Banking Sector Competition: A Roadmap for Financial Stability?

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Abstract

The article examines the issues of competition in the banking sector in the context of the post-crisis policy of international banking regulation. The overarching objective of this policy is to achieve financial stability and minimize the risk of future financial crises. An understanding of the new phenomena of competition in the international banking sector and their interrelation with the issues of financial stability should facilitate the strengthening of market discipline in the banking sector and enhance the long-term potential of credit institutions as reliable providers of market liquidity. Conversely, achieving equilibrium between banks' compliance to post-crisis regulatory standards and their capacity to establish competitive advantages will not only enhance their resilience in the context of an unstable external environment but will also represent an effective strategy for mitigating systemic risks and systemic stress.

A synthesis of studies on the impact of banking sector competition on financial stability (Competitive-fragility hypothesis and Competitive-stability hypothesis) reveals a contradictory effect due to the multifaceted nature of competition. Consequently, there is no definitive assessment of competition with regard to ensuring stress resilience in the banking sector. Increased competition can both contribute to reducing the vulnerability of banking activities to various risks and challenges and become a source of instability. Guided by the primacy of balanced development of the banking sector, we propose to supplement the toolkit

of international banking regulation with a quantitative indicator of competition assessment based on the risks of banking activities, taking into account the standards and recommendations of Basel III.

Introduction

The issue of competition in the banking sector has consistently been a central focus of research. Competition and the factors influencing its state and prospects have assumed particular significance in the wake of the 2007-2009 Global Financial Crisis. This crisis brought into sharp focus the fact that the new regulatory paradigm, which represents the most rigid mechanism of all the previous ones, places banks in fundamentally new conditions of performance. The effectiveness of their activities, therefore, significantly depends on their ability to adapt to the post-crisis requirements of prudential banking supervision.

Concurrently, the number of factors affecting the competitiveness of banks is on the rise, and the very concept of competition has recently taken on an ambivalent connotation in the context of achieving financial stability. There is a plethora of opinions on this issue, each of which is supported by compelling arguments for and against increased competition as a contributor to financial stability.

The multifaceted nature of banking sector competition in the context of new requirements to ensure financial stability urges particular attention from macrofinancial authorities, including financial regulators. The extant regulatory apparatus is devoid of any supervisory standards that would facilitate the quantification of competition. Nevertheless, it is already evident that a comprehensive mechanism for ensuring banks' stress resilience and minimizing the risk of future crises cannot be implemented without an interrelatedness between competition and financial stability.

Post-crisis bank regulatory policy objectives and banking sector competition

Groundbreaking and large-scale changes in the area of international banking regulation in the post-crisis period have brought fundamental shifts in understanding the factors of financial stability, which is one of the pillars of sustainable growth of the global economy. One of the key outcomes of regulatory reform has been the capacity of banks to withstand stress, irrespective of the macro-level dynamics. This should mitigate the risk of systemic stress, enhance the predictability of key performance indicators within the banking sector, and reduce the probability of new financial crises. The efforts of international and national regulators to guarantee the continuity and efficacy of the financial intermediation function are devised with the objective of fortifying the economic resilience of banks to external challenges and, ultimately, to reinstate their role as a facilitator for economic growth.

The post-crisis regulatory transformation, also known as the Basel III reform, has caused substantial shifts in the banking industry. In the context of heightened regulatory compliance requirements, the market discipline of banks has been reinforced. This has been facilitated by a more pragmatic approach to the selection of organic and inorganic growth paths, ideas about the scale and diversification of operations in financial markets, and the transition to a fundamentally new operating model. In this model, the priorities of banking activities have shifted from short-term benefits to ensuring a "healthy lifestyle" and minimizing costs, regardless of the extent to which the external environment is aggressive. The evolutionary selection of banks that successfully adapted to the new supervisory requirements created the prerequisites for ensuring the stress resilience of the banking sector as a whole.

The issue of financial stability, which is at the core of the post-crisis regulatory mechanism, has brought the issue of banking sector competition to the fore. Without a clear understanding of this issue, efforts to strengthen market discipline in the banking sector may be undermined in the contemporary economic environment. While there are currently no quantitative assessments of competition in the international banking regulatory mechanism, it is imperative to subject its status and prospects to close scrutiny in order to minimize imbalances and fragmentation in financial markets and further enhance the efficiency of international financial intermediation.

Despite the crucial role of competition in maintaining financial stability, the precise nature of its relationship with other factors remains a topic of ongoing debate, particularly outside the realm of regulatory policy. This may be because international regulators primarily assess the sustainability of the banking sector in terms of capital adequacy and enhanced supervision of credit risks. It is also possible that the state of competition in the banking services market has no discernible impact on banking efficiency [Fungáčová, Pessarossi, Weill 2013; Yin 2021], or even contributes to its improvement [Duc-Nguyen, Mishra, Daly 2023; Bayeh et al. 2021]. However, there are other opinions on this issue [Mirzaei, Moore 2014], including the opposite [El Moussawi, Mansour 2022].

In addition to the well-known factors influencing competition (such as the structure of the banking sector, capital concentration, the share of state-owned and foreign-owned banks, infrastructure, and regulation of financial markets), Basel III expanded the list of factors by addressing the issues of banks' adaptation to the requirements of the new regulatory paradigm. The process of adaptation introduced a regulatory dimension to the theory of competition. The processes of competition in the banking sector was complemented by the peculiarities of the banks' operating model, which at the same time had to comply with the established supervisory requirements. In this regard, in order to fulfill the necessary and sufficient conditions for the formula "both the sheep are safe, and the wolves are fed," it is necessary to achieve a balance between the banks' ability to ensure regulatory compliance and their ability to form competitive advantages that would allow them to effectively perform the function of financial intermediation. Such contradictions may exacerbate systemic risks, thereby limiting the efficacy of regulatory efforts to achieve financial stability.

Conversely, post-crisis regulatory policy should facilitate the establishment of a level playing field and ensure equal opportunities for all participants in the banking sector. Notwithstanding the direct correlation between the growth of competition and the exacerbation of crisis developments in the financial sector [Fernández, González, Suárez 2013; Hirata, Ojima 2020; Abou-El-Sood, Shahin 2023], the priority of regulation should focus on the minimization of the risk of weak competition environment in order to balance the development of the banking sector. This should be done in a manner that is consistent with the search for criteria and factors that would strengthen the relationship between competition and financial stability.

The issues of competition and competitiveness in the banking sector have been extensively researched in both domestic and foreign economic literature. Nevertheless, the potential of competition assessment as a tool for international regulators to advance towards financial stability has yet to be explored in academic research. The majority of research in this field is confined to the evaluation of competition in relation to the operational and market activities of banks. The limited number of studies that have attempted to establish a link between competition and capital adequacy have not addressed the conceptual aspects of the relationship between competition and regulation, which is critically important to understand how to achieve financial stability as an overarching objective of the post-crisis regulatory order.

This article contributes to the existing economic literature by considering the nexus between competition, Basel III, and financial stability. The aim is to further improve the efficiency of international financial intermediation, including by strengthening stress resilience in the banking sector. It is proposed that a competition indicator be developed and introduced into the toolkit of banking regulation. This indicator would be based on a quantitative assessment of banking risks while taking into account the post-crisis requirements of prudential banking supervision. It can be concluded that the expansion of supervision will enhance the efficacy of regulation and serve as a guarantor of regulatory-competitive synergy, which is a crucial factor in achieving a state of "competitive-operational" equilibrium in the financial market. The paper puts forth proposals for optimizing banks' competitiveness in the context of the internationalization of banking regulation and financial globalization.

2. Macrofinancial aspects of banking sector competition

In 2014, the G20 countries identified the promotion of fair competition as a priority issue for sustainable economic development. This recognition was based on the understanding that competition based on market principles encourages cost reduction and leads to higher efficiency. The topic of banking sector competition, including its dependence on macroeconomic conditions and dynamics, has been extensively covered in extant economic literature. A number of papers on the relationship between prudential banking supervision and economic growth indicate a direct correlation between economic growth and financial stability [Asteriou, Spanos 2019; Nasreen et al. 2020], between economic growth and competition in the banking sector [Nasreen et al. 2018], and between competition and financial stability [Li, Kang, Xu 2022]. Conversely, we assume that a lack of competition impedes economic growth, primarily

due to the costs associated with monopolization in the financial market. This, in turn, gives rise to higher prices for financial products and services, a reduced level of their diversification and accessibility to consumers, and finally leads to a less competitive financial sector.

A new impetus for research was provided at the turn of the 2010s in the context of investigating the underlying causes of the Global Financial Crisis. The results of empirical studies have been found to be somewhat contradictory. On the one hand, increased competition in the financial sector has been observed to contribute to the growth of banking sector efficiency and the quality of financial products and services. This, in turn, has been seen to result in greater accessibility of financing instruments for end consumers [Sun 2011. P. 3]. On the other hand, non-banking financial institutions are able to provide relatively inexpensive resources to potential borrowers in the non-financial sector, which significantly reduces the debt burden of the latter [Rajan, Zingales 1998]. As a result, increased banking sector competition ensues. Furthermore, heightened competition urges banks to undertake a greater volume of high-risk operations, which are frequently characterized as openly speculative [Claessens 2009]. A similar phenomenon is observed during periods of instability and crises [Noman et al. 2022].

A significant body of literature examines the nexus between banking sector competition and financial stability. On the one hand, as competition within the industry intensifies, the likelihood of financial and banking crises increases. On the other hand, economic history is replete with examples and techniques of restricting competition in the banking sector or, conversely, stimulating it. This has been done, among other things, for the purpose of overcoming crisis developments and minimizing the risks of instability.

If the objective of banking sector competition is to maintain a level playing field for financial market participants, then the inevitable consequence of competition management is to modify, or more accurately, to optimize banking activities and enhance the quality of banking products and services. It is evident that as competition intensifies, the accessibility of credit for the economy expands, while the costs borne by borrowers decline [Li, Peng 2024]. Concurrently, the economic function of competition is the rational allocation of banking assets and the formation of market-based prices for banking products and services, which is one of the factors of financial stability. However, excessive competition is fraught with the risk of increasing banking risks due to decreasing operating profits [Canta, Nilsen, Ulsaker 2023] and increasing lending [Canta, Nilsen, Ulsaker 2023; Biancini, Verdier 2023], which would inevitably lead to instability [Yuan et al. 2022]. This ultimately diminishes banks' potential in their pursuit of cost reduction, higher returns on capital and investment, and increased attractiveness to financial sector consumers.

Thus far, market relations in the financial sphere have proven ineffective in overcoming the contradictions inherent to competition. In light of the above, it becomes evident that the management of competition constitutes an indispensable factor of financial stability. This function could be attributed to the purview of bank regulators, yet it has not yet received the requisite attention from them.

3. Evaluation of banking sector competition as a tool to ensure financial stability

3.1 Macroeconomic aspects of competition

In contemporary economic literature, numerous works have been dedicated to examining the nexus between competition in the banking sector and financial stability. It must be acknowledged that there is no definitive correlation between competition and financial stability, particularly in terms of whether the two exert unambiguously positive or negative effects on each other. In fact, the level of competition determines the boundaries of the banking sector performance [Claessens, Laeven 2005]. Furthermore, competition contributes to the growth of banking sector efficiency in the short term. However, in the long term, the influence of competition on financial stability is multidirectional [Allen, Gale 2004]. A number of papers have identified a direct relationship between economic growth and financial stability [Asteriou, Spanos 2019; Nasreen et al. 2020], between economic growth and competition in the banking sector [Jayakumar et al. 2018], and between competition and financial stability [Li, Kang, Xu 2022; Noman, Gee, Isa 2018]. An increase in competition contributes to macroeconomic stability, including a reduction in credit risk [Noman, Gee, Isa 2018]. However, a weaker competition environment impedes economic growth, primarily due to the costs associated with monopolization in the financial market, including higher costs of financial products and services and a reduction in diversification. Findings suggest that competition may positively influence the stability of smaller banks, contingent on their involvement with high-risk instruments and in the context of weaker corporate governance [Jeon, Lim 2013]. Conversely, numerous studies have reached the opposite conclusion, namely that heightened competition intensifies the risks associated with financial crises [Yuan et al. 2022] and precipitates an increase in the volume of non-performing loans [Guidi 2021]. However, a higher level of capitalization mitigates the adverse effect of competition on financial stability [Ernaningsih, Smaoui, Temimi 2023]. Additionally, studies have indicated a correlation between heightened risk-taking in banking and reduced competition, as well as a shift in banks' operational priorities towards higherrisk instruments [Akins et al. 2016]. Conversely, increased concentration enhances bank profitability [Tan, Floros 2014] and serves as a stabilizing factor in financial markets, particularly during crises [Ali, Intissar, Zeitun 2018], not necessarily leading to increased competition [Park 2009].

3.2 Regulatory aspects of competition

Despite the abundance of studies on the impact of interbank competition on the achievement of financial stability, the issues of the relationship between the post-crisis mechanism of international banking regulation and banking sector competition in the context of financial stability remain under-researched. It is established that the post-crisis regulatory transformation, which has resulted in a credit contraction [Hasan et al. 2022], has caused an imbalance in the competitive environment. Another impediment

to competition is the difference in banks' adaptation to post-crisis supervisory requirements, including those pertaining to minimum capital adequacy. It is noteworthy that in countries with lower level of banking sector competition, economic growth is impeded when bank capital is calculated using the IRB approach¹ [Hasan et al. 2021]. This is due, in part, to a number of shortcomings in the methodology developed for internal rating by banks, as well as somewhat ambiguous criteria for the applicability of the IRB approach in comparison to the standardized approach. Concurrently, the rise in minimum capital adequacy standards during the post-crisis era is a pivotal element in both fostering fair competition [Barrell, Karim 2020] and ensuring financial stability, irrespective of the level of competition. However, in the context of heightened competition, financial stability may be attained at the cost of constraints on banking activities [Noman, Gee, Isa 2018].

However, competition is inevitably linked with the risk-built processes, which, in the absence of competition-related supervisory instruments, will reduce the efficacy of regulators' efforts toward financial stability. This underscores the imperative for regulatory optimization of banking sector competition which would be based on its quantitative assessment² while taking into account the level of risks in the banking sector. As competition intensifies, the volume of high-risk bank operations rises [Bolt, Tieman 2004]. Nevertheless, given the multidirectional macro-level dynamics and the volatility of global financial markets, achieving "competitive equilibrium/sustainability" by means of regulatory mechanism appears to be a task with multiple, currently unidentified, determinants. Achieving financial stability will require regulators to develop a system of competition assessment parameters that is understandable for investors and acceptable for banks. This system should take into account not only the risks of individual banks, but also the threat of micro-level risks becoming systemic.

4. Issues of competition in the context of financial stability

The above review of studies reveals a divergence of findings regarding the impact of banking sector competition on financial stability. The practical implications of these studies are that, irrespective of whether the level of competition increases or leads to monopolization/concentration, the consequences for the competitive environment may be unexpected for both market participants and financial regulators, particularly in the context of the efficiency of the financial intermediation function. These contradictions of competition require further study in order to gain a deeper understanding of the prospects for macrofinancial management of competition. In contemporary economic literature, a substantial body of works has been focused primarily to the issues of competition which can be broadly classified into two conceptual frameworks:

¹ Internal ratings-based approach is an approach to credit risk assessment based on banks' own methodology developed by them subject to approval by the financial regulator. It differs from the standardized approach in that the latter is based on Basel II methodology and uses credit ratings established by international rating agencies.

 $^{^2\,}$ On the need to introduce macrofinancial aspects of governance in banking sector competition, see, for example, https://www.bankingsupervision.europa.eu/press/speeches/date/2017/html/ssm. sp170622.en.html

Competitive-fragility hypothesis and Competitive-stability hypothesis. The former pertains to the instability of banks and the banking sector when competition intensifies, whereas the latter opposites the former in that competition positively contributes to stress resilience of banks and financial stability (see Table 1 on p. 92).

Table 1. Selected research results within the framework of the concepts of the relationship between competition in the banking sector and financial stability

Competitive-fragility hypothesis (increased competition has a negative impact on financial stability)

- The deterioration of the banking sector is a consequence of increased competition in financial markets with relatively tighter restrictions on banking activities, low level of systemic risks, developed securities market infrastructure, deposit insurance system, and transparency of banking activities [Beck 2008].
- The highly competitive environment forces banks to shift their priorities towards operations with high-risk instruments to maximize profits [Allen, Gale 2004; Beck, Demirgüç-Kunt, Levine 2006] and, in addition, to reduce control over the financial conditions of borrowers, which increases the risks of banking crises [Beck, Demirgüç-Kunt, Levine 2006].
- Highly concentrated banking systems are less prone to the risk of instability than highly competitive ones [Anginer, Demirgüç-Kunt, and Zhu 2014; Berger, Klapper, and Turk-Ariss 2009].
- Bank regulatory policies aimed at reducing banking sector competition can provoke crisis developments in the banking sector [Anginer, Demirgüç-Kunt, and Zhu 2014].
- Weak supervision and monitoring of banking activities, the dominance of state ownership of bank capital, and government policies restricting competition contribute to the banking sector's fragility to external shocks and crises [Fu, Lin, and Molyneux 2014].
- The high level of concentration in the banking sector and deposit insurance requirements contribute to the banking sector's fragility to adverse macro-level dynamics [Soedarmono, Machrouh, and Tarazi 2013].
- Strict prudential capital adequacy requirements for banks in an insufficiently competitive environment are not sufficient to ensure financial stability [Matutes, Vives 1996] because they do not incentivize banks to reduce the volume of operations with high-risk instruments [Agoraki, Delis, and Pasiouras 2011].
- Instability in the banking sector is one of the factors that increase volatility in the financial markets of countries whose banking sectors are characterized by a relatively high level of banking sector competition [Fernández, González, and Suárez 2016].
- A high level of capital concentration in the banking sector
 has no effect on competition, which, in turn, may cause
 liquidity shortages in financial markets and, consequently,
 instability, with the level of instability depending on the degree
 of interconnectedness of different segments of the financial
 market [Hellmann, Murdock, and Stiglitz 2000].

Competitive-stability hypothesis (increased competition has a positive impact on financial stability)

- Increased banking sector competition leads to a reduction in the cost of credit, which positively affects the profitability of borrowers, reduces the risk of non-performing loans, and ultimately contributes to financial stability [Schaeck, Cihak, Wolfe 2009].
- Mergers and acquisitions (M&A) processes lead to a reduction in the number of market players and therefore have a positive impact on the stability of the banking sector [Keely 1990].
- In a highly competitive environment, capital adequacy is higher, which usually covers the risks of volatility of banking activities and positively affects financial stability [Lee, Hsieh 2014].
- The high level of banking sector competition encourages banks to diversify risks, which reduces the banking system's exposure to external shocks and crises [Beck, Demirgüç-Kunt, and Levine 2006].
- Increased competition due to the introduction of stricter capital standards reduces the negative impact of financial liberalization on financial stability [Amidu, Wolfe 2013].
- Competition promotes financial stability if interest and noninterest income of banks from diversification of its activities tends to grow [Smith 1984].
- Increased competition leads to a more even distribution of credit resources among banks and, consequently, to a lower probability of default in case of an increase in the risk of nonperforming loans [Tabak, Fazio, and Cajueiro 2012].
- Increased competition among conventional commercial banks, as opposed to Islamic banks, has a greater effect on achieving financial stability [Kabir, Worthington 2017].
- The effectiveness of credit risk mitigation due to increased competition in the banking sector is higher for banks in the middle median quantile group than for banks in the lower and upper quantile groups [Chen 2016].
- The trend towards homogeneity in the operating models of cooperative banks, along with increased banking sector competition in this segment, enhances their resilience and thus has a positive impact on financial stability [Fiordelisi, Mare 2014].
- Increased banking sector competition enhances financial stability in banking sectors by means of minimization of systemic risks [Kouki, Al-Nasser 2017].

Competitive-fragility hypothesis (increased competition has a negative impact on financial stability)

- The application of post-crisis capital standards is not sufficient to minimize the risks of banking activities if there are no regulatory restrictions on the marginal interest rate on deposits [Delis 2012].
- Liberalization of financial markets reduces the competitiveness of banks in developed economies, which increases systemic risks and the probability of crises in the financial sector [Mishkin 1999].
- Large banks in a highly concentrated and "under-competitive" banking system receive centralized financial assistance more quickly during crisis than other banks, thereby continuing the policy of carrying out operations with high-risk instruments in relatively larger amounts, contributing to increased instability in the financial area [Boyd, De Nicolo 2005].
- Increased competition in the financial sector does not encourage banks to accumulate capital beyond the minimum acceptable level of its adequacy, while exacerbating systemic risks [Chen 2016].
- Increased banking sector competition contributes to the growth of banks' operations using higher risk instruments [Canta, Nilsen, and Ulsaker 2023], which exacerbates volatility in the banking sector [Leroy and Lucotte 2017].
- The protection of creditors' rights in bank failures leads to increased competition, which nevertheless contributes to a decrease in stability in the banking sector [González 2023].
- The intensification of banking sector competition contributes to the aggravation of systemic risks, regardless of the specifics of the post-crisis banking regulatory mechanism [Bátiz-Zuk, Lara-Sánchez 2023].
- Compliance of global systemically important banks (G-SIBs) with market discipline contributes to increased competition in financial markets [Dzhagityan and Orekhov 2022].

Competitive-stability hypothesis (increased competition has a positive impact on financial stability)

- Increased competition in the banking sector contributes to the decrease of the loan volumes and higher interest margins on loans [Sääskilahti 2016], which reduces the risks in lending and bank insolvency [Agoraki, Delis, and Pasiouras 2011].
- Regulatory constraints on banks' activities in an environment of increasing levels of banking sector competition reduce both lending and bank insolvency risks [Agoraki, Delis, and Pasiouras 2011].
- Mergers and acquisitions (M&A) in the banking sector lead to increased competition and strengthen the competitiveness of banks, but only if the M&A targets are banks that are unable to adapt to the post-crisis mechanism of banking regulation and supervision [Dzhagityan 2016].
- Increased banking sector competition contributes to macrolevel stability by reducing the volatility of GDP, lending volume, and the probability of default of banks [Khan 2022], which in turn is a key contributor to financial stability [Brei, Jacolin, and Noah 2020].
- The growing level of competition in countries that do not apply macroprudential regulation tools contributes to the countercyclicality of lending processes [Olszak, Kowalska 2022].
- Post-crisis regulatory rigor helps to reduce the negative impact of banking sector competition on financial stability [Borauzima, Muller 2023].
- The negative impact of competition on stability in the banking sector decreases as the level of capitalization of banks increases [Ernaningsih, Smaoui, Temimi 2023].

Source: compiled by the author.

In summary, the two hypotheses can be considered as follows. The Competitive-fragility hypothesis posits that, in a highly competitive environment, banks tend to ease lending standards in order to expand the range of potential borrowers and prioritize high-risk instruments, which may ultimately result in a reduction of asset quality and, consequently, increased fragility. Furthermore, transmission of risks (risk contagion effect) contributes to the fragility of the banking sector, especially when financially unstable banks face difficulties in attracting additional liquidity, which exacerbates their vulnerability to insolvency and bankruptcy.

The Competitive-stability hypothesis is based on the premise that competition is the primary mechanism for ensuring financial stability, which ultimately leads to a reduction in the cost of credit for borrowers. Consequently, the probability of investment in high-risk assets is reduced, which in turn results in a decrease in the level of non-performing loans. Furthermore, banking systems with a low level of concentration (i.e., without domination of "too-big-to-fail" banks) are less susceptible to manipulations in financial

markets due to the absence of potential assistance from macrofinancial institutions, which consequently reduces banking risks.

Both hypotheses necessitate the identification of a so-called "pragmatic middle ground" between the optimal level of competition and efficiency in the banking sector, which is essential for the long-term potential of banks in the context of financial stability. Despite extensive academic and expert discussions on this topic, a consensus has yet to emerge, with conclusions often in stark opposition to one another. Considering the paramount importance of this issue for the minimization of future crises, it is imperative that the macrofinancial approach to competition management take into account the international principles of effective banking supervision and the specifics of national banking sectors. It seems probable that the efficacy of the competition management mechanism will depend on two factors. The first is the systematization of the determinants of a "pragmatic middle ground" in terms of competition. The second is the understanding by financial regulators of the importance of structural changes of banking sectors, which would contribute to the achievement of a "pragmatic middle ground." However, this task will most likely be fraught with the search for an optimal model of banking activity.

5. Contradictions in the assessment of banking sector competition

The multifaceted and contradictory nature of competition in the banking sector complicates the search of quantitative tools for assessing its current state and dynamics. The matter is that some of the indicators of competition³ are based on a set of interrelated factors, yet the individual indicators employed in this assessment do not fully account for the mutual influence of these factors. This lack of comprehensive consideration may be a key reason why the domain of competition falls outside the scope of banking regulation and supervision. The existing instruments, such as the Herfindahl-Hirschman index, do not measure competition in a meaningful way. Rather, they assess the maximum permissible level of concentration in the banking sector, which is an administrative measure rather than an economic one. Furthermore, the regulatory assessment of competition is influenced by the macro-level dynamics, the specifics of fiscal policy, financial legislation, and established banking practices. These areas and factors are difficult to integrate into separate indicators or standards of competition due to their inherent complexity and the challenges associated with bringing them together.

Conversely, the pursuit of a specific level of competition should not be regarded as an absolute, imperative objective. At the same time, the banking sector's operational framework must align with the specific characteristics of the competitive landscape to fulfill the requirements of prudential banking supervision. This should serve as the

³ For example, the ratio of net interest margin to total assets; the Lerner index (an indicator of the degree of market positioning (influence), as well as the market share of individual corporations, including credit institutions); the ratio of net profit (net of all mandatory deductions from the income base) to total assets; the indicator (index) of market concentration of the deposit base; the number of banks per the current population of the country/market/region/territory.

foundation for a synergetic effect of banking sector activities, which may be termed the "regulatory-competitive" synergy. The ability of banks to withstand stress and recover from the consequences of potential future crises will serve as the primary indicator for assessing their competitiveness.

In the context of a weak competitive environment, characterized by volatility in financial markets and imperfect institutional infrastructure, the quality of banking assets would deteriorate, thereby limiting the potential for the free redistribution of resources. This kind of "operational constraints" represents a source of risk for banks and impedes the pursuit of new market opportunities, providing economic immunity of the banking sector to both exogenous and endogenous risks. Indeed, the extent of stress resilience will be one of key indicators of competitiveness in the banking sector.

Conclusion

The specifics of banking sector competition and the competitiveness of banks in the post-crisis era indicate that competition and financial stability are interrelated elements within the framework of the post-crisis regulatory paradigm. The advent of new aspects of competition as a result of international banking regulation and supervision reform urges a more focused attention by macrofinancial authorities, including financial regulators. However, the mechanism that would integrate competition into regulation to ensure sustainable growth of financial institutions and their stress resilience, is yet to be developed. The variety of expert opinions regarding the quantitative banking sector indicators for competition once again shows sophistication of this area and its significance for ensuring stress resilience of banks and the banking sector. This, in turn, serves as the foundation for a crisis-free perspectives of financial sector towards financial stability.

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