

# TAXATION AND TAX TRANSFORMATIONS TO THE DIGITAL ECONOMY CONDITIONS

## ТРАНСФОРМАЦИИ НАЛОГОВ И НАЛОГООБЛОЖЕНИЯ К УСЛОВИЯМ ЦИФРОВОЙ ЭКОНОМИКИ

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**Abstract:** *The tax aspect of "digital economy" is addressed in the article, which is particularly relevant now searching for a source of economic growth and taxable base. The main prerequisites to develop the digital economy in the modern Russian economy are highlighted based on the experience analysis of international companies and new decentralized payment systems and their role in the digital economy. There is a low responsiveness of changes in the tax legislation in the current conditions of globalization. A new vector of the tax system for a structural change in the development of the digital economy in Russia is requested to identify.*

**KEYWORDS:** BITCOIN, BLOCKCHAIN, CRYPTOCURRENCY, TAXES, TAXATION, DIGITAL TECHNOLOGIES, DIGITAL ECONOMY

### 1. Introduction

The digital economy is becoming more commonplace in the everyday life of modern man and society. Along with material and labor capital, digital capital is on the agenda with all the entailing consequences for government, business and the public. Their organic linking in the economic and mathematical models will enable more adequately to evaluate the retrospective, current, scheduled and predictive rates of economic growth of national, regional, and world economies.

The digital economy is inherent in, firstly, a management system based on digital platforms, and secondly, an economy based on the computing technologies, when business is based on the use of the worldwide integrated computer system (Internet) [23].

This circumstance gives rise to a need to transform the existing taxation system in modern states. The relevance of the tax transformation vector in the conditions of digitalization of economic relations has formed the basis to conduct a special study and fix the results within the framework of this article.

The first references to the term "digital economy" dates back to 1995 by Don Tapscott's work "Digital Economy: A Promise and Danger in the Age of Network Intelligence" [6], which contains issues on how new technologies, the Internet transform both business processes and methods of business, the economy, and also the creation and sale of products and services. Subsequently, Thomas Mesenburg in 2001, in his book "Changes in the Digital Economy" outlined the three main components of the digital economy: provision of business processes infrastructure (software and hardware support for business processes); integration of business processes (organization of business processes via computer networks); e-business (the creation and sale of goods via computer networks) [21].

And now you can supplement this concept with a payment system (crypto currency) on the basis of the block-chain technology, a new component that will ensure their interaction, as money remains the necessary equivalent means of exchange in the digital economy, only their form and emission technology change [22].

This transformation stipulates that the scientific progress and technical changes contribute to increased productivity in all spheres and sectors of the economy. Such transformations are quite rare in the history of mankind. We can distinguish three of them which have led to the revolutionary transformation of relations in the economy: information revolution (printing press); use of steam power (steam engine); electricity use (electricity generator).

By their nature, technological revolutions have a strong destructive effect. So, Luddites at the beginning of the 19th century resisted and destroyed machines that ousted people out of production, increasing technological unemployment, despite the fact that machines had opened new workplaces and new competencies for people [28].

These changes are possible only if new technologies are sufficiently flexible and widespread. In this case, the adaptation to technologies plays an essential role more than the adoption of technologies. As an example, companies (YandexTaxi, Uber) for car rental with drivers (taxis) that use digital technologies to improve the quality of service and provide opportunities to realize their potential to the economically active population.

The main component of the revolutionary technologies is that it is still to be accepted before the society adapts to it. If in the past electricity depended on generators, then the current technological revolution primarily depends on computers, the Internet, digital platforms and the development of block-chain technology. As a rule, in the early stages of such revolutions, innovations are subject to consideration, and only much later the implementation process of an idea occurs. In this regard, it is not surprising that the digitalization of industrial production impacted on the structure of national and global economies (a personal computer appeared more recently - 40 - 50 years ago). So, for example, during nine months of 2016 the number of online purchases (online transactions) by compared with 2015 increased by 39.5% [2]. This is due to the improving level of technology development, financial literacy and the increasing role of the Internet in many areas of citizens' lives. The Chinese giant of e-commerce platform Alibaba has already bank and uses the resources to provide loans to Chinese customers [13]. The American company Amazon.com e-commerce is moving in the same direction [11].

A digital economy that provides added value growth should be fully imposed by taxes and taxation. If the human capital taxation (in the form of living labor) is done through the personal income taxes, and capital goods through property taxes, then It poses the question: what taxes should be used to tax the use of digital capital that includes tangible and intangible assets based on the development of new products and services for the digital economy [24].

### 2. Problem statement

What should be the transformation vector of taxation for the modern economy in the field of cryptocurrency operations (which are gathering pace), based on the digitalization of public relations? An uncertainty in the general legal status of cryptocurrency entails the emergence of a broad discussion of more specific issues, highlighting the following:

1. Legal status - the legal definition of cryptocurrency;
2. Cryptocurrency market Regulation - licensing of cryptocurrency exchanges;
3. Taxation cryptocurrency - taxation of income received in the digital economy.

### 3. Results and Discussions

At present, various approaches in the legislative positions regarding cryptocurrencies and the related actions have been reflected in the United States, Japan, Canada, Australia, South Korea and others.

Poor sequential legal approach to crypto-currencies can be noted in the United States, cryptocurrencies are not considered as legal tender, and however the cryptocurrency market regulation depends on the state.

The Financial Crimes Enforcement Network (FinCEN) (US Department of Treasury), which collects and analyzes information on financial transactions to combat money laundering at the domestic and international levels, terrorism financing and other financial crimes, does not consider cryptocurrency a legal tender, but since 2013 exchanges are considered to be a remitter on the ground that tokens are "another value that replaces currency" [5].

Instead of it The US Internal Revenue Service treats cryptocurrencies as property and accordingly issued a tax guide [7]. The rules of cryptocurrency exchange in the United States are also in an uncertain legal territory.

The US Securities and Exchange Commission (SEC) regards cryptocurrency as securities: in March 2018, they stated that they planned to fully implement the securities acts for digital wallets and exchanges [10].

The Commodity Futures Trading Commission (CFTC) has adopted a more friendly "do no harm" approach, describing bitcoin as a commodity and allowing derivative cryptocurrencies to trade publicly [20].

The US Department of Justice coordinates its activities with the SEC and CFTC on future regulations to provide effective customer protection and more orderly regulatory supervision over cryptocurrencies [20]. In this regard, the US Treasury Department stressed the urgent need to combat global and domestic criminal activity, and in January 2018 a working group the Financial Stability Oversight Board (FSOC) was established to study the increasingly crowded cryptocurrency market [26].

Nowadays, Japan provides the most progressive regulatory climate in the world for cryptocurrencies, and since April 2017, bitcoin and other cryptocurrencies have been recognized as legal property in accordance with the Payment Services Act [9]. Japan is the largest cryptocurrency market in the world, and in December 2017, the National Tax Agency decided that cryptocurrency revenues should be classified as "other income" and not capital increase, and as part of income tax are levied at rates ranging from 15% to 55% [14].

The rules of cryptocurrency exchange in Japan are also quite liberal. Exchanges are legal in Japan, but after a series of notorious hacks, including the theft in January 2018 of Coincheck of \$ 530 million in digital currency, cryptocurrency has become an urgent national problem [16].

The Japan Financial Services Agency (FSA) has stepped up efforts to regulate trade and exchanges, and amendments to the Payment Services Act now require that cryptocurrency exchanges be registered in the financial services agency for work and impose more stringent cybersecurity requirements [18].

Yet Japan remains a friendly environment for cryptocurrency to this day, but growing concerns attract the attention of the Japan Financial Services Agency to further regulatory steps [17]. After negotiations between the exchanges and the agency (FSA), an agreement was concluded to create a self-regulatory body - the Japan Association of Virtual Currency Exchanges (JVCEA). It (JVCEA) will provide consultations to the non-licensed exchanges and promote compliance with regulatory requirements [29].

Today, the digital revolution gives Russia a unique chance to take, if not the leading, but a worthy place among its leaders. According to the McKinsey Global Institute (MGI), as of 2017, Russia took first place in Europe and the sixth in the world by the number of Internet users. Already in 2017, the number of active users of the portal of state and municipal services amounted to 40 million, and in comparison with 2016 the number of users has doubled [2].

According to the Federal State Statistics Service [4], in Russia the number of organizations using information and communication

technologies steadily increased from 2005 to 2013, with a subsequent slight decrease in 2014–2017 from 94% to 92.1%. However, according to the other indicators (e-mail, the Internet), a significant increase from 2005 to 2017 is more than doubled.

Analyzing the proportion of organizations using global information networks, it can be noted that frequent use and a stable growth rate is observed in the sector of higher professional education due to the awareness of the opportunities presented by the latter and usability for professional scientific growth. It is also necessary to note the positive growth rate in the use of the information network in the healthcare and social services, which increased their performance almost twice from 2005 to 2016. In general, over the past 10 years, organizations in various areas of economic and social activity have shown positive dynamics in the global networks and have approached the leader in this area, which purports that economic subjects have realized the importance and benefits derived from their use.

Taking into account the indicators of the organizations' share that used the Internet by type of economic activity, we can see an almost similar regularity: the top three are headed by organizations in the field of higher vocational education, the financial sector and the mining industry with a consistently high of Internet usage share from the beginning of 2005 to 2016. If in other areas of economic activity, the economic use of the Internet share at the beginning of the analyzed period was low, it had approached the level of leaders by the end of 2016 and today this gap is not so significant.

The share of organizations that have their own websites for the period under review showed their significant increase in all sectors of the economy and the social sphere. The leader is the higher professional education, the financial activities sector is in the second place. It should be also noted that this indicator has greatly increased in the health care and the social services.

The application of information and computer technologies occupies an important place in the development of innovative transformations in various spheres of society: state and municipal government, finances, education, health care and medicine, security and order, culture and art. Information-computer technologies are a key link in the interaction of production processes and technical means for the collection, processing, storage and dissemination of innovative information in the public environment. It is necessary to analyze information and communication activities in order to improve the situation of the country and determine the role and place in the digital economy..

In the modern world, a high level of digitalization is associated with the growth prospects and competition of companies, industries and national economies. Currently, the level of digitalization of private companies is falling behind state ones in the leading countries, as the private sector does not actively and extensively take the advantages and achievements of digital technologies to increase the efficiency of productivity and create new products and services.

As of 2017, when assessing the volume of investments in the digitalization increase by the McKinsey Global Institute (MGI) in Russia, it amounts to 2.2% of GDP, and in the USA this figure is 5%, in Western Europe - 3.9%, in Brazil - 3.6% [3]. Therefore, the competitiveness of Russian companies is lower not only internationally (due to the relatively low volume of high-tech exports), but also domestically - due to the ousting of domestic companies by foreign ones in the e-commerce, social networks, search systems. The low level of investment of Russian consumers influence on the possibility of development of Russian companies producing and selling digital technologies.

The digital transformation takes quite active place in the financial services with the participation of banks and insurance companies that offer products and the customers contact services. The digital revolution has created the need for radical reforms for traditional representatives of the financial sector, and most Russian banks are already trying to carry out digital transformations. Digital transformation allows them to expand financial access, introduce new retail options and mass media to transport business products and services, and serve customers more effectively [12, 19].

Even today it is possible to determine the main benefits from the digital transformation of key processes: cost reductions to bring products to the market, simplifying customer interaction, creating partnerships and gaining access to new market segments; reduction in the time to sell products; increasing the speed of financial services; reduction in the time to prepare and submit documents. The operating costs in a traditional bank can be reduced by 40–60% due to digitalization [1].

Russia still lags behind the developed countries of Northern Europe, Australia, the USA and Japan for 4-6 years despite the steady growth of users in the remote banking services. About 60% of clients use remote banking services in these countries and there are about 30% of users despite the growth of 40% in the remote banking services over the past year and a half in Russia [3].

The current taxation in Russia does not fully cover the digital economy: Internet transactions between enterprises "Business-to-Business" (B2B); online business-to-consumer transaction Business-to-Consumer (B2C); Internet transactions between consumers Consumer-to-Consumer (C2C); Internet financial services market (E-banking, E-insurance); Internet advertising market (E-marketing); digital payment systems (Cryptocurrency). It is important to note that the development of decentralized payment systems, which were predicted back in 1999 in an interview with Nobel Prize winner Milton Friedman played a significant role in the development of the digital economy [15].

Meanwhile, the emergence of blockchain-based digital payment technologies, like Bitcoin, and a mass of rapidly expanding altcoins makes problems for the anti-money laundering, tax evasion and other illegal activities making these assets, on the one hand, attractive and the other - making them potentially dangerous. Thus, the basic technology (Blockchain) underlying cryptocurrency has changed the concept of finances by providing new transaction opportunities, speed, security, cheapness [8]. Cryptocurrencies are already used to trade in illicit drugs, firearms, other illegal goods, services, and actions [25].

However, the main underlying problem is the opportunities presented by cryptocurrencies for tax evasion, since the illegal transactions were and are being carried out using ordinary means of payment.

#### 4. Conclusions and proposals

The world economy is being transformed today by technological innovations in almost all spheres except for the taxation. As the market globalizes and modernizes the taxation falls far behind its development. There are some noticeable imbalances in the current digital transformation of economic relations which requires appropriate corrections in the tax relations, in particular, in terms of making changes and additions to the accounting of tax bases formed through the development of the digital economy.

The digital transformation of the economic relations compels a revenue administrator of the state to reconsider the ongoing work, taking into account the developing new economic directions and the offered opportunities. The global innovation revolution driven by promoting digital technologies particularly hard identifies the needs for digital transformation of the world tax rules using a more unified approach.

Tax authorities also actively use these opportunities in their work as commercial companies take an active part and use digitalization opportunities. Thus, tax authorities are investing in new technologies around the world and opportunities that allow them to monitor and analyze information on taxpayers using modern digital technologies, as revenue administrators have a large amount of the information and timely receive it.

The first problem in the taxation of digital transactions is the "residence" principle. Most existing tax rules in the world practice still adhere to the archaic principle, that is, the principle of permanent residence according to which companies are taxed depending on the degree of their physical presence in the country. Undoubtedly, the important role of the resident in tax agreements and taxation of digital commercial activities should be taken into

account, based on the economic presence and not on the physical one.

The second problem is the deficiency of the conceptual tax framework in the Russian Federation in terms of regulating Internet trading, no signs of classification criteria rating as digital operations targets. In this regard, it is necessary to amend the Russian tax legislation (the Tax Code of the Russian Federation) concerning the objects of taxation and the tax base.

The third problem is related to the developing decentralized payment systems that allow using buyers and sellers' anonymity as well as definition of their location. In addressing the solution problem, the most effective means is the independent declaration of operations by their participants and the development of more unified tax legislation to tax the digital economy.

There are necessary prerequisites for the development of the digital economy in Russia, and their further development will make structural changes in various areas of the Russian economy. In this regard, it is important to note, firstly, that the digital technologies impact on the development and review of the relations between business and government. But nowadays a major deterrent is the absence of their coherent actions with the scientific community.

Secondly, the development of the digital economy implies the need for the digital industry to produce and maintain high-quality products. It is necessary to determine priorities for engineering and construction technologies, mathematics and physics; encourage citizens and businesses to use digital technologies in order to ensure the development of the digital industry.

Thirdly, it is necessary to develop unified methodologies for measuring the performance of the digital economy based on the objectives and goals.

Fourthly, it is necessary to ensure consideration of the possibility to amend the tax legislation regarding the definition of taxable objects and the tax base with respect to Internet transactions and the development of unified legislation in taxation of the digital economy.

Fifth, it is necessary to define the role of the residence status in the taxation of digital commercial activities identifying as a priority the economic presence of the subject of taxation.

Sixth, it is necessary to ensure the creation of a taxation system based on mutual trust between the state, business and society, changing the very philosophy of the relationship in the tax relations.

Sequential resolution of the problems noted in the context of leveling constraints and the implementation of the proposed measures will allow transforming timely the existing national tax systems to the conditions of dynamic development of the digital economy.

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