed to central banks, asking them for opinions on the developmental direction of the FinTech sector and the impact of these institutions on the banking market. The survey was sent to central banks around the world, including to all central banks of the EU countries. 19 responses were received, including 13 from the central banks of EU countries, three from the European central banks of non-EU countries, and three responses from central banks outside Europe. The results of the survey are illustrated in Figures 2–9. Central banks were asked to express their opinion on the impact of the FinTech sector on the banking market (Figure 2). The vast majority of central banks suggested that the FinTech sector will have a positive, evolutionary impact on the banking market, which will improve customer satisfaction as part of their use of financial services. It is worth noting that none of the central banks indicated the answer suggesting the lack of impact of the FinTech sector on the banking sector.

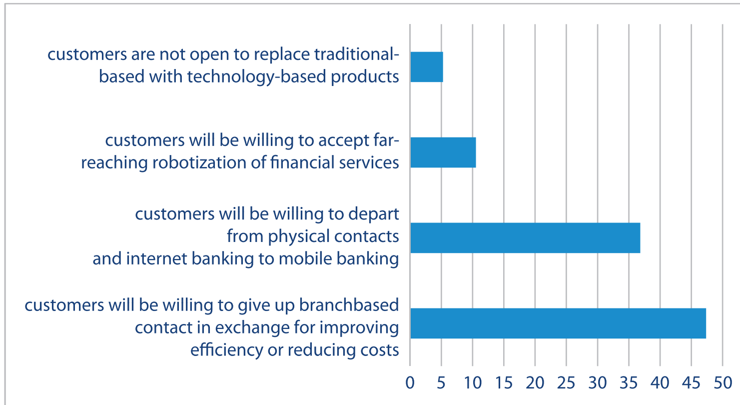
Figure 2. In the regulatory assessment of your institution, the impact of Fintech sector on the financial markets will be (%)



Source: own study.

Central banks were asked to express their opinion on the openness of consumers of financial services to technological challenges. The vast majority of central banks responded that consumers are willing to give up physical contact in branches of financial institutions in exchange for improving efficiency or reducing service costs (47%). They also responded that consumers will be willing to give up physical contact in branches of financial institutions and online banking and go to mobile banking (37%) (Figure 3).

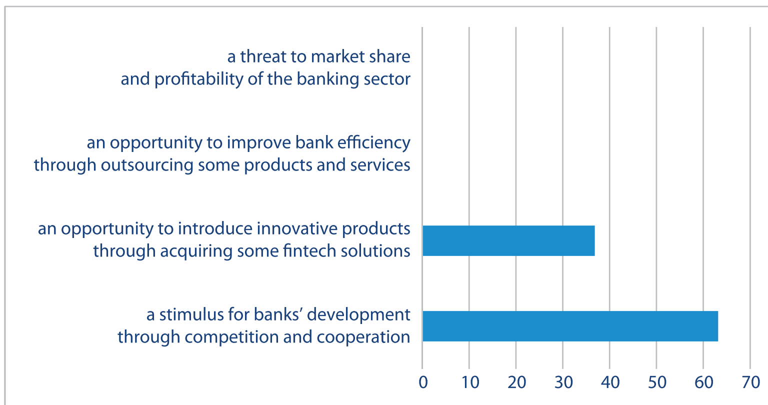
Figure 3. Assessment of the customers' openness to technological challenges (%)



Source: own study.

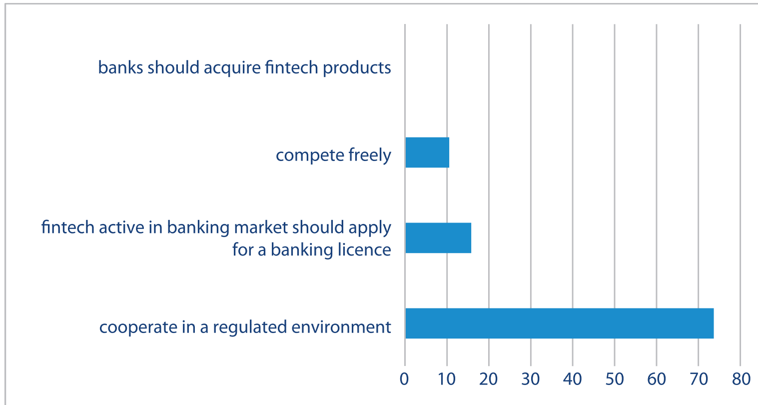
Central banks note the significant impact of FinTech companies' activities on the banking sector. In the opinion of central banks, the development of companies from the FinTech sector will be an incentive for banks to their own development, as well as enable the introduction of innovative products by traditional banks through the acquisition of some FinTech solutions (Figure 4). Nevertheless, central banks believe that FinTech companies should not be taken over by traditional banks (Figure 5). In the strong opinion of central banks, FinTech and traditional banks should cooperate with each other in a regulated environment. Nevertheless, some central banks point to an even higher level of regulation of companies in the FinTech sector, pointing to the need to apply for a banking license by FinTech.

Figure 4. The development of the Fintech sector will pose (%)



Source: own study.

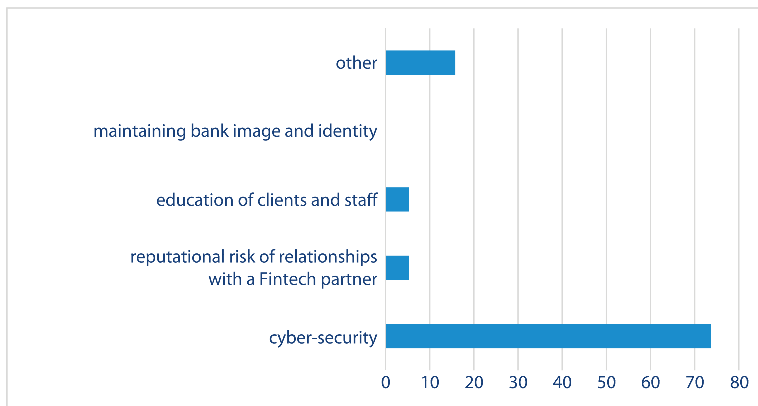
Figure 5. According to your assessment, banks and fintech firms should (%)



Source: own study.

The dynamic increase in the number of FinTech companies and the increasing scale of these entities' activities may lead to generating various types of risks related to their operations, and which effects may have consequences for the whole financial system. Therefore, in identifying the biggest problems related to banks' cooperation with the FinTech sector, central banks mentioned cybernetic security (Figure 6).

Figure 6. The main problems with bank cooperation with the Fintech sector in the open architecture model is (%)

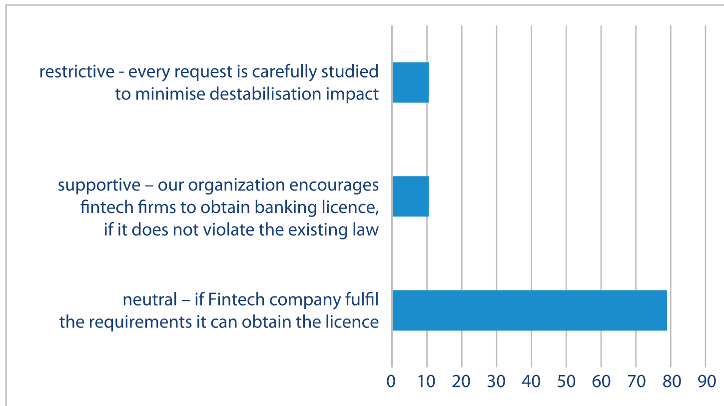


Source: own study.

Central banks indicate an increasing need to regulate this sector so as not to jeopardise the stability of the financial sector. Therefore, they suggest applying for a FinTech banking license. Hence, as part of the survey central banks were asked about

their dominant attitude towards granting banking licenses to FinTech (Figure 7). In the vast majority (79% of responses) central banks indicated a neutral attitude – suggesting that if FinTech meets the requirements, it can obtain a banking license.

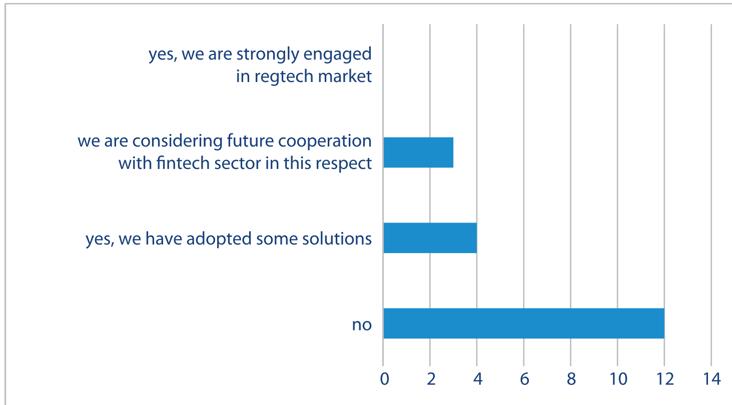
Figure 7. In your institution, what is a dominant tendency in assessing requests for banking licenses from the Fintech sector (%)



Source: own study.

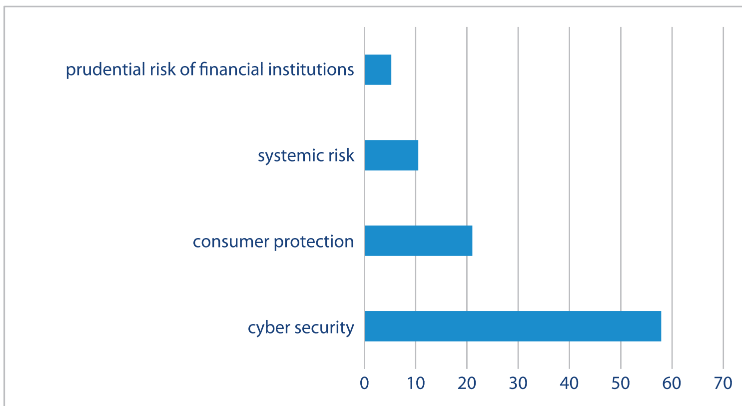
The vast majority of central banks that responded to the survey do not yet cooperate with FinTech companies within the RegTech sector (Figure 8). Central banks, noting the dynamic growth of the FinTech market and the cross-border provision of financial services by them, pay particular attention to several types of risks related to the activities of these entities. In the vast majority of central banks' responses, this is a problem related to cyber security, which is the biggest challenge for central banks in monitoring the activities of these companies. Nevertheless, central banks also pay attention to regulatory challenges related to consumer protection on the financial market and systemic risk (Figure 9).

Figure 8. Does you institution uses the RegTech solutions (%)?



Source: own study.

Figure 9. The biggest regulatory challenge related to Fintech and new technologies are (%)



Source: own study.

Conclusion

Companies from the innovative technologies sector are revolutionising the financial market. Their initial activity was not immediately noticed as competitive, by traditional banks that adopted passive attitudes towards FinTech companies. Nevertheless, the dynamic development of these companies, which mainly use electronic sales channels for financial services, forced banks to change the perception of these companies, as they deprive banks of a significant part of their revenues (e.g. in the payments sector). The FinTech sector is a relatively young market, while compa-

nies established in this market segment typically started their operations several years ago. The dynamic development and obtaining of banking licenses by FinTech, (e.g. Revolut, Atom Bank, N26) may pose a significant challenge for central banks in maintaining the stability and security of the financial market. Central banks notice the scale of FinTech's operations and suggest that traditional banks cooperate with these entities in a regulated environment. Among the biggest threats related to the functioning of new entities on the market, central banks notice the problem of cybercrime, which is related to FinTech's main distribution channel.

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Climate change as a source of risk in the financial sector

"The financial sector must be at the heart of tackling climate change"

Mark Carney (*Bank of England*)
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Frank Elderson (*Dutch Central Bank*)

Abstract

The article addresses new risks in the financial sector connected with climate change. With greenhouse gas emissions, temperatures will continue to rise and thus increase the financial risk arising from the physical consequences of climate change. The prevention of such consequences will increase the financial risk of the transition to a low-carbon economy, and will lead to changes in business models, to the phenomenon of stranded assets, etc. At the same time, the growing awareness of the need to prevent further climate change and to adapt to the changes already happening intensifies the pressure of various entities and environments on the financial sector to become involved in such activities, and to run its business responsibly and in accordance with the sustainable development concept. All this opens the financial sector to new risks (in addition to the physical risk and the transition risk), in the management of which it has no experience. Both the hedging and especially the materialisation of such risks will affect the stability of the financial sector. Moreover, such new conditions in the functioning of the financial sector, caused by climate change, generate new obligations and challenges for regulators and financial supervisors.

Key words: financial sector, climate risks, physical risk, transition risk, ESG, climate initiatives in the financial sector

JEL: F64, G18, G28, G32, Q54

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Introduction

The effectiveness of fighting the threats related to climate change is affected and determined by the paradox referred to as the "tragedy of the horizon,"[1] which means that the substantial costs connected with climate change will be by nature borne by future generations. As a result, the current generation does not have a sufficiently powerful incentive to prevent them. The catastrophic consequences of climate change will be felt beyond the horizon of activity of most business and political entities or financial sector regulators and financial supervisors, who are additionally often bound by charters or mandates which, being defined or established in the past, completely fail to address the issues of climate change.[2] This also applies to financial sector institutions: banks, investment fund companies, insurance companies, other financial intermediaries and various financial service providers. Once climate change becomes a clear and present threat to financial stability, it may already be too late to stabilise the atmosphere, especially since the threats and risks to financial stability are a function of accumulated rather than day-to-day greenhouse gas emissions to the atmosphere.

Another paradox, this time specific mostly to the financial sector, is that "success can be a failure", which means that too quick actions towards a low-carbon economy may seriously affect financial stability. If the business entities that are customers of financial sector entities (e.g. as borrowers) suddenly and all at once start accounting for their climate risks and revalue their assets and their development prospects, this could destabilise markets, reveal the imbalance of the business model, reveal losses and necessary write-offs, and result in permanently stricter financial terms. This, in turn, may lead to a climate Minsky moment.[3] Such a moment may seem far off for now, but the absence of gradual progress in greenhouse gas emission reduction and of actions spread over time increases the risk of a climate Minsky moment in the future.

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[1] For more, see the speech given by Mark Carney, Governor of the Bank of England and Chair of the Financial Stability Board at Lloyd's of London, in London on 29 September 2015: "Breaking the tragedy of the horizon – climate change and financial stability." The speech is perceived as a breakthrough moment in the recognition of the role of the financial sector in fighting off climate change and the threats it poses to the stability of that sector.

[2] However, it must be noted that the climate risk is currently a recognised source of financial risk, which is why it falls within the mandates of central banks and regulatory bodies, whose role is to make the financial system immune to those risks. Such interpretation of the mandate has been confirmed in the NGFS report published in October 2018.

[3] A classic Minsky moment (named after Hyman Philip Minsky, the author of a financial instability hypothesis which attempted to explain the nature of financial crises in a developed economy) is a point in time when, due to destabilisation and speculation, the financial pyramid falls or the speculative bubble breaks. At that stage, the destabilisation of financial markets reaches a point where only global actions of governments addressing the root cause of the instability may prevent the banking system from collapsing. Minsky moment became a popular hypothesis in the period following the outbreak of the global financial crisis in 2008.

The objective of the article is to identify and define the risks related to climate change in the financial sector[4] and to define the challenges which the financial sector faces in connection with the need to manage those risks. Major changes observed in the financial market as a result of the emerging new (climate-related) risks include the growing pressure on the financial sector to become involved in climate change prevention and the trend of increasingly climate-conscious and responsible investing, with institutions adapting to those changes worldwide.

Analysis of the main channels through which climate change impacts the financial sector will make it possible to define those new risks in the financial sector. Climate risks for the financial sector arise primarily from the impact of climate change on the customers of that sector – on the real economy. There are a number of channels through which climate change affects the real economy; their synthetic presentation is available in Chart 2 further in the article.

The main challenges connected with climate risk management in the financial sector and with the necessary, inevitable involvement of regulators and financial supervisors in preparing the financial sector to overcome climate risks will be presented in the final part of the article, in the conclusions.

Changes in the financial sector and in financial markets arising from climate change.

There are several factors relevant for or inherent in the financial sector that should be presented as contributing to the current transformations dictated by climate change and as causing the accumulation of pressure to implement further, deeper transformations of the financial sector:

- unsatisfactory progress in the reduction of greenhouse gas emissions,
- increasingly cheaper and better "green" technologies,
- a large investment gap in terms of economic transition towards low emissions,
- a growing number of climate-related national and international initiatives,
- climate awareness growing and spreading in society,
- dynamic development of financial associations, standards, and codes related to ESG factors,
- the evolving preferences of investors (and consumers of financial services).

Unsatisfactory progress in the reduction of emissions

Despite the growing awareness, the progress in greenhouse gas emission reduction is unsatisfactory. Actually, it is non-existent. Carbon dioxide emission in 2018 increased by 2% to reach a record level of 37 billion tonnes of CO_2. Global emissions still cannot be said to have reached their maximum level, despite their growth rate being lower

[4] Climate change currently has a top priority among ESG problems. While sustainable finance covers a wide range of issues, the awareness of the climate-related financial risk has increased over the past years enough to encourage a more serious approach to ESG (Environment, Social, Governance) factors. ESG issues other than climate change only reinforce the need to draw more attention to the problem in question. The article focuses on the impact of climate change on the financial sector.

than that of the global economy. Current trends in the economy and in the energy sector suggest that emissions will remain at least as high in 2019. Even if the global economy decarbonised at the same rate as it has over the past 10 years, global emissions would still be growing. Nationally Determined Contributions (NDCs)[5] are anticipated to reduce global emissions in 2030 by as much as 6 GtCO2e[6] when compared to current practices. There are voices that this ambition should be even tripled if the 2°C limit is to be met, and it must be increased by about 5 times to ensure compliance with the 1.5°C limit.[7] Unconditional implementation of NDCs, with the assumption that climate-friendly activities are continued consistently throughout the whole 21st century, would lead to global growth of the average temperature from 2.9°C to 3.4°C by 2100 versus the levels from the pre-industrial era. If the NDC ambitions are not increased and supported with actions in the nearest future, the exceedance of the 1.5°C target will be inevitable. If the emission gap is not bridged by 2030, the temperature increase target well below 2°C is also very unlikely to be attainable.[8]

Growing accessibility of green technologies

Green technologies are becoming more and more viable and available. They try to compete in the market with traditional energy production technologies, which additionally drives growth and innovation. Further development of energy storage installations and systems may help overcome one of the greatest obstacles to the common use of renewable energy sources. New advancements will make green technologies more popular, and their accessibility will no longer be perceived as an economic and technological barrier to green economy transition.

Investment gap

The current investment level is insufficient to support an economic system sustainable from an environmental or social perspective. Only in the case of Europe, an annual investment gap of almost EUR 180 billion must be bridged to allow the achievement of the EU climate and energy targets.[9] According to the estimates of the European Investment

[5] Before the Paris climate summit, the countries presented their voluntary emission reduction plans referred to as INDCs (Intended Nationally Determined Contributions).

[6] GtCO2e means gigatonnes of equivalent carbon dioxide, a universal unit used to measure the emissions of greenhouse gases, which reflects their different global warming factors.

[7] This is about keeping the average global temperature growth below 2°C or 1.5°C when compared to the pre-industrial era.

[8] For more information, see the report "United In Science. High-level synthesis report of latest climate science information convened by the Science Advisory Group of the UN Climate Action Summit 2019" prepared by the World Meteorological Organisation.

[9] Those estimations refer to the average annual investment gap for the 2021–2030 period and they are based on the PRIMES model forecasts used by the European Commission to evaluate the results of the proposal regarding the energy efficiency directive (2016).

Bank (EIB), the total annual investment gap in the transport, energy and resource management infrastructure sectors is EUR 270 billion.[10] The Intergovernmental Panel on Climate Change (IPCC) estimates that the required additional investments for the 1.5°C scenario are around USD 830 billion per annum for the 2016–2050 period. Lack of clarity among experts on what represents sustainable investment is a significant factor behind the investment gap and an obstacle in the financing of the social infrastructure required to eliminate inequalities and ensure social inclusion.

Climate-related initiatives

There are a number of national and transnational initiatives for climate change. Particularly noteworthy in the context of this article are the Paris Agreement, the European action plan on financing sustainable growth, the Network for Greening the Financial System (NGFS), and the International Platform on Sustainable Finance (IPSF):

- During the climate conference in Paris in 2015, 195 countries adopted the world's first legally binding global agreement on climate. The agreement defined a worldwide action plan to protect us from the risk of a far-reaching climate change by limiting global warming to values well below 2°C. Before and during the climate conference in Paris, the participating countries presented extensive national action plans to reduce emissions.
- In 2018, the European Commission announced its "Action Plan: Financing Sustainable Growth,"[11] recognising the need for immediate actions to adapt public political strategies to the new reality of the disastrous and unpredictable consequences of climate change and depletion of resources. The key role is played in this context by the financial system, which may form a part of a solution for a greener and more sustainable economy. However, orienting private capital towards investments more conducive to sustainable development requires changing the functioning of the financial system. The EU Action Plan proposes 10 specific actions in this respect, partially entailing legislative proposals:
  Action 1: Establishing an EU classification system for sustainable activities
  Action 2: Creating standards and labels for green financial products
  Action 3: Fostering investment in sustainable projects
  Action 4: Incorporating sustainability when providing financial advice
  Action 5: Developing sustainability benchmarks
  Action 6: Better integrating sustainability in ratings and market research
  Action 7: Clarifying duties of institutional investors and asset managers
  Action 8: Incorporating sustainability in prudential requirements
  Action 9: Strengthening sustainability disclosure and accounting rule-making
  Action 10: Fostering sustainable corporate governance and attenuating short-termism in capital markets

[10] Estimates by 2020 include investments in the modernisation of transport and logistics and of power grids. See EIB "Restoring EU competitiveness," 2016.

[11] See European Commission, (2018): "Action Plan: Financing Sustainable Growth".

- central banks, along with regulators and financial supervisors operating within the Network for Greening the Financial System (NGFS), also issued their recommendations of the necessary changes in the financial sector. In April 2019, the group published its first report calling for actions in response to the recognition of climate change as a source of financial risks.[12] The first four recommendations are addressed to central banks and supervisory bodies, while the remaining two – to the competent political institutions and authorities whose compliance with those recommendations would facilitate the work of central banks and of financial supervision and regulatory institutions.

  Recommendation 1: Integrating climate-related risks into financial stability monitoring and micro-supervision

  Recommendation 2: Integrating sustainability factors into own-portfolio management

  Recommendation 3: Bridging the data gaps

  Recommendation 4: Building awareness and intellectual capacity and encouraging technical assistance and knowledge sharing[13]

  Recommendation 5: Achieving robust and internationally consistent climate and environment-related disclosure[14]

  Recommendation 6: Supporting the development of a taxonomy of economic activities

- on 18 October 2019, during the annual meetings of the International Monetary Fund (IMF) and World Bank in Washington DC, the European Union – together with competent authorities of Argentina, Canada, Chile, China, India, Kenya and Morocco – started the International Platform on Sustainable Finance (IPSF). The purpose of the IPSF is to increase the mobilisation of private capital for the financing of environmentally-friendly investments. The IPSF is a forum aimed at reinforcing international cooperation and, where appropriate, coordinating approaches and initiatives in international markets (such as taxonomies, information disclosure, standards, and etiquettes) which are fundamental to private investors in defining and capitalising on environmentally sustainable investment opportunities.

The discussion about climate-related initiatives relevant to the financial sector should be concluded with a mention of the first policy document by Ursula von der Leyen "Political guidelines for the next Commission (2019–2024)," where the new head of the European Commission presents priorities for the next 5 years, with the European Green Deal as the top priority. It is to include the strategy for green financing, the Sustainable

[12] See Network for Greening the Financial System "A call for action. Climate change as a source of financial risk", First comprehensive report, April 2019, Paris.

[13] This is of course about knowledge and technical assistance in terms of climate change impact on financial risks and opportunities.

[14] The recommendation expresses support for the recommendation of the Financial Stability Board (FSB) appointed at the end of 2015 under the name Task Force on Climate-related Financial Disclosures to develop the rules of reporting voluntary, consistent information about the climate-related financial risk to be used by businesses for the purpose of supplying information to investors, lenders, insurers and other concerned parties.

Europe Investment Plan and transformation of the European Investment Bank to Europe's climate bank. Ursula von der Leyen also undertook to prepare the European Green Deal during her first 100 days as the President of the European Commission.

Growing climate awareness

Present for years but recently intensifying, the discussion about climate change draws more and more attention to the consequence of such a change and to the need to prevent it and mitigate its outcomes. The range of people, institutions and other entities joining the discussion is also growing. It is no longer limited to ecologists and various types of scientists who deal with the environment, with greenhouse gas emissions, and with conventional and renewable energy sources. It is no longer just the voluntary sector, with which environmental and ecological activities are very often associated.[15] The topic of climate change and environmental protection has become important to practically everyone: to the society, in particular to young people (school strikes for climate change), politicians, opinion leaders, representatives of culture and the media, the church (the 2015 encyclical letter *Laudato Si* or the concept of "ecological sin"). The appointment of a climate minister in November 2019 in Poland (and before that – in many other countries) is yet another sign of our times. At the end of 2017, central banks and financial supervisors joined the discussion,[16] and in 2019, the Coalition of Finance Ministers for Climate Action was created. Those are just some examples of growing awareness.

Development of ESG codes and standards

Efforts to promote ESG issues in finance started about 30 years ago[17], but it was in the past 5–6 years that they considerably accelerated. The selected initiatives presented below show the extent of the changes in the way of thinking about climate in finance and present the expected, either voluntary or forced, changes in the functioning of the financial sector.

[15] According to the results of the study "Condition of the NGO sector in Poland 2015." Polish people believe that ecology and environmental protection represent one of the most important areas of activity of NGOs. While in fact ecological organisations, i.e. ones for whom ecology and environmental protection is a primary area of activity, constitute just 2% of the NGO sector! This is because ecological organisations usually receive considerable publicity.

[16] During the One Planet Summit in Paris in December 2017, eight central banks and supervisory bodies established the Network for Greening the Financial System (NGFS). The network has been growing dramatically ever since, with 48 members and 10 observers from five continents on 15 October 2019.

[17] MSCI KLD 400 Social Index is a capitalisation weighted index of 400 US companies with positive Environmental, Social and Governance (ESG) ratings which excludes companies whose products have negative social or environmental impacts.

Table 1. Selected standards, codes, regulations promoting ESG

Supported by the United Nations	
Principles for Responsible Investment	• Functioning since 2006 • Developed by investors for investors • A voluntary and aspirational set of 6 investment principles which offer a range of 35 possible actions to incorporate ESG issues in investment practice • Signed by over 2,600 investors (as at 30 September 2019)
Principles for Sustainable Insurance	• Functioning since 2012 • A voluntary and aspirational set of principles: the 4 main principles are: embedding ESG in the business, raising social awareness, working together with governments and regulators to support ESG issues, and demonstrating transparency regarding the impact on climate and the impact of climate on business • Membership has its benefits
Principles for Responsible Banking	• Functioning since 2019 • Developed by 30 global banks • A voluntary and aspirational set of 6 main principles • Implementation divided into 3 steps (impact analysis, target setting, and accountability), for 4 years (maximally) • A signatory may count on the support of the UNEP FI Secretariat, the Banking Committee and other banks in terms of experts, training, tools, and regular information
Supported by the EU	
Action Plan: Financing Sustainable Growth,	• 10 areas of activity • 3 legislative proposals (frameworks to facilitate sustainable investments, disclosure of information about sustainable investments and risks to sustainable development, low-carbon reference indices and sustainability benchmarks) • Environmental (green) taxonomy of economic activities • European Green Bond Standard
EBA, ESMA, EIOPA	• technical advice and guidelines as regards sustainable development in the market of credit ratings, as regards money lending, and as regards the monitoring and integration of sustainable development risks and factors in the delegated acts Solvency II and Insurance Distribution Directive

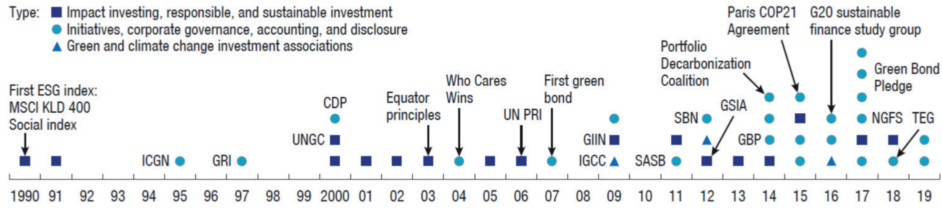
Table 1 – cintinued

European Green Deal	• New, more ambitious climate objectives • European Climate Pact • Green Financing Strategy • Sustainable Europe Investment Plan (EUR 1 trillion) • EIB as a "climate bank"
Other	
Green Bond Principles Social Bond Principles Sustainability Bond Guidelines	• Principles of issuing green, sustainability and social bonds developed by the International Capital Market Association • Those principles became the world's leading frameworks for the issue of green, social and sustainability bonds • Green, social and sustainability bonds are types of bonds where the money coming from their issue is used exclusively for eligible environmental and/or social projects
TCFD[a] recommendations	• Recommendations regarding the incorporation of climate risks in the strategies of companies and their disclosure to investors and other concerned parties • The TCFD was created by the Financial Stability Board (FSB) in response to a proposal of G20 ministers of finance and presidents of global banks • The recommendations are based on four major areas which represent the basic elements of an organisation's operation: corporate governance, strategy, risk management, and emission metrics & targets • A total of 785 organisations currently support the TCFD, including the world's largest banks, asset management entities and pension funds in charge of assets worth 118 trillion dollars.[b]
Network for Greening the Financial System (NGFS)	• 6 recommendations for central banks, financial sector supervisors/regulators and their environment • 3 working groups continuing the work on climate issues in macro-supervision and in micro-supervision and on financial sector greening instruments
Coalition of Finance Ministers for Climate Action	• It gathers ministers of finance from 50 countries • It developed and signed the "Helsinki Principles" – a set of six aspirational principles that promote national actions for climate, especially through fiscal policy and using public funds

[a] Task Force on Climate-Related Financial Disclosures.
[b] According to the "TCFD: 2019 Status Report" published in June 2019.

Source: Own compilation.

Chart 1. Evolution of ESG codes and standards[18]



Source: *Global Financial Stability Report*, International Monetary Fund, October 2019.

The changing preferences

Even though there is no evidence of better results of investment strategies oriented towards investing in sustainable development, the interest of investors in ESG factors has been increasing dynamically in recent years. And this is despite the lack of transparency as to how the ESG factors are incorporated and lack of consistent frameworks and standards for ESG disclosures, which remain voluntary, partial and rare due to associated costs. Sustainable stock investment began for real after the introduction of the UN Principles for Responsible Investment in 2006 and the issue of first green bonds in 2007. Investors started to assess their investment policies from the perspective of the growing awareness of the threats connected with climate change, especially after the Paris COP21 and the adoption of the UN Sustainable Development Goals in 2015, when the majority of countries undertook to limit CO_2 emissions. The information provided below, to show the scale and dynamics of sustainable investments, comes from the fourth edition of the two-year "Global Sustainable Investment Review 2018" report,[19] which compiles sustainable investment market research results from Europe, the United States, Japan, Canada, Australia and New Zealand. The report provides a brief overview of sustainable investment in those markets at the beginning of 2018. Globally, sustainable investment assets in the main five markets totalled USD 30.7 trillion, which is 34% more than two years before.

[18] Explanation of the acronyms used in the timing chart: CDP = Carbon Disclosure Project; COP21 = 21st Conference of the Parties; ESG = environmental, social, and governance; GIIN = Global Impact Investing Network; GBP = Green Bond Principles; GRI = Global Reporting Initiative; GSIA = Global Sustainable Investment Alliance; ICGN = International Corporate Governance Network; IGCC = Investor Group on Climate Change; NGFS = Network for Greening the Financial System; SASB = Sustainability Accounting Standards Board; SBN = Sustainable Banking Network; TEG = EU Technical Experts Group on Sustainable Finance; UNGC = UN Global Compact; UN PRI = UN Principles for Responsible Investment.

[19] The Global Sustainable Investment Review 2018, prepared by the Global Sustainable Investment Alliance, uses a fairly general definition of sustainable investment. According to that definition, sustainable investment is an investment approach that includes environmental, social and governance (ESG) factors in the choice and management of its portfolio. For more see Global Sustainable Investment Review 2018, p. 7.

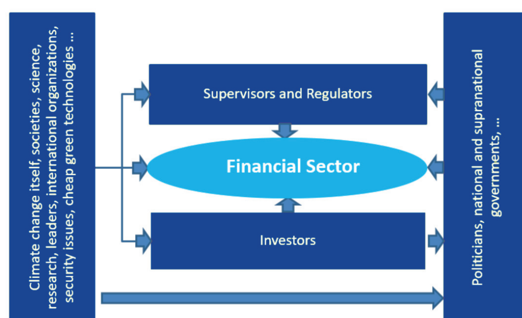
Table 2. ESG global investment assets

Region	2016 ($)	2018 ($)
Europe	12,040	14,075
United States	8,723	11,995
Japan	474	2,180
Canada	1,086	1,699
Australia/New Zealand	516	734
TOTAL	22,838	30,683

Source: *Global Sustainable Investment Alliance*, Global Sustainable Investment Review 2018. Data in billions USD.

To sum up this section, the growing awareness of and intensifying discussion about climate-related challenges, the new information about the changing climate, the potential costs of failure to implement actions and measures sufficient for the achievement of climate-related goals, and the evolving preferences of investors and consumers – all this puts an increasing pressure on politicians, governments and international institutions to take additional actions and to involve the financial sector more, and at the same time highlights the risks (and opportunities) for that sector linked to climate change. Such pressure will impact the financial sector both directly and indirectly. In the latter case, it will take the form of guidelines, standards and regulations ultimately designed to promote responsible finance. Such regulations and guidelines are currently mostly voluntary, but considering the pressure, they may be expected to evolve into strict mandatory laws. The anticipated effect is the transition to zero-emission economy resistant to climate change through climate-friendly mobilisation of private capital.

Diagram 1. Sources of pressure on the financial sector to become more involved in climate-friendly activities



Source: Own compilation.

Defining the key climate risks

Literature mentions two, sometimes three main channels through which climate change contributes to the financial risks of the financial sector.[20] Those are: physical risk, transition risk and sometimes also liability risk.

Physical risk includes the economic costs and financial losses arising from the growing harshness and frequency of extreme weather events connected with climate change (e.g. heat waves, landslides, floods, fires and storms), as well as long-term progressive climate changes (e.g. changes in precipitation, extreme changeability of weather, ocean acidification, and sea level and average temperature rise). As a result, we can identify a short-term physical risk and a chronic physical risk.

The transition risk, also referred to as a low-carbon economy transition risk, applies to the process of transitioning towards a low-carbon economy. Emissions must ultimately reach a "net zero" level to prevent climate catastrophe. The emission reduction process will most likely considerably affect all sectors of the economy with an impact on the value of assets and will upset business models. Even though urgent actions are desired, a sudden transformation may also shake financial stability (the paradox where "success can be a failure," already mentioned above). The transition risk is connected with the pressure from governments, investors and the business community to build a low-emission economy.

The liability risk may arise from the growing number of judicial cases related to climate change, as their resolution will require governments, businesses and investors to pay damages. For example, disaster casualties facing the consequences of global warming, such as droughts, heat waves, storms and hurricanes, may claim "climate justice" in courts. Sometimes the risk is not identified separately and is considered a part of the physical risk and the transition risk.

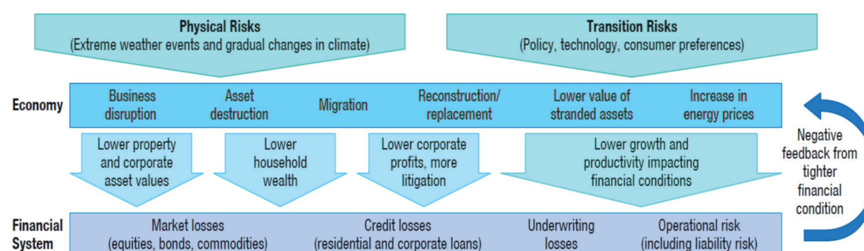
Climate change impacts the financial sector by impacting the customers of that sector, i.e. primarily the real economy. The impact takes place through multiple channels that affect the financial results and balance sheets of businesses. Climate change has an impact on:

- market terms and the demand and supply of certain goods and products, thus affecting their prices and the competitiveness and viability of investments (e.g. energy prices),
- asset performance – it may drop due to the changing climate conditions, with consequences for the revenue of businesses (e.g. stranded assets),

[20] See Campiglio, Emanuele, Dafermos Yannis, Monnin Paul, Ryan-Collins Josh., Schotten Guido, Tanaka Misa (2018), "Climate change challenges for central banks and financial regulators", Nature Climate Change, vol. 8 (6), June; Aglietta, Michel, Espagne Etienne. (2016). "Climate and Finance Systemic Risks: more than an analogy? The climate fragility hypothesis" CEPII Working Paper No 2016-10; Bank of England, Prudential Regulation Authority, (2018): "Enhancing banks' and insurers' approaches to managing the financial risks from climate change", Consultation Paper 23/18, October czy The Network for Greening the Financial System, (2019): "First comprehensive report. A call for action: Climate change as a source of financial risk", April.

- operating expenditures (OPEX), which may increase due to changes in prices, availability and/or quality of assets,
- the need to incur additional capital expenditures (CAPEX) as a result of damage to or reduction in the efficiency of resources, or the necessary modernisation required under climate protection legislation,
- asset maintenance costs,
- business or asset insurance costs,
- asset depreciation rates (effective asset depreciation rates caused by climate change may be much higher),
- business models, which will have to – for certain products or services – take into account new, stricter climate regulations or changes in the preferences of their consumers,
- employee health, safety and performance,
- unforeseeable losses (e.g. arising from more frequent violent weather events),
- risk of the countries whose GDP depends largely on climate factors,
- risk of conflicts and migration in certain countries significantly affected by the changing climate factors.

Diagram 2. The impact of physical risk and transition risk on the financial system



Source: *Network for Greening the Financial System "A call for action. Climate change as a source of financial risk"*, First comprehensive report, April 2019, Paris and International Monetary Fund "Global Financial Stability Report," October 2019.

According to estimations, if no action is taken to reduce CO_2 emissions, the physical impact of climate change on the global economy in the second half of the century will be substantial. Some studies suggest that average global income may be reduced by the end of the century by up to a quarter.[21] It must be remembered that those results are not linear, and they may considerably increase once a certain average temperature growth rate is exceeded. In addition, since the probability of mass migration or political instability and conflicts is increased in certain cases, this means that the existing economic predictions may be significantly underestimated. Financial losses may also be increased due to feedbacks, which limit for instance the

[21] Burke, Marshall & Hsiang, Solomon, (2015), "Global non-linear effect of temperature on economic production" Nature, 527(7577).

financing of reconstruction of destroyed assets. It must be added that the impact of climate change will differ for various sectors of the economy and will depend on the geographic location.

The estimated cost of transition towards a low-carbon economy may be considered as reflecting the already discussed investment gap. Please note that certain estimations mention amounts such as USD 830 billion per annum by 2050. Nonetheless, the estimated costs are probability low when compared to the costs of inaction when it comes to climate. Furthermore, those estimated costs are not generally accepted, and some claim that the economic costs of transitioning to a low-carbon economy would be balanced out by positive "green" growth.[22] The potential risk to the financial system arising from economic transformation is the biggest in scenarios where capital redirection and policy changes, such as the introduction of a carbon tax, are sudden and disorderly introduced. Especially, economic transformation entails the issue of stranded assets, i.e. assets whose useful life will be drastically shortened in pursuit of climate goals. The value of those assets will drop, reducing both the capital and the income of the owners, as well as increasing the market and credit risk for lenders and investors. Fossil fuel resources are a classic example of such assets.

The transition risk entails a number of more specific risks: regulatory and supervisory risk, technological, business (market) and reputational risks, risk of change in customer preferences or the risk of lack of data and competencies.

The regulatory and supervisory risk may arise from the need to adapt to new regulations. Such adaptation may be sudden and costly. For example, the French Energy Transition for Green Growth Act introduces the obligation for investors to verify their portfolio for conformity with the Paris Agreement. The requirement to disclose the impact on climate change and the impact of climate change on a business or a bank may prove quite a challenge. Introducing one or even a number of the discussed green instruments of pressure on the financial sector, such as additional capital or liquidity requirements for institutions with a higher climate risk or climate stress tests, may also be an example of such a risk.

Low-carbon economy development is supported by innovative technologies, which will revolutionise the shape of current business models. They will result in "creative destruction," which will have both winners and losers. The time, the pace and outcome of such a change remain uncertain, and they form a part of the technology risk.

Market risk arises from the impact of climate change awareness on customer behaviour. By analysing their climate footprint, conscious consumers (both natural persons and global corporations) may change their purchasing preferences. Such awareness may affect the popularity of some products or even render their sale impossible.

[22] According to the Porter hypothesis, companies polluting the environment may benefit from environmental policies because well designed, precise environmental regulations stimulate innovation, which in turn makes them more productive and competitive or increases product value for end users.

Business risk may arise where a supplier or recipient is prevented from or is uninterested in doing business with another entity for climate-related reasons.

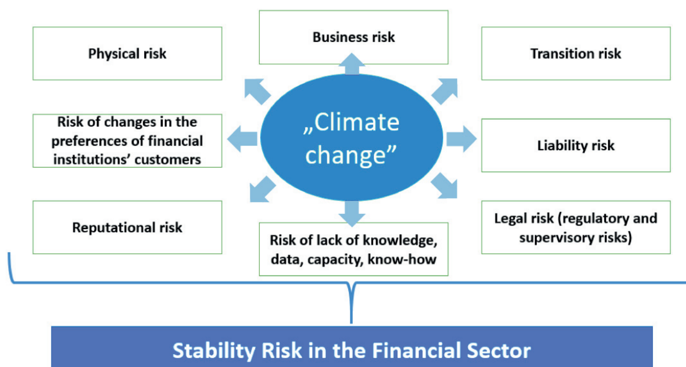
Reputational risk is connected with the consumers' changed approach to environmental protection. Negative environmental impact, lack of climate-friendly actions or pretend actions (greenwashing) may lead to the loss of customers, bad reputation, or problems with investors or funding.

The risk of change in the preferences of consumers or clients may be linked to the impact of the growing awareness or of the bad reputation earned for environmental or climate-related reasons. For financial institutions, this may mean customer outflow if they do business "irresponsibly," for instance, by lending money to entities generating large CO_2 emissions.

The risk of lack of data and competencies is an internal risk of not having appropriate data for analysis and lacking the qualified staff to manage the climate risk of the organisation.

The risks presented and briefly discussed below may contribute to the financial stability risk. As a result, entities responsible for financial stability, i.e. central banks and financial supervisors, have decided that climate change is an important source of structural changes in the economy which are linked to a number of risks, also for financial institutions, and that the analysis and prevention of such risks falls within their mandate.

Diagram 3. Risks in the financial sector related to climate change



Source: Own compilation.

Conclusions: the challenges faced by the financial sector as a result of climate risks

The financial sector approaches climate change primarily from the perspective of corporate social responsibility (CSR). With the growing severity of financial consequences of the climate change and the growing external pressure, a CSR approach by itself is not enough. Climate risk assessments often focus on managing the impact of operations and finance on the environment in the context of the obligations of a financial institution as a "corporate citizen," and as such are designed to protect its reputation. As has been demonstrated above, climate change is a source of material financial risks for financial institutions and must be treated as such. Furthermore, it is expected to be treated seriously not only by the concerned institution but also by the institutions that supervise it, responsible for both macroprudence and microprudence supervision. The pressure on the financial sector to become involved in "saving the climate" will keep increasing, and so will the climate-related risks. The more delayed the effective solutions to prevent and mitigate climate change, the harder the subsequent economy adjustment and transition towards low CO_2 emissions.

Poland's problems, in addition to still low climate awareness,[23] include: lack of information and data regarding the impact on climate and the impact of climate change on financial institutions and their customers, lack of expertise (analytical tools, standards, practices), and lack of capacity and qualified staff able to manage those new risks.

At least four areas of activity of financial institutions require changes and adjustments:

- organisation of new risks management, integration with financial and non-financial risk management,
- systematic, regular monitoring of the new risks,
- development of analytical resources and tools (data about climate risks of customers, scenario analyses, methodologies, analytical tools, competencies, staff) for analysis of climate risks, and their impact on the business and on financial stability,
- determination of a reasonable scope of disclosure of climate risks and climate impact, which is the starting point for responsible finance.

Such adjustments may prove very difficult if not initiated soon.

[23] See Climate Crisis Awareness 2019, a study conducted by the Reporting Standards Foundation, Standards Reporting Foundation (Fundacja Standardów Raportowania), Polish Association of Listed Companies and Bureau Veritas.

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Reputation determinants of the banking sector in Poland

Abstract

The objective of this paper is to identify the determinants of reputation of the banking sector in Poland and to segment the society according to the factors that shape the reputation. Banks in Poland have a good reputation. The factors of a good reputation are in clear advantage over the factors of a bad reputation. The most important things in shaping the banks' reputation are the axiological determinants. Their significance is three times as high as the effectiveness determinants linked to the satisfaction with the banking services, and it is much higher than the impact of the normative determinants connected with the institutional aspects of the banking sector. The three selected homogeneous typological groups of consumers differ from each other in terms of normative, axiological and altruistic determinants that shape the reputation. The effectiveness determinants do not diversify the consumers in terms of their impact on the the banks' reputation assessment. The most important touch points that shape the banks' reputation are: consumers' personal experience, customer service attendants in the banks, friends' opinions as well as the opinions of the people who are regarded by the consumers as experts. When modelling the reputation determinants, a structural equation modelling method (SEM) was used. Studies were carried out on a nationwide representative sample of N=1000 residents of Poland using the CAPI method in March 2019.

Key words: banks, reputation, structural equation models (SEM – Structural Equation Models)

JEL: G41; M31; M52; E71; G10

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1. Introduction

Reputation reflects the values and identity of the assessed company, the historical impact, customer experiences as well as the images that had been accumulated over years. A good reputation of a company increases its market chances, and its products and services sell better, and it is recommended to other consumers. Investors are more inclined to invest in companies that have positive public reception. It is even more difficult for the public opinion to acknowledge and accept a negative opinion of a company that has a good reputation[1]. Even if the stakeholders have doubts about some information about the company with a good reputation, they usually interpret this information in favor of the assessed company[2]. Reputation is particularly significant because "...*we live in the era of economics of intangible assets*"[3]. K. Majchrzak regards that a good reputation is more trustworthy which increases the customer loyalty and that its products are recommended to other people [4]. Companies that boast excellent reputation have the ability to acquire capital easier.

Corporate reputation has always been deemed a valuable corporate asset, but only since the late 20th century has it become a business issue of the utmost importance. Corporate reputations are omnipresent, and no longer "seldom noticed until they are threatened"[5]. They are acknowledged as one of the driving forces behind successful businesses. Empirical studies show that even when confronted with negative information, observers resist changing their reputational assessments[6]. Therefore, reputations are valuable intangible assets because they are inertial[7]. While most corporate reputation scholars agree that brand architecture is a part of the multidimensional paradigm of corporate reputation, the significance of its impact has yet to be agreed on[8].

[1] M. Gotsi, A.M. Wilson, *Corporate reputation: seeking a definition*, Corporate Communications: An International Journal, 2001, pp. 24–30.

[2] K. Wójcik, *Wszystko, co chciałabym wiedzieć o public relations i nie boję się zapytać – dylematy PR (Everything, I Want to Know About Public Relations and I Am Not Afraid to Ask – PR Dilemmas)*, [in:] *Public relations – Improving the Communication Process in Public Space*, Studia Ekonomiczne, Zeszyty Naukowe Wydziałowe, Uniwersytet Ekonomiczny w Katowicach, Katowice, 2014, pp. 32–33.

[3] J. Low, P.C. Kalafut, *Niematerialna wartość firmy (Intangible Value of the Company)*, Oficyna Ekonomiczna, Kraków, 2004, p. 103.

[4] K. Majchrzak, *Zarządzanie reputacją korporacyjna we współczesnej gospodarce (Managing Corporate Reputation in Contemporary Economy)*, [in:] *Public relations – Current Issues of Art of Communicating in Theory and Practice*, ed. R. Maćkowska, H. Przybylski, Wydawnictwo Akademii Ekonomicznej w Katowicach, Katowice 2009, pp. 291–292.

[5] C.J. Fombrun, C.B.M. Van Riel, *The Reputational Landscape.* Corporate Reputation Review, 1997, 1(5), p. 5–13. C.J. Fombrun, M. Shanely, *"What's in a name? Reputation Building and Corporate Strategy.* Academy of Management Journal, 1990, 33, pp. 233–258.

[6] S. L. Wartick, "The Relationship between intense media exposure and change in corporate relationship." Business and Society, 1992, 31, pp. 33–49.

[7] S. Cramer, T. Ruefli, *Corporate reputation dynamics: Reputation inertia, reputation risk, and reputation prospect*, Paper presented at the National Academy of Management Meetings, Dallas 1994.

[8] J. Doorley, H.F. Garcia, *Reputation Management*, New York: Routledge, 2007.

In the banking sector, a good reputation takes a special place. On the one hand, it testifies to the stability of the sector and good relations with the stakeholders; and, on the other hand, it is a condition of and secures the stability of the financial system. The stability of the financial system is based on the social agreement between all its users: financial institutions, their customers and stakeholders, personnel and market regulators. The conviction that the banks operate according to the predefined rules of the law and to the good of their customers boils down to the reputation that the banks have among their customers. Individual customers of banks are mostly unprofessional individuals who rarely have the necessary knowledge to professionally evaluate whether the system is actually based on the right foundations and whether their money is truly safe in this system.

The majority (83%) of the Polish society are convinced that the customers' money deposited in banks is safe, and 80% are of the opinion that banks have a stable financial situation. 89% of the consumers think that they do not undertake any or undertake only a small risk when using the banking services, including depositing money in banks[9].

However, the consumers rarely take the effort to personally look for the answers about the sources of security, stability and predictability of the banking system. Barely 7% of the Polish society declare a high or very high knowledge about banks and the financial services, and 67% do not see any need to increase their knowledge about this subject. Instead of that, when evaluating the banking sector, the customers rely on their individual experiences, opinions of other people and overall normative convictions which, to put it simple, boils down to evaluating the banking institutions as regards their reputation. The better the score, the more stable the system is, at least theoretically; and, in consequence, the lower the score of all the experiences, views and judgements about the banks the worse the effect can be in the social perception of the banks' stability[10]. Hence, the perception of the banks and monitoring of this phenomenon in such a way that it enables one to evaluate the changes constitutes a significant point of reference for evaluating the operation of the banking system and its components as well as formulating recommendations regarding the necessary changes.

2. Research Methodology

The objective of this paper is to identify the determinants of the banking sector in Poland and to segment the society according to the factors that affect the banks' reputation. The detailed objectives of this paper are:

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[9] *Reputacja Polskiego sektora bankowego 2019* (Reputation of the Polish Banking Sector 2019), Związek Banków Polskich, Warszawa 2019, p. 17.

[10] *Reputacja…*, *op. cit.*, p. 46.

- to identify the cause and effect relationships and feedbacks in the group of normative, axiological and altruistic factors and factors of effectiveness,
- to isolate and establish a profile of homogeneous consumer segments based on the factors taken into consideration when evaluating the reputation of the banking sector,
- to rate the force of impact of the different channels and authors of information on the reputation of the banking sector,
- to rate the activities of the institutions working in this sector targeted on influencing the social perception of the banking sector.

This paper is based on the following research project Reputation of the Polish Banking Sector. The image-related studies on the social perception of the banks operating in Poland have been carried out on a constant basis by the Polish Banking Association every year for 12 years. These are the only studies in Europe of this kind. Their objective is to diagnose and monitor the reputation of the banks and to identify the factors that co-occur with the positive and negative ratings in this area. Apart from studying the banks' reputation using the TRI*M scale, the study poses questions about the reputation of the other participants of the financial market or those who render mass services on a similar scale (in a comparative aspects) like SKOK Credit and Savings Unions, loan companies, insurance companies, telecommunication companies and NBP (National Bank of Poland). Apart from that, the study uses batteries of questions aimed at measuring the level of trust in banks in the context of the other institutions on the financial market and standard diagnostic tools, that is to say, PGI (performance gap indicators), ratings of statements, context questions and segmenting questions that enable us to identify the respondents not only in the socio-demographic aspects, but also in the behavioral aspects to a certain extent.

Every time the studies are carried out on a randomly selected group of Poles aged 15+ who meet the criteria of being a representative of the society. The size of the research sample is 1000 people every year. The interviews are carried out using a CAPI method – a direct interview method. In 2019, the research was conducted from March 11 to March 22.

Since 2011, the TRI*M methodology has been used to study the banks' reputation. This is a proprietary technique designed by a global research agency TNS, Kantar at present. The reputation TRI*M index is calculated as a weighted average of response distributions on 5 main indexes in the following areas: a) overall rating of the banking sector, b) rating and quality of products and services, c) affinity (emotional fondness), d) perception of success and e) declared trust. The answers to questions in every area are given on a five-grade scale. The TRI*M reputation index assumes values from -66 points which means an extremely bad reputation to the top value of 126 points which means an excellent reputation. The reputation defined as average is in the range of 22–46 points.

2.1. Reputation in a Theoretical View

Reputation is frequently mistaken for or even identified with an image or overall opinion about a company. In literature on this subject, an image defines a method how a company is perceived, what features are used to characterize and describe it. Overall opinion is a single dimensional assessment of the company. However, in the opinion, among others, of A. Adamus-Matuszyńska[11], there is a difference between the overall opinion and reputation/image. Reputation is connected mainly with the assessment in comparison with the other companies or in comparison with an ideal model. An image is the company's characteristics, and the reputation is an opinion about a company[12]. This approach is represented, among others, by K. Majchrzak[13]. She claims that identity affects the image which, in its turn, shapes the reputation. In her opinion, reputation is a sum of the fragmentary images acquired over time. In the opinion of T. Dąbrowski[14], reputation can also be identified with the image in the long run. In his opinion, reputation is on the outside of a company, and it includes social assessment. The assessment refers to the level to which a company has the ability and is ready in the future to meet the expectations of the stakeholders. T. Dąbrowski defines reputation as "(...) based on the current and consistent operations of the company, shared by the different groups of stakeholders, stable assessment of its abilities and readiness to meet the stakeholders' expectations and to provide specific values"[15]. Reputation is determined by the institution's ability to operate honestly and to communicate with its surroundings.

Walker divided corporate reputation definitions into 5 groups[16]: (1) perceptual definitions which focus on defining corporate reputation as stakeholder's viewpoints about the overall perceptions regarding both internal and external aspects about an organization, (2) aggregate definitions which is a collective perspective which is based on the perceptions of all stakeholder groups about an organization, (3) comparative definitions which compares reputation to other competitors in the market, (4) positive or negative definitions which means that reputation can be either positive or negative, and (5) temporal definitions which means that reputations are time-specific and can change over time.

A bank's reputation can also be interpreted in a broader context of the so-called relational capital. M. Marcinkowska[17] defines relational capital as "an element of

[11] A. Adamus-Matuszyńska, *Reputacja nieuchwytna wartość firmy (Reputation, Intangible Company Value)*, www.proto.pl, 2012, p. 2.

[12] M. Schwaiger, *Components and Parameters of Corporate Reputation – an Empirical Study*, Schmalenbach Business Review, 56, 2004, p. 47.

[13] K. Majchrzak, *Zarządzanie reputacją korporacyjną..., op. cit.*, pp. 291–292.

[14] T. Dąbrowski, *Reputacja przedsiębiorstwa. Tworzenie kapitału zaufania (Company Reputation. Creating Capital of Trust)*, Oficyna Wolters Kluwer, Kraków 2010, p. 75.

[15] T. Dąbrowski, *op. cit.*, p. 81.

[16] K. Walker, *Corporate Reputation Review*, A Systematic Review of the Corporate Reputation Literature: Definition, Measurement, and Theory, 2010 p. 156.

[17] M. Marcinkowska, *op. cit.*, p. 124.

its intellectual capital created by the bank's relations with the stakeholders using human and social resources, and also requiring the involvement of the bank's financial and structural assets." Therefore, this is the total relations to and bank's connections with the stakeholders based on mutual trust. The relational capital is an effect of interdependency and mutual interactions among the entities which are interconnected[18]. Building lasting relations and creating relational capital are based on mutual honesty and responsibility, in other words, the fundamentals of the company's reputation.

M. Marcinkowska justifies that in a broad meaning, the relational capital includes relations with all the identified entities with whom the bank has any relations, in other words first of all, the bank's relations with the society, customers, institutions of the security network, personnel and management, contractors and subcontractors as well as competitors, the state and other groups of interest which the banks finds significant. M. Marcinkowska underlines at the same time that the most effective method of controlling the relations is trust and reputation. Trust is the key element of shaping the relational capital. This is necessary to establish relations and their development which is underlined by P. Paszko[19].

Barnett et al. (2006) categorized the definitions of corporate reputation into three main clusters[20]: (1) reputation as a state of awareness, (2) reputation as an assessment, (3) reputation as an asset. For those definitions that consider reputation as state of awareness, the single most commonly used term for defining corporate reputation in this cluster is "perceptions." Within this cluster, corporate reputation is defined as: an aggregation of perceptions, latent perceptions, global perceptions. This cluster also includes references to corporate reputation as representations of knowledge or emotions since they reflect awareness about a firm. The most common form for defining corporate reputation was those that consider reputation as an assessment. Those definitions referred to corporate reputation as an assessment of the status of a firm. This includes references to corporate reputation as a judgment, an evaluation. The third cluster, reputation as an asset, incorporates those definitions that refer to reputation as something of value and significance to the firm. This group includes references to reputation as a resource or as an intangible, financial or economic asset. Definitions that describe reputation as awareness or as an assessment do not consider that a firm's reputation has real value to an organization. Many have debated this cluster of meaning by proposing that this is more related to the consequences of reputation, than of the meaning of reputation itself.

[18] W. Danielak, *Kształtowanie kapitału relacyjnego w małym i średnim przedsiębiorstwie (Shaping the Relational Capital in Small and Medium-Sized Enterprises),* Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2012, p. 286.

[19] P. Paszko, *Czynniki tworzenia kapitału relacji (Factors of Creating the Relational Capital)*, [in:] *Privatization and Effective Financing of a Company*, Duraj J. (ed.), Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2010, pp. 171–172.

[20] R. Bennett, H. Gabriel, *Reputation, trust and supplier commitment: the case of shippingcompany/seaport relations*, The Journal of Business and Industrial Marketing, 16(6), 2001, pp. 424–438.

2.2. Theoretical Concept of Identifying Reputation Determinants

Among the reputation determinants, K. Wójcik recommends an analysis that takes into account two groups of factors: a) the attributes of the given organization and b) the emotional aspect of the social reception of these attributes[21]. The first group includes financial and economic stability, return on investment, management quality, vision and development perspectives, innovativeness and attractiveness of the company for the customers. In the group of the emotional indexes are: ethic and honest conduct, credibility, orientation to the surroundings, sensitivity to social expectations, recognition, good customer relations, customers' affinity, presence in the media.

Based on the literature review a conceptual reputation model is presented by Balmer and Gray. According to this model, reputation relates to six variables: namely, visual identity, corporate communications, corporate behaviour, product lines, technology and location[22].

Cause and effect determinants of reputation of the banking sector used the concept of the so-called gradation reputation model which included four main types of reputation determinants, that is to say: normative stability, consumers' experiences with banks, the evaluation of the relations between banks and customers on the axiological layer and the evaluation of the relations between banks and customers on the altruistic level (Figure 2). This approach is in compliance with the view of K. Majchrzak[23], who in the light of her studies, claims that there is the following dependency: identity impacts the image which, in its turn, shapes the reputation. Thus, the reputation is the sum of fragmentary images which have accumulated over time[24].

In the context of general opinion and reputation Sztompka selected three categories of expectations: performative, axiological and care-taking. In this light, banks reputation is gradationally diversified depending on the type of the expectations from banks. The discussed grade model of reputation originates from categorizing the customers' expectations from the providers of different types of services. The concept of Sztompka was additionally expanded by the author of this paper by adding a superior category of expectations, the so-called, normative expectations. Each area of expectations was described by statistical indexes adequate for the banking market in Poland.

The normative stability is a response to the normative expectations from the banks. This layer of the determinants of the reputation refers to the rules upheld in the banking system. If these rules are well articulated, consistent, transparent and

[21] K. Wójcik, *Wszystko, co chciałabym wiedzieć o public relations...*, *op. cit.*, pp. 32–33.

[22] J. Balmer, E.R. Gray, *Corporate identity and corporate communications: creating a competitive advantage,* Industrial and Commercial Training, 2000, pp. 24–25.

[23] K. Majchrzak, *op. cit.*, pp. 291–292.

[24] P. Sztompka, *Zaufanie. Fundament społeczeństwa* (*Trust. Society's Foundation*), Wydawnictwo Znak, Kraków 2007, p. 87.

legitimate, a feeling of order, predictability, regularity and security emerges. The normative stability means that the rules observed in the banking system are well articulated, consistent, transparent and legitimate. A feeling of order, predictability, regularity and security is created. The normative stability is, among other things, a result of the banks' activities in a specific structural context which includes suitable regulations, monitoring and elimination of potential threats for the security of the whole system. We mean stability, transparency and transparent functioning, durability of the organizational structures and the institution, submitting the banks to the rules of law and procedural framework, consistently exercising the powers and enforcing responsibilities.

The transparency of the system assumes that actions, competence and the results achieved by the system are well visible, easy to understand and controllable. Owing to that, the consumers feel secure (the institutions, professional roles, etc. that make it up). However, when a fast and drastic change occurs which comes abruptly and accidentally without any clear direction and perceivable reason, then the security is undermined. Consistently exercised powers and enforced responsibilities assume the existence of institutions which can be referred to, for example, in order to protect consumer rights and other threatened privileges (courts, tribunals, arbitration) as well as the agencies which consistently enforce the execution of responsibilities (arbitration courts, prosecution, police). This makes the consumers feel protected against abuse, fraud, and crime on the part of the banks.

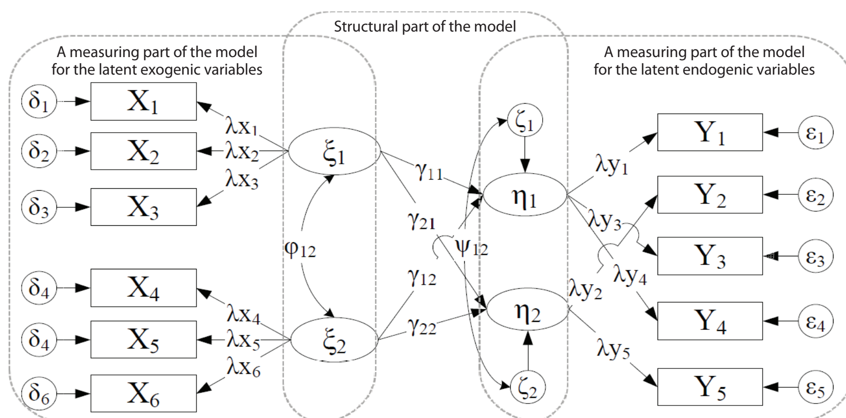
The performative expectations concern the instrumental properties of the actions undertaken by the banks. This is the answer to the expectations that the activities of the banks will be regular, proper and predictable. The expectations of the competence, efficiency, effectiveness or productivity are already slightly higher. All these cases, however, involve certain formal properties of the activities undertaken by the banks, excluding the deeper semantic layer of these activities. It can be said that the expectations of this type are connected with the organizational aspect of the functioning of the banks and the whole banking system. In this aspect, the rating of bank's reputation is done using a calculating method and sometimes using intuition. This rating frequently concerns people who represent a bank, for example, a bank clerk who serves customers on a daily basis, services rendered by the bank, quality of the customer service as well as the scope of the offer.

The axiological expectations concern special humanistic properties of the banks' activities. Consumer expects that the bank will act responsibly, justly, fairly, strictly by the book, veraciously, etc. This kind of expectations is connected with ethical sphere of the bank functioning. The fourth category includes care-taking expectations connected with such activities where the consumers count that the bank will be selflessly taking care of their matters, that it will be altruistic and that it will provide support. Such expectations are in the area of the functioning of banks which is mythologized by the social consciousness which implies that the underlying principle of the banks' functioning is a definition that "a bank is an institution of public trust; therefore, its superior objective is public interest."

2.3. Empirical Concept of Modeling the Determinants of Reputation in the Banking Sector

For the empirical description of the causative determinants we use a Structural Equation Model method (*SEM*). The SEM models allow one to conduct a multi-dimensional and multi-variable analysis of the empirical data and offer much higher opportunities than those provided by classic statistics[25].

Schematic 1. A schematic of a hypothetical causative model of the structural equation modelling SEM with the unobserved variables



SEM Notations for the latent model:
ξi – latent exogtenic variables (factors),
ηi – latent endogenic variables (factors),
ζi – in equations, errors connected with the latent endogenic variables,
γij – a coefficient referring to the influence of ξi on ηi (the most important direct effect),
φij – covariations among the latent exogenic variables ξi,
ψij – covariations among the ζi errors connected with the measurement of the ηi variables,

Notations for the measurement model:
Yi – observed indexes for ηi,
Xi – observed indexes for ξi,
εi – an error connected with the measurement of a specific Yi index,
δi – an error connected with the measurement of a specific Xi index,
λyi – a coefficient referring to the influence of ηi on Yi,
λxi – a coefficient referring to the influence of ξi on Xi.

Source: A. Januszewski, *Structural equation models in the methodology of the psychological research. The issues of causality in the structural models and acceptability of the models.*

[25] The assumtions of the SEM structural models were developed by, among others, Bollen 1989, Kaplan 2000, Pearl 2000. In the Polish literature the following scholars, among others, wrote about SEM: Brzeziński 1996, Gatnar 2003, Osińska 2008, Konarski 2010 and Januszewski 2011.

Structural Equation Modeling (SEM) is a set of procedures of multidimensional statistical analyses which in a classic approach are based on the general linear model. The structural models emerged from the two main techniques: the confirmatory factor analysis[26] and multidimensional regression and path analyses[27]. SEM is a technique of testing and evaluating the causative relationships using the empirical data and qualitative causative assumptions.

The structural models test the linear results of the latent exogenic variables (independent and explanatory) in the scope of the other latent endogenic variables (dependent and explained). Each of the latent variables is measured by an assigned set of measurable empirical variables. The structural models enable one to study at the same time the influence of many sources on the dependent variable[28]. An unquestionable advantage of SEM is the possibility to analyze both direct and indirect relationships. Moreover, the variables included in the models can be measured on different scales[29].

The structure of the model is made up of a model describing the connections among the latent variables which is called the inner model and the measurement model of unobserved latent endogenic and exogenous variables, which is defined as an outer model[30] [Gatnar 2003]. The outer model represents the results of the factor analysis that allows one to calculate the charges of each factor which affect the latent variables. An inner model presents a path analysis that allows one to determine the cause and effect relationships among the variables. The structural part of this model enables one to test the basic research hypothesis, that is to say, a hypothesis about the lack of formal grounds to reject the proposed theoretical model if the traditional measure which is the result obtained in the chi^2 did not exceed the critical value of distribution (chi^2; $p>0.05$). In this situation, the H0 verification result constitutes a basis to either accept or reject the research hypothesis on the admissibility of the causality impact of the psychological reality represented by the latent exogenous variables on the reality represented by the latent endogenic variables[31].

3. Evaluation of the Level of and Changes in the Reputation of the Polish Banking Sector

The rating of the reputation measured by the TRI*M Index among all the respondents was 49 points in 2019 which is 5 points more than in the previous year. Thus, the banking sector in Poland for the first time since the application of this methodology

[26] D. Harrington, *Confirmatory Factor Analysis*, Oxford University Press, Oxford 2008.

[27] M. Hollander, D. Wolfe, N*onparametric statistical methods. Wiley series in probability and statistics: applied probability and statistic*, New York: Wiley, 1999.

[28] R. Kline, *Principles and practice of structural equation modeling*, NY: The Guilford Press, 2011.

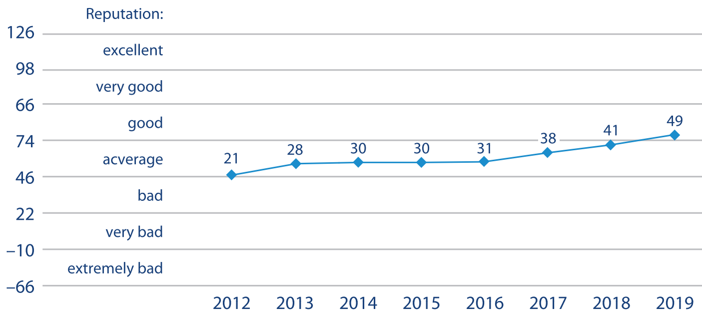
[29] K.G. Jöreskog, *Structural Equation Modeling with Ordinal Variables Using LISREL*, 2002.

[30] E. Gatnar, *Statystyczne modele struktury przyczynowej zjawisk ekonomicznych* (*Statistical Models of Causal Structure of Economic Events*), AE, Katowice 2003.

[31] A. Januszewski, *op. cit.*, pp. 213–245.

has landed in the area of good reputation among all the respondents. The initial rating of reputation of the banking sector in 2012 was 21 points which means an increase by 28 points in 7 years (Chart 1).

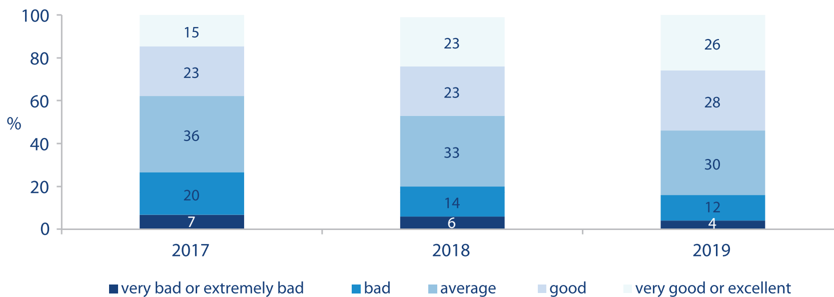
Chart 1. The TRIM Index of the reputation of the Polish banking sector in 2012–2019



Source: Reputation of the Polish Banking Sector, results from the period of 2007–2019. Polish Banking Association, Warsaw.

In 2019, 54% of the Polish society evaluated the reputation of the banks as good, very good or excellent. 16% of the society were of the opposite opinion. They evaluated the banks' reputation as bad, very bad, or extremely bad (Chart 2). At present, approximately 5m of the residents of Poland evaluate better the banks' reputation than in comparison with 2017.

Chart 2. The structure of the rating of the banks' reputation in the period of 2017–2019



Source: Reputation of the Polish Banking Sector, reports from the period of 2017–2019. Polish Banking Association, Warsaw.

The traditional variables segmenting the population by socio-demographic criteria are unable to identify the factors that diversify the reputation ratings with two exceptions – (a) the performed profession where we can see a difference in the TRI*M rating between the unemployed/jobless (housewives/stay-at-home dads,

retired people and pensioners – low scores-below average) and the people who are professionally active (high scores-above average); (b) the education, where the people with elementary education evaluate the banks on the level of 34 points, whereas the people with vocational, secondary and higher education give the following scores 47, 53 and 51 points respectively. Strong positive correlations occur between self-evaluation of one's financial knowledge (high – 60 points, average – 54 points, rather low – 45 points and very low – 40 points) and self-evaluation of the level of using banking products/services (low – 48 points, average – 54 points and high – 61 points). There is also a significant difference between the customers of banks (52 points) and the so-called Banking Absentees (24 points), in other words, those who simply do not use banking services. The strongest positive correlation, on the other hand, occurs between the evaluation of the reputation and the emotional affection towards the banks. The people with a definitely negative emotional attitude have the TRI*M index on the level of -34 points, and the opposite side is taken by the people with a definitely positive emotional attitude – on the level of 90 points. From the current observations, we can surmise that the evaluation of the banks' reputation is mostly affected through the prism of the content-related competence and the emotional attitudes of the evaluating people, as well as their active experiences with banks.

3.1. Evaluation of the Banks' Reputation Determinants Based on the SEM Model

The reputation analysis can be started with a statement that reputation is not one variable as it was previously considered to be in banking. The definition of the banks' reputation based on security is not complete and inadequate as regards the society's expectations from the banks in the area of reputation. This results from the fact that reputation is much more than just institutional and normative aspects of banking. An additional confirmation of this thesis can be found in the results of an empirical study by implementing the so-called gradation model of reputation, where the institutional aspect of banking was only one of the four which were taken into consideration by the society when evaluating the banks' reputation. The other aspects of the evaluation are: effectiveness, axiological and altruistic determinants. A detailed list of variables which eventually entered the model is presented in Table 1. The initial list included 43 potential variables; however, as a result of statistical verification, the model took into consideration 27 variables which made up a so-called group of measurable variables in the SEM model. A confirmatory factor analysis was performed to identify consistent factors such as: the price, availability, offer, customer service, relations with the customers, banks' communication, and ethical conduct. After that, the groups of normative, effectiveness, altruistic and axiological determinants were specified.

Table 1. A list of measurable variables that make up the latent variables in the SEM model

Latent variable	Variable's symbol	Observed variable
Altruistic determinants	a1	Taking the employee's advice secures one from making bad decisions
	a2	A bank's obligation is to prepare a contract that secures the interests of the bank's customer
	a3	The law in Poland protects the interests of the customers in relations with the banks
Prices	c1	Banks offer affordable prices for their services
Availability of the services	d1	Banks enable convenient access to their service through the network of branches, the Internet and mobile banking
	d2	Banks have services that are available for everyone
Ethical conduct	e1	Banks follow the industry code of ethics
	e2	Banks act honestly towards their customers and the surroundings
	e3	Banks are honest
	e4	Banks are ethical
Banks' communication	k1	Banks communicate in a transparent and open manner
	k2	Banks are credible in their communication with the surroundings
Normative determinants	n1	Banks have a stable financial situation
	n2	Banks started many initiatives to create a safe and stable banking system
	n3	Banks guarantee the safety of their customers' deposits
	n4	Banks are well supervised
	n5	Customers' money is secure in banks
Offer	p1	Banking services are modern and innovative
	p2	The banking offer is complete and sufficient
Customer service quality	q1	Banks have high quality services
	q2	Banks have well-prepared personnel
	q3	Banks have competent personnel
Banks' relations with customers	r1	Banks listen to and take into consideration the remarks and needs of their customers
	r2	Banks respect their customers
	r3	The customers know what they can expect from their banks
	r4	Banks are friendly to their customers
	r5	Banks listen to the opinions of their customers

Source: own study.

After specifying the determinants, the model was estimated by the most credibile method. The reliability of the received results was tested again by using a procedure of bootstrapping which performs the analysis many times on subsets selected from the base sample, and the results of these analyses are averaged. Because of that, we arrived at the evaluation of the standard error of the parameters and the t-student's distribution. As a result of the analyses, we obtained the parameters of the model with standard errors and t distribution, R^2 values for each latent variable and several measures of the model's quality. All the determinants in the created model of the banks' reputation of banks are significant on the level of $p<0.001$.

Table 2. Measures of quality of the SEM model of the banks' reputation

Measure of the classification quality	Measure's value
AIC (Akaike's Information Criterion)	1 114,0
BIC (Bayesian Information Criteria)	1 477,8
CAIC (Consistent AIC)	1 551,8
HQ (Hannan Quinn Criterion)	1 252,2
EN (Entropy Statistic (Normed))	0,48
NFI (Non-Fuzzy Index)	0,50
NEC (Normalized Entropy Criterion)	520,4
R^2 reputation	0,55
R^2 normative determinants	0,87
R^2 effectiveness determinants	0,98
R^2 axiological determinants	0,98
R^2 altruistic determinants	0,52
R^2 relations with the customers	0,90
R^2 banks' communication	0,89

Source: own study.

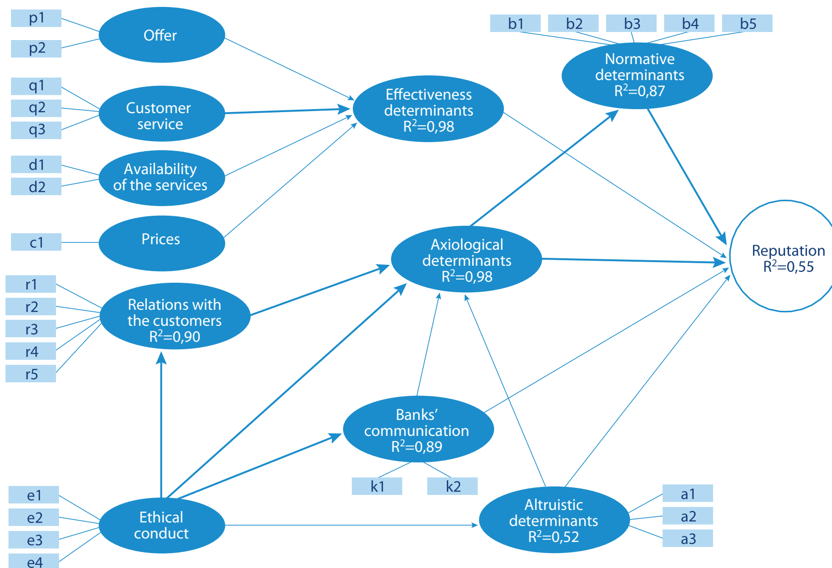
In the estimated SEM model of the banks' reputations, we can distinguish an inner path structure which describes the cause and effect relationships among the studied variables. Schematic 3 shows measurable variables in the surveyed models which are marked with rectangles.

The number of rectangles testifies to the quantity of the measurable variables that are a part of the latent variables. The estimated model reveals a complex structure of the determinants of the banks' reputations. The role of the direct impact of the latent variables on reputation and the significance of the intermediary variables, the so-called mediators is prominent when interpreting the results. A mediator is a variable that represents a hypothetical process or condition which mediates

between the independent variable (explanatory; the cause) and the dependent variable (explained; the effect). Finding a mediator allows one to clarify the process of relationship between the two phenomena. Determining the mediating factors plays an important explanatory function.The evaluation of the determinants of the banks' reputation can be performed on two levels. The first one among the aspects of the main groups of determinants: normative, effectiveness, axiological and altruistic. The second level concerns the analysis among the aspects of the main factors such as: the offer, quality of the services, availability of the services, relations with the customers, banks' communication, and ethical conduct.

The total effects coefficients present the total impact of a given factor on a banks' reputation. This is a sum of the direct impact and the indirect one through the other categories of assessing the banks' reputation. In the view of the main groups of determinants, the following are of key importance in influencing the banks' reputation: axiological determinants (the total effect is 0.43), the normative ones (the total effect is 0.28), altruistic (the total effect is 0.17), and effectiveness determinants (the total effect is 0.11) (Schematic 2, Chart 3). The axiological determinants constitute the starting point in influencing the banks' reputation. They also have the greatest impact on the assessment of the reputation. Their significance is three times as high as the determinants of effectiveness linked to the satisfaction with the banking services and significantly higher than the normative determinants connected with the institutional aspect of the banking sector.

Schematic 2. A schematic of the SEM structural model of the reputation determinants of the Polish banking sector expressed as the total effects coefficients



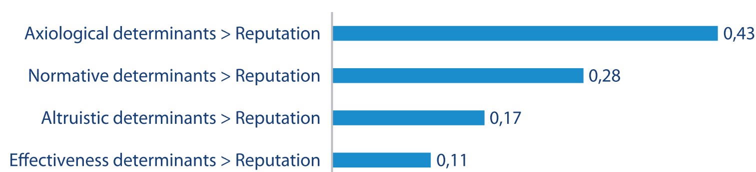
Source: own study.

The altruistic determinants directly affect the reputation assessment, but also indirectly through the mediating variable in the form of the normative determinants (Chart 3). The normative determinants are manifested in upholding the rules of the law, supervising the banks, guaranteeing the deposits, and making sure that the whole financial system of the country is stable.

The normative determinants constitute a mediating variable in the reputation assessment. When assessing the mutual relations, the following fact is also important that the perception of the activities of the sector's institutions BFG (Bank Guarantee Fund), NBP (National Bank of Poland), KNF (Financial Supervision Authority), ZBP (Polish Bank Association), UOKiK (Office of Competition and Consumer Protection) depends on how the banks are rated in the axiological layer. The total effect coefficient is 0.98 in the axiological determinants > normative determinants relationship. At the same time, the perception of the normative determinants mostly results from the evaluation of the banks' relations with the customers, banks' communication and ethical conduct. In this light, the activities of the institutions of the financial security network in Poland determine the rating of the bank's reputation; but, at the same time, the perception of the activities of these institutions originates from the social evaluation of the banks' conduct in relation to the customers and in the area of the ethical values and the banks' communication with the society.

A small influence of the effectiveness determinants on the reputation results from the conviction that the banks offer high quality services; and, at the same time, from the conviction that this is how it is should be. In other words, the consumers, when going to the bank, expect high quality services, and they usually also experience high quality customer services. The quality of the services is the so-called hygienic factor from the "must-have" category. This is a factor which is evaluated high, and its further increase will have little impact on the increase of the reputation. However, if the quality of the customer service drops then there is a risk of a negative impact on the reputation. In such a case, we can talk about non-linear dependency where the terminal increase in the reputation rating in relation to the increase in customer satisfaction is close to zero.

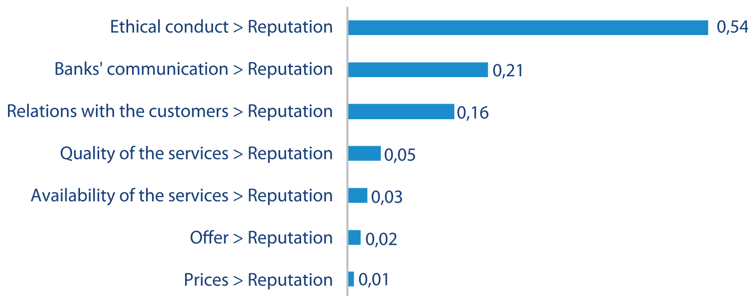
Chart 3. Impact of the main groups of determinants on the banks' reputation expressed as the total effects coefficients



Source: own study.

When analyzing the reputation determinants in the aspect of the main factors, the ethical conduct is of key importance (the total effect is 0.54). The impact of this factor is higher than the sum of impacts of the relations with the customers (the total effect is 0.16), the bank's communication (the total effect is 0.21), the quality of the customer service (the total effect is 0.05), the availability of the services (the total effect is 0.03), the evaluation of the offer (the total effect is 0.02), or the price level (the total effect is 0.01) (Chart 4).

Chart 4. Impact of the main factors on the banks' reputation expressed as the total effects coefficients.



Source: own study.

Structural equation modelling (SEM) also enables one to evaluate the inner relations among the individual variables (Table 3). The effectiveness determinants are mostly affected by the evaluation of the customer service quality (the total effect is 0.52) and the availability of the services (the total effect is 0.40). On the other hand, the effectiveness determinants alone have little impact on the evaluation of the banks' reputation (the total effect is 0.10). The evaluation of the ethical conduct has a high impact on the assessment of the banks' communication (the total effect is 0.56); whereas, the banks' communication has a moderate impact on the evaluation of the banks' reputation (the total effect is 0.21). The ethical conduct has a high influence also on the evaluation of the banks' relations with the customers (the total effect is 0.61). However, the relations with the customers have little direct impact on the evaluation of the reputation (the total effect is 0.16).

Table 3. Inner determinants among the factors and groups of determinants of the banks' reputation expressed as the total effect coefficient

		Effectiveness determinants	Axiological determinants	Altruistic determinants	Prices	Availability of the services	Ethical conduct	Banks' communication	Normative determinants	Customer service	Offer	Relations with the customers
Main groups of deter-minants	Normative	–	–	–	–	–	–	–	–	–	–	–
	Effectiveness	–	–	–	–	–	–	–	–	–	–	–
	Axiological	–	–	–	–	–	–	–	0.98	–	–	–
	Altruistic	–	0.21	–	–	–	–	–	0.14	–	–	
Main groups of factors	Prices	0.17	–	–	–	–	–	–	–	–	–	–
	Availability of the services	0.40	–	–	–	–	–	–	–	–	–	–
	Ethical conduct	–	0.86	0.31	–	–	–	0.56	0.93	–	–	0.61
	Banks' communication	–	0.25		–	–	–	–	0.17	–	–	–
	Customer service	0.52	–	–	–	–	–	–	–	–	–	–
	Offer	0.25	–	–	–	–	–	–	–	–	–	–
	Relations with the customers	–	0.44	–	–	–	–	–	0.36	–	–	–

Source: own study.

3.2. Typological classification of the consumers according to the determinants of the reputation assessment of the banking sector

Structural equation modelling (SEM) allows one to recognize complex determinants that shape the banks' reputation. On the other hand, the analysis of the path coefficients and the total effect values with the use of the FINMIX classification technique provides one with the possibility to isolate homogeneous groups of consumers in terms of the factors that they take into consideration when evaluating the banks' reputation. In the course of the analysis of the path coefficients and the total effect coefficients we isolated three homogeneous consumer segments in

terms of the factors that they take into consideration when evaluating the banks' reputation. Segment 1 and 3 constitute 30% of all the respondents respectively; whereas segment 2 constitutes 40% of the respondents. The obtained values of the R-Squared coefficients for each latent variable in the typological groups are presented in Table 4.

Table 4. R-Squared latent variables in segments

	Segment 1 (R-Squared)	Segment 2 (R-Squared)	Segment 3 (R-Squared)
Normative determinants	0.897	0.437	0.915
Effectiveness determinants	0.999	0.998	0.999
Axiological determinants	1,000	1,000	1,000
Altruistic determinants	0.520	0.297	0.325
Banks' communication	0.906	0.310	0.829
Relations with the customers	0.904	0.376	0.815
Reputation	0.684	0.471	0.531

Source: own study.

The three isolated groups of consumers which are internally consistent and homogeneous differ from each other in terms of the determinants that shape the reputation. The statistically significant differences among the total effect coefficients occur in the case of the normative, axiological and altruistic determinants (Table 3). The impact of the effectiveness determinants on the reputation is the same in all three segments. The normative determinants play the most important role in the first segment. In the third segment their significance is three times lower, and in the third segment their role is twice as low as in the second segment and almost five times lower than in the first segment. The axiological determinants are of key importance for the first segment. Their significance for the third segment is almost half as low in comparison with the role that they play in the first segment. The altruistic determinants are equally important for the first and the third segments; but, at the same time they play a marginal role in shaping the banks' reputation in the second segment.

The residents of Poland are divided into three typological segments in terms of the factors that they take into consideration when evaluating the banks' reputation. The first segment consists of 30% of the society. This segment can be defined as the banks' customers who are uncommitted and immature in terms of competence. These are the people who diversify the assessment of the banks' reputation in terms of the institutional and formal security of banks and the money deposited there by the customers (Table 5). They frequently formulate their reputation assessment

based on the conviction that the security of the deposits and guarantees as well as the properly rendered banking services are a sufficient reason to evaluate that a bank has a good reputation. Axiological determinants are very important for the people from this segment. This comes from the fact that people from this typological group frequently try to overcome their low competence and low knowledge about the financial services and the banks' activities with the conviction of the high trust and high evaluation of the reputation. Such an attitude allows one to use the banking services without questioning them; and, at the same time, to be convinced that the bank will not mislead the customer; and, additionally, that the bank will take good care of the customer's business and security. Because of this reason, we can see in the first segment, as the only one, the altruistic determinants behind which there is a conviction that even if the customer has any problems with the relations with the bank, the bank will, nevertheless, solve the customer's problems and will take care of the good of the customer. The first segment reveals the moral hazard attitudes, assuming that the institutions of the financial security network in Poland in case of danger, first of all, will undertake actions to secure the customers' deposits, and in crisis situations protect the customers against the consequences. Such an attitude has three sources: the first one is that the consumers do not suffer the consequences of their decisions when using the banking services; secondly, the institutions of the banking sector provide evidence that the system is completely safe by taking care of the security and stability of the banking system in Poland; and in the case of problems they will undertake suitable preventive actions; and thirdly, the consumers do not have any motivation to increase their financial competence and to consciously use the banking services.

Table 5. Impact of the main groups of determinants on the banks' reputation in the typological segments

	Segment 1 30%	Segment 2 40%	Segment 3 30%	Significance of differences in total effects coefficients
	Total effects coefficient value			
Effectiveness determinants > Reputation	0,112	0,084	0,101	p = 0,343
Normative determinants > Reputation	0,284	0,107	0,063	p < 0,001
Altruistic determinants > Reputation	0,177	0,032	0,159	p < 0,001
Axiological determinants > Reputation	0,433	0,384	0,249	p < 0,001

The importance of factors: very important; important; moderately important; not important

Source: own study.

The second segment includes 40% of the residents of Poland, and we can define them as mature bank customers. Its distinguishing feature is focusing on upholding the ethical values both in activities as well as in communication with the customers. In this segment, the normative determinants connected with security as well as the effectiveness determinants connected with the quality of the services are treated as axioms. In other words, an institution that is a bank should be and is secure, and its activities are legitimized by the institutions of the financial security network in Poland. Moreover, this segment assumes that it is expected of the banks to provide high quality services, and these services are rendered on a high level. Both the normative as well as effectiveness determinants are evaluated high, and the marginal growth of change in reputation is close to zero. The banks achieve high scores of reputation as a result of actions that are fair, fundamental and principal, veracious, open communication and providing evidence of respect to the customers. The customers from this segment expect an interaction with the bank as a partner who provides financial services. The people from this segment do not expect the banks to take responsibility for the negative results of their own financial decisions.

The third segment constitutes 30% of the Polish society. This is a typological segment that requires the banks to be ethical in their conduct which is manifested in providing comprehensive customer service. This is the segment of customers who when assessing the reputation are driven by the conviction that the role of the bank is to completely secure the customer against the negative consequences of the customer's relations with the bank. In the case of this segment, calming down the customers' emotions is of key significance. In this segment, just like in the second segment, the normative determinants are treated as the factors from the "must-have" category if you are a bank.

Table 6. Impact of the main factors on the banks' reputation in the typological segments

	Segment 1 30%	Segment 2 40%	Segment 3 30%	Significance of differences in total effects coefficients
	Total effects coefficient value			
Prices > Reputation	0,015	0,014	0,014	p = 0,322
Offer > Reputation	0,022	0,021	0,022	p = 0,862
Availability of the services > Reputation	0,036	0,028	0,029	p = 0,753
Quality of the services > Reputation	0,058	0,044	0,051	p = 0,752
Relations with the customers > Reputation	0,164	0,168	0,106	$p < 0,001$
Banks' communication > Reputation	0,120	0,209	0,399	$p < 0,001$
Ethical conduct > Reputation	0,545	0,363	0,588	$p < 0,001$

The importance of factors: very important; important; moderately important; not important

Source: own study.

Table 7. Inner determinants between the factors and the groups of determinants of banks' reputation expressed as the total effect coefficients in the typological segments

	Effectiveness determinants	Axiological determinants	Altruistic determinants	Normative determinants	Banks' communication	Relations with the customers
Segment 1						
Normative determinants						
Effectiveness determinants						
Axiological determinants				0,947		
Altruistic determinants		0,149		0,141		
Prices	0,134					
Availability of the services	0,319					
Ethical conduct		0,982	0,721	0,931	0,952	0,951
Banks' communication		0,182		0,173		
Quality of the services	0,523					
Offer	0,2					
Relations with the customers		0,38		0,36		
Segment 2						
Normative determinants						
Effectiveness determinants						
Axiological determinants				0,661		
Altruistic determinants		0,21		0,139		
Prices	0,172					
Availability of the services	0,339					
Ethical conduct		0,857	0,311	0,567	0,557	0,613
Banks' communication		0,224		0,148		
Quality of the services	0,526					
Offer	0,251					
Relations with the customers		0,437		0,289		
Segment 3						
Normative determinants						
Effectiveness determinants						
Axiological determinants				0,957		
Altruistic determinants		0,186		0,178		
Prices	0,137					
Availability of the services	0,29					
Ethical conduct		0,948	0,354	0,907	0,911	0,903
Banks' communication		0,224		0,214		
Quality of the services	0,503					
Offer	0,22					
Relations with the customers		0,428		0,409		
The importance of factors		very important				
		important				
		moderately important				
		not important				

Source: own study.

When analyzing the main groups of the reputation determinants, the consumer do not differ among themselves in terms of the role of the price level of the banking services in shaping the banks' reputation (Table 6). At the same time, the prices of the services among all the analyzed factors in all the three typological segments are of the lowest significance in shaping the banks' reputation. The offer of the banks, just like the prices, has little significance in shaping the banks' reputation; and, at the same time, the role of this area is the same in all the analyzed segments. The significance of the availability of the banking services is low and similar in all the three segments. The quality of the services also does not diversify the consumers in terms of the influence on the evaluation of the banks' reputation. The three key factors that are taken into consideration on a different level by the consumers when evaluating the banks' reputation are: relations with the customers, banks' communication with the customers and the ethical conduct. Each of these areas shapes the banks' reputation with a different strength in individual typological groups. Ethical conduct is of key significance and the most important in shaping the assessment of the banks' reputation in the first and third segments. Its significance is lower in the second segment. This means that the people who represent the second segment pay attention to the ethical conduct of the banks to a much lower extent than the consumers from the first and third segments. The impact of the banks' communication on the reputation assessment is important in the third segment, moderately important in the second segment and unimportant in the first segment. The relations with the customers play a low role in the third segment and a moderate one in the first and second segments.

5. The impact of institutions, sources of information and channels of communication on the reputation score

The analysis of factors determining the reputation in different theoretical approaches is usually done on the basis of expectations expressed by the consumers towards banks on one hand and how these expectations are met by the banks on the other. These expectations are usually characterized by factors described in a gradation model. The concept of a gradation reputation model describes which substantive factors determine the reputation, however it doesn't answer the question about the circumstances present during the constitution of a reputation score. In other words, it is not known how, where and when does the reputation score form, while the knowledge about such circumstances may be crucial in the process of managing this phenomenon as well as explaining the causes of changes in reputation. The answer to that question lies in the analysis of contact points between the consumer and the bank.

Points of contact are defined as all places where a consumer can directly experience the impulses shaping her evaluation of a bank and also all places where a consumer is exposed towards all information regarding banks. These points of contact are related to so called "moments of truth", which essentially are the most significant

points of contact or intermediaries by which shaping of the reputation evaluation on the consumer's side takes place.

The consumers experience all varieties of contact points which influence the forming of their reputation evaluation with different potency, at different times and occasions, usually in a heavily disorderly manner. The first and most crucial step allowing the assessment of impact all individual contact points have on the shaping the reputation is their mapping, which requires their identification. The second step is the assessment of their significance in shaping reputation and the third – the assessment of impact they may have on the reputation which may be positive, neutral or negative.

While evaluating banks' reputation, consumers function within the system comprising many sources of information about banks, all of them regarded as more or less important. In situations, when a particular source of information is not regarded as important to the customer, the direct impact of the output form that source on reputation, even if intensive, will be marginal to the consumer's score. Consequently, outputs form sources regarded as important will have a significant impact in the process of reputation evaluation. Depending on the distribution of these variables in the consumers' mind, we can expect a different reaction based on the influence of a particular source of information. The third crucial variable within this framework is the sentiment of the information coming from a particular source. It can be either positive, negative or neutral. Combining all of these factors gives us a glimpse at the causal character of circumstances shaping the reputation evaluation process.

During our study, we divided the points of contacts into three categories. First of them is represented by the institutions which are the source of information about the banks. The second category comprises authors of the information and the third – channels by which information about banks is passed to the consumers. The group of institutions is composed of entities that typically have a stake at communicating their statements and opinions on matters concerning banking sector or are considered go-to sources of information regarding banks. This list includes the government, National Bank of Poland, Financial Supervisory Authority, Office of Competition and Consumer Protection, Bank Guarantee Fund, Polish Bank Association, banking sector, consumer's main bank, credit unions and department of justice. Among the authors of information, we'll find CEO's of banks or their board members, banks' spokespeople, journalists, financial experts, academics, social media influencers, politicians, celebrities, economists, banks' customer service employees, friends and relatives, colleagues actively working or who have worked for the banking sector in the past, FX mortgage owners, and people similar to the respondent. The identified channel's list includes traditional newspapers, tv and radio, social media and conversations via social media tools, internet search engines, banks' official www profiles, banks' press releases, banks' social media profiles, banks' commercials, direct conversations with friends and relatives, direct (own) experience with banks and their services. We then asked our respondents to

state whether they experienced contact with any of these institutions, channels or authors of information, how important these sources are for them and how do they interpret the information coming from them, be they positive, negative or neutral.

The brief outlook of the mapped sources of information with regard to their importance to customers as well as their exposure to particular source is depicted at the schematic 3. Contrary to some popular beliefs, various media, journalists or politicians are not the most important sources of opinions and information about banks in general to majority of the customers, although a lot of them declares exposure to these sources. In fact those categories are similar to bank commercials – hardly anyone declares lack of exposure to the commercials, but only a fraction of people admit they are important factors determining their opinion about banks in general.

Schematic 3. Level of exposure and significance of various sources of information about banks

Source: own study.

There are a lot of sources deemed as very significant or significant from which customers draw their conclusions regarding opinions about banks, but it is quite clear that the most important are their main banks (institution) and their own experience (channel). In both cases, over 50% of population regards these sources as very significant and significant with the level of exposure at 85% of the population. It is also worth noting, that majority of the information coming from these sources is also positive in nature. These findings lead to a conclusion that the most important intermediary in the process of evaluating current reputation of banks in Poland is a generally positive personal experience with an institution. In this case personal experience with one's main bank can be described as said "moment of truth", where one can confront information from other sources with reality. This is also a very important observation for the banks, because it shows they can do a lot in

customer experience area to improve the sector's reputation. The importance of banks in general as well as the customer's main bank as a source of information is further explained by to correlation between TRI*M score and opinion people have on those sources. The study shows enormous discrepancy between consumers who evaluate banks in general and their main bank in a positive manner and those who have negative opinions about these entities. In former case, TRI*M scores amount to 78 and 66 respectively while in the latter, they drop to –11 and –6. At the same time, in the group of people how do not come into contact with information about banks from these sources, TRI*M scores are at the level of 19 and 26. A similar relation, although with not such a high magnitude, can be observed in case of Bank Guarantee Fund, Polish Banking Association and Financial Supervisory Authority. These institution are regarded as a competent source of information about banking sector and positive opinion about them among consumers translates to significantly higher evaluation of banking sector's reputation.

As for the individual experience, the study also shows a significant negative correlation between TRI*M reputation score and the critical incidents reported between customers and banks. In this case, exposure to various negative incidents translates to lower TRI*M scores all across the board. Consequently – the absence of critical incidents in general improves the average reputation.

6. Summary

Banks in Poland have a good reputation. The factors of a good reputation are in clear advantage over the factors of a bad reputation, and in 2018 approximately 5m Poles assessed the banks' reputation better than a year before.

The banks' reputation is shaped within the normative, effectiveness, altruistic and axiological aspects. The definition of the banks' reputation based on security is incomplete and inadequate for the society's expectations from the banks as regards their reputation. The starting point in shaping the banks' reputation are the axiological determinants. They also have the greatest impact on the evaluation of the reputation. Their significance is three times as high as that of the effectiveness determinant linked to the satisfaction with the banking services and significantly higher in comparison with the normative determinants connected with the institutional aspects of the banking sector. The normative determinants are manifested in upholding the rules of the law, supervising the banks, guaranteeing the deposited money, taking care of the stability of the whole financial system in the country and the evaluation of the institutions of the financial network security in Poland. The mediating variable belongs to the normative aspects. It can be interpreted as a filter which helps to evaluate the banks' reputation in the axiological aspect. The perception of the operations of the sector's institutions, such as: BFG, NBP, KNF, ZBP, UOKiK, depends on how the banks are evaluated in the axiological layer. When assessing the reputation in the effectiveness aspects,

the consumers take into consideration their own experiences with the banks, evaluation of the offer, availability, costs of the services, quality of the services as well as a very important aspect of the ethical evaluation of the banks, namely their communication. The low impact of the effectiveness determinants on the reputation is based on the conviction that the banks already have high quality of services; and, at the same time, that this is how it should be. The quality of the services is the so-called hygienic factor – a feature of the "must-have" category. This is a factor which is evaluated high, and its further increase will have little impact on the increase of the reputation.

The three isolated groups of consumers which are internally consistent and homogeneous differ from each other in terms of the normative, axiological and altruistic determinants that shape the reputation. The effectiveness determinants do not diversify the consumers in terms of their impact on the evaluation of the banks' reputation. The segment that constitutes 30% of the Polish society can be described as uncommitted and immature customers of banks in terms of competence. These are the people who diversify the assessment of the banks' reputation in terms of the institutional and formal security of banks and the money deposited there by the customers. The second segment includes 40% of the residents of Poland, and we can define them as mature bank customers. Its distinguishing feature is focusing on upholding the ethical values both in activities as well as in communication with the customers. The third segment constitutes 30% of the Polish society. This is a typological segment that requires the banks to be ethical in their conduct and altruistic behavior, which are manifested in providing comprehensive customer service. This is the segment of customers who when assessing the reputation are driven by the conviction that the role of the bank is to completely secure the customer against the negative consequences of the customer's relations with the bank.

The normative determinants play the most important role in the first segment; whereas in the second segment their significance is three times lower. In the third segment, on the other hand, their role is twice as low as in the second segment and almost five times as low as in the first segment. The axiological determinants are of key importance for the first segment. Their significance for the third segment is almost half as low in comparison with the role that they play in the first segment. The altruistic determinants are equally important for the first and the third segments; but, at the same time they play a marginal role in shaping the banks' reputation in the second segment.

The most significant sources of information that constitute the circumstances in which the reputation of banking sector is formed are strongly related to the substance of banking, being consumer's own bank and their own experience, banks in general, official websites, bank employees, the central bank and the entities constituting the network of financial stability – government, justice department, BFG, KNF and ZBP. Significance of other sources varies and positive or negative experience or opinion about these sources influences reputation scores to some degree.

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EKF macroeconomic consensus: forecasts, threats, opportunities and recommendations

Abstract

The rapid pace of change in economic phenomena combined with the high volatility of financial markets and the growing importance of irrational behavioral factors, encourages a wider use of expert knowledge in macroeconomic forecasting.

The aim of the article is to present the results of the fourth edition of the project Macroeconomic challenges and forecasts for Poland. The survey was conducted in the period November 8, 2019 - December 6, 2019. The article presents the prognostic consensus of experts cooperating with the European Financial Congress. In addition to classic macroeconomic forecasts for Poland, it contains threats to sustainable economic development and financial system stability, together with estimates of the subjective probability of implementation. Using the knowledge and competences of experts cooperating with EKF, recommended actions for economic policy were formulated, aimed at weakening the impact of identified threats in the future.

Key words: macroeconomic forecasts, macroeconomic challenges, financial stability

JEL: G17, G18, E17, E20

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Introduction

This is already the fourth edition of the mid-term macroeconomic expert opinions and forecasts for Poland, authored by 40 experts cooperating with the European Financial Congress – 12 chief economists of banks and other financial institutions, 12 university professors, 5 independent macroeconomic experts, 4 CEOs of financial institutions, 4 experts from regulatory bodies, and 3 experts from reputable consulting firms. They share their knowledge, experience and calculations *pro bono publico*, expressing their own opinion rather than that of the institutions for which they work. The survey was conducted in the period November 8, 2019 – December 6, 2019.

In addition to traditional macroeconomic forecasts, our survey also pays great attention to qualitative and behavioural factors. In formulating the EFC's macroeconomic forecasts as well as in developing the Polish experts' positions on various concepts for building the new financial system architecture of the European Union, we use the modified Delphi method.

The invited experts present their forecasts (if any) for the current year and the next three years, and also list the following within this perspective:

- the greatest threats to the business climate in Poland,
- the greatest threats to the stability of the Polish financial system,
- three proposals (recommendations) for the domestic economic policy.

We prioritise the opinions expressed by experts on macroeconomic challenges, taking into account the importance of the homogeneous groups of factors identified and the probabilities of their occurrence.

Similarly, we prioritise the threats to the stability (security) of the Polish financial system.

The economic policy measures recommended by experts for Poland are presented in a synthetic form by grouping them into homogeneous classes.

Forecasts

Forecasts by EFC experts suggest that the economic growth is expected to slow down in the coming years. Poland's GDP growth rate will likely decrease from around 5.1% in 2018 to about 3% in 2022.

This implies a somewhat more pessimistic GDP development scenario than the one presented in the governmental Convergence Programme revised in April this year, with the exception of the year 2019, about which the experts are more optimistic. Similar differences between the EFC forecast consensus and the government programme concern the investment path. The forecast consensus expects a lower growth rate in 2020–2022 and a faster growth rate in 2019. Despite the economic slowdown, Poland will remain the growth leader among major EU economies.

Just like the authors of the Convergence Programme, EFC experts expect that private consumption will remain the most important GDP growth driver, based on low unemployment (3.4–3.6%), good consumer sentiment supported by growing social transfers and fast growing wages (at 6.5% per annum). Most economists agree, however, that consumption growth should not be expected to continue at the current rate (over 4% per annum) in the coming years and should decline to about 3% starting from 2021. The high rate of wage increases will also slightly decelerate.

Bank macroeconomists additionally predict an increase in the consumer price index (CPI), but they do not believe that it should pose a significant threat to the inflation target in the next three years.

EFC experts forecast a gradual increase in the NBP reference rate and interbank rates within 2–3 years, which entails higher bank financing costs and an automatic pick-up in prices of housing and corporate loans based on a floating interest rate.

There are considerable differences between the EFC forecast consensus and the projections of the revised Convergence Programme (2019) with respect to the predicted public sector deficit. In 2018, the general government deficit decreased to 0.2% GDP, the best outcome since Poland's accession to the EU. However, experts predict that continued social transfers driven by election promises will compromise the performance of the public sector, especially in 2021 and 2022, when the general government deficit is expected to hoover around 1.8%. This can be accompanied by a deepening current-account deficit.

Major threats to Poland's economy

In addition to macroeconomic forecasts, the survey conducted among European Financial Congress experts has made it possible to create a map of threats to the business climate in Poland until 2022. To this end, survey participants distributed 100 points between selected threats and assigned subjective probability ratings to each of them.

We have classified the major threats to the business climate in Poland as external and internal factors. External factors will contribute more to the economic slowdown in Poland.

Out of the external risks to Poland's economic development, the economic slowdown in the euro zone comes first, as it entails a downturn suffered by our main trading partners. This risk is very likely to be aggravated by the increasing protectionism in international trade, which may restrict the trade flow between the US and the EU and exacerbate the downturn in the euro zone as a result of the trade war. In addition, Chinese economy is expected to weaken.

Poland's economy will be additionally distressed by the adverse consequences of brexit, the probability of which is estimated at almost 60 percent.[1]

[1] The survey was conducted in the period November 8, 2019 – December 6, 2019.

The risks highlighted by macroeconomists confirm the role of external demand as a key driver of Poland's economic growth in the recent period. This is supported, for instance, by the fact that a pick-up in 'value added exports' has been the main contributor to Poland's GDP growth in the 21st century. In this context, most of the respondents emphasise their concerns about the consequences of increasing protectionism and restrictions in international trade.

On the other hand, the risk of social transfers overburdening the state budget (as a result of delivering on election promises) and causing an aggravation of the structural deficit was mentioned as the main internal threat to the economic cycle in Poland. Macroeconomists did not focus so much on this risk in the last year's forecasts, as the scale of projected transfers did not seem to be overly concerning. There has been a continued concern about the growing macroeconomic imbalance caused by Poland's pro-cyclical fiscal and monetary policy, manifested as an excessive increase in public spending at the time of economic boom, which forces significant cuts during slowdowns. Unfortunately, both of these drivers are now seen by macroeconomy experts as a stronger and more probable threat than the supply barrier on the labour market, which was named as the main threat in the last year's projections. This does not mean that the risk associated with the limited availability of skilled labour resulting from demographic disadvantages and a poor migration policy is lower. Instead, it means that we do identify an additional risk posed by excessive social transfers, whose significance has increased disproportionately in relation to 2018. We still believe that the influx of workers from the East, and in particular from Ukraine, is insufficient to bridge the labour market gap. This exacerbates the risk of an excessive increase in labour costs in relation to the GDP, which in turn could significantly harm the competitiveness of Polish enterprises, including their exports. Sustainable wage growth exceeding the rise in productivity, reinforced by the declared considerable increase in minimum wages, poses a significant internal threat to sustainable economic development.

In the context of the very low investment rate in Poland and the utterly unsatisfactory increase in gross fixed capital formation, another issue of concern is the fact that a vast majority of EFC experts see the risk of slowdown in private investments, due to the continuing uncertainty regarding the future economic policy.

Major threats to the stability of the Polish financial system

EFC experts have identified two key factors undermining the stability of the domestic banking sector.

Firstly, the nationalisation process which leads to excessive participation of the State treasury in the banking sector (the highest probability in this edition of the survey – 55.2%), likely to result in inefficient allocation of funds, awarding of project lending according to political criteria and deterioration of management quality in State--controlled banks as a result of decisions based on non-market (political) factors.

Secondly, the bankruptcy of a medium-sized bank, recognised by the experts as a factor having the highest risk weight for the Polish banking sector (13.8 points), with a 36% probability.

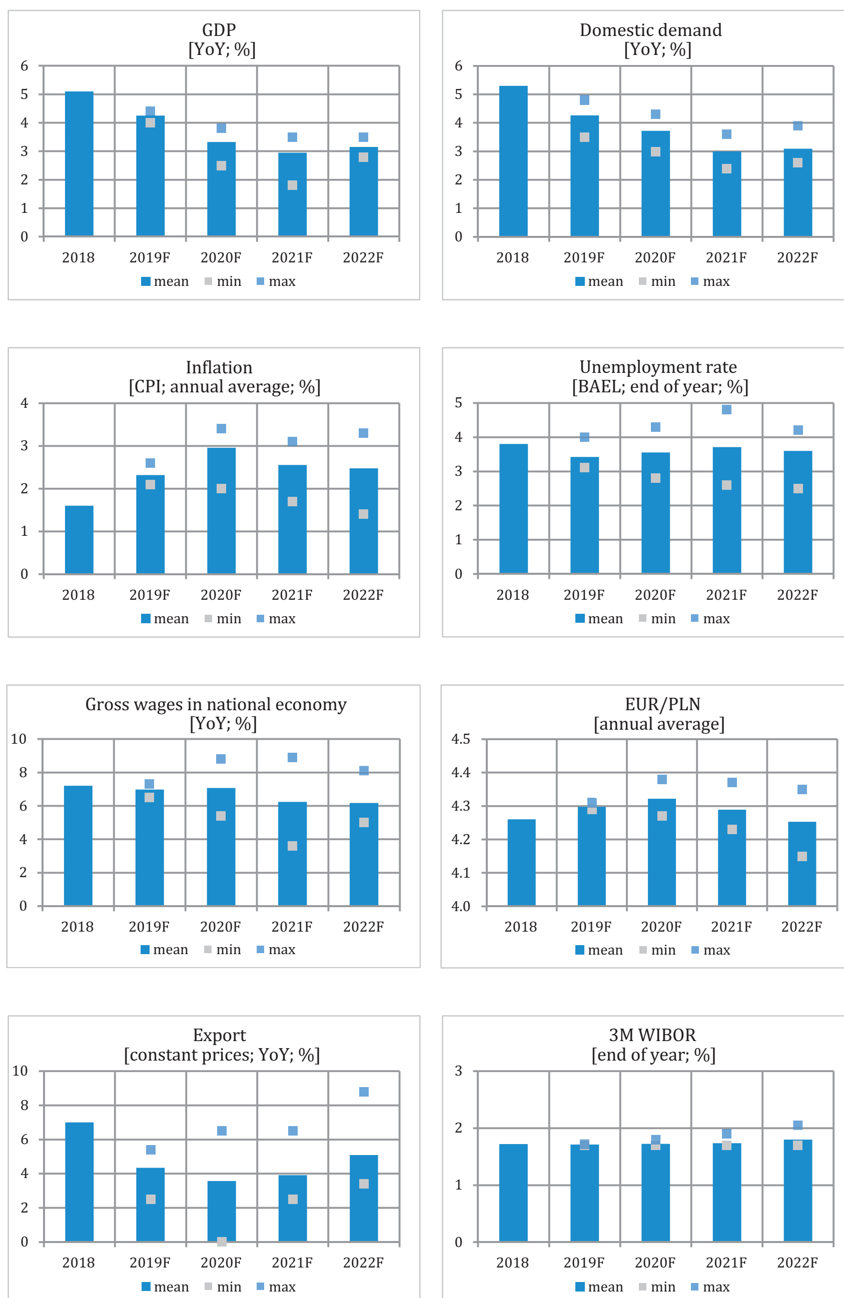
Thirdly, absence of any systemic concepts to tackle the situation in the mortgage loan segment. On the one hand, the risk arises from the likely depreciation of the national currency in the context of a high uncertainty on financial markets, which would undermine the position of borrowers without FX hedges. EFC experts believe that the CJEU ruling on abusive clauses in mortgage loan agreements reduced the odds of forced restructuring of loans by operation of law (risk weight 6.94 points with a probability of 30.0%), but the consequences of court judgments in disputes between consumers and banks will be important for the steady functioning of the financial system. Due to the absence of any information on the magnitude of the challenge and uncertainty as to the future development of case law, banks find it difficult to estimate the level of necessary provisions for mortgage assets in dispute. This may become a key factor in ensuring the operational safety of banks over the next few years.

Other systemic threats, according to EFC experts, include the structural maturity mismatch of assets and liabilities (risk weight 6.1 points; probability 34%) and the risk of deterioration of the credit portfolio quality (risk weight 5.6 points; probability 39%). Experts suggest that companies which currently operate in an environment of strong cost pressure and declining profit margins are likely to become less regular in their repayments in the event of an economic slowdown.

Moreover, the effects of increased concentration in the domestic banking sector should also be factored in over the next few years, despite the fact that in the next three years the risk weight seems to be low (probability 45.6%; risk weight 2.54 points), along with a significant increase in real property prices (probability 39.8%; risk weight 4.8 points).

A sudden and substantial rise in interest rates, posing the risk of a hike in financing costs for borrowers taking out loans in an all-time-low interest rate environment in Poland (risk weight 7.4 points; probability 21%) and the potential banking crisis in the European Union (risk weight 9.2 points; probability 23%)are threats with a high negative market impact, albeit with a relatively low potential for system destabilisation according to EFC experts.

Figure 1. Forecasts of selected macroeconomic indicators in 2019–2022



Source: Own research: EFC experts' consensus results.

Table 1. Forecasts of selected macroeconomic indicators in 2019–2022

			SURVEY RESULTS			
Indicator	**Metric**	**2018**	**2019F**	**2020F**	**2021F**	**2022F**
GDP (YoY; %)	**mean**	5.1	**4.25**	**3.33**	**2.95**	**3.15**
	standard deviation		0.10	0.36	0.45	0.25
Domestic demand (YoY; %)	**mean**	5.3	**4.26**	**3.72**	**3.00**	**3.09**
	standard deviation		0.31	0.31	0.35	0.47
Individual consumption (YoY; %)	**mean**	4.3	**4.17**	**3.92**	**3.05**	**3.17**
	standard deviation		0.17	0.29	0.45	0.27
Gross fixed capital formation (YoY; %)	**mean**	8.9	**7.48**	**3.65**	**2.82**	**3.73**
	standard deviation		0.83	0.87	0.99	1.48
Public finance sector result. EU methodology (% of GDP)	**mean**	-0.2	**-0.82**	**-0.91**	**-1.72**	**-1.73**
	standard deviation		0.41	0.52	0.89	0.78
Unemployment rate (BAEL; end of year; %)	**mean**	3.8	**3.43**	**3.55**	**3.71**	**3.60**
	standard deviation		0.26	0.45	0.69	0.59
Gross wages in national economy* (YoY; %)	**mean**	7.2	**6.98**	**7.07**	**6.25**	**6.17**
	standard deviation		0.24	0.96	1.32	0.99
Export (constantprices; YoY;%)	**mean**	7.0	**4.34**	**3.57**	**3.91**	**5.09**
	standard deviation		0.81	1.69	1.27	1.72
Import (constantprices; YoY;%)	**mean**	7.6	**5.08**	**4.50**	**4.06**	**5.00**
	standard deviation		1.80	1.93	1.09	1.42
Inflation (CPI;annualaverage; %)	**mean**	1.6	**2.32**	**2.95**	**2.55**	**2.47**
	standard deviation		0.11	0.38	0.41	0.47
Base inflation excl. food and energy prices (%)	**mean**	0.7	**1.99**	**2.82**	**2.46**	**2.27**
	standard deviation		0.30	0.41	0.50	0.46
EUR/PLN (annual average)	**mean**	4.26	**4.30**	**4.32**	**4.29**	**4.25**
	standard deviation		0.01	0.04	0.04	0.05

Table 1 – continued

Indicator	Metric	2018	SURVEY RESULTS			
			2019F	2020F	2021F	2022F
USD/PLN (annual average)	**mean**	3.61	**3.82**	**3.84**	**3.77**	**3.71**
	standard deviation		0.07	0.10	0.16	0.14
Reference rate (end of year; %)	**mean**	1.5	**1.50**	**1.57**	**1.59**	**1.78**
	standard deviation		0.00	0.15	0.19	0.39
3M WIBOR (end of year; %)	**mean**	1.72	**1.71**	**1.72**	**1.74**	**1.80**
	standard deviation		0.01	0.03	0.06	0.13
Yield on 5Y bonds (end of year; %)	**mean**	2.51	**1.82**	**2.01**	**2.20**	**2.34**
	standard deviation		0.09	0.22	0.37	0.39

* for entities over 9 employees

Source: Own research: EFC experts' consensus results.

Figure 2. Forecasts of selected indicators for the banking sector in 2019–2022

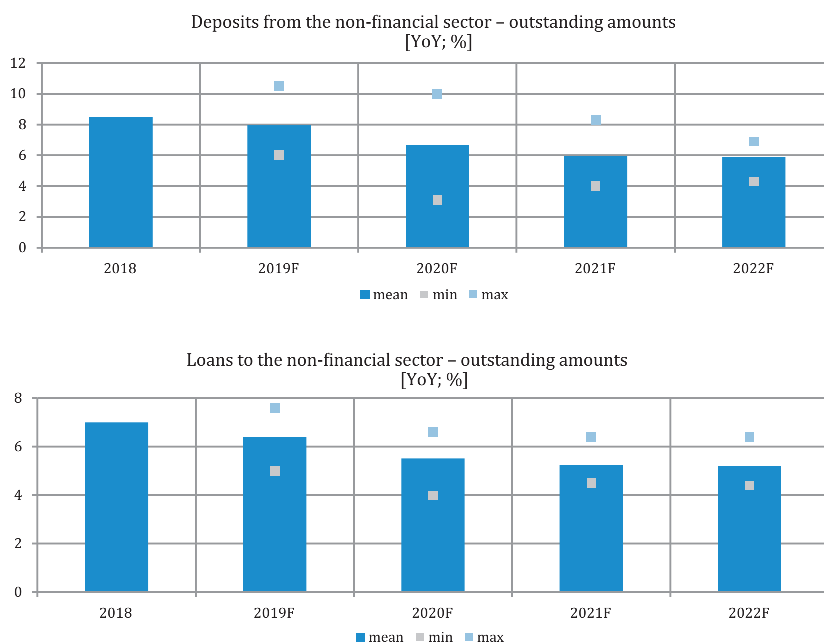
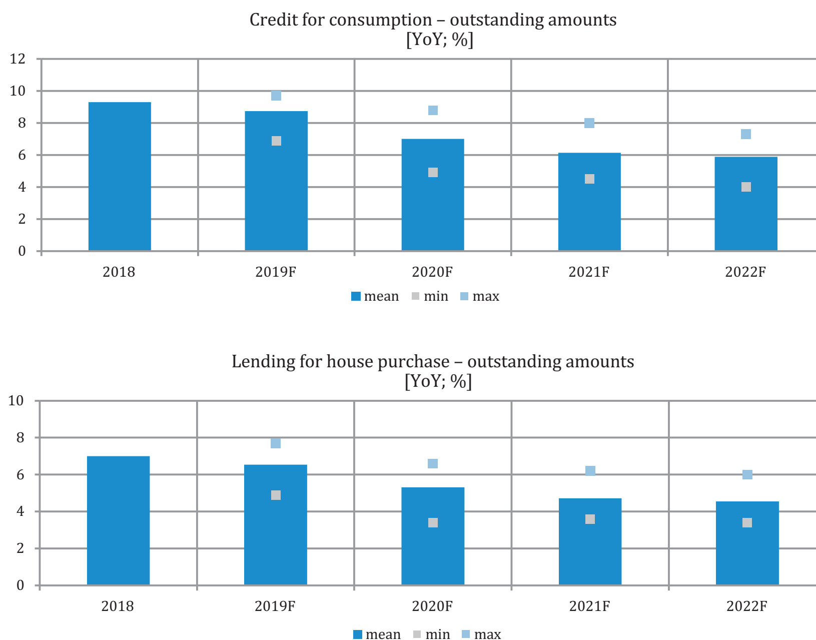


Figure 2 – continued



Source: Own research: EFC experts' consensus results.

Table 2. Forecasts of selected indicators for the banking sector in 2019–2022

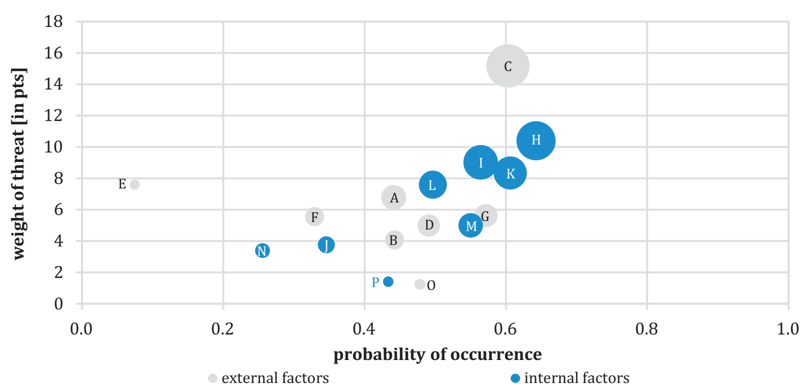
			SURVEY RESULTS			
Indicator	**Metric**	**2018**	**2019F**	**2020F**	**2021F**	**2022F**
Loans to the non-financial sector – outstanding amounts [YoY; %]	**mean**	7.0	**6.4**	**5.5**	**5.2**	**5.2**
	min		5.0	4.0	4.5	4.4
	max		7.6	6.6	6.4	6.4
Deposits from the non-financial sector – outstanding amounts[YoY; %]	**mean**	8.5	**8.0**	**6.7**	**6.0**	**5.9**
	min		6.0	3.1	4.0	4.3
	max		10.5	10.0	8.3	6.9
Credit for consumption – outstanding amounts [YoY; %]	**mean**	9.3	**8.7**	**7.0**	**6.1**	**5.9**
	min		6.9	4.9	4.5	4.0
	max		9.7	8.8	8.0	7.3

Table 2 – continued

			SURVEY RESULTS			
Indicator	**Metric**	**2018**	**2019F**	**2020F**	**2021F**	**2022F**
Lending for house purchase – outstanding amounts [YoY; %]	**mean**	7.0	**6.5**	**5.3**	**4.7**	**4.6**
	min		4.9	3.4	3.6	3.4
	max		7.7	6.6	6.2	6.0
Loans to non-financial corporations – outstanding amounts [YoY; %]	**mean**	7.5	**5.0**	**5.6**	**5.0**	**5.0**
	min		2.5	4.1	3.7	4.0
	max		6.5	6.9	6.0	6.7
Deposits from households – outstanding amounts [YoY; %]	**mean**	10.1	**9.5**	**7.9**	**6.9**	**6.8**
	min		7.0	6.0	5.4	5.4
	max		11.5	11.2	9.3	7.9
Deposits from non-financial corporations – outstanding amounts [YoY; %]	**mean**	4.3	**6.2**	**4.9**	**4.9**	**4.9**
	min		3.2	2.0	2.5	3.0
	max		7.5	6.8	6.7	6.5

Source: Own research: EFC experts' consensus results.

Figure 3. Major threats to Poland's economy in 2019–2022



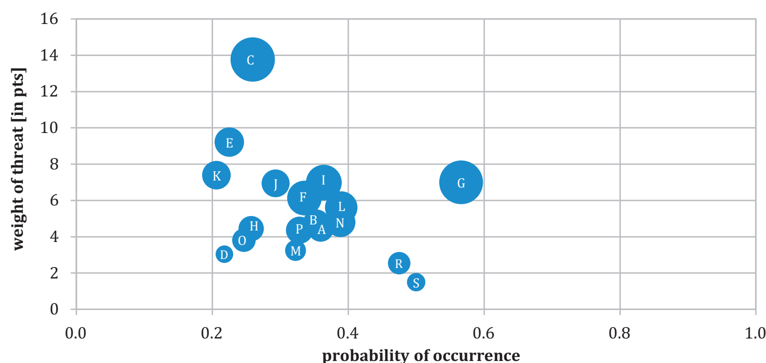
* the size of the circle represents the sum of the products of factor weight multiplied by factor probability of occurrence as assigned by the experts

		Weight (1 means the highest weight)	Probability	Percentage of respondents
A	Protectionism and international trade restrictions			94%
B	Economic downturn in the USA			80%
C	Economic downturn suffered by Poland's main trading partners	1	0.60	100%
D	Economic downturn in China			83%
E	Disintegration of the Eurozone	5		77%
F	Correction and increase in volatility in global financial markets			80%
G	Brexit**		0.57	86%
H	The increase of the structural deficit due to the excessive burden on the state budget through the high level of social transfers	2	0.64	91%
I	Excessive growth of imbalances resulting from procyclical fiscal and monetary policy in Poland	3	0.56	94%
J	Reduction of EU funding for Poland resulting from the EU rule-of-law procedure			80%
K	Supply barrier in the labour market	4	0.61	89%
L	Continued wage growth exceeding growth in labour productivity, strengthened by the declared significant increase of the minimum wage			94%
M	Uncertainty with regard to economic policy resulting in private investment slowdown			83%
N	Risk of political instability			83%
O	Other external factors			17%
P	Other internal factors			20%

** The survey was conducted in the period November 8, 2019 – December 6, 2019.

Source: Own research: EFC experts' consensus results.

Figure 4. Major threats to the stability of the polish financial system in 2019–2022



[*] the size of the circle represents the sum of the products of factor weight multiplied by factor probability of occurrence as assigned by the experts

		Weight (1 means the highest weight)	Probability	Percentage of respondents
A	Collapses of cooperative banks			85%
B	Collapses and restructuring of the largest credit unions (SKOK)			91%
C	Collapse of a medium-sized bank	1		94%
D	Insufficient integration of the Polish financial sector with financial systems of the Eurozone			74%
E	Banking/financial crisis in the European Union	2		85%
F	Structural mismatch of assets and liabilities of domestic banks			91%
G	Excessive share of the State in the banking sector	4	0.57	85%
H	Aggressive placement on the market of toxic financial instruments			74%
I	Problems of individuals holding mortgages denominated in foreign currencies in the wake of the weakening of the Polish zloty	5		88%
J	Statutory and compulsory restructuring of foreign currency loans			79%
K	Rapid and significant interest rate increase leading to increase in costs incurred by borrowers	3		85%
L	Deterioration of the quality of credit portfolio resulting from decreasing profitability of companies operating under conditions of high cost pressure and low inflation		0.39	76%
M	Poor supervision of the shadow banking sector			79%
N	Speculative / significant increase in real property prices		0.39	79%
O	Loss of credibility of financial safety net institutions			76%
P	Lower resistance of banks to possible turbulence due to heavier regulatory and fiscal burdens			79%
R	Increase of concentration in the domestic banking sector		0.48	68%
S	Other factors		0.50	18%

Source: Own research: EFC experts' consensus results.

Threats to financial stability/security of the insurance sector

The key challenge for the financial stability and security of the insurance sector is the **excessive regulatory and legislative activity of the State**. Experts point to the legal instability and uncertainty, instances of retroactivity and systemic flaws in the supervision of cross-border activities of insurers, as well as the regulatory arbitrage in which some of them are engaged. The problem of dispersed authority between the institutions responsible for the protection of the interests of insurance consumers (the Office of Competition and Consumer Protection (UOKiK), the Polish Financial Supervision Authority (KNF), the Financial Ombudsman) is also discussed – overlapping powers, absence of procedures for the monitoring of the insurance market by UOKiK.

Other key risks identified by experts are the **increasing operational links between insurers and the banking sector, coupled with the progressing financialisation of insurance** reflected, for instance, in the conglomeration of the market and offering of hybrid insurance products, such as life insurance with unit-linked insurance funds. Many insurers lose their lawsuits, which exposes them to high losses due to compensation for excessive liquidation fees.

According to EFC experts, another systemic challenge is the **growing concentration of the insurance market and the 'price wars' in the motor insurance segment**. A few insurance groups (6–7) control more than 94% of the market, which means that in the coming years the sector could become monopolised by the Statecontrolled corporate sector.

The insurance sector remains exposed to the negative effects of price wars (lack of price/risk adequacy) initiated by the largest insurers.

Additionally, EFC experts point to the persistence of very **low long-term interest rates** (and the resulting low returns on assets), as well as the **dangers of cybercrime and data loss (reputational risks).**

Recommendations

I. **Ensure legal stability and simplify regulations** to achieve business continuity and improve the predictability of some costs of insurance activities. Moreover, experts suggest granting more powers to the Financial Ombudsman and to strengthen the role of alternative dispute resolution in the insurance market. More stringent control of insurers' involvement in non-life and quasi-insurance activities and more consolidation restrictions would also be desirable.

II. **Promote and spread good market practices and ethical behaviours** – experts suggest the development of a coherent good market practice for all insurance distributors and a stronger focus on insurance business ethics.

III. **Improve product matching to customer needs and reduce misselling** – in this context, expert suggestions include more product interventions by supervisory authorities or the introduction of systemic solutions to cover hard-to-place risks, such as political risks, risk of drought and flood.

IV. **Invest more in advanced technologies/robotics and cyber security** to make more use of new technologies and big data.

V. **Intensify efforts in the area of continuing insurance education** – expert recommendations include the development of a strategy outlining the directions of insurance education in Poland to raise insurance awareness and disseminate knowledge about the insurance market, or the improvement of knowledge and competence of insurance intermediaries.

Three key opportunities for economic development

The prevailing view among the experts of the European Financial Congress is that an increase in private investments and innovation will offer the greatest opportunity for the economic development of Poland in the coming years. The economic policy should support the private sector, for instance through deregulation and introduction of a wide range of investment incentives. It should promote innovation and the transition to higher added value goods and services. Investment spending on innovation and continued digitisation of the economy, science and new technologies shouldincrease.

Secondly, Poland's poor immigration policy is a missed opportunity for economic development. We are not fully utilising our unique geopolitical location, which should allow us to make our labour market wide open to employees coming from the East and have them permanently settled in Poland. Opening of the Polish economy to immigrants should be accompanied by encouraging Poles to return from emigration, increasing the retirement age and activating seniors on the labourmarket.

Thirdly, most EFC experts believe that a deeper economic slowdown faced by our main trading partners makes it possible to intensify the participation of Polish companies in foreign markets, for instance by leveraging their continuing cost advantage. The competitiveness of Poland in terms of costs and quality should support the processes of relocating shared service centres from Western Europe to Poland. Export expansion could be driven by broadening Poland's cooperation with eastern countries (mainly Russia, Ukraine, Belarus and China).

Macroeconomists' recommendations at the European Financial Congress:

Five most important recommended measures for Poland's Economic policy until 2022

I. Improve the society's labour market participation and rationalise the immigration policy

The priority challenge, which was already recommended by EFC experts in the past years, is to overcome the barrier of an increasing shortage of labour resources. This shortage exerts pressure on wages and business margins, but on the good side, it can stimulate labour-saving innovations. Therefore, it would be advisable to consider the preparation of a comprehensive labour market strategy for Poland, in view of the changing demographics. EFC experts specifically suggest the following in order to address the shortage of labour resources:

1) activate inactive persons on the labour market, mainly by increasing the retirement age or creating incentives to postpone retirement;
2) develop a coherent and smart long-term immigration policy, in particular by fully opening the borders to the influx of foreign workers (mostly from Ukraine and Belarus), and at the same time take comprehensive measures to persuade them to settle in Poland permanently together with their families. This should be made particularly easy for highly skilled workers. First and foremost, this means that solutions should be implemented as a matter of urgency in order to facilitate the legal employment of foreign nationals and their acquisition of the right of permanentresidence;
3) create the right conditions for Poles who have emigrated for economic reasons to return;
4) shift labor resources towards the most productive applications, including: a) expanding the digitisation of public services to redirect labour resources from bureaucracy to productivity (from tax consumers to net taxpayers); b) creating the right conditions to free up labour resources from low-productivity jobs (such as small farms);
5) undertake innovation support programmes with the purpose of automating the simplest processes in order to free up workforce for maximum value-addedjobs;
6) create mechanisms to support employers implementing programmes that stimulate the labour-market activation of women;
7) develop training activities aimed at mobilising the long-term unemployed and/or improving the skills base of the unemployed;
8) redesign the support system for people with disabilities to strengthen the incentives to take up a job, and expand the training programmes addressed to this group.

II. Improve the investment climate for private capital and innovation

This priority should focus on strengthening the regulatory and legal stability and predictability as well as reinforcing the rule of law. Reducing legal and fiscal uncertainty is a prerequisite for improving the investment climate. The measures aimed at improving the regulatory and legal stability and reinforcing the rule of law should include the following:

- step-by-step measures simplifying the fiscal and parafiscal systems, eliminating unjustified disparities (including the equalisation of contributions to KRUS [Farmers' Social Insurance Fund] and ZUS [Social Insurance Institution], tax burdens and exemptions across social groups, retirement privileges, etc.). Clear and simple tax regulations should minimise the role of interpretations;
- pursuing a sustainable agreement with the European Commission concerning the rule of law and strengthening of partnerships within the EU to counteract US protectionist tendencies.

Preferences and incentives for private capital should be accompanied by maintaining the right conditions for investing in advanced business services and activities requiring highly skilled specialists in Poland. Resources of the Polish Development Fund should be invested in accordance with their intended purpose – in startups, implementation research, promoting innovative export activities, instead of supporting the nationalisation of the business and banking sectors.

Specific incentives should be provided for investments in advanced technologies, automation and robotisation in order to stimulate labour productivity and improve the energy efficiency of enterprises.

III. Strengthen the budgetary discipline

The most pressing economic policy challenges over the next three years will be a financial reform and strengthening of the budgetary discipline. The expected increase in budgetary burdens, mainly due to additional social transfers, will be accompanied by aneconomic slowdown.

What we recommend:

1) measures to curb the structural deficit, including a reduction of fixed budget expenses and rationalisation of the social transfer system. It would be advisable to rationalise spending under the Family 500+ scheme, shifting towards incentives to work (such as a 'negative' income tax for people on low pay) and enhancing the role of tax reliefs (raising the tax allowance for everyone, significant tax reliefs depending on the number of children in the family) instead of unconditional cash payments;
2) pursuing a countercyclical economic policy, creating fiscal buffers. This means that the structural deficit has to be at least considerably increased in economic

good times. This will give us the much needed leeway when the economy takes a turn for the worse. What is noteworthy, a countercyclical economic policy is a prerequisite for a sustainable reduction of unemployment and therefore it is a pro-social policy that paves the way for reducing poverty and social exclusion;
3) reducing wasteful public spending, putting additional welfare projects on hold and increasing allocations for public investments.

IV. Design and implement a long-term strategy for energy and climate

There is a need for a shift in climate policy priorities and support for long-term energy transformation. Preparation of a comprehensive decarbonisation strategy for the Polish economy should be the first step towards a socially responsible economic development strategy.

V. Move away from nationalisation processes

Over the last thirty years, Poland's inefficient centrally planned state economy has been replaced by market economy mechanisms. There is a need for lesser participation of the State treasury in banks and businesses and a move away from nationalist and statist projects, as continued nationalisation jeopardises theefficient market mechanism of economic development.

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Miscellanea

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Towards a new business model of cooperative banks

Abstract

The purpose of this work is to characterise the cooperative bank sector's strengths, weaknesses, chances and threats identified by its representatives in Poland, as well as to determine desirable changes in the organisation and functioning of cooperative banks. In analytical terms, the assessments and conclusions were based on presentations and panel discussions of participants of the Forum of Cooperative Bank Leaders, which was held in Warsaw on 17–18 September 2019. It was concluded on the basis of the analysis that although cooperative banks are aware of their weaknesses and strengths as well as they see chances and threats for their operations, they clearly lack consensus on the shape and joint actions in the scope of the development of a new business model. The greatest expectations of these banks are connected with the development of electronic economy and digitisation, which requires considerable financial outlays and organisational effort. The key problem is the insufficient level of integration and cooperation within associations functioning and among them, as well as lack of willingness – even reluctance – of many banks to change the existing model. Greater integration of all entities in the cooperative bank sector is the necessary condition for the improvement of banks' operations and their further development.

Key words: cooperative bank, business model, bank sector

JEL: G21, G28, O16

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Introduction

On 17–18 September 2019, the 13th Forum of Cooperative Bank Leaders, dedicated to key problems of the cooperative banking sector in Poland, was held in Warsaw[1]. This year, the forum focused on modernisation challenges faced by cooperative banking in the times of consolidation on the market of financial services. The cooperative bank sector is an important element of the national financial system. It results from the tradition-based role played in local communities by cooperative banks being the main partner of agriculture and territorial self-government units[2]. Despite the significant extension of the range of bank services technological progress, fulfilment of regulation requirements and, at the same time, faster pace of growth in assets for 10 years in comparison with the entire banking sector, cooperative banks have not managed to increase their share in the market (their share in assets of the banking sector is between 7 and 8%). Over the past years, the conditions in which cooperative banks have functioned, i.e. their environment and the institutional model of the sector, have been changing, whereas their business model has undergone insignificant modifications and adjustments. The assets and financial position of many banks have deteriorated, banks have started to depart from conducting business pursuant to the cooperative idea and lost their long-term clients. The issue of the business model change has been the subject of discussions for more than a decade[3]. And although the diagnosis of the cooperative bank sector is well known in the business environment and the expectations are identified, the pace and effects of operationalisation and implementation of the business activity model are unsatisfactory. Furthermore, not all key problems have been solved and, along with changes in the business environment, new problems are emerging.

The purpose of this work is to characterised the cooperative bank sector's strengths, weaknesses, chances and threats on the basis of the analysis of presentations and statements made by participants of the Forum of Cooperative Bank Leaders, as well as to determine desirable changes in the organisation and functioning of

1 The Forum of Cooperative Bank Leaders is organised by the Polish Bank Association in cooperation with banks associating cooperative banks (Bank Polskiej Spółdzielczości S.A. in Warsaw and SGB-Bank S.A. in Poznań) and with the National Association of Cooperative Banks. Every year, the conference is attended by 350–400 people – mainly representatives of cooperative banks and associating banks, as well as representatives of supervisory, financial and banking infrastructure institutions, academic circles and government and self-government administration.

2 The cooperative banking tradition in Poland reaches back over one hundred and fifty years. Cooperative banks have experience in financial services for local communities and in developing social (self-help) ties. The traditional area of the cooperative bank sector's interest is agriculture and rural areas, micro-enterprises, as well as cooperation with territorial self-government units. See: J. Szambelańczyk, *Banki spółdzielcze w Polsce w procesach zmian systemowych*, Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań 2006.

3 J. Szambelańczyk, *Czy bankom spółdzielczym grozi „bankruption*", „Głos Banków Spółdzielczych", 2019, nr 1, pp. 21–28.

cooperative banks. The analysed presentations and panel discussions of the Forum's participants concerned[4]:

– the current financial, organisational and regulatory situation of the cooperative banking sector,
– chances and threats in the era of digitalisation, open banking and clients' mobility, with special attention to cyber threats,
– institutional and business changes in the sector,
– the progress of works on the implementation of organisational and technical solutions,
– development possibilities,
– legislative changes having impact on cooperative banks' operations,
– increasing competition from other entities on the market of financial services.

1. Economic situation of the cooperative bank sector in Poland as at 31 August 2019

At the end of August 2019 in Poland there were 543 cooperative banks and two associating banks: Bank Polskiej Spółdzielczości S.A. in Warsaw (BPS SA) and SGB-Bank S.A. in Poznań. BPS SA associated 323 cooperative banks conducting operations mainly in the eastern and southern part of Poland, whereas SGB-Bank S.A. associated 195 cooperative banks conducting operations mainly in the northern and western part of Poland. The territorial distribution of cooperative banks forming part of the above mentioned associations causes that in some locations they compete with each other. Both associations had institutional protection schemes (IPS): BPS Association Protection Scheme and SGB Cooperative Protection Scheme[5], covering 95.4% of cooperative banks conducting operations. In addition to associations and IPS, there were 25 cooperative banks, including 15 cooperative banks with own funds of the value of at least EUR 5 million, entitling them to conduct independent operations, without the regulatory obligation to participate in an association[6].

[4] Information and programme of the Forum of Cooperative Bank Leaders 2019 and speakers' presentations are available at the following website https://konferencje.alebank.pl/konferencje/forum-liderow-bankow-spoldzielczych-2019/.

[5] The cooperative Institutional Protection Scheme, within which cooperative banks may associate, was introduced by the amendment to the Act on the functioning of cooperative banks in June 2015 in the course of the implementation of the EU provisions (Capital Requirements Regulation). It is created by cooperative banks and associating banks on the basis of agreements made between them, determining mechanisms of liquidity assistance and solvency of the scheme's participants, risk control mechanisms within the scheme and values of parameters conditioning the participation in the scheme. Participants guarantee each other's obligations establishing the assistance fund which may be used for granting financial assistance in the case of solvency problems and for preventing bankruptcy of any of the participants. The scheme ensures additional mechanisms of the risk management and internal control.

[6] At the end of March 2019, 181 cooperative banks had own funds exceeding the equivalent of EUR 5 million, and only 3 cooperative banks had own funds below EUR 1 million.

At the end of August 2019, cooperative banks (without associating banks) had share of 7.16% in the assets of the banking sector in Poland, 4.4% in the net financial result and 6.04% in equity. At the same time, they had the largest network of bank outlets (more than 28% of all outlets) and employed more than 30 thousand people, which constituted 19.1% of all people employed in the banking system (Table 1). The cooperative bank sector traditionally has the majority share in granting credits to farmers (approx. 58%) and it is the undisputed leader as a business partner of territorial self-government units (it has 29% share in deposits and 11.25% in crediting government and self-government institutions).

Table 1. Indicators characterising the cooperative bank sector in Poland at the end of August 2019

Indicator	Value
Share in assets of the banking sector	7.16%
Share in the net financial result of the banking sector	4.4%
Share in assets of the banking sector own capital	6.04%
Share of the banking sector in deposits from the non-financial sector	9.65%
Share of the banking sector in receivables from the non-financial sector	5.8%
Share of the banking sector in deposits from government and self-government institutions, including: – from self-government units	8.19% 29%
Share of the banking sector in government and self-government institutions' receivables - in self-government units' receivables	11.25% 15%
Share in loans for farmers	58.4%
Share in the number of the banking sector's outlets	28.5%
Share in the number of employees of the banking sector	19.1%
Capital ratio	17.9%
Tier I ratio	17.1%
Assets/the employed	PLN 4,720,585
Share of receivables at risk in receivables from the non-financial sector	8.38%
Coverage ratio of receivables at risk in receivables from the non-financial sector	46.1%
Loan-to-deposit ratio of the non-financial sector	58.1%

Source: compilation based on figures of the cooperative bank sector available on the website of the Polish Financial Supervision Authority: *Dane miesięczne sektora bankowego – sierpień 2019 r.*, https://www.knf.gov.pl/publikacje_i_opracowania

Financial data document relatively small, but stable share of cooperative banks in the banking sector, systematic growth in own funds and loans for non-financial entities, mainly individual entrepreneurs and farmers[7]. The significant growth in share took place in the case of loans for the self-government sector. A negative phenomena is that receivables at risk increases faster than in the total banking sector, although along therewith the cover of loans at risk with write-offs increases.

The selected performance indicators for the cooperative bank sector, except interest margin, have been lower for many years than the average for the entire banking sector (Table 2).

Table 2. Selected performance indicators for the cooperative bank sector as at 31 December 2018

Indicator	Cooperative bank sector	Banking sector
ROE	5.1%	6.9%
ROA	0.47%	0.73%
C/I	69.8%	58.8%
Interest margin	2.8%	2.51%
Interest income to income on banking activities	77.4%	71.6%
Non-interest income to banking operations' income	22.6%	28.4%
Total capital ratio	17.7%	18.3%
Tier I Capital ratio	16.8%	16.3%
Indicator of loans at risk of the non-financial sector	9%	6.9%

Source: *Raport o stabilności systemu finansowego, czerwiec 2019*, NBP, Departament Stabilności Finansowej, Warszawa 2019, https://www.nbp.pl/systemfinansowy/rsf062019.pdf, p. 84–86.

Average solvency and liquidity ratios for the cooperative bank sector meet supervisory norms[8]. And although the values of performance indicators do not correspond to the cooperative bankers' ambitions, they are accepted thereby due to the positive trend of changes in unfavourable disproportions. The main concern

[7] Pursuant to data of the Polish Financial Supervision Authority, loans for individual entrepreneurs and for individual farmers (including the so-called preferential loans) constitute 15% and 28% of the value of the cooperative banks' loan portfolio respectively.

[8] In the case of the total solvency ratio, the ratio of 528 cooperative banks was above 13.5% (level in 2019), whereas liquidity norms were met by all cooperative banks (the Liquidity Coverage Ratio is well above 100%, and in many banks above 200%).

is the share of the interest income in the income on banking activities significantly higher as compared to the average for the entire sector, which indicates a significant sensitivity of cooperative banks to the interest rate changes[9].

The general economic situation of the entire cooperative bank sector was assessed as stable, both by cooperative banks' representatives and by supervisory authorities. Nevertheless, the assessment of the sector carried out by the supervisor pursuant to the BION (supervisory review and assessment) methodology[10] at the level of 2.61 is significantly below the supervisor's expectations[11]. All the more so as the cooperative sector is characterised by a great diversity of banks in terms of the operation scope, organisation, asset resources and capital. The diversity also concerns the assessment of individual cooperative banks' situation. There are banks in a very good economic situation, but also banks facing problems, which require assistance and support from the association or IPS. The regulatory authority drew attention to the associating banks' worsening situation which, due to financial (deposit and capital) relationships, may have negative consequences for the cooperative banks' operations.

2. Cooperative banks strengths and weaknesses

During the two-day debate, presentations and panel discussions stressed cooperative banks' strengths as well as the most significant weaknesses which should, as far as possible, be eliminated (Table 3). The participants often made references to the heritage and historical achievements of the Polish cooperatives.

In the case of the cooperative banks' strengths, the most frequently highlighted assets were: the origin of own capital, good knowledge of the local market and well-established position in the provision of financial services for agriculture, small enterprises and territorial self-government units. Cooperative banks take part in the distribution of the Union and national financial resources within aid schemes, subsidies for agricultural production and promotional loans, as well as they grant bank guarantees connected therewith.

[9] Cooperative banks allocate excess of deposits over loans mainly in associating banks in the form of short-term investments and in safe debt instruments, for example in treasury bonds and National Bank of Poland bills.

[10] Supervisory review and assessment (BION) – a regular analysis and measurement of risks to which individual banks are exposed. The details about the performance of the review are in: *Metodyka badania i oceny nadzorczej banków komercyjnych, zrzeszających oraz spółdzielczych (Metodyka BION*), Urząd Komisji Nadzoru Finansowego, Warszawa 28 marca 2018 r., https://www.knf.gov.pl/dla_rynku/Informacje_dla_podmiotow_nadzorowanych/Sektor_bankowy/metodyka_BION_bankow

[11] Interpretation of the assessment of the bank's general status: 1–1.75 – very good status; 1.76–2.50 – satisfactory status; 2.51–3.25 – status giving rise to concerns; 3.26–4.0 – highly disadvantageous status; "F" – bank at risk of insolvency. The 2.61 indicator means the occurrence of irregularities which – if not eliminated – may be significant from the point of view of the deposit safety.

Table 3. Cooperative banks' weaknesses and strengths in the opinion of participants of the Forum of Cooperative Bank Leaders

Weaknesses	Strengths
– low share in loans of the banking sector – low quality of the portfolio of loans for enterprises, – low profitability and cost effectiveness, – great sensitivity to interest rate changes, – low work productivity, – insufficiently developed sale functions, – declining number of cooperatives' members and problems with obtaining capital, – little use of available databases and sources of information, – fragmented development of IT systems, – insufficient organisational support provided by associating banks, – limited cooperation within the association, – limited scope of services provided for the client.	– good knowledge of the local market, – national origin of own capital – established position in providing financial services for agriculture and territorial self-government units, – high level of trust in local communities, – long-term multi-lateral relationships with clients, – high social effectiveness, – flexible approach to the client, – expanded network of outlets, – highly valued employer in the local environment, – well-established liquidity position, – efficiently operating IPS.

Source: Compilation based on the analysis of presentations and statements made by participants of the 13th Forum of Cooperative Bank Leaders.

The generation of financial surpluses by a cooperative bank is necessary for the bank's safe functioning and development and, as far as possible, it is also used to finance common purposes of the local community. Similarly as in the case of the financial effectiveness, the sector is characterised by high diversity: there are banks actively engaged in the social community life, banks being sponsors of important local events and performing charity activities in the form of support for different organisations and institutions (children's homes, education care centres, residential care homes, associations, etc.) and even private persons in a difficult situation, as well as banks focused mainly on financial purposes.

The operations of most cooperative banks focus in the first place on basic banking services – taking deposits and granting loans. Their service offer (mainly the offer of small and medium-sized banks) is limited in comparison with the offer of commercial banks, which results from the clients' smaller level of expectations as well as limited readiness or financial possibilities of the banks. Despite high trust in local communities and good relationships with clients, cooperative banks face problems connected with keeping their clients and acquiring new ones. Clients have become more mobile, the structure of agriculture has changed, as well as the requirements concerning the quality and scope of services offered, process automation or availability of distribution electronic channels are growing. Weakly developed sale functions of these banks

in connection with the operation model based on direct contact with the client (despite its many advantages) are the main reasons for this situation. Additionally, the extended network of outlets resulting from the business model along with high employment is, to a great extent, a cost burden for banks. There is no consensus in the cooperative banks' environment whether the extended network of outlets and employment are strengths of cooperative banking, which should be maintained, or whether they are reasons for low effectiveness and should be limited. The extended network of outlets perceived as an advantage is the basis for traditional relationships with the client, which are one of the most notable characteristics of local banking. In the case of high employment, we mainly encounter social aspects – the importance for the local labour market, employment stability, high level of employees' satisfaction or the client's need to have direct contact with the bank's employee in the case of more advanced services and solutions. The weakness of high employment is the low work productivity measured by nett assets per employee, which at the end of August 2019 was PLN 4,720,585 (the average for the entire banking sector was at the level of PLN 12,623,714) and indicated poor use by the banks of their distribution potential. The employment generates high costs of operations in relation to their scale and results achieved and is one the reasons for low profitability and cost effectiveness in the sector.

The banks' continuing low profitability limits their possibilities to increase own funds by the accumulation of profits and, at the same time, does not contribute to acquiring new shareholders[12]. And although cooperative banks meet capital norms, the sector's position on the market is relatively weak. Poland is one of a very small number of European countries where the number of cooperative banks' shareholders decreases every year, which causes the reduction in the value of the share fund and, consequently, the decrease of its share in the sector's own capital. Securing the possibilities for faster limited development, prevented by too low own capitals of the banks is becoming a large problem.

The cooperative banks' weakness is credit activity: both its scope and its quality. And although cooperative banks efficiently acquire deposits from the market, they are worse at the management of financial resources acquired from clients. The excess of deposits over [13] loans are most frequently located by cooperative banks in the form of short-term investments in associating banks. On the one hand, it is caused by a lower risk connected with such an investment, but on the other hand by limited possibilities of the safe development of lending. Banks usually operate on local markets, often in peripheral areas, areas of low level of economic activity or areas where persons on low incomes, with limited creditworthiness or lack of creditworthiness live. Moreover, farmers who have been using banking financing

[12] A cooperative member has limited possibilities to recover their shares and, moreover, for years there have been regulatory restrictions concerning the distribution of the financial result in the banks and the rule that a cooperative member cannot have more rights than the bank's client.

[13] The very high share of deposits (almost 90%) covered by BFG guarantees is characteristic for cooperative banks with clearly dominating deposits and accounts not exceeding the equivalence of EUR 100,000.

for many years – due to the large availability of the EU subsidies and promotional loans (also from national funds) – are considerably less interested in ordinary commercial loans.

The concerning phenomenon in the cooperative bank sector is the increase of receivables at risk, which is significantly faster than in the banking system, although the cover for loans at risk of writes-off is also increasing. Many banks face the risk of concentration often resulting from undertaking operations in more risky areas, quite often exceeding their staff's competences, including in the area of granting loans for large enterprises[14]. The concentration of credit exposures in these banks proved to be a significant source of the risk being the effect of inadequate identification of capital and personal ties of entities receiving the loans[15]. The risk of excessive concentration is also generated by the increase in the banks' credit exposures mainly to regular clients[16]. The regulatory authority's representatives indicated the generally low quality of the credit risk management (insufficient competencies), presenting the results of inspections carried out in 90 cooperative banks. They drew attention to such irregularities as:

- wrong measurement of the risk,
- insufficient monitoring of the credit risk,
- doubtful measurement of the value of securities,
- inappropriate classification and measurement of credit exposures,
- lack of independence in the management of the credit risk at the first and second level,
- inappropriate identification of relationships between clients,
- irregularities in the performance of stress testing,
- deviations from credit procedures.

The inspected banks also had problems with obtaining data about borrowers and the identification of negative trends, as well as with updating securities which require the introduction of new prices and have impact on the amount of provisions created. It is characteristic for cooperative banks that they use in a limited way databases of clients, debtors, prices and financial markets, offered by banking-related commercial entities (e.g. Biuro Informacji Kredytowej S.A.), which results from the necessity to pay fees and, in the case of databases co-created by banks – the necessity to share information in order to update data on an ongoing basis as well as from the stereotype of the knowledge of the clients in the area of the bank's operations.

[14] In the cooperative members' opinion, it results from the past and distorts the assessment of the sector's current situation in this scope.

[15] In addition, along with the poor quality of loans for enterprises, there is also relatively low coverage of impaired loans with writes-off. This situation does not correspond to the situation of small and medium-sized banks in which – pursuant to reports of the Polish Financial Supervision Authority – the quality of loans is significantly better than in most large banks, even in commercial banks.

[16] W. Żółtkowski, *Dokąd zmierza bankowość spółdzielcza*, „Bank", 2019, nr 9, pp. 24–30.

The cooperative bank sector was forced by the regulatory authority's decision to create the institutional protection scheme (IPS). Unfortunately, the creation of two IPSs at both associations preserved the sector segmentation, increasing at the same time expenditure on their creation and functioning. The previous operations of IPSs in the scope of liquidity, capital adequacy, operation safety and profitability were assessed very positively by the cooperative bank environment. It is assessed that the adopted solutions strengthened the control and supervision over the banks, improved the quality of reports, allowed faster identification of threats, improved the risk management, and through all these actions the sector stability was generally improved. The fact that 10 cooperative banks are not covered by the IPS structures, which is an evident manifestation of these banks' moral hazard towards the network of financial safety (especially the guarantees of deposits) was negatively assessed[17].

The cooperative bank sector's weakness is an insufficient integration of their operations within associations, especially non-uniform IT systems, procedures connected with banking activities as well as insufficient outsourcing of a number of management functions. The expectations in the sector concerning the associating banks' engagement in solving problems are growing. The implementation of the common IT system, unification of procedures, common products and marketing, training preparing staff for operations which would allow cooperative banks to rationalise their operations and to increase the development potential. Additionally, associating banks have financial indicators much worse than indicators of cooperative banks, they struggle to deal with problems connected with the quality of the risk management and low own capitals, which in the face of significant surplus of cooperative banks' deposits (38%) located pursuant to regulations in associating banks constitutes a risk for this sector's stability. Mainly – by capital ties with cooperative banks and common participation in both IPSs.

[17] Pursuant to the applicable provisions, previous agreements expired at the end of 2018 nd the banks with too low capitals for conducting independent operations should joint the IPS.

3. Chances and threats for the cooperative bank sector in the opinions of the forum's participants

Definitely much more attention in presentations and statements was paid to chances and threats for the further development of the cooperative bank sector (Table 4).

Table 4. Chances and threats for the cooperative banks in the opinions of the forum's participants

Chances	Threats
– development of IT technologies and cyber-security – digitalisation, – integration increase within the association, – development of the intra-association cooperation, – engagement in the implementation of the Strategy for Responsible Development (SOR), – engagement in the programme of voluntary long-term saving – Employee Capital Plans, – intensification of the cooperation with external institutions in the distribution of funds from the Union and national financial resources,	– increasing competition of other credit institutions, lenders and finteches, – increase in cyber-crime, – legislative amendments unfavourable for banks, – limited availability of highly-qualified employees and increasing staff costs, – regulatory charges, – individualism and competition between banks, – increasing ecological problems and climate changes.

Source: Own compilation based on the analysis of presentations and statements made by participants of the 13th Forum of Cooperative Bank Leaders.

The greatest chances for the improvement in the cooperative banks' situation and position on the market as well as their further development are in computerisation and digitalisation. Cooperative banks have high (even too high) expectations connected with the development of electronic economy and digitisation; they expect, for example, that the above changes significantly influence profitability and cost effectiveness, work productivity, quality and scope of services for local enterprises and individual clients, they will improve the cooperation within the association and with external entities and primarily allow the acquirement of new, young and more mobile clients.

The use by the banks of modern IT solutions requires high standards in the scope of safety, the management of the operational risk and monitoring. Recently, cyber-crime has become a serious threat to local credit institutions. Cyber attacks cause not only financial, but also image losses for banks. The vast majority of cyber attacks concern not the banks themselves, but their clients being the weakest and least aware link in the entire system. In the case of cooperative banks' clients, their education in the area of cyber-security is a great challenge.

Chances for the increase in the cooperative banks' participation in the financial market are created by new initiatives and programmes, such as: Employee Capital Plans (PPK)[18], Strategy for Responsible Development (SOR)[19] r programmes financed from the EU resources supporting the development of rural areas, e.g.: Rural Development Programme (PROW)[20]. The cooperative banks' engagement in their implementation requires closer cooperation with the public sector and entities dealing with the distribution of foreign and national financial resources, for example with: Bank Gospodarstwa Krajowego (BGK), the Agency for Restructuring and Modernisation of Agriculture (ARiMR), or the National Fund for Environmental Protection and Water Management (NFOŚiGW). For years, cooperative banks, using their advantage in the form of the extended network of outlets and the knowledge of the local markets, have been participating in the distribution of financial resources for the agricultural sector and financial aid for farmers affected by natural disasters. Employee Capital Plans, i.e. the new government programme, constitute, on the one hand, the extension of the offer for the cooperative banks' clients (companies obliged to implement Employee Capital Plans) by pension services and, on the other hand, financial benefits from the distribution of these services. The cooperative banks has a facilitated access to the programme thanks to obtaining by the entity from the BPS association – Towarzystwo Funduszy Inwestycyjnych (BPS TFI) – the entry into the list of entities authorised to carry out and manage Employee Capital Plans. The Strategy for Responsible Development (SOR) indicates areas of cooperative banks' engagement in its implementation and operations which may have significant impact on their position on the market. It includes, for example, government operations in the scope of the increase of domestic capital share in the banking sector, the implementation of the promotion system of Polish food, the assurance of access to long-term instruments of financing development projects and legal mechanisms supporting processes of structural changes or the implementation of mechanisms eliminating gaps in financing for development undertakings at the local and regional level.

[18] Employee Capital Plans constitute the government saving programme aimed at increasing future pensions. The Employee Capital Plan was developed jointly by the government, the Polish Development Fund, employers' organisations and trade unions. The capital gathered within this programme is to be a boost for the economic development and then a supplement to pensions from the social security system for Polish pensioners. The capital is created jointly by employees, employers and the state. Payments are transferred to the participants' individual accounts created by a financial institution which carries out and manages the Employee Capital Plan.

[19] The Strategy for Responsible Development (SOR) is the Polish government's programming document in the area of medium- and long-term economic policy. It determines basic conditions, purposes and directions of the country's development in the social, economic, regional and spatial dimensions in the perspective of 2020 and 2030. It contains a new development model based on individual territorial potential, investments, development, export and highly processed goods. The SOR was adopted by the Council of Ministers on 14 February 2017, *Strategy for Responsible Development till 2020 (with the perspective till 2030)*, http://www.miir.gov.pl/media/48672/SOR.pdf

[20] The purpose of the programme is to improve the competition of agriculture, the sustainable management of natural resources, climate actions and the sustainable territorial development of rural areas. More about the programme: https://www.gov.pl/web/rolnictwo/-program-rozwoju-obszarow-wiejskich-2014-2020-prow-2014-2020

The extension of the cooperative banks' cooperation with the public sector increases the requirements concerning the standardisation and automation of processes and the possession of consent for the confirmation of the trusted profile, i.e. electronic signature certifying the identity of clients in the administration electronic systems. The possession of the trusted profile allows the submission of applications, requests, complaints, fees and declarations by electronic means. The additional problem is the amount of own funds, which limits the cooperative banks' engagement in large projects.

Moreover, the limitations for the cooperative banks' development have been generated by recent legislative amendments in the scope of restructuring of agricultural holdings and pursuing claims by banks. As a result of favouring the debtor, the banks' situation in relation to the debtor have deteriorated significantly and indirectly caused the reduction in the quality of the loan portfolio. The source of concern for banks as employers is the procedure and amounts of the statutory rise of minimum wage, which – in connection with the fall in unemployment and increase in wage expectations – may create greater problems with recruiting and retaining highly qualified human resources and the increase of staff costs.

The significant burden is imposed on the cooperative banks in the form of growing supervisory requirements, identical for all banks, irrespective of the scale of their operations. The implementation of changes resulting from the provisions of law engages limited resources (for example: financial, human resources, systemic resources) available to cooperative banks, which consequently translates into the reduction in their profitability or limitation of expenditure on development activities.

In the case of cooperative banks, their functioning will be under the impact of increasing ecological difficulties, especially climate changes. Weather anomalies constitute the main cause of natural disasters and are connected with people's lives and large economic losses. Cooperative banks are primarily exposed to threats resulting from ecological risks of their clients and, therefore, must take them into consideration in the management process. Currently, it does not constitute a standard and banking regulations concerning risks generally do not take into account ecological and social risks. In the nearest future, it will be necessary to accept the transfer into applicable regulations of the *Principles for Responsible Banking*[21]. And although the banking operations themselves do not have a direct negative impact on the environment, their indirect impact may be essential by financing clients or taking part in financial investments. The banks may have a significant share in financing low-carbon technologies, pro-ecological and pro-social investments as well as shaping appropriate behaviours or attitudes of economic entities or population. In the case

[21] The Principles for Responsible Banking were developed by 28 leading banks in the world and are aimed at adjusting banking operations to the society's needs and expectations expressed in the document entitled *Sustainable Development Goals* and the Paris Agreement. The official announcement together with the ceremony of signing the Principles was held on 22 September 2019 at the United Nations headquarters in New York (parallel to the UN High-Level Meeting of the General Assembly). The Principles were signed by 129 banks from the entire world, https://www.unepfi.org/wordpress/wp-content/uploads/2019/07/FINAL-PRB-Signature-Document-2-Interactive-22-07-19.pdf

of cooperative banks, the chances are in the cooperation with the National Fund for Environmental Protection and Water Management, which finances investments in the scope of the environment protection.

4. Current status of works concerning institutional and business changes in the cooperative bank sector

Since 2018 – within the Convention for the Cooperation and Development of the Polish Cooperative Banking – meetings of management staff of cooperative banks have been held cyclically. They are devoted to the assessment of the status, current problems and development directions of the cooperative banks and sector. Their effects include, for example, recommendations aimed at the improvement of the cooperative banking image, safety of functioning and effectiveness, the assurance of high quality financial services on the local market as well as the development of uniform rules for preventing intra-sector competition between local financial institutions[22]. As a result of these meetings, associating banks and IPSs have informed about the following undertakings:

- elimination of intra-association competition,
- determination of rule for communication and cooperation between IPSs and the Polish Financial Supervision Authority as well as between IPSs and cooperative banks,
- review of associating banks' effectiveness in individual areas of operations,
- appointment of the joint Association Service Centre by associating banks,
- agreement with IT companies on the joint IT platform for cooperative banking,
- implementation in the SGB association of a number of payment mobile solutions,
- commencement of works on the mobile platform for all cooperative banks,
- joint marketing and promotions in the scope of mobile payments,
- joint hub for the purposes of the implementation of the Payment Services Directive (PSD2)[23],
- uniform rules for control methods and monitoring of risks in associations,
- the Museum of the History of the Polish Cooperative Movement, in which an exhibition showing the importance of cooperative banking in the development of Poland was opened,
- creation of the Strategic School of the Cooperative Banking Sector whose purpose is to prepare the future management staff as potential leaders of transformations in the cooperative sector[24].

[22] The developed recommendations are being implemented by associating banks and IPSs in cooperation with association councils, supervisory boards, the Polish Bank Association (ZBP) and the National Association of Cooperative Banks (KZBS).

[23] PSD2 – the EU directive adjusting provisions concerning payment services to the digital reality.

[24] Further recommendations concern the creation of the model statute for cooperative banks, new model association agreement, further implementation of system solutions for the IT purposes, cooperation in the preparation of a product common for all cooperative banks, facilitation of communication between IPSs and cooperative banks.

The joint operations of the banks within associations and between associations are mainly connected with computerisation and digitisation. In this way, unit costs of the implementation of new technological solutions and costs of ensuring safety for the clients will be limited and, primarily, barriers for many banks in participation in electronic economy resulting from insufficient capacity and economies of scale will be eliminated.

Despite the introduced changes, the scope and pace of the business model modification is considered insufficient. It results from [25]the report on the surveys on the opinions of cooperative banks' management staff and local environments (cooperative banks' stakeholders, i.e.: individual persons, territorial self-government units and entrepreneurs) on the unsatisfactory pace of changes in the sector that it is caused mainly by cooperative banks' fear of losing autonomy, cooperative banks' weaknesses and lack of positive experiences connected with associations[26]. The consolidation treated as the key to the expansion of the cooperative sector on the financial market still creates controversies among cooperative members and the division into its supporters and opponents is very clear. An essential factor slowing down changes is the structure of the management staff's age and competencies. Resistance to changes is typical mainly for bankers at the pre-retirement and retirement age and the real ownership impact of shareholders and their representatives in the bank's bodies is relatively weak. We deal with reluctance to the integration, especially to the merger of banks, caused on the one hand by fear of the loss of power and the necessity to submit to the common system and on the other hand – particularly in the case of banks with strong capital and efficiency – the necessity to finance the restructuring of weaker entities. Only few banks allow the merger with other bank in order to rationalise costs. For many banks, the acceptable solution is the creation for the sector of the joint marketing resources, operational, IT and reporting resources, mobile and internet banking systems or finally unification of the service offer within the association or voluntary agreement of cooperative banks. It results from the management staff's opinions that reluctance to changes and lack of many banks' actions could be overcome by:

- consulting, marketing and organisational support for banks undertaking the restructuring,
- incentives, indication of the directions of changes and the improvement perspectives,
- financial support for restructuring changes,
- clients' pressure.

The cooperative bank environment has clearly been communicating for a long time that it expects the support from state institutions not only in the regulatory, but also in the financial scope. The argument put forward is the government's policy

[25] The report was prepared bythe ALTERUM Centre for Research and Analysis of Financial System, which has undertaken the initiative of supporting the process of changes in the functioning of cooperative banks in Poland.

[26] See: L. Kurkliński, M. Idzik, *Obraz i przyszłość polskiej bankowości spółdzielczej w oczach samych spółdzielców i społeczności lokalnych*, „Głos Banków Spółdzielczych", 2019, nr 1, pp. 32–37.

of the repolonisation of banks, which requires the allocation of significant financial resources on acquisitions from foreign investors of commercial banks being natural competitors of cooperative banks. We can encounter requests for the allocation of at least part of these resources for the restructuring of the cooperative bank sector, which has only the national capital and, moreover, fulfils the essential role in the development of local communities. On the other hand, state institutions' representatives stated that no financial support or preferential treatment is planned for cooperative banks. It was indicated that the insolvency of cooperative banks in the last decade was financed mainly from resources coming from banks with the dominating State Treasury's capital. It was added that the safety infrastructure and IPS funds constitute the first financing source in the case of problems in the cooperative sector and until the external resources – especially connected with insolvencies – do not have to be used, the regulatory authority will not interfere in an authoritarian manner, including in the legislative scope, in the process of changes and shape of the cooperative banks' business model. This position is questioned by part of the cooperative environment proposing primarily the modification of the current policy of the state towards the entire banking sector. In particular, it is stated that the supervisor has too high expectations regarding IPSs, including mainly their capital intervention capacity. The issue of the academic circles' contribution to the development of models corresponding to the conditions of the cooperative banks' functioning in Poland in the twenty first century is also mentioned.

5. Expectations regarding a new business model of cooperative banks

Both experts and representatives of the financial safety national network indicate that the change in the model is necessary – especially in the scope of using in a better way the cooperative sector potential and supporting them in going out from the market niche. The National Bank of Poland (NBP) in the last *Report on the stability of the financial system*[27] devoted much attention to desirable changes in the cooperative banking model, raising for example the following issues:

- continuation of the use of the current potential and advantages of cooperative banks, including: knowledge of the local market, focus on services for local communities (farmers, small and medium-sized enterprises and territorial self-government units),
- avoidance of attempts to go beyond current well-known markets,
- increase in the integration and cooperation within associations (joint credit consortia, IT projects, marketing, financial products) in order to rationalise operation costs,

[27] *Raport o stabilności systemu finansowego, czerwiec 2019,* NBP, Departament Stabilności Finansowej, Warszawa 2019, https://www.nbp.pl/systemfinansowy/rsf062019.pdf

- in the case of small banks, consolidation as a way to increase their effectiveness and to develop activities,
- use of associating banks as service centres for cooperative banks and limitation of their independent commercial operations,
- strengthening IPS control functions and financial support in relation to associated banks.

The Polish Financial Supervision Authority expects that the new business model contributes to:

- creation of strong and safe banking groups supported internally by IPSs,
- use of consolidation potential,
- inter-association cooperation in the area of the IT technology development and cyber-security,
- strengthening the competitive position and increase in safety of operations conducted.

The direction of changes in the cooperative bank model determined by the National Bank of Poland as well as expectations of the Polish Financial Supervision Authority in this scope are convergent in many points with the sector's efforts. Cooperative banks – with different effects – undertake many actions in the scope of increasing the integration and cooperation within and between associations. The close cooperation is very important both form the point of view of effective implementation of IT solutions and from the point of view of the quality and scope of services provided.

For the cooperative banks' representatives, the very important factor in the new model of functioning – in addition to safety and operational effectiveness – is the preservation of the cooperative heritage and achievements. Since the beginning, the cooperative is based on such values as: honesty, openness, responsibility, democracy, equality and justice, and the cooperation, group solidarity and shaping member ties are its constructive elements[28]. Cooperative banks refer to cooperative values and traditions, being part of their mission, and they want to preserve and fulfil them[29]. The integration understood as the close cooperation of all entities in the sector is the direction compliant with the cooperative idea and commonly accepted therein, whereas consolidation (merger of banks) creates controversies and fears among cooperatives in the scope of maintaining member ties which, to

[28] A. Michalik, *Korzenie polskiej spółdzielczości a rozwój sektora spółdzielczego w III Rzeczypospolitej*, „Ekonomia społeczna", 2013, nr 1, s. 49; *Spółdzielczość wiejska jako jedna z głównych form wspólnego gospodarczego działania ludzi*, red. M. Martynowski, Krajowa Rada Spółdzielcza, Warszawa 2014, p. 20.

[29] For a long time, such historic cooperative principles as the territoriality and subsidiarity principle are subject to erosion as a result of cooperative banks' commercialisation and regulatory interventions in their operations. It is particularly visible in relation to the operation area and – to a smaller extent – to the cooperative type (open vs. close) and membership (determined in the statute of the cooperative bank). J. Szambelańczyk, *Znowelizowana konstytucja bankowości spółdzielczej w Polsce*, „Nowoczesny Bank Spółdzielczy", 2015, nr 9, pp. 37–38.

a great extent, determine the maintenance of the banks' cooperative character[30]. The consolidation is accepted, but only in the case of necessity. i.e. lack of other possibilities. Banks expect regulations which would take into consideration the specificity of operations in the cooperative model and the diversity of banks with regard to their size (the application of the principle of proportionality)[31].

The purpose of cooperative banks is not only the acquirement of new clients, but also retaining the lost agriculture and food market and services for clients not attractive for commercial banks, having specific expectations, requiring non-standard products going beyond the competitors' offer. Fulfilling the cooperative mission, they may contribute to the development of economic activity at the local level. [32]. In the case of more effective use of their potential and advantages as well as regulatory support taking into account their specific nature, cooperative banks see the chance to increase their share in the market of banking services and to come back to the territoriality principle – to be the bank of the local community.

Summary

The cooperative bank sector as a whole functions stably, but it has to face the number of short- and long-term challenges. Their scale is large and it seems that only common mobilisation of cooperative banks, associating banks and IPSs may meet these challenges. Activities undertaken by the cooperative bank sector in order to strengthen its position in the banking system, without an appropriate adjustment of organisational structures and clear determination of relationships (authorisations and responsibilities) between the entities do not bring the expected results. The sector clearly lacks the uniform approach and common initiative in the scope of the desirable shape of the new functioning model. Many banks expects that computerisation and digitisation will bring a significant improvement, even solutions to problems, and they do not see the need to introduce important changes into the existing business model. Moreover, not all banks in the sector are satisfied with the centralisation and consolidation processes imposed by the provisions. It is stated that they are actually inconsistent with the cooperative ideas – they cause that banks depart from the specificity of cooperative banks, which still has several important roles to play in the local community. The conflict between the traditional model of credit institution and the model determined by the regulatory and prudential requirements (without proper application of the principle of proportionality and institutional separation in the state's economic and fiscal

[30] M. Król, *Procesy konsolidacyjne w bankowości spółdzielczej*, „Bank", 2019, nr 9, pp. 18–21.

[31] Although the EU and national documents declare support for the credit cooperative development in order to increase the financial activity at the local level, it is reflected to a small extent in the Polish economic reality.

[32] E. Kulińska-Sadłocha, J. Szambelańczyk, *Credit co-operatives in the social market economy as illustrated by the co-operative banking sector in Poland*, [in:] Social Aspects of Economic Activity, red. P. Pysz, WSB University in Poznan, Research Journal 2016, Vol. 68, No. 3, pp. 159–173.

policy), as well as the market and institutional imitation limit possibilities to use potential advantages resulting from the cooperative achievements and historic heritage. The target model should minimise the existing weaknesses of cooperative banks, use chances and also constitute a response to long-term challenges, including challenges connected with the sustainable social and economic development.

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