A Feasibility Study on Taxation of Data

Saihong Wu
Law School, China Jiliang University, Hangzhou, Zhejiang, China

Abstract: With the rapid development of the digital economy in the current society, it has become an inevitable direction of tax reform to include data, which is a key production factor, into the object of taxation. Based on defining the object of data taxation, this paper proves the feasibility of data taxation from the perspectives of economy, law and tax collection and management. Immediately thereafter, it puts forward the important problems in the implementation of data taxation, mainly including the difficulty of identifying the subject of data taxation, the dilemma of data transaction price, and the connection between data taxation and sectoral laws. Finally, in view of the aforementioned problems, it is proposed that data should be taxed at an appropriate time and a data trading market should be established, so as to improve the supply of the tax system in the form of "taxing by big data", thereby promoting tax reform and the healthy development of the digital economy.

Keywords: Data; Taxability; Tax Law; Tax Reforms

1. Introduction

With the advent of the era of digital economy, the economic value of data elements is constantly being deeply explored. In the process of generating multiple economic benefits such as data use, innovation, exchange and trading, tax sources also continue to gather in the digital economy industry. In the development of practice, it can be found that data transactions create huge economic value for platforms and enterprises. However, looking back at the existing tax laws in China, the actual negative tax level of data elements is seriously mismatched with its economic volume, which leads to many tax inequities [1]. In the process of exploring reasonable tax policies to cope with this process of digital economy, data tax with data as the object of taxation is a very important institutional choice. The tax system, as an important part of the national governance to play a fundamental, pillar and guarantee role, how to provide incentives and reasonable regulation for the high-quality development of the digital economy has also become a direction worth exploring. Based on the demand for taxation of data elements, it has become a core issue to be solved in the digital economy era to explore the feasibility of data taxation and to build a matching tax system.

2. Theoretical Foundations of Data Taxation

The theoretical exposition of data taxation has focused on the following two areas.

2.1 Definition of "Data" for the Purposes of the Data Tax

Data taxes are taxes on data. Data tax in the broad sense refers to all taxes levied on data, including all kinds of direct and indirect taxes levied on data; data tax in the narrow sense refers specifically to the specialised taxes levied on data. It is worth noting that the data tax is not different from the digital economy in the digital tax, the object of taxation is limited to data. Data in the ordinary sense refers to symbols, numbers, text, sound, etc. that record and identify objective events, while in the environment of digital economy, all kinds of data need to be combined with network technology and information to reflect its true meaning [2].

Therefore, the data that are the object of data taxation tend to refer to the data resources in cyberspace, mainly including raw data and data that have been processed but have not become the aforementioned data products. Data products with physical references and data products or services that have been defined as modern services are outside the scope of the data tax discussion, as they are clearly positioned in established intellectual property and fiscal laws.

2.2 Taxability Analysis of Data

After defining the concept and scope of "data", studying the taxability of data is an important and necessary prerequisite for facilitating the adaptation of the digital economy to the tax system.

Taxability refers to the nature of a certain type of object that can be used as a taxable object, which is conducive to preventing the arbitrary expansion or improper restriction of taxable objects, and therefore requires comprehensive consideration of both economic and legal taxability. Despite the fact that there is a large amount of literature discussing taxability in the theoretical field, there is no consensus on the concept, constituent elements or standard conditions of taxability at present [3]. Therefore, this paper analyses the taxability of data only in terms of the three dimensions of economic, legal and tax administration, as advocated by some of the academic viewpoints [4].

2.2.1 The economic taxability of data

Economic taxability is the starting point and basis for determining the object of taxation. In the absence of economic taxability, economic subjects, economic activities or economic resources can only be regarded as potential sources of taxation at most, but cannot become real objects of taxation. Therefore, the economic taxability of the object of taxation is a prerequisite for the further enactment of laws to tax it.

Economic taxability means that the object of taxation can not only exist in the natural or social environment, but also must be widely used by the economic subject, the economic life of the substantive role. Specifically, it includes the following three requirements: firstly, the object of taxation can bring real and objective economic benefits to the subject of taxation that can be realised in the future; secondly, the inflow of economic benefits can be measured reliably; and lastly, the subject of taxation is in a state of profitability at the time of taxation, that is to say, there is a surplus of the inflow of economic benefits after subtracting the corresponding costs and expenses. Therefore, from the perspective of economic taxability, only data that enter the economic domain and are integrated with economic activities can bring economic benefits to their owners and users, and may become the subject of taxation. Government data, enterprise data and other data types that do not all enter the economic field after formation are therefore excluded from the taxable objects. In practice, data elements mainly penetrate into the production of commodities through the three ways of means of production, commodities and medium of exchange, and in this process, data are constantly combined with other means of production to satisfy the needs of users to save operating costs and improve economic efficiency. Therefore, data satisfy the above three requirements of economic taxability.

2.2.2 The legal taxability of data

A State can realistically tax an object of taxation only if it is legally taxable. Legal taxability means that only when the law explicitly provides that a certain type of object can be taxed can that object become a taxable object.

Legal taxability requires that the principle of legal taxation should be followed when levying taxes and determining the objects of taxation. China's tax system includes three major tax systems, namely, goods and services tax, income tax and property tax, which levy taxes on goods (services) transactions, income and property respectively. To find the legal taxability of data, it is necessary to correspond to the relevant provisions in China's tax law. China's taxation of data is mainly reflected in two aspects: taxation of data transactions and taxation of data income.

First, tax on data transactions. It is mentioned in the Implementation Measures for the Pilot Scheme of Business Tax to Value-added Tax that the transfer of intangible assets is subject to tax. According to the legal interpretation, intangible assets are assets that do not have a physical form but can bring economic benefits, and data fully meets this definition;

Secondly, tax is levied on the income from data. China's Enterprise Income Tax Law stipulates that the taxable income obtained by an enterprise includes income obtained from various sources in monetary and non-monetary forms, and there are no clear provisions on income obtained from the transfer of data. However, as long as the transferring party obtains income in the transaction, it can still apply the Law's underpinning provision - Article 6(9) - and thus levy the corresponding tax on the income obtained. Therefore, income from data can be brought within the scope of

taxation by expanding the interpretation of the form of income.

As noted earlier, data are legally taxable.

2.2.3 Taxability of data for tax administration purposes

In addition to economic and legal taxability, taxation of certain types of objects must also be administratively taxable. Taxability in terms of administration includes the following specific requirements: First, taxpayers need to be identified. Taxable objects may generate revenue and form tax obligations in various aspects such as possession, use, transaction and disposal; secondly, the taxable amount can be accurately calculated; thirdly, the compliance cost of both parties must not be too high. In judicial practice, when the government introduces a new tax, it needs to regularly measure the efficiency of tax collection and analyse whether the revenue from the tax can cover the cost of administration. In some cases, the introduction of a new tax is based on the pursuit of social values or political decision-making, government departments do not accurately measure the efficiency of tax collection in a timely manner, and if the efficiency of tax collection is found to be very low in the later implementation process, further adjustments and improvements are inevitably required.

Therefore, the taxability of tax collection and administration requires that the government's regulations on tax types and tax payment mechanisms be concise and easy to operate to the greatest extent possible. From the tax collection and management practice since 2015, China's tax revenue related to the data industry has been increasing year by year, and the proportion of all tax revenue has been rising steadily, while the software and information technology service industry is among the industries most closely related to data. However, it is not difficult to find that the growth rate of tax revenue of this type of enterprises does not occupy a major advantage compared with other types of industries, which indicates that the data-related industry represented by software and information technology service industry has not yet become a pillar industry of China's national economy, but also indicates that there is still a broad space for the development of digital economy and the expansion of related industries.

To sum up, data can be levied as a new tax because of its taxability economically, legally and in terms of collection and management.

3. Problems with the Implementation of Data Taxation

Data as a new and varied form of taxable object has led to many new problems in the implementation of government policies related to data taxation, and the following is only a list of the more representative and urgent problems to be solved.

3.1 Should Personal Data Activities be Taxed

The main data subjects include enterprises, government agencies, scientific research institutions and individuals. Among them, enterprises, as for-profit civil subjects, carry out data-related activities for the purpose of obtaining economic benefits, and are of course taxable subjects; while government organs obtaining information without compensation and providing information in accordance with the law should not be taxed. However, if a government organ uses the information it obtains to seek economic benefits, such as providing paid services such as reading, using and consulting, it is required to pay tax on this part of its income. Meanwhile, scientific research organisations mainly use data to carry out non-profit activities such as scientific research, but they may also provide data-related services for a fee, or use data products or data assets for investment, so they should also be taxed according to the law in such cases.

After clarifying the data taxation situation of the three types of subjects as mentioned earlier, there is still a difficult question of data taxation - whether data tax should be levied on individual users. When an individual transfers his or her personal data and receives a cash gain, it is not wrong for the government to tax him or her; however, when an individual receives a non-cash gain, it is necessary to deal with the issue in a prudent manner.

3.2 Difficulty in Determining the Price at which Data are Traded

An open, transparent and standardised price system plays a very important role in data taxation. Prices are the basis for determining the amount of sales and calculating the amount

of tax payable; therefore, if a taxpayer deliberately understates the price of a transaction in order to avoid tax obligations or pay less tax, the tax authorities may approve the price of the transaction in accordance with the law. At the same time, price is also a condition for determining the elasticity of supply and demand and analysing the fairness and efficiency of the tax system. A reasonable price can help clarify whether there is an excess burden on tax items and who should bear the tax burden, so as to better fulfil the regulatory role of taxation.

Therefore, the prerequisite for data to be able to be used as asset management is the need to accurately measure the value of data assets. In practice, it is difficult for tax authorities to obtain the market price of data in many cases, which makes data taxation face difficulties in collection and management [5]. There are three main reasons for this: first, the frequency, variety and scale of data transactions in China are not high, and a large number of data products do not have open market prices, while there is also the possibility that both parties to a data transaction may adopt related transactions and yin and yang contracts; second, there is a large amount of personal information that is illegally collected, processed and transferred in the course of data transaction activities; and third, it is difficult to separate the transfer of data from other transactions. Under such a chaotic data management order, it is difficult for the tax authorities to determine the real price of data transactions, nor is it easy to know the amount of the transaction, and in the absence of a fair price for reference, there is no way to talk about tax supervision.

3.3 Interface between Data Taxation and other Sectoral Laws

Compliance of data-related economic activities with relevant regulations is an important prerequisite for the successful realisation of data taxation. Tax law is relatively independent and belongs to a different sectoral law compared with administrative law and civil law, but the implementation of tax law cannot completely ignore the provisions of other sectoral laws. For example, China's "Provisions on the Protection of Personal Information of Telecommunications and Internet Users" clearly mentions that telecommunications business operators, Internet information service providers and their staff shall keep strictly confidential the personal information of users collected and used in the course of providing services, and shall not disclose, tamper with, or destroy such information, nor shall they sell it or unlawfully make it available to others. If an Internet enterprise illegally sells data obtained in violation of the above provisions, and it is difficult for the tax authorities to judge whether the sales behaviour is legal or not, it may tax the illegal income in accordance with the provisions of the tax law. However, such an approach lacks solid legal basis on the one hand, and on the other hand, there is the possibility of legal disputes between the parties. Therefore, in order to achieve stability in the tax order, it is necessary to further coordinate the relationship between the tax law and other sectoral laws. The discussion on whether illegal behaviour can be taxed may not be a new issue, but with the development of the digital economy and the geometric growth in the scale of data transactions, the increased importance attached by society as a whole to personal privacy and data information security, and the expansion of the scope of data taxation, the urgency and importance of this issue will be further revealed.

4. Accompanying Measures on the Taxation of the above Data

In response to the above representative problems that need to be addressed in data taxation, corresponding supporting measures need to be given to facilitate their improvement.

4.1 Taxing Data Property at the Right Stage of Digital Economy Development

Given the importance of personal data activities in the digital economy, the Organisation for Economic Co-operation and Development (OECD) has considered recognising the positive role of user participation in value creation in data activities. Theoretically, since user participation in production activities can be used as a value-creating factor in the distribution of profits and tax revenues, it would be possible to tax a portion of the economic benefits derived from user participation in production activities. However, due to the technical complexity of

accurately calculating non-monetary economic interests and the high cost of analysing them, it is difficult to put real human, material and financial resources into the realisation of taxing personal data activities. Currently in China, data has not been taxed separately as a kind of property, which means that an individual's mere possession of data or data-related property interests does not give rise to a tax obligation. However, it is worth considering that, according to the theory of tax system, the purpose of taxing property is to balance the tax burden between savings and consumption so as to avoid over-concentration of wealth affecting social equity. Therefore, with the rapid development of the digital economy, if the characteristics of data as property become more and more clear and account for a higher proportion of personal wealth, the possibility of taxing data property through legislative provisions will also greatly increase [6].

4.2 Optimize the path of Data Circulation and Accelerate the Construction of Data Trading Markets

The fundamental way to solve the data pricing problem is to establish a national data trading market, to reduce the friction and internal cost of the circulation process by institutional norms, and to realize the openness and marketization of data trading.

Accelerating the construction of the data market is one of the urgent tasks for the development of China's digital economy, and data circulation, as a key link therein, is not only a prerequisite for consolidating the tax source and clarifying the tax base, but also helps to realize the fit between tax governance and the national development goals. At present, China has already established data trading centers in Guiyang and Shanghai, which has achieved a good start for the open circulation and trading of data. In terms of ecosystem optimization, only by building a circulation ecosystem that separates data exchanges and data vendors, linking data trading entities with third-party data vendors that provide services such as data integration, evaluation, consulting, and delivery with the exchanges as the hub, and eliminating the "information silos" in the circulation of data, can we achieve the goal of a more trustworthy, smooth, and efficient data sharing and exchange system. It is only

through a more mutual trust, smooth and efficient circulation system that data can be shared and exchanged, with a view to realizing high-quality supply of data at an early date, and achieving the purpose of guaranteeing security of transactions and healthy operation of the market [7].

4.3 Improve the supply of Tax Law System and Insist on Big Data to Govern Taxation

The key guarantee of data taxation is that the tax can be comprehensively supervised and audited under the provision of a perfect system. Supervision mechanism is the process of tax supervision by the tax department on tax-related activities and subjects involved in data elements in order to ensure the fairness and efficiency of tax collection [8]. Only by taking the legality and validity of contracts, transactions and ownership as the prerequisite for taxation, improving the institutional supply of tax law, connecting the tax law with other sectoral laws, and insisting on the integration of tax legislation, law enforcement and justice, can the tax be comprehensively supervised and audited.

The Opinions on Further Deepening and Reforming Tax Collection and Administration issued by the General Office of the CPC Central Committee and the General Office of the State Council mention the establishment of a new regulatory mechanism based on "credit + risk", a point that provides a basic direction for data tax governance. Under the premise of establishing a sound credit evaluation system for the process of data collection and management, the identification of credit-breaking behaviors, reward and punishment standards, and objection handling, it is also necessary to achieve intelligent risk control, using artificial intelligence and other technical means to monitor and judge its potential tax risks in real time, while intelligently giving the boundaries of guaranteed behaviors stipulated by law to ensure that enterprises are involved in the basic economic and tax activities related to data. All in all, no matter the establishment of reward and punishment mechanism or intelligent risk control, the fundamental means of "Internet + Supervision" is indispensable, and it is especially important to supervise the increasingly hidden and flexible data tax activities by means of digitalization and intelligent application [9]. At this stage, the

demand for further promoting the digital upgrading of tax collection and management still needs to be met urgently, so as to gradually realize the transformation from managing taxes with invoices to managing taxes with big data, and achieve the goal of accurate supervision.

5. Conclusions

In the process of exploring tax policies to cope with the digital economy, the inclusion of data as a key production factor in the object of taxation is an inevitable direction of tax reform. However, at present, whether it is the theory, or the use of data tax in practice, there are both theoretical dilemmas and practical difficulties that need to be resolved.

In general, there is no doubt about the taxability of data, but how to make full use of this characteristic of data to promote digital tax collection and management, so that the tax law can carry out new reforms in the field of digital economy with the cooperation of other sectoral laws, and promote the digital economy to realize high-quality development under the supervision of a reasonable tax system is a topic that needs to be continuously researched [10]. On the one hand, data has become a new object of collection under the framework of the tax system, but on the other hand, it provides an opportunity to revolutionize the tax collection and management methods. Starting from the characteristics of data elements and using data as an intermediary linking the tax system and the collection and management, it is possible to realize the interaction and balance between the tax system and data collection and management through digital collection and management.

References

[1] Sun Zheng, Min Qinghan, Zhu Xueyi. Theory, Logic and China's Programme of Data Taxation. Taxation Research, 2023, (01): 56-62.

[2] Deng W. Data Taxation Theory and Institutional Choice. Tax Research, 2021, (01): 47-53.

[3] Zhang Shouwen. On "Taxability" in Tax Law. Jurist, 2000, (05): 12-19+129.

[4] Fu Jing. A study on the taxability of data. Tax Research, 2020, (08): 54-61.

[5] Feng Xiaobin. Taxing digital services should be considered in the long run. China Economic Times, 2020-08-05 (004).

[6] Feng Xiaobin. A prospective study on the framework of tax system in the era of digital economy--Based on the theoretical perspective of factor of production determining the tax system. Fiscal Research, 2021, (06): 31-44.

[7] ZHAO Ruiqin, SUN Peng. Confirmation, trading, and assetisation: rethinking the theoretical issues underlying the transformation of big data into factors of production. Business Economics and Management, 2021, (01): 16-26.

[8] LU Wencheng, WEI Jian, HE Xinyu. Data tax: theoretical foundation and institutional design. Journal of Jianghai, 2022, (01): 91-97+255.

[9] Li Rui,Li Shujun. Digital economy: how China's tax system responds. Tax Research, 2020, (03): 91-98.

[10] Li Aijun. Data rights attributes and legal characteristics. Oriental Law, 2018, (03): 64-74.