



Tax Revenue Loss in the Digital Economy

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Abstract. The rapid development of the digital economy poses severe challenges to the traditional tax system. New business models such as cross - border data flows, virtual transactions, and platform economies have made issues like tax source definition, tax jurisdiction, and profit allocation increasingly complex. This paper analyzes the main impacts of the digital economy on tax collection and administration, including tax base erosion, intensified tax competition, and the reduced applicability of the traditional permanent establishment principle. Meanwhile, it explores the reform plans of the international community to address digital economy tax issues, such as the "Two - Pillar" framework (global minimum tax rate and profit reallocation rules) proposed by the OECD, as well as the practices of various countries in digital service taxes (DST). Finally, this paper puts forward suggestions for improving digital economy tax policies, including strengthening international coordination, optimizing tax jurisdiction rules, and promoting digital tax collection and administration, so as to promote tax fairness and sustainable economic development.

Keywords: Digital Economy, Tax Challenges, Base Erosion, Two-Pillar Approach, Digital Services Tax

1 Introduction

As time goes by, humanity has experienced the Stone Age, slave society, feudal society, capitalist society, and the vigorously developing socialist society. From different perspectives, humanity has also experienced the agricultural revolution, the industrial revolution, and the ongoing information revolution. Each technological revolution has brought about earth - shaking changes. The advent of the agricultural revolution transformed humans from food gatherers to food producers. This change in the way of obtaining food altered the relationship between humans and nature. The industrial revolution greatly enhanced productivity and was also a major factor in the arrival of capitalist society. The current information revolution is an even more astonishing change. The new - generation information technology supported by the Internet and big data has rapidly ushered in the digital age of global economic development, with the digital economy being a major characteristic.

2 Explanation of Core Concepts

The digital economy takes digitalized knowledge and information as the key production factors, digital technology as the core driving force, and the modern information network as an important carrier. Through the in - depth integration of digital technology and the real economy, it continuously improves the digital, networked, and intelligent levels of the economic society, and accelerates the reconstruction of the economic development and governance models. Tax revenue loss refers to the phenomenon and behavior in which various tax - related entities use various means to violate current tax laws and regulations, converting the taxes that should be paid to the state into personal benefits, resulting in the actual tax revenue in storage being less than the amount of tax that should be levied calculated according to the tax law standards. This includes tax evasion, tax fraud, tax dodging, evading the collection of overdue taxes, tax - farming, and illegal tax avoidance.

3 Theoretical Analysis

3.1 Impact on Tax Collection in the Digital Economy

The economy in the digital age presents different characteristics. It is no longer limited to the real economy, and its characteristics are not just the original ones. With development, the digital economy shows the following characteristics: data - dependence, high mobility, transaction virtuality, business ambiguity, and the naturalization of market entities. The first three characteristics have the strongest impact. Data is the lifeblood of the digital economy. Without data, the digital economy cannot function. With development, data is continuously integrated into various aspects of industry, such as raw material preparation, production, sales, and market analysis; it is integrated into agriculture, including planting, production, and market transportation; and it also improves the service efficiency of the service industry. Therefore, data is undoubtedly the core factor of the current era. Data has become one of the basic production resources, indirectly changing the way of value creation. The economy is often interconnected. Since the way of value creation has changed, the distribution of interests will also change, and tax jurisdiction and attribution will inevitably be affected.[1]

3.2 The Endless Emergence of Information Asymmetry

In the context of the digital economy, in market economic activities, the information obtained by various entities is inconsistent, and sometimes there is a huge gap - one party may have all the information, while the other party doesn't even know the basic information. It can be seen that information asymmetry is a common problem in the market economy. We all know that the market is an "invisible hand" that controls the market, and the government, as the "visible hand", can play a role in the market economy and reduce the harm of information asymmetry. In the digital economy,

traditional transactions have changed. Online transactions have taken away most of the business from the real - economy transactions. The transaction process, transaction method, and transaction currency have all become virtualized, which makes it easier for information asymmetry to occur between the tax - collecting and tax - paying parties during the tax - collection process, laying the groundwork for tax revenue losses.[2]

3.3 The "Dilemma" of the Tax Equity Theory in the Digital Economy

First of all, the tax equity theory refers to the principle that in the process of taxation, the tax burden of each taxpayer should be adapted to their burden - bearing capacity, and at the same time, the burden levels among taxpayers should be kept in balance. The central idea of tax fairness is that it is necessary to distribute the taxes levied on taxpayers equally and fairly. However, the hidden nature of transactions in the digital economy is a major obstacle to achieving fairness. Fairness, justice, and openness seem to be natural enemies of the inherent concealment of the digital economy. This will subsequently affect the confirmation of the tax base, the fair collection of taxes, and ultimately affect the timely, full - amount, and complete storage of tax revenue.

3.4 It is Difficult to Determine the Taxable Elements under New Business Models

The integration and development of the digital economy in various industries have caused great difficulties in determining the taxable objects, involving multiple tax categories such as value - added tax and individual income tax. In terms of value - added tax, with the booming development of the digital economy, the degree of integration of products and services is getting higher and higher. For example, in the past, people hailed a taxi on the roadside, but now they can book a ride at home using a mobile phone and just go downstairs to take the car at the right time. At the same time, different products and services correspond to different tax rates. The integration and ambiguity of digital economy businesses make it difficult to determine the taxable objects of value - added tax. The uncertainty of taxable objects will in turn cause difficulties in tax collection, with one problem leading to another. [3]

4 Countermeasures

4.1 Improve the Current Tax System and Use Digital Technology to Complement Tax Collection

In the situation of the digital economy, it is urgent to improve the tax system. We should fully consider the various characteristics of the current digital economy, master the basic laws and models. The state should also continuously study the integration model of the digital economy and the current economy, such as the "platform + individual" model, and promote the development of the tax collection system in line with

society. Objectively, by strengthening the advancement of the tax collection system, we can reduce tax revenue losses.[4]

For the problems brought by the digital economy to tax collection and tax revenue losses, we can also use digital technology to solve them. Problems brought about by development should be solved through development. We should innovate the tax collection and administration model, use digital technology to improve and innovate; improve the level of tax services, such as creating digital personal tax accounts and conducting tax payments online; strengthen tax supervision, use digital algorithms and other technologies to classify and intelligently manage taxpayers, and realize the automation of tax risk identification, early warning, and other services.[5]

4.2 Clarify the Rules of Taxable Elements

Under the background of the digital economy, traditional industries are deeply integrated with digital technology, and Internet - based business models are rich and novel. The rules of traditional taxable elements can no longer meet the current social situation. Only by continuously updating can the old models be matched with the new social situation. We should deeply understand the development model of the digital economy and the new changes in taxable elements. For example, in terms of value - added tax, we should clarify the concepts of digital products and digital services, and fully include digital products and services not covered by the current tax system into the scope of value - added tax collection to ensure that "all taxes that should be collected are collected".[6]

4.3 Cultivate High - Quality Tax Talents

The high - requirements and high - development of the digital economy require high - quality talents to match. With the rapid development of technology, people are also forced to keep advancing. The development of the digital economy and the continuous improvement of taxable elements drive workers to continuously learn new knowledge. In future recruitment, ability - based recruitment should be strengthened as the recruitment goal; universities should also continuously update their training methods to continuously supplement new talents to society and contribute to the growth of the tax workforce.

4.4 Strengthen Tax Collection and Administration

To enhance the tax collection and administration capabilities in the digital economy, it is necessary to combine technical means, institutional innovation, and international cooperation to meet the challenges brought about by virtualization, border - lessness, and concealment. Pay special attention to building an intelligent tax collection and management technology system, connecting with e-commerce platforms, payment institutions, and logistics enterprises to obtain transaction records, contract texts, and logistics information in real time. Utilize machine learning to analyze abnormal patterns.

5 Conclusion

The rapid development of the digital economy has brought about profound changes to the global tax system. Traditional tax rules face many challenges when dealing with new business forms such as digital transactions, cross - border data flows, and platform economies. In the future, the tax governance of the digital economy needs to strengthen international cooperation, optimize the division of tax jurisdiction, and use technologies such as big data and blockchain to improve the efficiency of tax collection and administration. At the same time, the relationship between tax fairness and the development of the digital economy should be balanced, and a modern tax system adapted to the digital economy era should be constructed to promote the sustainable development of the global economy.

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