

An Investigation into the Feasibility of WTO Members Taxing Digital Goods Imports

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Abstract. With the rise of digital technologies such as big data, artificial intelligence, and cloud computing, digital trade has increasingly transcended the temporal and spatial constraints inherent in traditional trade, emerging as a vital engine for global economic growth. In the digital economy context, traditional tax governance models confront difficulties in regulating tax avoidance practices by digital enterprises that decouple the location of user value creation from that of revenue generation. This has led to a significant imbalance between the profits digital enterprises earn in market countries and their corresponding tax contributions. This paper analyzes the current state of digital taxation in China, further examines the benefits and drawbacks of digital tax collection for different stakeholders, and explores a balanced approach to taxation that accommodates multiple interests. The discussion covers the following aspects: differences between the digital economy and the physical economy, current tax avoidance methods in the digital economy, and inequality issues arising from the tax framework. The paper concludes that a dual and relatively high-threshold regulatory mechanism should be established, and developing countries should be permitted to implement differentiated policies.

Keywords: WTO, digital trade, digital tax, taxation, international trade

1. Introduction

The world has entered the era of big data, characterized by explosive data growth and the emergence of data as a vital factor of production. However, the high liquidity and strong virtuality of the digital economy render it incompatible with traditional tax system that rely on physical operations, thereby posing significant challenges to tax governance. To increase government revenue, improve the global tax framework, and regulate the digital economy, countries must identify effective pathways for levying digital taxes. This paper employs a literature analysis approach. By examining existing literature, data, and case studies, it categorizes and discusses the advantages and disadvantages of imposing digital taxes. It then explores an innovative and internationalized pathway for digital taxation. Drawing conclusions from the current international trade landscape, this study lays the groundwork for developing more concrete analytical frameworks that integrate deeper principles of tax economics in the future.

2. The rise of the digital economy and its impact on tax systems

2.1. The digital economy

The term "digital economy" first appeared in *Digital Economy: Opportunities and Challenges in the Networked Intelligence Era*, which states that "the digital economy encompasses infrastructure such as the internet, e-commerce, and online transaction models, forming a complex economic system." The International Monetary Fund (2021) defines the digital economy broadly as an economic form where all business activities are conducted using digital technologies; narrowly, it refers to business activities carried out through online platforms.

In the digital economy era, data volumes have grown exponentially, solidifying data's role as a critical factor of production. As the digital economy advances, nations increasingly recognize the immense economic benefits from data. Taxing the revenues of entities that directly benefit from data has become a key focus of tax policy adjustments and tax system reforms. According to the *Global Digital Economy White Paper* (2023) released by the China Academy of Information and Communications Technology, the digital economy across 51 countries reached \$41.4 trillion in 2022, an increase of \$2.9 trillion from the previous year, accounting for 46.1% of GDP. An increasing number of multinational technology companies have generated substantial commercial value within the digital economy [1].

2.2. Impact of the digital economy on the international tax system

From the perspective of international tax jurisdiction, the taxing right over a company's cross-border business is shared between the source country (where income is generated) and the residence country (where the company is registered). Typically, the allocation of taxing rights for a company's cross-border income follows the "permanent establishment principle." The high virtuality and liquidity of the digital economy undermine this principle, creating opportunities for tax avoidance. Specifically, the digital economy's virtuality allows enterprises to shift operations from offline to online platforms. Consequently, physical permanent establishments such as branches or administrative offices are no longer essential for overseas operations. Enterprises thus avoid establishing physical business premises in source countries, directly circumventing their taxing rights. Although businesses conducting activities in source countries still require physical facilities such as logistics centers, transportation hubs, and warehouses to fulfill goods delivery and distribution needs, Article 5 of the OECD Model Tax Convention and international tax administration consensus exclude such facilities from the "permanent establishment" concept. This exclusion is based on the minimal contribution of premises dedicated solely to displaying, storing, or delivering goods to the overall business activity.

Furthermore, leveraging the high mobility of the digital economy, digital enterprises can freely segment their operations—relocating core activities to low-tax jurisdictions while shifting ancillary functions like warehousing to high-tax areas. This practice enables tax base erosion and profit shifting.

3. Historical context and current status of digital taxation

The prevailing global consensus remains against imposing digital taxes. However, in light of the rapidly expanding digital economy and its significant impact on tax systems as discussed earlier,

countries must urgently establish a reasonable framework for taxing the digital economy without unduly hindering its development.

Building upon the framework of Base Erosion and Profit Shifting (BEPS), the Organisation for Economic Co-operation and Development (OECD) has released a series of digital tax reform proposals, first introducing the "Two-Pillar Solution" in January 2019. Pillar One's nexus rules establish a connection based on an enterprise's active and continuous economic activities within a market country, rather than the presence of a physical establishment. Pillar Two establishes income allocation rules and under-taxation rules to protect the rights of resident jurisdictions and prevent base erosion and profit shifting [2]. The "two-pillar" approach aligns with the new demands of the digital economy on tax systems and holds certain feasibility. However, the establishment of emerging digital tax rules involves a tug-of-war between digital powerhouses and lagging nations over interests, as well as competition among some countries to shape international tax discourse. Consequently, the OECD's proposed digital tax reform plan faces significant implementation challenges. Multiple European nations have successively enacted legislation establishing digital services taxes. The EU took the lead in proposing a digital services tax, stipulating that taxable entities must meet dual threshold criteria. This proposal gained approval from most member states for its potential to effectively mitigate tax base erosion within the EU. However, during deliberations, opposition from certain low-tax member states, coupled with U.S. obstruction, ultimately prevented its adoption [3]. Although the EU's digital services tax proposal failed to pass, its pioneering attempt in establishing such a tax provided a reference for subsequent legislative efforts worldwide. Countries like the UK and France employed the EU proposal as a blueprint, successively introducing digital services tax schemes tailored to their national circumstances. Global digital services tax legislation has developed rapidly.

4. Benefits of levying digital taxes

4.1. Fiscal revenue compensation and promoting fiscal equity

The imposition of a digital services tax directly establishes a new tax base and addresses the shortcomings of traditional taxation, which only targets "physical presence." The digital economy ranks among the world's fastest-growing sectors. Taxing it enables government revenues to grow in tandem with the digital economy, allowing governments to share in its development dividends and providing public finances with a sustainable new revenue stream. Examples from the UK and France, both of which have implemented digital taxes, illustrate this:

UK: Since introducing a 2% digital services tax in 2020, it has generated hundreds of millions of pounds annually. For the 2021-2022 tax year, digital tax revenue reached £515 million.

France: The 3% digital services tax generated approximately €400 million in annual revenue during its initial implementation phase.

These revenues provide direct financial support for bridging public finance gaps and investing in infrastructure, education, healthcare, and other sectors.

4.2. Correcting market competition distortions

4.2.1. Reducing "digital vs. physical" discrimination

The tax gap between digital and physical products stems from systemic discrimination caused by international trade rules lagging behind technological advancement, effectively subsidizing digital

delivery. The gaming industry exemplifies this: Physical games discs entering the U.S. market face import tariffs (e.g., 25%-54% on Chinese-made consoles) and sales-stage VAT (averaging 6%-10% across U.S. states), resulting in a combined tax burden exceeding 30%. Digital games: in contrast, downloads are protected under the WTO's E-Commerce Moratorium, exempting cross-border transmission from tariffs. Simultaneously, digital platforms registered in low-tax jurisdictions such as Ireland reduce VAT rates below 5%, resulting in an effective tax burden less than one-third that of physical products. This disparity directly distorts the market: physical games are forced to raise prices due to tax burdens (e.g., a Nintendo Switch fully passing on tariffs could exceed \$500), driving consumers toward digital versions and accelerating the decline of the physical supply chain. Companies like Sony relocate production to Vietnam or Mexico to avoid taxes, yet confront supply chain disruptions risk. Tax-exempt digital platforms such as Steam monopolize distribution channels, pushing small and medium-sized physical retailers to the brink of collapse. A deeper impact stifles innovation—tax burdens render physical manufacturing and logistics unattractive for investment, diverting resources entirely to the digital sphere and halting hardware R&D.

4.2.2. Breaking market monopolies

Platform economies rely on network effects to concentrate users within a small number of applications. Once digital enterprises secure vast user bases through formidable competitiveness, monopolistic tendencies emerge. Their core strength stems from controlling and analyzing data—now a critical production factor in the digital economy. Platforms offer free services to collect consumer data for business optimization, yet pay no compensation for user contributions. For instance, users access video content by watching ads or paying fees, while platforms simultaneously gather their search histories, consumption preferences, traffic contributions, and user acquisition data at no cost. Leveraging this data, platforms implement dual lock-in strategies: analyzing historical data to deliver personalized services, fostering user inertia (voluntary lock-in); and erecting data barriers to raise switching costs (involuntary lock-in). This perpetuates data monopolization and reinforces market dominance.

Established platforms leverage massive user data to erect competitive barriers, making it difficult for new entrants lacking data resources to survive. They are often eliminated or acquired (e.g., WhatsApp's acquisition by Facebook). Incumbents' control over data continuously raises market entry barriers, solidifying the oligopoly structure in the internet sector.

To break large firms' monopolistic grip, digital taxes employ a dual threshold approach: taxing only internet giants meeting global/domestic revenue thresholds to increase their tax burden and curb monopolistic behavior, while exempting smaller businesses below these thresholds. This lowers market barriers and restores fair competition in the digital marketplace.

5. Challenges in implementing digital taxes

5.1. Increased costs for digital economy services

Global digital tax implementation imposes two types of additional costs on digital enterprises:

First: Digital enterprises must pay additional taxes, directly increasing operational costs.

Second: Compliance costs for digital enterprises surge significantly. Digital services tax imposition creates high compliance costs due to required technological investments. Amazon stated that calculating owed taxes required millions of dollars to reprogram its systems and track user data

to identify digital revenue generated in France. Google raised concerns about challenges in tracking user locations masked by Virtual Private Networks (VPNs).

Consequently, to maintain profitability amid current monopolistic market structures, digital enterprises will inevitably pass these tax burdens onto consumers.

The imposition of the digital services tax may ultimately shift the burden to consumers, impacting their immediate interests. The "Economic Impact Assessment Report on France's Digital Services Tax," jointly released by Deloitte and French law firm Taj in March 2019, indicates that 55% of the digital services tax would be passed on to consumers, 40% to online sellers, while large tech companies will bear only 5% [4]. For major digital platforms, the digital services tax not only reduces profits but also necessitates operational model adjustments. Amazon was the first to respond substantively to France's digital services tax, announcing it would impose a 3% levy on French SMEs using its online platform. This effectively shifts the government's digital services tax burden onto retailers and consumers. France has also conducted extensive domestic discussions and evaluations regarding its digital services tax policy.

5.2. Inequality issues arising from rule fragmentation

The global rise of digital taxes, designed to address tax inequities in the digital economy, has instead spawned "fragmented inequality" due to unilateral and fragmented collection models. This has created three types of divides:

(1) Distorted Corporate Competition

Multinational giants can leverage resources to shift tax burdens (e.g., Amazon raised prices by 2% for Indian users to cover the digital tax), while SMEs are forced to bear compliance costs. Kenyan local e-commerce platforms, unable to comply with varying rules across multiple countries, saw their tax costs surge by 15% and were ultimately acquired by Jumia. Simultaneously, conflicting regulatory designs create a "compliance maze": France's digital tax covers online advertising but excludes e-commerce, while Spain includes streaming services but applies fluctuating rates.

(2) Deepening North-South Divide

Developed nations leverage technological advantages for precise taxation (e.g., France tracking Netflix user data), while developing countries face dilemmas due to weak enforcement capabilities: Indonesia imposed a 10% digital VAT but collected less than 30% in 2023 due to insufficient cross-border enforcement capabilities.

(3) Hidden Shift of Consumer Burden

Taxes burdens are shifted to consumers through service price hikes: After India imposed a 2% digital tax, Spotify Premium's local annual fee rose by 24%, forcing low-income groups to accept "free but health data-sharing" alternatives; EU users face more frequent personalized ads (up 37% in 2023) as platforms avoid taxes. This burden-shifting creates a "digital poverty trap" — high-income individuals pay for privacy, while low-income groups surrender data to offset tax burdens.

6. Exploring compromise pathways and innovation mechanisms

6.1. Design of taxable entities

Currently, most countries stipulate that digital service taxes are levied on digital enterprises. Some nations exempt domestic digital enterprises, restricting the tax base to foreign digital enterprises, while a few explicitly target large cross-border internet companies like Google, Facebook, and Amazon. Given the global mobility of the digital economy, countries should strive to reach

consensus on defining taxable entities. Simultaneously, nations must ensure tax consistency between domestic and foreign enterprises, not only reducing trade frictions (such as the digital tax dispute between France and the United States) but also making the digital tax collection framework fairer and more transparent.

Secondly, due to the high mobility of business functions in the digital economy, taxable entities should include both enterprises and individuals. If the tax base is restricted to entities, digital enterprises could reorganize their value chains by separating functions and assigning taxable activities to individuals to avoid digital services tax.

Furthermore, regarding the determination of taxable objects for digital enterprises, a review of global legislative practices reveals that most countries adopt a dual threshold approach. Taxable objects are identified based on two criteria: the enterprise's global revenue and its domestic service revenue in the jurisdiction.

6.2. Threshold and rate design

To support the development of small and medium-sized digital enterprises and ensure the overall vitality of the digital economy, the threshold for the digital services tax should be set at a relatively high level. However, government fiscal revenue must also be considered. The specific threshold could reference the OECD's "Two-Pillar" approach: targeting large-scale multinational enterprises with global revenues exceeding €20 billion and profit margins above 10%.

Regarding tax rates, an analysis of rates implemented by countries that have already introduced digital services taxes reveals that the current range spans from a minimum of 2% in the UK to a maximum of 10% in Indonesia, with 3% being the most prevalent, adopted by France, Belgium, and Spain [5].

Therefore, to expedite global consensus, setting the digital services tax at 3% is a more reasonable choice. Simultaneously, for less developed nations with limited digital economy oversight capacity, differentiated policies could be introduced through international consensus to provide supplementary tax compensation.

Furthermore, to curb the monopolistic dominance of large digital enterprises in the digital economy, a graduated tax rate could be implemented—where the tax rate increases progressively with the rising profits of enterprises or individuals.

7. Conclusion

To conclude, as the digital economy continues to expand, digital tax imposition can effectively curb the current monopolistic landscape dominated by a small number of tech giants. It also generates additional fiscal revenue for developing countries and lay the foundation for a sound global framework governing the digital economy's regulated operation. However, implementing digital taxes currently faces multiple challenges: direct increases in digital economy costs, demands for extensive digital network monitoring, and tax inequities arising from inconsistent regulations and multilateral frameworks. Advancing the global digital tax adoption requires prioritizing higher threshold, establishing dual-tiered thresholds, and most importantly, striving to achieve international consensus. This paper presents only a preliminary proposal for a digital tax system, based on the aforementioned pros and cons. A truly feasible digital tax solution requires further research grounded in fiscal expertise, a critical focus for future studies.

References

- [1] China Academy of Information and Communications (CAICT). (2023). Technology global digital economy white paper (2023). Retrieved from http://www.caict.ac.cn/kxyj/qwfb/bps/202401/t20240109_469903.htm
- [2] Zhang, Z. Y. (2002). International tax law. People's Court Press. pp256
- [3] Fan, Y. X., & Wang, Q. (2020). The development of international taxation rules in the context of economic digitalization: An interpretation and study of the OECD's "uniform method". *Taxation Research*, (6), 81-83.
- [4] Zhang, J., Li, Z., & Xiao, R. M. (2020). Global digital economy tax rule adjustment trends and reflections. *Taxation and Economy*, (4), 96.
- [5] Tang, Q. Y. (2020). Global digital tax: A new bridgehead for international rule-making. China Think Tank Network. Development Research Center of the State Council. Retrieved from <http://www.chinathinktanks.org.cn/content/detail/id/tj4y5g67>