

Research on Enhancing the Adaptability Between Tax Governance and Digital Economic Development

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Abstract: The digital economy has now become a driving force for China's high-quality development and a new engine for economic growth. Different from the traditional economy, the digital economy features virtuality, concealment, and cross-border characteristics, posing severe challenges to tax system design and tax collection. Traditional tax governance models can no longer address a series of tax issues in the digital era. This paper first elaborates on the connotation and characteristics of the digital economy, then analyzes the asynchronous dilemmas between China's tax governance and the digital economy from the perspectives of tax systems, tax collection systems, tax supervision capabilities, and talent demand. Finally, it explores specific countermeasures to enhance the adaptability, including improving the tax legal system and tax registration system, enhancing the adaptability of traditional taxes to the digital economy, optimizing tax collection systems, and cultivating professional talents, aiming to promote the quality and efficiency of China's tax governance.

Keywords: Tax governance; Digital economy; Adaptability

1. Introduction

As a new engine for global economic growth, the digital economy is profoundly reshaping the global economic landscape and value creation models. While bringing unprecedented opportunities, its virtuality, cross-border nature, and data-driven characteristics pose systemic challenges to the tax governance system based on traditional physical entities and fixed locations. For example, issues such as ambiguous taxpayers in platform economies and tax base erosion caused by cross-border profit shifting have emerged. As a global leader in digital economic development, China's adaptive reform of tax governance systems carries special strategic significance. However, contradictions exist between China's current tax governance level and the development of the digital economy. Against this backdrop, how to enhance tax governance capabilities to adapt to the digital economy has become an urgent issue.

2. The Digital Economy from a Tax Perspective

The digital economy is a new economic model driven by digital technologies, with data resources as key factors and networked and platform-based organizational forms. On August 27, 2024, the China Academy of Information and Communications Technology released the Research Report on China's Digital Economy Development (2024), showing that China's digital economy reached 53.9 trillion yuan in 2023, accounting for 42.8% of GDP. According to data from the State Taxation Administration, the core digital economy industries contributed 12.1% of total sales revenue and 10% of GDP in 2023. Evidently, the digital economy is increasingly becoming a pillar of stable economic growth, yet its rapid development also places higher demands on China's tax governance mechanisms.

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Distinct from agricultural and industrial economies, the digital economy exhibits the following distinctive features:

Data as a core factor: The replacement of physical capital by data capital is its most essential characteristic. Data, as a key production factor, integrates deeply into production, distribution, circulation, and consumption, accumulating massive resources and driving industrial upgrading and the emergence of new business forms through internet platforms. However, the value of data is difficult to accurately calculate or standardize, complicating tax base determination. Additionally, digital service transaction information can be concealed via encrypted payment channels, creating new challenges for tax collection.

Decentralized value creation: In the digital era, economic activities increasingly shift to virtual spaces, eroding traditional tax bases. Non-monetary activities such as user behavior data analysis and algorithm optimization, though unincorporated into tax bases, are crucial for corporate profits. Multinational corporations can also bypass corporate income tax by leveraging digital operations to avoid the "permanent establishment" rule.

Cross-border transactions: Digital products and services (e.g., cloud computing, online advertising) can be delivered instantaneously, transcending geographical boundaries and facilitating global trade. However, this increases difficulties in determining tax jurisdiction, including identification of revenue types, taxable locations, and applicable tax rates. For instance, in complex transactions involving buyers, sellers, platforms, and payment providers across different jurisdictions, the definition of taxable locations and rates becomes ambiguous.

Networked and platform-based organization: Platform economies, as the dominant organizational form, connect producers and consumers to form multi-sided markets. New business models blur the line between producers and consumers, with a large number of natural persons becoming transaction subjects. Frequent transactions involving scattered and mobile taxpayers make traditional tax registration and collection models ineffective. For example, individual livestreamers with diverse income sources (tips, advertising revenue, platform shares) pose challenges for accurate tax calculation.

While the digital economy creates opportunities, it also challenges China's tax governance mechanisms. Enhancing tax governance capabilities and improving tax system adaptability to the digital economy has thus become a critical task.

3. Tax Challenges Posed by the Digital Economy

3.1. Asynchronous Dilemmas Between Tax Systems and the Digital Economy

3.1.1. Difficulties in Defining Taxpayers

The digital economy's new business models have diversified transaction subjects and forms, making tax sources more concealed. Information asymmetry exacerbates difficulties in identifying taxpayers. Digital transactions, unconstrained by time and space, have expanded corporate profits and created more employment opportunities, leading to a surge in individual practitioners and the rapid growth of C2C business models. These taxpayers, characterized by mobility and dispersion, are hard to register and supervise. For example, Didi Express drivers, as independent individuals with diverse and unstable incomes, only require identity verification rather than tax registration, increasing collection difficulties. Moreover, digital transactions relying on the internet, electronic currencies, and blockchain are highly concealed and virtual, hindering tax authorities' tracking of tax-related information and identification of scattered taxpayers. Additionally, high-income groups such as internet celebrities and livestreamers, with complex settlement methods, are poorly covered by current collection systems, risking tax evasion.

3.1.2. Ambiguity in Tax Objects

Traditional economies primarily tax tangible goods, labor, and services with differentiated standards. In the digital economy, however, emerging forms such as virtual goods, digital services, and data transactions challenge tax object definitions. The shift from tangible to intangible assets (e.g., digital assets) renders existing criteria obsolete, making accurate identification of tax objects in digital transactions difficult for tax authorities.

3.1.3. Breaking the "Physical Presence" Principle of Permanent Establishments

Permanent establishments, defined by the OECD Model Tax Convention as "fixed places of business" or dependent agents, determine a country's taxation rights based on the industrial-era logic that "physical presence equals value creation." In the digital economy, value creation relies on user data collection, algorithm optimization, and market interaction—activities that require no physical presence. Corporations can thus provide digital services or facilitate transactions without establishing permanent establishments, evading corporate income tax.

3.2. *Asynchronous Dilemmas Between Tax Collection Systems and the Digital Economy*

3.2.1. Mismatch Between Taxpayer Shifts and Collection Methods

As transaction models evolve, taxpayers have shifted from traditional enterprises to online platforms and individual merchants, with natural persons gaining prominence as economic subjects. China's current collection methods for natural persons are inadequate: high-income groups like internet celebrities use complex settlement methods and conduct most transactions online, making tax nodes hard to track. This mismatch increases tax loss risks. In C2C models, individuals switch between consumer and supplier roles without tax registration, and transactions are highly concealed, further straining collection systems. Even registered taxpayers may lack fixed business locations, complicating the determination of taxable locations.

3.2.2. Mismatch Between Economic Models and Collection Systems

Digital economy tax collection can no longer rely solely on tax authorities. E-commerce generates massive, complex, and diverse data stored on third-party platforms rather than tax departments, limiting authorities' access to real transaction information. China's reliance on source withholding and lack of monitoring mechanisms for virtual or network-based potential tax sources further exacerbate tax losses.

3.3. *Asynchronous Dilemmas Between Tax Collection Systems and the Digital Economy*

Tax supervision methods lag behind the objects of supervision. On one hand, in digital transaction activities, key information such as capital flows, transaction timing, and transaction locations is highly concealed, making it difficult to define tax elements such as taxpayers and taxable objects. Transaction participants often use technical means to evade supervision, which results in tax authorities being unable to accurately detect tax violations. Moreover, tax departments lack efficient technical means in the process of tax law enforcement, exposing tax governance to risks and challenges in tax law enforcement. On the other hand, there is a shortage of professional talents. The digital economy involves complex information technologies, business models, and tax policies, requiring a team of professional talents to effectively deal with various new problems arising in the digital economy. However, at present, it takes time for China's tax personnel to change their ideological awareness and improve their management capabilities. They are insufficient in mastering and applying emerging technologies, making it difficult for them to adapt to the rapidly changing tax environment. In addition, some multinational enterprises, taking advantage of the characteristics of the digital economy, the imperfection of China's tax system, and the differences in international tax rules, carry out cross-border tax planning through certain means to evade tax supervision, which brings difficulties to China's tax audit work.

4. Strategies to Enhance Adaptability Between Tax Governance and Digital Economic Development

4.1. Improve the Tax Legal System and Tax Registration System

Laws such as the Value-Added Tax Law and the Enterprise Income Tax Law are in urgent need of improvement to provide clear legal basis for digital economy transactions and reduce disputes between tax collectors and taxpayers. In the context of the digital economy, the subjects of taxation are diverse and extensive, including not only enterprises but also a large number of individual practitioners such as personal online stores and live streamers, with their business activities not restricted by geographical regions. Based on this, an internet-based electronic tax registration system can be established to bring various new types of economic businesses into the scope of management, thereby realizing a unified, standardized, convenient-to-operate, intelligent and efficient tax registration management, so as to meet the needs of the development of the digital economy.

4.2. Improve the tax system and precisely implement preferential tax policies

On the one hand, it is necessary to improve policies related to existing taxes and enhance the adaptability of traditional taxes to the development of the digital economy. For instance, in terms of value-added tax, the scope of taxation should be further clarified, with consideration given to incorporating digital economy-related products and services. In terms of enterprise income tax, the criteria for determining permanent establishments should be improved, shifting from physical entities to substantive existence. China should actively participate in the formulation of international tax rules, safeguard the rights and interests of developing countries, provide "Chinese solutions" for international tax rules, and enhance its international discourse power.

On the other hand, focus should be placed on the collection of new taxes such as digital tax and digital service tax. At present, tax elements in China's digital transactions—including taxpayers, taxable objects, and tax rates—cannot be accurately defined, and there are no corresponding tax categories. However, many countries around the world have already started or are planning to impose digital taxes, so close attention should be paid to the practical effects of such new taxes in other countries.

In addition, at the level of preferential tax policies, it is essential to ensure that relevant policies are implemented precisely and effectively, promoting the digital economy onto a path of standardization and healthy development. In the context of the digital economy, more targeted preferential tax policies should be implemented based on the unique characteristics of the digital industry. For example, for innovative enterprises, policies on additional deductions for research and development expenses can be improved to stimulate their enthusiasm for technological innovation; for emerging business models such as platform economies, special preferential tax policies can be formulated to guide the healthy development of the industry. Meanwhile, it is also necessary to strengthen supervision, control, and effect evaluation of relevant policies to ensure their effective implementation.

4.3. Improve the Tax Collection and Administration System

In the era of the digital economy, tax collection and administration face challenges such as highly mobile tax sources, integration of multiple business formats, and strong concealment of income. Governance upgrading can be achieved through the collaborative innovation of big data, artificial intelligence, and blockchain technologies to improve the efficiency and transparency of tax collection and administration. For example, big data technology can integrate multi-source data (such as financial statements, bank transactions, and electronic invoices) to build a comprehensive database of taxpayer information, enabling tax authorities to achieve precise profiling and dynamic risk monitoring. The distributed ledger and encryption technology of blockchain can ensure that tax-related data remains unaltered. Artificial intelligence can automatically generate tax returns, reducing the workload of tax authorities.

It is also feasible to introduce a third-party collaborative tax governance and administration model and implement a supporting tax withholding system for third-party platforms. Third-party transaction platforms in the digital economy, as hubs for massive tax-related data, inherently possess significant advantages of convenient information exchange and efficient supervision, playing an increasingly important role in tax collection and administration. Based on this, a dual tax governance model featuring close collaboration between the government and platforms can be established to strengthen the cooperative ties between tax authorities and third-party platforms. Relevant laws can stipulate the responsibilities and obligations of third-party platforms to regularly report tax-related information to tax authorities, thereby expanding the scope of information available to tax authorities. Additionally, it is necessary to enhance communication between the government and enterprises, and mobilize the enthusiasm of industry associations and intermediary organizations, so that they can play a role in addressing the problem of information asymmetry and promote China's tax collection and administration toward greater scientificity and efficiency.

Strengthening inter-departmental cooperation is crucial to encouraging multi-subject participation and the application of diverse means in tax supervision, fostering a collaborative governance model among different government departments, and building a multi-level tax co-governance system. Information sharing between tax authorities and other departments (such as industry and commerce, banking, and market supervision) should be enhanced to break the limitations of single-party governance. Special inter-departmental working groups can be established to increase information exchange, regularize intelligence sharing, and achieve interconnection of tax-related information. Furthermore, a case database related to tax collection and administration practices in digital economic activities can be developed to better guide the work of tax authorities and improve the accuracy of tax law enforcement.

4.4. Cultivate Professional Talents

The tax issues brought about by the digital economy are complex and diverse, placing higher demands on professionals in terms of knowledge reserves, policy interpretation capabilities, and technical operation skills. Therefore, it is necessary to cultivate professional talents specialized in digital economy taxation. Universities should be encouraged to add interdisciplinary programs such as "Digital Economy and Taxation" and "Smart Tax Administration", and offer technical courses on big data, blockchain, and artificial intelligence to cultivate interdisciplinary talents. We should deepen university-enterprise cooperation, encourage tax authorities to hold lectures in universities, and support the joint establishment of training bases by tax authorities and universities to improve practical capabilities. International exchange programs should be promoted: talents can be selected to participate in international tax forums to learn cutting-edge theories and practices, and overseas experts can be invited to give lectures to broaden the perspective on cross-border tax governance.

5. Conclusion

In the era of the digital economy, China's tax governance system faces various problems and opportunities. Firstly, it is difficult to define tax subjects and taxable objects; permanent establishments have broken through the "physical presence" principle, making cross-border tax collection and administration more complex and leading to severe base erosion. Secondly, the relative lag of tax collection and administration increases the risk of tax loss. Finally, tax supervision methods are relatively backward compared to the objects of supervision, and there is a shortage of professionals specializing in digital economy taxation.

In the face of these challenges, we need to further improve the tax legal system and tax registration system, promote tax system reform, use new technologies to improve the efficiency of tax collection and administration, and cultivate professional interdisciplinary talents. Through

these measures, we can enhance the adaptability of tax governance to the development of the digital economy.

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