



UDC 336.71

## NEW ENTITIES ON THE FINANCIAL MARKET — FINTECH, BIGTECH AND NEOBANK — REGULATION PROPOSAL

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**Abstract.** Digitization of financial services and a decrease in trust in traditional financial institutions allow the emergence of new entities that provide services which were traditionally reserved for banks. FinTechs, BigTechs and neo-banks significantly affect the decline in revenues of traditional financial institutions. New entities, however, are not covered by such regulations as banks, and market regulators very often do not have instruments to supervise these companies. The article proposes to create lists of systemically important FinTechs, BigTechs and neobanks that can significantly affect financial stability.

**Keywords:** FinTech, BigTech, neobank, regulation.

Formulas: 0; fig.: 1; tabl.: 0; bibl.: 30.

JEL Classification G21

## НОВІ ОРГАНІЗАЦІЇ НА ФІНАНСОВОМУ РИНКУ — FINTECH, BIGTECH І НЕОБАНК — ПРОПОЗИЦІЯ ЩОДО РЕГУЛЮВАННЯ

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**Анотація.** Оцифрування фінансових послуг і зменшення довіри до традиційних фінансових установ дозволяють виникнути новим організаціям, які надають послуги, що традиційно були зарезервовані для банків. FinTech, BigTech-компанії і необанки суттєво впливають на зниження доходів традиційних фінансових установ. Однак нові організації не підпадають під дію таких нормативних актів, як банки, а регулятори ринку дуже часто не мають інструментів для нагляду за цими компаніями.

FinTech, BigTech-компанії і необанки — це компанії, які успішно конкурують на фінансовому ринку із традиційними фінансовими установами. Їхній динамічний розвиток призводить до проблем, пов'язаних з їхньою класифікацією. Тим не менш, масштаб операцій нових суб'єктів на фінансовому ринку вже настільки важливий, що варто звернути увагу на регулятори ринку, на доцільність конкретних норм інноваційних компаній. Відсутність прозорості та необхідність адекватної звітності, що використовується в банках, негативно впливають на інформацію, яку мають регулятори ринку про FinTech, BigTech і необанки. Тому варто створити списки, що містять набір нових установ, які можуть генерувати збільшення системного ризику. Відповідно до вказівок ЄБА, процес ідентифікації системно важливих установ FinTech / BigTech-компанії і необанки повинен складатися з двох компонентів: набір обов'язкових показників, які національні органи нагляду повинні використовувати для визначення системно важливих установ, набір необов'язкових показників, які національні органи нагляду можуть додатково використовувати, щоб мати можливість точно врахувати особливості вітчизняного банківського сектору. Списки, складені національними макропруденційними установами, повинні бути переглянуті ЄБА, яка, у свою чергу, повинна координувати FinTech, BigTech і необанки в усьому світі за погодженням з ФСБ. Такі списки, складені національними регуляторами, ЄБА і ФСБ, можуть сприяти зміцненню регуляторних норм щодо функціонування нових організацій на фінансовому ринку.

**Ключові слова:** FinTech, BigTech, необанк, регулювання.

Формул: 0; рис.: 1; табл.: 0; бібл.: 30.

## НОВЫЕ ОРГАНИЗАЦИИ НА ФИНАНСОВОМ РЫНКЕ — FINTECH, BIGTECH И НЕОБАНК — ПРЕДЛОЖЕНИЕ ПО РЕГУЛИРОВАНИЮ

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**Аннотация.** Оцифровка финансовых услуг и снижение доверия к традиционным финансовым институтам позволяют создавать новые организации, которые предоставляют услуги, которые традиционно предназначались для банков. FinTechs, BigTechs и необанки существенно влияют на снижение доходов традиционных финансовых учреждений. Новые организации, однако, не охватываются такими нормативными актами, как банки, и регуляторы рынка очень часто не имеют инструментов для надзора за этими компаниями. Предлагается создать списки системно значимых FinTechs, BigTechs и необанки, которые могут существенно повлиять на финансовую стабильность.

**Ключевые слова:** FinTech, BigTech, необанк, регулирование.

Формул: 0; рис.: 1; табл.: 0; библи.: 30.

**Introduction.** Banking is necessary, but banks are not — the words spoken by Bill Gates in 1994 certainly determined the development of the FinTech sector. Banking has ceased to be a place where the client goes, and has become what the client does (banking) (King, 2019). Therefore, as a result of the dynamic development of the FinTech market, numerous challenges have arisen for market regulators and supervisors related to the emergence of new institutions and financial services. The FinTech sector significantly affects the stability of the financial system and its security — not only in the area of cyber-attacks, but also in terms of the scale of operations carried out by FinTech entities. Numerous legal acts had a significant impact on increasing the stability of the banking sector after the financial crisis 2007—2009. Nevertheless, the literature on the subject often emphasizes the lack of regulation of the institutions that make up the FinTech sector, which can lead to significant problems related to the stability of the entire financial sector.

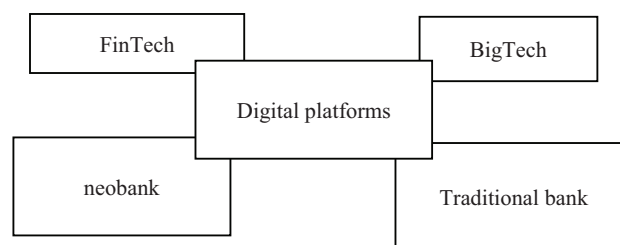
The purpose of the article is to propose a solution to create lists of institutions that significantly affect the stability of the financial sector. One of these lists is a list of systemically important FinTechs, whose collapse could lead to financial market turmoil, the next is a list of financial institutions operating under banking license as credit institutions in the EU but having only an electronic channel for providing financial services (so-called neobanks). In addition, national supervisory authorities should draw up a list of BigTechs whose activities on a given market may lead to their significant systemic importance.

*FinTech, BigTech, and neobank — key institutions on the financial market?*

Traditional banks have played a key role in the world of finance. However, rapid technological development has influenced the functioning of the economic world so significantly that the main channel for providing financial services are electronic banking channels (Skan, Dickerson, Masood, 2015). Non-traditional institutions — using digital platforms have become participants in the financial market, effectively challenging traditional financial institutions and using their financial capabilities and database (e.g. BigTechs), technological (e.g. FinTechs) and smartphone financial services (e.g. neobanks). They offer financial services focused on consumer needs, using, among others a crisis of confidence in the financial market after the financial crisis 2007—2009 (Ferrari, 2016). It is believed that the global financial crisis 2007—2009

weakening consumer confidence in banks, reduced their competitiveness and negatively affected the profitability of banks. In addition, it had an impact on the lower availability of credits for individuals and SMEs and led to a high percentage of the unemployed who were more willing to use new technological solutions offered by non-traditional financial institutions (Bhasin, 2018). According to, among others de Hann one of the reasons for the rapid expansion of the FinTech sector is the decline in public confidence in traditional financial institutions that has occurred as a result of the financial crisis (de Hann, Oosterloo, Schoenmaker, 2015). The term FinTech is an abbreviation for the term «financial technology», which means companies or representatives of companies that combine financial services through modern, innovative technologies (Dofleitner, Hornuf, Schmitt, Weber, 2017). A company from the FinTech sector is most often defined as a company that offers innovative technology in financial services, which may result in the creation of new business models, mobile applications, processes and even products that have a significant impact on the provision of financial services by financial institutions (FSB, 2017).

In the financial sector, one can distinguish numerous institutions that, as part of cooperation on the financial market and the development of technology, influence the generation of financial innovations in various market segments (*Fig. 1*).



*Fig. Digital platforms*

Nevertheless, attempts to define and classify companies from the FinTech sector are very difficult due to the dynamics of changes within the products offered by these companies (for example, Revolut is a dynamically developing institution in the payment services segment, which in December 2018, by obtaining a license for banking activities may provide a range of services restricted to banks). Different types of FinTech definitions in the literature usually have three common characteristics:



- financial services,
- technology,
- innovation.

However, innovation and technology cannot serve as an element used to classify a company into a given segment, because the company today will be FinTech if it provides the same services tomorrow. If the company provides a wider range of services or using a constantly improved technology it will already be a new type of FinTech. Nowadays it is very difficult to distinguish a bank from FinTech banking, and sometimes even the concept of FinTech bank is used (especially since financial institutions are shareholders of many FinTechs). Additionally, acquisitions of banks by FinTechs will be more and more frequent (one of the first took place in the USA where FinTech Lending Club bought Radius Bancorp, a small credit institution based in Boston, in order to gain access to a cheap source of financing loans — deposits from customers).

Therefore, FinTech companies offering their solutions can complement traditional banks — increasing customer satisfaction. Nevertheless, there are at least two groups of institutions on the financial market that can significantly affect the financial stability and security of the entire financial sector — neobanks and BigTechs.

Neobank is a type of so-called a direct bank that is completely digital and reaches customers only via mobile applications and computer platforms (Nielsen, 2018). Some authors categorize neobanks as entities that do not have their own banking license, but using the experience of their partners, they offer services licensed by the bank using their mobile applications that facilitate the administration of accounts and cards (Grindstand, 2018). That is why a neobank that has a banking license is often called a new bank. Challenger bank is considered as a new retail bank competing with traditional financial institutions. Nevertheless, numerous auditing companies at least: KPMG, EY, due to the relatively low level of transparency and the short period of activity of these companies, specify FinTechs that operate on the basis of a banking license as a general category — neobanks.

According to EBA analyses, the FinTech sector is growing very fast, as a result of which many consumers are not prepared to implement these innovations. It is also worth emphasizing that the rapid development of the FinTech sector increases the cyber threat and the level of data security (EBA, 2019). Big technology companies (BigTech) have special features that distinguish them from companies in the FinTech sector. FinTech companies offer financial services using digital technology, and the main activity of large technology companies is technology, not finance (BIS, 2018). Companies from the BigTech sector very often obtain licenses from payment institutions and electronic money institutions. BigTech companies are also categorized as technology companies segmented according to various criteria — usually emphasizing the scale of their business: Gang of Four (Amazon, Apple, Facebook,

Google), GAFAM (Google, Apple, Facebook, Amazon, Microsoft), GANDALF (Google, Amazon, Netflix, Dell, Apple, LinkedIn and Facebook), BAT (Baidu, Alibaba, Tencent). The scale of operations of technology companies has grown rapidly in the last two decades. The business model of these companies is to enable direct interaction between a large number of users. The «by-product» of their business is a large user database that is used to provide a range of financial services (Big tech ....., 2019).

An important determinant enabling the development of the FinTech sector is the departure from the traditional distribution of financial services in favour of providing services through electronic distribution channels. The move away from providing financial services through traditional (branch) banking is evident throughout Europe — especially in Denmark, where 90% of the adult population uses online banking. Within a few years, mobile banking will become even more important, which due to the convenience of using it will dominate the market for providing financial services (Eurostat, 2018). This is due to, among others an increase in the use of smartphones to use banking services. In Europe, in 2018, over 60% of smartphone users used this device for banking purposes (ING, 2018). Noting these trends in the financial market, FinTechs took advantage of the conservatism of traditional banks and already took over a significant number of banking clients, especially in the segment of young people (the so-called Millennials generation). Basing their strategies in FinTechs on the use of technology allows them to implement changes within 2 weeks, where in the case of traditional banks it takes 3—6 months (Wyman, 2019).

Numerous factors influencing the development of the FinTech market affect the dynamic increase in the number of these companies in the post-crisis period. The number of FinTech companies has been steadily growing since 2009. In February 2019, there were at least 12,500 companies around the world (in America 5,779, in Europe, the Middle East and Africa, there were 3,583, and in Asia and the Pacific — 2,849) (Szmigiera, 2019). However, determining the number of FinTech companies is very difficult and in a world of such dynamic technological changes needed only for statistical purposes.

In addition, the dynamics of changes in the FinTech sector indicates the need to abandon the attempt to classify these companies (which is becoming out-dated) in favour of developing regulatory solutions that have a significant impact on levelling the risks associated with FinTech operations — especially systemic risk.

The European Commission and supervisory authorities are noticing the dynamically developing FinTech sector and are attempting to identify possible threats arising from this sector. The report of the Committee on Economic and Monetary Affairs of the European Parliament determined the scale of development of this sector and its state, in which particular attention was paid to the fact that some FinTech applications implementing financial innovations may



someday become systemic while the development of new financial services and the digitization of existing services will change the infrastructure of financial services market (Sprawozdanie, 2017). Therefore, legislation, regulation and supervision must be adapted to financial innovation and achieve the right balance between encouraging entities to innovative investor and consumer protection and financial stability,

In postulates regarding directions of changes, the most common proposals that eliminate the risks associated with financial innovations are consumer protection and care for financial stability. The low quality of the law — or even its lack in consumer protection, is highlighted, e.g. in crowd funding and community loans. The need to ensure strengthening of financial stability along with the development of financial innovations is also emphasized repeatedly.

The Financial Stability Board stated in 2017 that there are currently no significant threats to financial stability arising from the emergence of innovative solutions offered by FinTech companies. Nevertheless, the analysis identified 10 issues deserving special attention of authorities, three of which are seen as priorities in international cooperation (e.g. monitoring of macroeconomic risk — especially in the loans sector, where a large unpaid portfolio may pose a threat to financial stability) (FSB, 2017).

In the face of significant changes on the financial market, a key element affecting the care of market stability is the lack of information asymmetry. The growing activity of FinTech companies has a key impact on the distribution of financial services to various sectors in global economies. Due to changes in the institutions providing financial services, they should be subject to at least such regulatory requirements regarding, inter alia, information flow like traditional banks. According to numerous studies, not only FinTech companies do not provide necessary information for market regulators, but also market regulators are not interested in collecting information relating to this market (Gerralda, 2019) (von Kalckreuth, 2019).

According to EBA's research on European Fintechs, in about 40% of cases, these companies are not subject to any regulatory, registration, national or international regulations. Additionally, in the case of FinTech companies, an important problem is to clarify their legal status. Only 9% of companies are credit institutions, to which, among others, Capital Requirements Directive applies. It is obvious that FinTech companies have a significant impact on changes in the financial market — often positive. These companies using new technologies, among others to collect, process and disseminate information and offer services — to other companies or end users, they significantly reduce the operating costs of financial institutions. However, many of the services that FinTechs provide were also previously provided by traditional financial institutions, or they were introduced quickly (except for crypto currencies).

*Attempts to regulate the FinTech, BigTech and neobanks sectors, and systemically important institutions — a solution proposal.*

The development of the FinTech sector causes many threats and problems related to financial stability, which is highlighted by the IMF and the World Bank. Due to the collapse of numerous financial institutions after the financial crisis, attention was also paid to the FinTech sector, which by providing financial services may quickly be «too big to fail», which is why some companies from the FinTech/BigTech sector or neobanks should be subject to detailed regulations. It is therefore necessary to reconsider the regulatory approach in the field of services provided by these entities (Magnuson, 2017).

The innovative nature of the activities undertaken by FinTechs and satisfying the financial needs of consumers often in a faster, better and cheaper way increases the interest in these companies. Entities from the FinTech sector are becoming a real threat to the further functioning of at least some banking enterprises (Blomstrom, 2018).

The growing scope of operations of FinTech companies leads to the establishment of research teams operating at institutions forming a financial security network at national and international level. As part of the EBA's work, the following challenges were indicated facing the financial market in connection with the emergence of technological innovations (EBA, 2018):

- consumer protection,
- prudential risk analysis,
- the impact of the FinTech sector on the business models of financial institutions,
- creation of regulatory sandboxes,
- the impact of technological innovations on the restructuring and orderly liquidation of credit institutions.

Companies in the FinTech sector very often do not have significant capital and do not incur significant investment outlays related to consumer security and protection. Therefore, there may be a significant problem related to the protection of consumers using the services of FinTech companies. Consequently, identifying and limiting prudential risk is a very important task. The EBA also indicates the impact of the FinTech sector on restructuring and orderly liquidation of credit institutions. The provisions of the BRRD Directive (2014/59) implemented in EU countries do not provide for an analysis of the impact of financial innovation on restructuring and orderly liquidation of credit institutions. Financial institutions, as part of competition with companies from the FinTech sector, can make high-risk decisions.

The activities of FinTech companies should be regulated depending on the segment in which the entity provides its services. For example, crowd funding and P2P platforms facilitate crediting, which is why they can threaten financial stability in the retail and commercial banking sectors, leading to bad credit and excessive debt of the society, resulting in an increase in the number of





outstanding loans (FinTech Credit, 2017). Activities of, among others, robo-advisers can lower credit standards through the overall automation of asset and property management. Automated advisor environments are susceptible to algorithm modification and manipulation, which can lead to incorrect advice and sales. As a result, such practices may expose institutions to significant risks of financial stability (Magnuson, 2017).

The development of the technological innovation market in the field of blockchain technology requires regulatory authorities to develop new regulation and supervision strategies (Yagiz, 2017). The lack of technical knowledge of regulatory authorities undoubtedly impedes regulatory activities and causes significant regulatory uncertainty, as there is a huge gap between the way FinTech innovations work, which regulators often do not understand (Donnellan, 2018).

With regard to payment services, innovations such as crypto currencies can potentially significantly deteriorate financial stability and systemic risk of the entire financial sector. The open, decentralized nature of virtual currencies, inadequacy of formal management and lack of legal status, as well as the fact that they operate without the support of a central bank or government, may generate operational, liquidity and leverage risk, and may also increase the growth of illegal transactions on the financial market. However, currently the FSB and the G20 group signal that crypto currencies do not pose a threat to EU stability (FSB, 2018), and the ECB indicates that all potential implications of crypto currency functioning are limited or manageable under the existing regulatory framework (EBC, 2019).

Nevertheless, the scale of operations and the growing number of non-banking entities that can provide financial services as well as the lack of information about companies should force market regulators to require a different approach to the FinTech, BigTech and neobanks market. National institutions dealing with macro-prudential supervision and drawing up a list of systemically important credit institutions should draw up lists of systemically important: FinTechs, BigTechs and neobanks providing financial services in a given country. Lists of these institutions should be prepared every six months due to the specificity of companies in these sectors. The list of systemically important institutions should include

all FinTech market segments that have been distinguished in the FSB, BigTechs and neobanks classification. Identification of systemically important institutions by national authorities should be carried out as in the case of systemically important banks: based on: the size, importance for the national economy and the European Union, the importance of cross-border activities and the interconnectedness of a given institution or group with the financial system. The identification process should take into account the updated EBA guidelines of 16 December 2014 on criteria for determining the conditions for the application of the CRD Directive in relation to the assessment of other systemically important institutions (EBA, 2013). In accordance with EBA guidelines, the identification process of systemically important FinTech/BigTech and neobanks institutions should consist of two components:

- a set of mandatory indicators which national supervisory authorities should use to identify systemically important institutions,
- a set of optional indicators, which national supervisory authorities can additionally use to be able to precisely take into account the specifics of the domestic banking sector.

Lists drawn up by national macro-prudential institutions should be reviewed by the EBA, which in turn should coordinate FinTechs, BigTechs and neo-banks globally in consultation with the FSB.

**Conclusion.** FinTechs, BigTechs and neobanks are companies that successfully compete on the financial market with traditional financial institutions. Their dynamic development leads to problems related to their classification. Nevertheless, the scale of operations of new entities on the financial market is already so important that it is worth paying attention to the market regulators, to the need for specific regulations of innovative companies. The lack of transparency and the necessity of adequate reporting used in banks negatively affect the information that market regulators have about FinTechs, BigTechs and neobanks. Therefore, it is necessary to create lists containing a set of new institutions that can generate an increase in systemic risk. Such lists drawn up by national regulators, EBA and FSB may contribute to strengthening the regulations regarding the functioning of new entities on the financial market.

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