CONSTRUCTION OF CORE RULES OF DIGITAL TAX BASED ON VALUE CREATION AND CHINA'S RESPONSE

Hu Liwen[*]

I. INTRODUCTION

As the world economy moves into the digital era, discussions regarding the digital tax are crucial. Fair taxation of digital businesses is now a worldwide concern that cuts across national boundaries. The central issue concerning the digital tax system is no longer whether internet businesses should pay taxes; rather, it is how to match tax laws with creative business models to guarantee efficient tax source regulation and equitable international tax base distribution. As a result, the digital economy tax—which the digital service tax (DST) represents—is an inevitable reality rather than just a fad.

In the past, model tax treaties led by the United Nations and the Organization for Economic Cooperation and Development (OECD) set out the core rules underlying international taxation in the traditional economy, such as the principle of economic nexus, the principle of permanent establishment (PE) and transfer pricing. However, the digital economy has challenged the past practice of determining international tax jurisdictions based on the principles of economic nexus and permanent establishment. The intangibles and mobility of the digital economy and its transactions blur or even erase the connecting factors that establish tax jurisdictions. Consequently, tangible elements like 'permanent establishment' and 'fixed place' are often difficult to identify.[1] All of these practices have facilitated the task of tax planners and multinational enterprises to allocate profits to low-tax countries and contributed to reducing the possibilities of taxation in the country where real activities take place.[2] Consequently, many countries, particularly those that are consumers and importers of digital businesses, encounter the issue of base erosion and profit shifting within the digital economy.

For these reasons, in 2015, the OECD published the final report of the *Base Erosion and Profit Shifting (BEPS) Action Plan* to prevent base

* Lecturer at Nanjing Normal University Law School. This paper is supported by the General Project of Philosophy and Social Science Research of Jiangsu Universities, entitled *Research on Economic Law Guarantees of Common Prosperity from the Perspective of Distributive Function*.

1 Zhang Zeping, *Economic Allegiance Principle in the Allocation of International Tax Jurisdictions*, 2 Academic Monthly 87 (2015).

2 Adolfo Martín Jiménez, *BEPs, the Digital(ized) Economy and the Taxation of Services and Royalties*, 46(8&9) Intertax 621 (2018).

erosion and profit shifting. Action 1 in the report is designed to respond to the tax challenges of the digital economy by closely aligning tax with economic activities and value creation, and expanding the tax nexus beyond the permanent establishment to the significant economic digital presence (SEDP).[3] At the same time, options such as withholding tax and equalization levy proposed by various countries should be considered comprehensively in order to maximize the consensus of the international community. In March 2018, the OECD Digital Economy Group released an interim report on digital tax challenges,[4] offering a framework of 'value stores' and 'value networks' beyond traditional value chains to examine the value creation process in digital business models. The report also recognizes that numerous countries within the international community are implementing unilateral measures to tackle the challenges of the digital economy, yet it continues to seek long-term solutions grounded in international consensus. In January 2019, the OECD continued to publish the policy note in which it agreed to review, on a 'without prejudice' basis, the recommendations on two pillars that could serve as the foundation for consensus.[5]

In October 2020, the OECD and the G20 jointly released a blueprint report for a 'two-pillars' program,[6] both of which form the basis of an international consensus to address the challenges of digital taxation. Pillar I centers on reallocating taxing rights among tax jurisdictions for the global residual profits of multinational enterprises. The program constructs a mechanism for the allocation of taxing rights that is compatible with the digital economy by establishing new linkages and profit allocation rules. This means that the allocation of tax rights relating to corporate profits is no longer limited only by physical presence, in order to expand the taxing rights of the country in which the user is located. Pillar II addresses the creation of global minimum tax rules to ensure that multinational enterprises pay a minimum amount of tax. This aims to discourage residual profit shifting,

3 OECD, ADDRESSING THE TAX CHALLENGES OF THE DIGITAL ECONOMY, ACTION 1: 2015 FINAL REPORT, at https://www.oecd.org/en/publications/addressing-the-tax-challenges-of-the-digital-economy-action-1-2015-final-report_9789264241046-en.html (Last visited on May 29, 2025).

4 OECD, TAX CHALLENGES ARISING FROM DIGITALISATION: INTERIM REPORT 2018, at https://www.oecd.org/en/publications/tax-challenges-arising-from-digitalisation-interim-report_9789264293083-en.html (Last visited on May 29, 2025).

5 OECD, ADDRESSING THE TAX CHALLENGES OF THE DIGITALISATION OF THE ECONOMY: POLICY NOTE, at https://www.oecd.org/content/dam/oecd/en/topics/policy-issues/cross-border-and-international-tax/policy-note-beps-inclusive-framework-addressing-tax-challenges-digitalisation.pdf (Last visited on May 29, 2025).

6 OECD, TAX CHALLENGES ARISING FROM DIGITALISATION: REPORT ON PILLAR ONE BLUEPRINT, at https://www.oecd.org/en/publications/2020/10/tax-challenges-arising-from-digitalisation-report-on-pillar-one-blueprint_6034ca99.html (Last visited on May 29, 2025); OECD, TAX CHALLENGES ARISING FROM DIGITALISATION: REPORT ON PILLAR TWO BLUEPRINT, at https://www.oecd.org/en/publications/tax-challenges-arising-from-digitalisation-report-on-pillar-two-blueprint_abb4c3d1-en.html (Last visited on May 29, 2025).

base erosion, and the race to the bottom in international taxation.

Currently, the digital economy tax issue presents a complex situation within the international community, with unilateral national tax measures and international multilateral agreements being discussed simultaneously. On the one hand, countries and regions such as the European Union, France, the United Kingdom, Austria, India, Australia, Canada, Chile and others have introduced or are introducing direct taxes such as the digital service tax and withholding tax based on corporate revenues and profits, or levying indirect taxes on the digital economy by modifying the value-added tax (VAT) and the consumption tax. On the other hand, international organizations such as the OECD and the G20 are still actively advancing the consensus on the digital economy tax rules to establish a unified model for an international tax agreement. National unilateral actions that jeopardize the interests of other nations cannot continue indefinitely as the international community gains a deeper understanding of digital taxes and engages in discourse about them. It is highly probable that a more organized form of global cooperation will eventually be established by the international community. The *OECD/G20 Inclusive Framework*, encompassing over 130 countries, is expected to be the primary method employed to tackle the tax issues associated with the digital economy. The 'two-pillar' project will be the focal point of discussions regarding digital tax regulations.

The digitization of the economy has facilitated tax base erosion and profit shifting, and in order to prevent the loss of tax benefits, many countries are seeking to break with traditional tax rules in order to gain the power to tax residual profits. For example, in order to safeguard their own interests, digital importing and consuming countries are advocating the evaluation of the value created by users in their countries in the digital business of their enterprises and the taxation of value and revenue based on user creation. In short, the traits of the digital economy—such as networking, digitization, and remoteness—have undermined the traditional jurisdictional rules of resident and source taxation, intensifying international conflict for cross-border digital economy interests. This conflict focuses on how to manage the distribution of benefits and taxing rights in the cross-border digital economy.[7]

The value creation principle based on user participation thus aims to address the allocation of cross-border benefits and taxing rights in the digital economy, which is a central concern of the digital economy tax system. The value creation principle is now being used by the global community as a

7 Peng Minjiao, Yuan Jiao & Wang Min, *On Cross-Border Tax Collection and Management in the Digital Economy*, 6 International Taxation in China 76 (2021).

guide principle when developing regulations for digital taxes. The transfer pricing rules, which serve as a means of allocating tax benefits, must comply with the fundamental requirements of the value creation principle. The final implementation of the *OECD/G20 Inclusive Framework* is directly impacted by these regulations. Thus, in order to construct the fundamental framework of the digital tax, it ought to be based on the principle of value creation and transfer pricing rules.

II. THE ORIGIN, CHALLENGES AND IMPROVEMENT OF THE VALUE CREATION PRINCIPLE

The value creation principle is the main driver of this international tax reform and is essential to the distribution of cross-border profits and tax rights. Therefore, it is essential to further explore the origins of this principle, its challenges, and any room for potential improvements, in order to establish a solid foundation for developing a tax system for the digital economy.

A. The Origin and Purpose of the Value Creation Principle

Under international tax law, the nexus and profit distribution rules are fundamental to exercising taxing jurisdiction over cross-border enterprises. They serve as the cornerstones for addressing the allocation of income from cross-border activities and the corresponding taxing rights among different countries. The nexus rule is used to determine whether a resident enterprise in one country is subject to tax on its profits in the other country, while the profit distribution rule is used to determine how much of the profits of a cross-border enterprise is subject to tax in the other country.[8] Today, however, the digital economy and the business models it encompasses have challenged traditional tax rules focused on nexus and profit allocation. Due to the ease with which many cross-border transactions can now be completed online without involving a physical entity, traditional tax rules that formerly required a permanent establishment and residence have become obsolete. Moreover, value creation in the digital economy differs from that in the traditional economy in that it relies more on intangible assets and user participation, which can easily lead to a mismatch between where profits are taxed and where value is created.[9] As a result, the digital economy also

8 Huo Jun, *On Changes of the International Tax Rules Along with the Digitalization of a Cross-Border Economy*, 8 Taxation Research 77 (2021).

9 Lu Yi, *Digital Service Taxation: Theory, Policy and Analysis*, 6 Taxation Research 73 (2019).

facilitates corporate tax base erosion and profit shifting.

In the context of the digital economy, fair taxation of traditional and digital businesses has consequently emerged as a key topic in international tax reform. This is mainly reflected in the following two aspects. First, the question is whether digital and traditional enterprises can be treated fairly and equally, which means that digital enterprises cannot evade tax jurisdictions or achieve a lower tax outcome simply by adopting digital services. Second, many services and business models of digital enterprises rely on the data and information provided by their customers, who also contribute value to the enterprise. The issue here is the equal treatment of the supply-side and demand-side value contributions of digital businesses. In particular, when cross-border digital businesses need to be carried out in different countries, the traditional international tax rules do not pay enough attention to the tax interests of digital importing and consuming countries. That is, the traditional international tax system fails to account for the contributions of users in digital consumer countries to tax revenue. It also does not allocate tax rights to the countries where users reside, resulting in an imbalance and inequality in the distribution of profits, tax rights, and interests between digital business-exporting and importing countries.

For users of digital enterprises, their contributions are thus identified as three-fold: (i) enhancing network effects; (ii) facilitating data mining; and (iii) being engaged in digital content production.[10] Further, digital businesses can also collect data on users to monitor their engagement and contribution, which can later be sold to the third parties or used to increase revenue through more accurately targeted advertising. Data is a valuable asset for highly digitized businesses that can transfer, buy, sell, and further process and transform it. Enterprises can also significantly improve business performance by automatically recording and processing user data and their preferences through algorithms. Most users of digital businesses have in fact become unconscious providers of the digital business, not only consuming the product but also contributing to the value of the business.

In the view of some scholars, insofar as the role of users becomes that of active customers of a digitalized business, attracting at least a portion of such income to the country of the users is reasonable. Therefore, customer contributions must be rationally valued by both the customer and the market country, and corporate revenues derived from them should also be taxed. The principle of value creation enables market countries to claim a proportional

10 Johannes Becker & Joachim Englisch, *Taxing Where Value Is Created: What's 'User Involvement' Got to Do with It*, 47(2) Intertax 166 (2019).

share of the tax base from producing countries.

How the revenues of digital cross-border businesses are distributed among countries and what principles should guide them are arguably the key issues at the heart of international tax reform. In this regard, the United Kingdom and the European Union have proposed a 'user participation' scheme, which argues that the active and continuous participation of users in the market countries is also an important part of the operation of social media platforms, search engines and online marketplaces of digital enterprises, and makes an important contribution to the value creation process of the enterprises. Therefore, a portion of the residual profits should be allocated to the market country and the cross-border income of the digital enterprise should be reasonably taxed.[11] This is the core essence of the principle of value creation.

The OECD has accepted the profits taxed at the place of value creation approach, which was pioneered by the UK and the EU, as a fundamental tenet for the global distribution of taxation rights to corporate profits in the creation of the *BEPS Action Plan* and related reports. Within the Pillar I project, the OECD recognizes that consumer or user data is a critical component in creating value for the organization and that the supply side, and more specifically, the involvement of consumers or users, plays a role in the value creation process of cross-border businesses. As a result, the international community has largely concurred with the fundamental concept of user-created value, wherein the profits of multinational enterprises should be taxed by the country where the economic activity generating those profits occurs and where the value is created. The tax scope targets income derived from digital services or consumer-oriented products offered by highly digitized businesses. Its goal is to allocate greater taxing authority to the country where the consumer resides, regardless of whether the business has physical presence there.[12]

The principle of value creation as a guiding principle for the taxation of cross-border enterprises is not a traditional concept or principle that has been recognized by international tax law in the past. The international community has traditionally prohibited taxing corporate earnings from non-resident firms that do not create a permanent establishment, relying instead primarily on

11 EU COMMISSION, TIME TO ESTABLISH A MODERN, FAIR AND EFFICIENT TAXATION STANDARD FOR THE DIGITAL ECONOMY, at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0146 (Last visited on May 29, 2025); UK HM TREASURY, CORPORATE TAX AND THE DIGITAL ECONOMY: POSITION PAPER UPDATE, at https://www.gov.uk/government/consultations/corporate-tax-and-the-digital-economy-position-paper (Last visited on May 29, 2025).

12 Fan Yixia & Wang Qin, *Development of International Tax Rules in the Digitalization of the Economy*, 6 Taxation Research 79 (2020).

economic linkage as a guiding principle for taxation. In order to participate in the distribution of the profits and taxes of digital enterprises, the principle of value creation, while emphasizing the contribution of user value, actually serves to allow digital business-importing and consuming countries to circumvent the traditional tax laws based on the contribution of users in the host country. This increases the tax and fiscal revenues of these countries.

B. The Defect and Improvement of the Value Creation Principle

The value creation principle is now seen as a new paradigm for international tax law in the digital age, but the principle needs to be improved in conjunction with other approaches.

1. Problems with the Value Creation Principle. — Firstly, the international community has not yet achieved a consensus on the precise meaning of the principle of value creation, nor has it come to an agreement on how to define tax objects, tax bases, and tax rates based on this principle. In order to better align taxable gains with economic activity and value creation, the concept of value creation is in place. However, at present, the concept and function of value creation as a distributive factor are not clear. A lack of a hierarchy between real economic activity and value creation results in significant discretional leeway.[13] As a result, there is arguably a great deal of uncertainty surrounding the principle of value creation. As scholars have noted, the value creation principle can be interpreted as either an origin or destination profit allocation rule. However, the ambiguity of its meaning is exactly why the principle is so popular, as every country agrees that taxation should align with value creation, and each nation has an incentive to define value creation in a manner that benefits its local economy.[14]

In addition, the definition seems too vague to draw a clear and unambiguous dividing line between services covered by the digital services tax and those excluded from its scope of application.[15] The concept of value creation states that tax rights should be distributed among nations in proportion to the amount of value generated by multinational enterprises' local operations within those nations. However, it is very ambiguous how to divide the tax pie under the 'value creation' paradigm when several jurisdictions compete with each other, especially each of which can fairly

13 Johanna Hey, *'Taxation Where Value Is Created' and the OECD/G20 Base Erosion and Profits Shifting Initiative*, 72(4/5) Bulletin for International Taxation 203 (2018).

14 Liao Yixin & Gong Ting, *UK Digital Services Tax: Rules Analysis and Institutional Reflection*, 5 Taxation Research 79 (2019).

15 Georg Kofler & Julia Sinnig, *Equalization Taxes and the EU's 'Digital Services Tax'*, 47(2) Intertax 198 (2019).

demonstrate that the taxpayer exercises actual economic function in its territory, and that the taxpayer benefits from public goods provided by the local government.[16] Currently, international tax law demands a particular level of predictability and certainty, which the value creation principle typically falls short of.

Secondly, the principle of value creation is based on the value created by the users of digital services, but the specific degree of contribution to the value of the users is difficult to judge. There is an absence of a standardized and effective approach to measuring the value contributed by taxpaying entities. For example, a multinational enterprise may have investors in Country A, management in Country B, research, development, and manufacturing in Country C, and consumers in Country D. Each of these elements is a necessary but not sufficient condition to generate the multinational enterprise's profit. From both a conceptual and practical perspective, it is impossible to identify how much each element contributes to the generation of a particular business's profit. However, it is necessary to allocate the profit among countries according to the value creation principle.[17]

Thus, while the principle of value creation is now acknowledged as a guiding principle for the distribution of profits and tax rights among nations, offering practical guidance remains challenging. The questions relating to attributing profits to activities carried on in a jurisdiction or any of the other questions relating to quantification and apportionment are not answered by such a concept.[18] Overall, the current value creation principle still addresses the question of whether the digital economy should be taxed, but not how to implement it.

Thirdly, the creation of value through user participation is also found in the traditional economy, but the principle of value creation overemphasizes the specificity of the digital economy and its models, and fails to make a good distinction between value creation, which is taxed, and barter transaction, which is found in the traditional economy. For instance, clinical trials in the pharmaceutical industry exemplify a model of reciprocity where companies offer free medications to individuals in return for their personalized medical data. The collected medical data is then aggregated to enhance the product and secure regulatory approval for the drug's sale. Therefore, both the services provided by patients and the data collected from trials are essential

16 Wolfgang Schön, *One Answer to Why and How to Tax the Digitalized Economy*, 47(12) Intertax 1006 (2019).

17 John Vella, *Digital Services Tax: Principle as a Double-Edged Sword*, 72(4) National Tax Journal 826 (2019).

18 CRAIG ELLIFFE, TAXING THE ECONOMY: THEORY, POLICY AND PRACTICE, at 41 (Cambridge University Press, 2021).

to the business. It should be noted that in the pharmaceutical industry, value is created precisely through the combination of scientific research, patient data, sales functions and knowledge. Patients receive medical care in exchange for agreeing to share medical data on disease prognosis and progression under specific care protocols. The data is then leveraged and monetized through the acquisition of patents and the customization of products for specific diseases and patient populations. Moreover, rather than basic information about interests or consumer preferences, the data provided by patients contains very personal biometric and health information. Patients contribute to the creation of value through clinical sharing of healthcare data. Indeed, patients' engagement with the providers of their treatment is often more sustained than the engagement of a digital user with a social media platform.[19]

These interactive behaviors in the traditional economy do not involve tax purposes, but they do create value through participation. Therefore, it is also worth considering whether the value created by users through their participation in the digital economy can be subject to tax obligations. The principle of value creation should shed light on the legitimacy of taxing user participation in the digital economy, especially when there are already many similar transactions in the traditional economy that do not carry a tax burden.

2. Suggestions for Enhancements to the Value Creation Principle. — Notwithstanding the aforementioned issues with the value creation principle, considering that the *OECD/G20 Inclusive Framework* now acknowledges this principle as the primary approach for tackling the international tax challenges posed by the digital economy, it has already garnered widespread international consensus. It is reasonable to build upon this existing agreement and seek solutions to the problems that currently exist to foster the development of an updated model international tax agreement for the digital economy.

Firstly, 'this situation requires further scholarly analysis of the effects of the value creation standard, on the one hand, and for set rules to define its content and application by the OECD, on the other.'[20] There is no common and concise definition of the term 'value creation' with regard to the digital economy. This is a major pitfall in the current discussion. These issues impact not only the consensus and application of the principle of value creation but also the enhancement of various other rules associated with this principle.

19 Itai Grinberg, *User Participation in Value Creation*, 4 British Law Review 413 (2018).

20 Johanna Hey, *supra* note 13, 208.

For example, the OECD may need to modify the transfer pricing rules in order to better reflect value-creating functions and assets, but this depends on a sufficient understanding of the value creation principle.[21] Applying this idea also requires developing a consistent and efficient approach for calculating value creation that reliably assesses users' value contributions across jurisdictional boundaries. In the absence of this, user participation in value creation will stay theoretical and cannot affect how taxable income or profits are distributed among many jurisdictions.

At present, the OECD's Pillar I program has established a three-tier profit distribution mechanism with amounts A, B, and C. These specific distribution rules can also inspire the enrichment of content and the establishment of standards for the principle of value creation. However, at the heart of international tax reform, many technical details regarding the implementation of the value creation principle and the 'two-pillar' project still require supplementation and enhancement. For instance, there are challenges in identifying the residual profits of enterprises, allocating profits among various sectors and regions, addressing the disparities in digitization levels, and establishing specific rules regarding the income sources of certain industries, and so on. In general, clarity of meaning, along with uniform and effective measurement standards, helps the principle of value creation serve as the guiding principle of international taxation. Therefore, the OECD should continue to foster consensus within the inclusive framework and promote the ongoing enhancement of the content and rules surrounding the principle of value creation.

Secondly, efforts should be undertaken to establish a dispute resolution system for the application of the value creation principle, since varying interpretations of it might easily lead to international tax issues about tax jurisdictions and profit allocation. Such a dispute resolution mechanism should initially offer guidance to taxpayers across various jurisdictions by setting forth procedures for its application. At the same time, it should seek to settle tax disputes and minimize the possibility of double taxation. In the international community, there is a pressing need for the OECD to establish a mechanism for resolving disputes related to value creation, along with the disclosure of the procedural rules and decisions of this dispute resolution mechanism.

Further, such a dispute resolution mechanism could be integrated into the broader framework of dispute resolution mechanisms in the *BEPS Action*

21 Marcel Olbert & Christoph Spengel, *International Taxation in the Digital Economy: Challenge Accepted?*, 9(1) World Tax Journal 21 (2017).

Plan, of which the creation of effective dispute resolution mechanisms is an integral part, as the purpose of the *BEPS Action Plan 14* is precisely to 'make dispute resolution mechanisms more effective'. However, the content of this dispute resolution is related to the mutual agreement procedure (MAP) that protects taxpayers in the contracting countries of the model tax treaty from being taxed by any of the parties to the treaty in a manner inconsistent with the terms of the treaty, which is not yet in line with the principle of value creation in terms of procedure and content. Of course, the principles underlying their establishment as dispute resolution mechanisms are similar, so resolving disputes based on the principle of value creation can certainly benefit from the dispute resolution framework represented by the mutual agreement procedure.

Thirdly, due to questions regarding whether user participation in value creation can be considered a productive behavior of a firm, tax reform rules grounded in the principle of value creation can be adjusted through the concept of sustained user relationship (SURE). The linkage formed by user participation and enterprises is recognized from the perspective of means of production, thus forming the concept of 'user relationship', in order to strengthen the taxable linkage of value creation and clarify the path of tax jurisdiction.[22] This sustained user relationship can be viewed as an intangible asset of the company participating in the business, rather than as 'unconscious producers' or 'co-producers' under the principle of value creation. At the same time, the use of user relationships as a strong foundation for taxation must be grounded in the following conditions.

In the first place, there is a need for a stable user relationship, stability being defined as repeated use of an enterprise electronic interface or enterprise-controlled data transmission device, either through permanent user status or otherwise. Second, this network or other form of stable user base needs to be used by the firm for business purposes, such as extracting data, rendering brokering services and in particular targeting the network for advertising. In the end, considering administrative efficiency, the network and user groups must reach a sufficient size (in terms of user/device numbers) and depth (such as clicks and attendance per user, and intensity of use).[23] Indeed, the Pillar I project currently being introduced by the OECD already takes into account the role of sustained user relationships. For example, in Category A of Pillar I, given that the provision of automated and standardized

22 Zhu Wang, *On the Rebalancing of International Tax Distribution: Reflections and Explanations of the Principle of 'Tax Collection in the Place of Value Creation'*, 5 Taxation and Economy 78 (2020).

23 Johannes Becker & Joachim Englisch, *supra* note 10, 171.

digital services fosters a positive and sustained user relationship, the revenue generated by automated digital services companies will be the sole criterion.

However, in the case of other consumer-facing businesses, where the multinational company sells goods only to consumers in the market country but does not have a continuous link with the market country, the right to tax should not be allocated to the market country. Thus, the OECD has indeed directed the enhancement of the principle of value creation towards a continuous connection with users and their market countries, aiming to achieve, as much as possible, a distinction from the reciprocal behavior of the traditional economy.

III. THE IMPROVEMENT OF TRANSFER PRICING RULES MATCHING VALUE CREATION

The tax challenges of the digital economy encompass, in addition to the allocation of profits and taxing rights, the issue of how transfer pricing rules can be revised to keep pace with the advancements of the digital age. Transfer pricing within multinational enterprise groups is a significant concern for both taxpayers and tax administrations, as it directly affects how profits and losses are distributed among affiliates in various jurisdictions. Improving transfer pricing rules is essential for addressing international tax base erosion and profit shifting, as well as for the rational allocation of international taxes. However, the problem of traditional transfer pricing rules is the insufficient analysis of the evolution of functions, assets, and risks associated with business models in the digital economy. Further refinement based on the principle of value creation is thus necessary.

A. Challenges for Transfer Pricing Rules

Transfer pricing refers to the pricing of transactions between associated enterprises. When enterprises engage in cross-border operations and international trade, profit transfers from associated enterprises are often realized through transfer pricing. Consequently, the current international rules on transfer pricing, if misapplied, are likely to create a mismatch between profit distribution and economic activities that generate profits, making them susceptible to tax base erosion and profit shifting. Presently, with the rapid development of the digital economy, the foundation on which many traditional transfer pricing rules depend is weakening. For example, the OECD concedes that 'the time has come to simplify the rules and alleviate

the compliance burden for both tax authorities and taxpayers' because 'complicated rules can be a barrier to cross-border trade and investment and place a heavy burden on tax administrations and businesses'.[24] Currently, the problems with transfer pricing rules in the digital economy are summarized below.

1. Challenges of the Digital Economy Business Model. — Unlike the transactions, operations, and business models of the traditional economy, many transactions and operations in the digital economy are characterized as virtual, interactive, and hidden. These digital business methods and their traits have presented numerous challenges to traditional transfer pricing rules. For example, under the conditions of the digital economy, many multinational enterprises employ complex value chain structures to generate profits beyond those that an independent, arm's-length and separate entity approach would realize. Therefore, the profits attributable to such synergies and economic rents created from such sophisticated ways of doing business cannot be allocated under traditional arm's length principles and there are no independent entities to which such profits can be allocated.[25] The digital economy has not only fundamentally changed the mechanism of enterprise value formation, but has also led to substantial changes in the value chain structure and business model of enterprises.[26]

It is for this reason that both the OECD and the United Nations have concluded that the main issues to be addressed and rethought by transfer pricing rules are: (i) the development of the concept of a digital or virtual PE and the determination of the effective nexus; (ii) the attribution of value based on the value-creating functions and assets and, in particular, on the value of data; and (iii) the application of the transfer pricing analysis to the digital or virtual PE as well as for the purposes of those transactions with unique contributions. Additionally, further challenges encompass various facets of capital financing transactions, intangible asset transactions, and service transactions.

In general, transfer pricing rules require taxpayers to accurately reflect in their prices the substance of the function, contractual terms, risks, economic conditions, and type of property or service. However, many business models in the digital economy enable companies to obscure transactions and information, and the liquidity feature complicates the determination

24 Robert Couzin, *Policy Forum: The End of Transfer Pricing*, 61(1) Canadian Tax Journal 167 (2013).

25 CRAIG ELLIFFE, *supra* note 18, 229.

26 Liu Qichao & Luo Xiangdan, *Taxation on the Digital Economy in the EU: A Proposal and Some Assessments*, 1 International Taxation in China 38 (2018).

of the true geographic location of transactions. Therefore, within a multinational group, if the share of profits allocated to a related entity in intra-group transactions is determined based on the assets actually invested in and utilized by the related entity, along with the functions performed and the risks assumed by that entity, multinational enterprises can legally arrange the geographic location of resource inputs based on tax incentives to achieve the goal of artificially manipulating the taxation location of the profits attributable to the taxable area.[27] Moreover, although transfer pricing in practice primarily depends on the terms of the transaction outlined in the contract, the substantive significance of contractual arrangements and economic activities in the digital economy is challenging to assess. That is, there is partial inadequacy of the tools upon which transfer pricing relies.

2. Challenges in Implementing the Arm's Length Principle. — The arm's length principle is central to transfer pricing, serving as a profit-sharing criterion that compares transactions between independent enterprises with those between affiliated ones. It mandates that the terms of transactions (price, profit, etc.) between affiliated enterprises should mirror those of independent parties under similar circumstances. Therefore, the arm's length principle relies on the capacity to compare the conditions of controlled and independent transactions, as well as on the fundamental premise that there is adequate comparability of economic characteristics. The key to transfer pricing analysis lies in gathering information about the transactions involved, as comparability is the foundation of this analysis. Specifically, transfer pricing analysis based on comparability considers the following five factors: (i) characteristics of the transaction; (ii) contractual terms; (iii) functions, assets, and risks undertaken or assumed by the parties; (iv) economic conditions of the market; and (v) other special circumstances, including the business strategy.[28]

In practice, however, finding cases of similar transactions based on a comparable basis is often challenging. The difficulty in identifying non-controlled transactions is especially pronounced in the digital economy. For example, intangible assets, such as intellectual property rights, which have become the fundamental driver of enterprise value in the digital economy, are easily transferred across borders, making valuation based on transfer pricing difficult. Moreover, network effects have created monopolistic or oligopolistic structures in many internet businesses, so

27 Liao Yixin, *On the Reconstruction of the International Tax Order in the Era of Economic Digitalization on the Basis of the Profit View of Supply-Demand Interaction*, 5 Taxation Research 24 (2021).

28 LIU YONGWEI, RESEARCH ON LEGAL ISSUES OF TRANSFER PRICING, at 133 (Peking University Press, 2004).

comparable data and transactions are often difficult to find. This made the arm's length principle difficult to apply and increased opportunities for what has been dubbed 'aggressive' tax planning by multinational enterprises.[29] In conclusion, the lack of comparable transactions in the digital economy, the personalization of needs on both the production and customer sides, the virtualization of transactions, and other changing conditions have complicated the execution of transfer pricing analyses based on comparable transactions, leading to a gradual weakening of the principle of independent transactions.

Additionally, the arm's length principle, which considers related entities within a multinational enterprise group as distinct accounting entities, has uncovered certain problems. The core issue lies in the fact that multinational enterprises, through complex value chain structures, generate profits exceeding what independent entities transacting at arm's length could achieve.[30] Consequently, the profits attributable to synergistic effects and economic rents arising from such sophisticated business models cannot be allocated under the traditional arm's length principle, nor do any corresponding arm's length entities exist to assign them to. The systemic flaw of separate entity accounting is that it cannot attribute the effects of integration and synergies. Treating the members of a multinational enterprise as if they were independent is a fiction, which inherently ignores the economic facts and outcome of an integrated business and, therefore, the real nature of the multinational enterprises.[31] Thus, the separate entity approach to accounting for multinational groups may lead to integration synergies, with their value not being rationally allocated through the principle of separate transactions.

B. Transfer Pricing That Matches the Value Creation Principle

The OECD has a clear understanding of the challenges posed by transfer pricing rules in the digital economy. For this reason, the OECD has the *Action Plans 8-10*, which clearly identify the enhancement of transfer pricing rules as the primary objective, addressing areas such as intangible assets, risk and capital, and other high-risk transactions. However, the OECD Action Plans do not propose to replace transfer pricing and the arm's length principle with

29 Johannes Becker & Joachim Englisch, *supra* note 10, 162.

30 Craig Elliffe, *International Tax Framework: Assessing the 2020s Compromise from the Perspective of Taxing the Digital Economy in the Great Lockdown*, 74(9) Bulletin for International Taxation 539 (2020).

31 Johanna Hey, *supra* note 13, 206.

value creation. Instead, they advocate that transfer pricing outcomes should align with value creation. The role of the value creation-based approach should therefore be corrective, serving to combat abusive deal structuring rather than functioning as a stand-alone standard.

As noted by the OECD, the arm's length principle continues to be a practical and equitable standard for taxpayers and tax authorities to evaluate transfer prices between related enterprises and to prevent double taxation. However, the application of this method heavily relies on the functions, assets, and risks defined by the contract terms and is susceptible to misuse, which can lead to a discrepancy between transfer pricing outcomes and the value generated by economic activity. In the digital economy, the technological features of the digital economy amplify the potential for tax planning, with transfer prices being allocated as little as possible to income related to functions, assets and risks, leading to a mismatch between value and pricing outcomes. Therefore, in order to match transfer pricing outcomes with the value creation principle, transfer pricing rules need to be further improved.

Firstly, the difficulty of comparable analysis of transfer pricing in the digital economy can be addressed through other possible ways of alternative comparisons. For example, due to synergies and other attributes of conglomerates, any transaction involving a controlled affiliate cannot be fully comparable to a controlled transaction. Therefore, transfer pricing rules must allow or require adjustments to comparable transactions to better reflect the economic reality of the transactions involved. With market value as the benchmark for income assessment, comparability adjustments are intended to be based not on subjective factors but by reference to common commercial practices, economic principles, and statistical analyses.[32]

The OECD's *BEPS Action Plan 13* mandates that multinational enterprises furnish local transfer pricing documentation to the tax authorities of the relevant countries. This documentation must encompass pertinent material related to transactions, the amounts involved, and the enterprise's transfer pricing analysis of these transactions. Consequently, the action plan equips tax authorities with resources to identify cases and subjects of non-controlled transactions. It is also important to note that the OECD has intentionally softened the comparability requirement of the independent transaction principle due to the challenges in identifying non-controlled transactions. In this context, the profit split method is expected to gradually emerge as a

32 Allison Christians & Laurens van Apeldoorn, *Taxing Income Where Value Is Created*, 22(1) Florida Tax Review 18 (2018).

viable approach,[33] largely relying on the stand-alone transaction principle, with the goal of aligning, as closely as possible, the transfer pricing tax outcome with the substantive contribution to value creation.

Secondly, transfer pricing must focus more on the substantive relevance of contractual arrangements and actual economic activities. This means examining whether the contractual relationship between the parties involved in the transaction aligns with their actual behavior, and whether the transfer of risks and allocation of capital through contractual arrangements adheres to the principle of consistency between value creation and income return. In affiliated transactions of multinational groups, the allocation of tax profits from the transaction primarily depends on the functions performed, risks assumed, and assets utilized by the entities involved, with these terms reflected in the transaction contract. However, it is not uncommon for contractual terms to obscure the true nature of the transaction. Therefore, tax administration authorities should accurately define the actual trading arrangements between related enterprises and, if necessary, enhance the assessment methods by examining whether the contract terms align with the actual behaviors of the contracting parties, while also avoiding evaluations of the trading arrangements solely based on the content of the contract terms. Consequently, transfer pricing rules in the digital economy should improve the comparison and analysis of the content of contract terms and the actual execution of contracts. The allocation of risk between the parties to a transaction must be grounded in actual business decisions, and the key to determining whether a transaction can be recognized lies in whether the actual transaction is commercially reasonable. Thus, reasonable transfer pricing rules should consider the actual value contribution of the parties to the transaction and, in cases where a transaction is not commercially reasonable, empower tax authorities to deny a transaction arrangement that lacks commercial reasonableness.

Thirdly, the improvement of transfer pricing rules requires special emphasis on the functional analysis of the transactions involved. The purpose of a functional analysis is to determine the responsibility for economic activity or assets contributed and risks assumed by the parties to the transaction. The price of a transaction between independent undertakings will necessarily reflect the functions performed by the undertakings. Therefore, a functional analysis is necessary to determine whether a comparable basis exists for controlled and uncontrolled transactions, with specific reference

33 Yao Li & Ning Qi, *Final Choice of Arm's Length Principle: Profit Split Method*, 2 Taxation Research 81 (2018).

to the type of assets used, valuable intangible assets, financial assets and the nature of the assets used. The reason that transfer pricing needs to cover functional analysis is to rationalize the allocation of value contributions through the role of functions in the value chain. In summary, the purpose of refining the traditional transfer pricing rules is to ensure that transfer pricing is applied in a way that allocates profits to the corresponding economic activity that generates them, so as to ensure that the profits are distributed to the enterprises engaged in the corresponding business activity, and so that the transfer pricing outcome and the principle of value creation are compatible with each other.

IV. CHINA'S RESPONSE TO THE VALUE CREATION PRINCIPLE AND THE DIGITAL TAX SYSTEM

Looking back at the international community's discussions on digital economy taxation, a notable trend is the gradual advancement of international consensus. Nowadays, it is foreseeable that the reform content guided by user participation in value creation, the OECD's 'two-pillar' project, and the alignment of transfer pricing with value creation will emerge as the largest consensus proposal acceptable to the international community. For China, the digital tax directly impacts the international competitiveness of digital enterprises and China's fair share in global profit distribution. Therefore, as a major producer and consumer in the digital economy, China must actively engage in the formulation of international tax rules through an inclusive framework while also confronting the constraints and challenges posed by these rules. Overall, China needs to actively engage in international tax reform to protect its interests while also responding to the trend of regulatory changes by developing a comprehensive response plan.

A. Improvement of Digital Infrastructure and Legal Frameworks

At present, the implementation of the digital economy tax system in China either opts for system improvements within the framework of the existing tax law or seeks to establish a specialized digital tax law to address the issue.[34] However, the current domestic traditional tax framework still presents antecedent issues that must be resolved to accommodate the digital economy tax system. These challenges include a lack of clarity regarding the

34 Zhang Shouwen, *Digital Tax Legislation: Principles and Values Followed*, 1 Taxation Research 32 (2021).

value chain, business model, operational rules, and tax objectives of the digital economy. Notably, a tax base grounded in user-created value is closely tied to tax jurisdictions and cross-border profit distribution, making the intra-territorial effects and functions of the principle less apparent. Furthermore, the current development of digital infrastructure needs to provide adequate support for the formulation of digital tax rules. Consequently, the domestic tax system may face the challenging issue of how to reasonably align with international tax rules concerning the taxation of the digital economy.

China should improve digital infrastructure and institutional facilities, promote digital industrialization, and foster the deep integration and development of the digital economy with the traditional economy. Additionally, it should strengthen capacity-building for data collection and analysis. At the same time, it is essential to establish a system for resource property rights, transactions and circulation, cross-border transmission, and security protection concerning data. This includes expanding the orderly opening of basic public information data and creating an open platform for the unified sharing of national data. International rules for digital taxation must also foster consensus among various stakeholders in the international community to enhance the institutional framework for cross-border data flows in digital businesses. Only when digital systems, infrastructure, and businesses have evolved to a stage where the connection to tax objectives is sufficiently clear can the design of digital tax systems and regulations fulfill the fundamental requirements of taxpayers for neutrality, certainty, and fairness in the tax rules governing the digital economy.

In addition, China should further develop innovative tax policies to adapt to the rapid growth of new industries and business models, while continuing to enhance the domestic tax legal system related to digital enterprises. This will help establish the experience and institutional foundation necessary for the collection and management of extraterritorial jurisdiction over the digital economy in the future. The digital tax system, particularly the cross-border profit distribution of enterprises based on value creation, relies on a solid foundation of revenue and user value generated by digital enterprises. Therefore, it is essential to achieve interconnection among legal norms. For instance, the legal norms governing taxation in the digital economy should be linked and coordinated with personal information protection laws, e-commerce laws, and other relevant regulations, thereby creating a multidimensional legal governance framework that encompasses taxation, information protection, and business operations of digital enterprises.

B. Building a Digital Tax Collection and Management System

As mentioned earlier, a tax system for the digital economy based on the principle of value creation can only be implemented if there is a harmonized and efficient method for measuring user value. However, how user value is assessed in countries that consume digital services raises the question of the value contribution of each link in the business value chain. Therefore, it is essential to establish a data-centered digital tax regulatory system, create a data information-sharing platform, and enhance the ability to analyze data along the value chain. Simultaneously, it is also crucial to strengthen the recording and integration of non-physical transaction information, such as virtual products and services on cross-border transaction platforms, improve modern tax data analysis and risk auditing capabilities, and provide convenient conditions for assessing user contributions.

Having addressed the challenge of evaluating the value contribution of users, the remaining issue involves the collection and management of digital taxes. Regulating digital tax sources is essential for effective tax collection and management. Specifically, enterprises within the digital economy often evade regulation by exploiting the mobility and rapidity of digital business transactions. Consequently, it is crucial to enhance the monitoring and collection of tax sources for effective digital tax management. Moreover, the platformization aspect of the digital economy results in a significant amount of tax-related information being gathered on third-party platforms (such as social networks, e-commerce sites, payment platforms, etc.). In this context, some countries have started to explore the integration of tax collection and administration into third-party applications. For instance, the Finnish Tax Administration has developed embedded software in collaboration with a third-party provider to incorporate tax payment into specific commercial platforms, allowing tax withholding to occur simultaneously with taxable actions. HM Revenue & Customs also permits taxpayers and agents to connect directly with the Digital Tax Office via an application programming interface.[35] This facilitates the integration of tax supervision and collection, serving as a commendable example of digital tax administration reform.

Unlike tax collection and administration in the traditional economy, the digital economy has introduced higher demands for tax collection and administration. Therefore, it is essential to enhance the digitization of tax collection and administration while advancing the development of digital

35 Peng Minjiao, Yuan Jiao & Wang Min, *supra* note 7, 79.

infrastructure to improve the capacity for tax collection and administration. For instance, digital tax administration may necessitate numerous upgrades to financial and tax management systems to acquire the financial and tax data used for calculating tax rates and to facilitate quick and efficient tax declarations and payments, among other tasks. At the same time, it is essential to further accelerate the informatization construction of tax departments and deepen the application of new-generation information technologies, such as big data and cloud computing, in tax collection and management. It is crucial to enhance the capacity of tax authorities to collect, retrieve, classify, store, transmit, mine, and analyze information, thereby improving the capacity of 'information management of tax' and 'data management of tax'.[36] If necessary, efforts should also be made to adopt advanced technologies and their applications to carry out tax collection and management tasks. For instance, blockchain technology ensures the speed and accuracy of data processing, and its effective use will bolster the ability of tax authorities to enforce the law.[37] Overall, the traditional tax collection system requires further upgrading to align with the characteristics of business in the digital economy, in order to establish a national tax collection system that can adapt to and support the digital economy.

C. Facilitating Digital Tax Compliance for Businesses

The impact of the digital economy tax extends beyond tax administrations, directly affecting businesses. Overall, both tax risk management and compliance obligations will increase for businesses under the digital economy tax. For instance, regarding the OECD Pillar I program's source of income rules, businesses will need to gather specific data mandated by these rules. This data will determine the countries where enterprises must file tax returns and pay taxes, as well as the exact amount of tax owed. Consequently, digital businesses must track the source of relevant income based on the user's location, necessitating the collection of the user's digital address and geographic information. This data must be integrated into the accounting system to prepare for the subsequent corporate response to the collection of digital taxes.

For the OECD's Pillar II project, enterprises must gain a comprehensive understanding, evaluate the impact of the rule, and reassess their existing

36 Zhang Jin, Li Zhao & Xiao Rongmei, *Trends and Thoughts on the Adjustment of Tax Rules of Global Digital Economy*, 4 Taxation and Economy 99 (2020).

37 Piergiorgio Valente, *Geotaxation and the Digital: Janus in the Mirror*, 47(4) Intertax 389 (2019).

business model, value chain layout, and related transfer pricing arrangements. Additionally, they should consider modifying their investment structure, business model, and accounting system to optimize their tax burden and ensure compliance. In conclusion, when addressing the specific rules of the 'two pillars' of the digital economy tax, such as the new linkage rules in Pillar I and the calculation of the tax base and effective tax rate in Pillar II, enterprises need to make timely adjustments to their business model and organizational structure to minimize the overall tax burden.[38] For enterprises, it is essential to keep abreast of the OECD's *BEPS Action Plan* and the details of the 'two-pillar' project promptly, to establish a solid foundation for implementing the tax system for the digital economy.

V. CONCLUSION

Reasonable international tax laws should not obstruct the flow of capital, services, or goods across national borders and should instead encourage the efficient distribution and use of resources around the world, as the principle of neutrality in international tax law highlights. However, unilateral numerical tax measures enacted by numerous countries have introduced significant uncertainty for multinational enterprises and undermined the international tax principles of neutrality, certainty, fairness, and efficiency. To reallocate taxing rights between jurisdictions means to shift public revenue from one country to another.

The debate on taxation of the digital economy is a mix of economics and law, and cannot be resolved by academic thinking alone.[39] However, debates over fundamental topics, including the idea of value creation and transfer pricing, will provide a sound and rational foundation for a digital economy tax regime and a prerequisite for concrete proposals to gain acceptance among a wide range of countries. Upholding the core principles of efficiency, fairness, and tax neutrality while honoring national sovereignty should be a noble objective. Looking ahead, the 'two-pillar' project under the *OECD/G20 Inclusive Framework* represents an important effort towards multilateral consensus, and its effective implementation and continuous improvement will be the key. It requires to seek technically feasible and efficiently managed solutions that balance the tax rights of source and resident countries on the basis of the principle of value creation. At the same

38 Gao Jinping, *China's Response to the OECD Pillar One and Pillar Two Proposals*, 12 International Taxation in China 36 (2020).

39 Adolfo Martín Jiménez, *supra* note 2.

time, the theoretical and practical communities need to deepen their research on how key elements such as data value, user participation and new business models can be integrated into the tax rules, so as to provide theoretical support for the dynamic evolution of the system. Only through continuous multilateral dialogue and the pursuit of common interests can we resolve the uncertainties, and ultimately achieve a new pattern of global governance that not only promotes the innovation and growth of the digital economy, but also protects the reasonable tax rights and interests of all countries.

(Edited by Li Jiesi)