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**Nataliya S. Voronova**

St. Petersburg State University (Saint Petersburg, Russia)

**Elena A. Yakovleva**

St. Petersburg State University of Economics (Saint Petersburg, Russia)

## FINANCIAL TECHNOLOGIES AS A DRIVER OF INDUSTRIAL TRANSFORMATION

**Abstract:** the article systematizes the factors of acceleration of industrial development based on the use of digital technologies applied in financial intermediation. The applicability of the concepts of noonomy and the new industrial society as a theoretical basis for the development of innovative investment mechanisms is substantiated. The contradictions of traditional and new forms of interaction between participants in financial relations are summarized.

**Keywords:** digital financial technologies, transformative investments, crowdfunding, technological platforms, noonomy.

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**沃罗诺娃 N. S.**

国立圣彼得堡大学 (俄罗斯, 圣彼得堡)

**雅克芙列娃 E. A.**

国立圣彼得堡大学 (俄罗斯, 圣彼得堡)

### 金融技术是工业转型的动力

**摘要:**文章系统地分析了金融经纪活动中采用数字技术时能够加速工业发展的因素,论证了把智慧经济学和新型工业社会理论作为创新投资机制发展的理论基础的适用性。文章总结了金融活动参与者之间传统的与新型的相互关系之间的矛盾。

**关键词:**数字金融技术、转型投资、众筹、技术平台、智慧经济学。

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Beneficial effect of financial mechanisms on the dynamics of economic growth is manifested in accelerated industrial development based on the integration of so-called core technologies simultaneously in finance and business. The use of financial innovations based on digital techno-

logies ensures more efficient financial intermediation through diversification of sources and tools for fundraising by optimizing financing conditions and significantly reducing its cost. Broadly speaking, modern financial technologies represent an organic combination of financial and information innovations. For industrial enterprises, like for all other consumers of financial services, the quality of these services in terms of ease of use, speed and reliability in the field of financing, investment, payments and settlements is essential.

In this regard, it seems important to search for areas of common interest, points of intersection and effective, consistent interaction between economic entities that both independently generate and use various types of social, economic, financial and other innovations based on modern information technology. Interest in this issue is due to the need to intensify the unharmonized, multidirectional, and therefore unduly slow movement towards a new industrial reality. Incentives for acceleration should be sought, in our opinion, in the methodology of the new industrial society, which allows us to take into account established approaches to determining the goals of using long-standing and new technologies, the practice of their application in production and exchange, in management, in science, in education, in the service sector and etc., as a starting point in the transition to reasonable wants and reasonable production [Bodrunov, 2020, pp. 153-173]. Thus, in its depths one can find a replacement for the concept of so-called “sustainable development”, which brought discredit upon itself in the conditions of new geopolitical challenges.

Identification of global development trends brings us to the realization that in the conditions of modern geopolitical realities it is necessary to use a wider range of mechanisms and financing instruments through different groups of investors, including retail ones, to financially support the development of the national economy in general and in particular, industrial production.

These goals are quite achievable given the level of development of technologies used by modern Russian financial institutions, which makes it possible to accumulate the necessary resources in the right areas very quickly and efficiently. It should be noted that the mechanisms for ensuring acceptable restrictions for the sake of observing the principles of social justice are quite convincingly justified in the theory of noonomy [Bodrunov, 2019, pp. 272-279].

If we focus on the direct impact of modern financial technologies based on the use of digital solutions on the industrial production, first of all we see those industries and organizational forms of business where high-tech and innovative products are created or scaled. The peculiarities of capital raising in this area are manifested both in fairly traditional forms of venture financing and in various crowdfunding formats. Under conditions of significant restrictions caused by unfavorable geopolitical factors, these sources of financial resources become especially significant. Based on the widespread interpretation of crowdfunding as an alternative investment mechanism and taking into account its types such as non-financial and charitable, crowdfunding can be considered as a step towards a “non-economic mode of economic activity”, towards a new industrial society.

In this regard, it is instructive to assess the scale of this phenomenon in the world and in Russia. Based on estimates of the global crowdfunding market at the end of 2019, experts predicted its growth by the end of 2026 to \$39.8 billion. Moreover, according to the forecast for 2021, the increase in the annual volume of investments raised through crowdfunding platforms only in developing countries, including Russia, will amount to about \$95 billion

in 2025 [Salnikova, Permyakov, 2021, p. 4, 6]. As for Russian environment, according to the Bank of Russia, the Russian crowdfunding market in 2021 grew by 97 %, to 13.8 billion rubles. After contracting slightly in the first quarter of 2022 amid uncertainty, it began to recover in the second quarter of this year. More than 95 % of investors on crowdfunding platforms are individuals<sup>1</sup>.

These mechanisms for business funding and investing temporarily available funds of retail investors in projects are so-called transformative investments reflecting fundamental changes in the perception of potential investors of their role in economic development and responsibility for its orientation and results. They are implemented on digital technology platforms. Expansion of the use of such mechanisms indicates the spread of the ideology of sustainable development, no matter how dubious its principles may now seem from the point of view of how consistently the ideologists of the concept adhere to them under the pressure of geopolitical ambitions.

Russian financial authorities, in the context of restrictions on the use of global capital markets, now, more than ever, can take advantage of the situation to channel savings in unorganized form into the national financial market by activating digital financial technologies, which, due to their simplicity, speed and reliability, are attractive to small investors who accumulate huge amounts of money.

This is not the first time we have drawn attention to the fact that the prerequisites are already taking shape to substantiate approaches to the formation of a research methodology for both the social organism and the financial system, corresponding to the new technological paradigm with its new social and value characteristics [Voronova, Yakovleva, Sharich, 2021, pp. 4994-4995]. In this regard, the study by Russian authors of the theoretical and methodological aspects of the financial system of noonomy, which implements a systematic approach to substantiation of the digital financial model of a new industrial society, is of interest. The paper rightly emphasizes the paradoxical nature of not the new, but the traditional financial model, where, according to the authors, ideas about the essence of the finance function are distorted, and the financial sector is divorced from the needs and problems of the real economy [Tkachenko, Gorelchanik, 2022, p. 68].

In our opinion, this statement is only partly true. Unprecedented increase in liquidity of the financial market and its unstoppable filling with new financial instruments occur not so much “for the sake of the financial transactions themselves”, but rather for the sake of using all the opportunities for hedging price risks of financial assets. However, obvious imbalances in the ratio of turnover of commodity and financial assets have long required the close attention of regulators and self-regulatory organizations of the capital market. In a certain way, they have already served as a trigger for exacerbating geopolitical tensions, which Western countries have repeatedly used to handle looming financial troubles.

We should make specific mention that this contradiction turns out to be completely resolvable exactly in the conditions of radical technological transformation, when the role of information products in the socio-economic system changes significantly, as experts note, indicating the trend of “socialization of capitalism” [Maslov, 2023, p. 104]. There is confidence that the development of information financial technologies, while ensuring industrial transformation, will also ensure a

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<sup>1</sup> Overview of the Crowdfunding Market in Russia. 2021 and the First Quarter of 2022: Insight / Bank of Russia. Moscow, 2022. p. 1-5. URL: [https://cbr.ru/Collection/Collection/File/42097/crowdfunding\\_market\\_01\\_2022.pdf](https://cbr.ru/Collection/Collection/File/42097/crowdfunding_market_01_2022.pdf) (accessed on: 15.04.2023).

smooth transition to a social society in a new sense that meets the standards of noonomy. Regulation of these expanding processes should be based on well-developed theory and methodology of the new industrial society in all its manifestations.

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### Information about the authors

#### Nataliya S. Voronova

Professor of Department of Credit Theory and Financial Management of the St. Petersburg State University, Doctor of Economics, Professor (7-9 Universitetskaya Embankment, St Petersburg, 199034, Russia)

E-mail: [n.voronova@spbu.ru](mailto:n.voronova@spbu.ru)

#### Elena A. Yakovleva

Professor of the Department of Economics and Management of Enterprises and Industrial Complexes, St. Petersburg State University of Economics, Doctor of Economics, Associate Professor (30-32 Griboedov Canal Embankment, St Petersburg, 191023, Russia)

E-mail: [helen7199@gmail.com](mailto:helen7199@gmail.com)