Research on the issues of digital currency from the perspective of international tax system

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Abstract. Unlike traditional currencies, the international taxation of digital currencies has unique characteristics. This article takes digital currency as the research object and examines its development trend from the perspective of international taxation. In summary, digital currency is of great research significance because of its unique characteristics, which are different from other currencies in the conventional sense. Because of sorting out the experience of relevant foreign countries in regulating digital currency, this article analyzes that digital currency has caused problems such as tax evasion facilitation, excessive taxation, and technical or political barriers under the current international tax system. It is urgent to improve relevant legislation and strengthen departments. Only through inter-regional supervision and international exchanges and cooperation can we finally respond.

Keywords: International Tax System, Digital Currency, International Tax Evasion.

1. Introduction

The rise of digital money marks a new chapter in the monetary system. Unlike the traditional legal tender, which is issued by the state and determined by law, Bitcoin lacks the support of the government or legal institutions, nor does it set up a central authority to be responsible for money supply or settlement, let alone rely on traditional financial institutions to participate in transactions. its autonomy and detachment from the real-world monetary system is very significant [1]. Therefore, it is of great significance and value to define the monetary attribute of digital currency, to study the taxation methods and to deal with the new problems of international tax evasion and evasion. this will help to improve the relevant rules of international tax law and international financial law on the taxation of digital currency.

To date, the academic community has conducted extensive research on the nature of digital currencies and their tax issues, covering the nature, function, tax feasibility, and challenges of digital currencies. For example, scholars such as JonathanChiu deny the monetary attribute of digital currency, but admit its dual function as property and means of payment, which has become one of the mainstream views of the international academic community [2]. Aleksandra Bal scholars comprehensively compared the tax policies and theoretical basis of digital currency in developed countries such as Europe and the United States, and discussed the feasibility and methods of tax collection of digital currency from the perspective of taxpayers [3]. Lv Chenggang and other scholars have systematically discussed specific digital currency tax regulation policies and put forward suggestions on future digital currency tax regulation [4]. Overall, the academic circles have been very effective in discussing the nature of digital currency and studying the tax regulation of digital currency, but most scholars focus on the tax challenges in their own countries or neighboring regions, and there is a lack of research on international tax cooperation.

This paper selects the international tax collection and administration of digital currency as the research theme, analyzes and extracts the international tax collection and administration policies and practical exploration of digital currency by countries or organizations outside the region, sorts out the key problems and drawbacks faced by the international tax collection and administration of digital currency, and on this basis, deeply analyzes the root causes of these difficulties and puts forward

feasible suggestions. To provide a useful reference for the relevant policy formulation and practice of international tax regulation.

2. The basic theory of digital currency

2.1. The definition of digital currency

If we want to make a systematic discussion on the taxability of digital currency and the improvement of the tax system, we must first define the basic definition and elements of digital currency. Although digital money has flourished because of its continuous progress and changing technology and a variety of application scenarios, as a new concept, it has not yet reached a consensus on the concept of digital currency in academic circles. First, represented by digital currencies such as Bitcoin, there is a fundamental difference between digital money and traditional legal tender, which neither has the corresponding relationship in kind, nor has the value attribute given by physical legal tender. Secondly, the technical basis of Bitcoin determines that one of its important features that cannot be ignored is anonymity. Finally, the exclusion and resistance to the government and tax authorities shows the decentralized nature of Bitcoin.

Based on the different elements of digital currency, relevant scholars have perfected and supplemented the concept of digital currency in many aspects based on the topics they discussed. Cheng Xuejun and other scholars believe that digital money is a kind of currency presented in digital form rather than materialized form, which to a certain extent undertakes the functions of some physical currencies and can support a certain degree of transfer of monetary ownership [5]. Starting from the technical background of encrypted digital currency, Jonathan Koroma and other scholars define encrypted digital currency as a virtual currency based on block chain technology, which uses encryption technology to test the owner of currency value [6]. Based on the tax dilemma derived from digital currency, this paper limits the concept of digital currency to a narrow sense, that is, it is issued by private institutions and separated from the physical carrier. a new form of currency that undertakes the functions of means of payment and investment object based on point-to-point encrypted transmission and cryptography.

2.2. Discrimination of related concepts

On the one hand, digital money is different from traditional virtual currency. Virtual currency is usually used only in the virtual environment it creates and has nothing to do with the real world. Digital money, on the other hand, can be used in the real world like legal tender. Digital money is also different from electronic money or Internet-based payment schemes (such as Alipay), which is only a tool to facilitate legal tender transactions [7].

On the other hand, the difference between digital currency and legal tender digitization lies in its basic concept and mode of operation. The digitization of legal tender is only a digital representation of traditional currency for trading and settlement. On the other hand, digital currency comes from digital technology, and its cornerstone and value support come from blockchain technology.

In addition, digital money does not exist in the real world, but in electronic form. Its users rely on decentralized databases to verify transactions and record account balances. Unlike legal tender, digital money usually lacks a central issuer, and its acceptability is based on people's trust. Therefore, people use digital currency to trade because they believe that others will accept it as a store of value.

3. An exploration of the impact of digital currencies under the international tax system

3.1. Positive influence

First, private digital currency has played a positive role in weakening the monopoly of government legal tender, and it has a non-negligible impact on improving the banking system and financial stability

[8]. Secondly, the rapid development of digital currency has promoted innovation in financial technology. This kind of innovation helps improve the efficiency and stability of the financial system itself, providing consumers and businesses with a better financial experience in the traditional financial field. Thirdly, digital currency has gained wide recognition in the payment field with its unique advantages of high efficiency and high security based on blockchain technology. For one thing, digital currency transactions are often much faster than the traditional banking system. On the other hand, blockchain technology also provides a highly secure payment environment. Finally, digital currency gradually replaces traditional financial transactions with its extremely low transaction costs. Digital currency transactions realize point-to-point direct transactions through blockchain technology, eliminating intermediate links, thus significantly reducing transaction costs.

3.2. Negative impact

First, digital currency brings monopoly risks to traditional financial institutions. In the context of widespread application, digital currency, which was originally dedicated to "opposing monetary tyranny", has caused huge global monopoly risks, which in turn has led to an imbalance of public power and personal power. Secondly, in addition to the monopoly risks it brings to traditional financial institutions, in the field of international taxation, Bitcoin also facilitates international tax avoidance and tax evasion. The rise of digital currencies has relaxed the threshold for investment tax evasion, making it easier for participants with poorer economic conditions to evade taxes, while also increasing the effectiveness of tax avoidance by large companies. In addition, the natural anonymity of digital currencies provides convenience and security for various illegal transactions, and traditional measures to prevent international tax evasion and tax avoidance can no longer cover up its decline. Finally, digital currency not only causes tax losses in various countries, but also amplifies competition for sovereignty and tax jurisdiction among countries [9]. Such as information privacy issues, involving personal and corporate financial privacy regulations that often cannot be coordinated due to overall differences across countries, as well as the differences in the standards of integrity and corruption restrictions set by various governments.

4. Foreign experience on the Feasibility of Digital currency Taxation

4.1. America

The United States government has never granted digital currency legal tender status in any jurisdiction, but it has been treated as a formal currency in the tax jurisdiction of digital currency. Starting from the various scenarios that may be involved in digital currency (take Bitcoin as an example), the US authorities have taken different tax measures for different functions of digital currency.

First, digital currency gains from "mining" (conducting a specific activity to obtain bitcoin) should be included in taxable income and calculated because of the fair market value on the date of receipt (a method of calculating the value of the digital currency into US dollars and referring to the market exchange rate). If the taxpayer's mining behavior constitutes trade or specific business and is not involved as an employee, self-employment tax must be paid.

Secondly, for the digital currency listed on the exchange, all investors who gain or lose due to the fluctuation of the price of digital currency, those with a holding period of more than one year are regarded as long-term capital gains and losses to pay capital income tax, those less than one year are regarded as short-term capital gains and losses to pay income tax.

Finally, the United States has also developed a complete tax system for the digital currency that functions as a means of payment. When using digital money to purchase goods and services or accept digital money as the reward for goods and services, the providers of goods and services are required to pay income tax and fee tax, or treat them as general income. Any income from the current digital currency in the United States must be reported as taxable income. For the digital currency of the means

of payment, the VirtualCurrencyTaxFairnessActof2022 Act proposes to exempt transactions in digital currencies with income of $200 or less to reduce the cost of individual transactions [11].

4.2. EU

Since 2013, there has been a trend of diversification in the qualitative and tax policies of Bitcoin in European countries. The European Central Bank Treats Bitcoin as an economic asset and requires member states to comply with its transactions, including anti-money laundering and tax regulations.

Germany was the first country to impose tax jurisdiction on digital currency transactions, especially bitcoin. The German Ministry of Finance regards Bitcoin as a "private currency" and makes it clear that bitcoin transactions are subject to tax. However, the German Federal Financial Supervision Agency stated in December 2013 that Bitcoin is not legal tender, but it can be used as a means of payment for private transactions. German tax law defines bitcoin as a kind of property, and "income from the transfer of property is subject to income tax". As a result, sellers are required to pay VAT when selling Bitcoin as a commodity or property, but individuals who use Bitcoin as a means of payment do not have to pay VAT [12].

Britain (before Brexit) also introduced a tax policy on bitcoin in early 2013. The Royal Office of Inland Revenue and Customs classifies Bitcoin as a "one-off coupon", meaning it can be used to buy goods or services and impose a VAT of 10 per cent on Bitcoin (the policy was repealed in March 2014. The UK no longer taxes related transactions) [13]. Subsequently, in a 2014 communiqu é, the Bank of England collectively referred to Bitcoin and similar currencies as digital currencies and concluded that "it is not a real currency and can be used as a currency on the Internet." This communique denies the monetary value of Bitcoin, but also affirms its technological innovation and advantages [14].

In 2013, the Bank of France issued a statement warning of price fluctuations and speculative risks of Bitcoin, while denying the nature of Bitcoin as a currency, but affirmed that it could provide payment services. Then, in 2014, the French Department of Budget and Government accounts issued a regulation requiring users of Bitcoin to authenticate their real identities, clearly defining the scope of virtual currencies and imposing capital gains tax on virtual currencies [15].

4.3. Russia

In 2021, Russia passed a bill to tax cryptocurrency, proposing to tax digital currency as property. In addition, the report also requires any citizen and organization with the right to dispose of digital currency to declare relevant information to the tax authorities if the amount in rubles exceeds 600000 per year [16].

In addition, the Russian Ministry of Finance has adopted a bill on the circulation of digital money, which contains a detailed regulatory framework for mining for the first time, and introduces the concept of professional and non-professional buyers, as well as related testing obligations. The bill aims to comprehensively regulate Russia's cryptocurrency market. At the same time, the Act provides those Russian legal entities, including subsidiaries of foreign companies and international organizations established in Russia, as well as individuals who have stayed in the country for less than 183 days, shall not accept digital currency as a method of payment for goods and services for 12 months [17].

It is worth mentioning that due to political reasons, international payment systems such as VISA and Mastercard have been withdrawn from Russia, and some Russian banks and SWIFT international financial information transmission have also been carried out one after another. Any company in Russia can still settle in private digital currency after traditional payment systems no longer use legal digital currency. The independence advantage of digital currency is revealed, which is one of the important reasons for Russia's intention to carry out tax regulation on digital currency.

5. Problems and challenges of International Taxation of Digital currency

5.1. Digital currency leads to international tax evasion and tax avoidance facilitation

Under the impact of digital currency, the traditional measures to prevent international tax evasion and avoidance have become increasingly inadequate. In the era when cash is still in the international mainstream means of payment, the anonymity of cash transactions can also facilitate international tax evasion. As a digital currency famous for its anonymity and convenience, it provides more and faster ways for many potential taxpayers to hide tax information.

In addition, when it comes to such complex international digital transactions, tax authorities are confused about which country has tax jurisdiction, which is exacerbated by the lack of written records of bitcoin transactions. In the context of the international tax system, the obstacle to the prevention of cross-border tax evasion and avoidance mainly lies in whether the government can obtain the information of the relevant taxpayers in a timely manner. The main reason for this obstacle is that countries are unable to unilaterally verify whether the relevant tax reports of taxpayers in international acts are true [18].

5.2. Extreme market volatility leads to tax loss or excessive taxation

First, due to the lack of effective regulation, the price of Bitcoin rises rapidly and fluctuates greatly due to the arbitrage of speculators. Over the past few years, the value of Bitcoin has fluctuated dramatically from a few dollars to tens of thousands of dollars. For investors and consumers, the price volatility of bitcoin means an increase in risk.

Second, the volatility of the value of Bitcoin causes instability and uncertainty in the market. This uncertainty may lead to the increase of speculative behavior in the market and aggravate the instability and volatility of the market. In this case, it is difficult for the bitcoin market to achieve effective price discovery and resource allocation, thus affecting the efficiency and healthy development of the market.

Finally, the extreme volatility of Bitcoin market value makes it difficult for countries to determine stable tax rates and norms. Because Bitcoin itself does not have the value scale function of legal tender, the tax on Bitcoin mining in mainstream countries led by the United States needs to first convert Bitcoin into US dollars according to the market value of the transaction and then tax it. However, once the price of bitcoin fluctuates sharply between the date of completion of the mining transaction and the date of tax declaration, taxing according to the fair market value of the market will inevitably lead to the collection of taxes that are significantly lower or higher than the actual income of the trader. as a result, the transaction will inevitably lead to the loss of national tax revenue or the loss of traders' interests.

5.3. Technical and political barriers to tax Supervision of Digital currency

Different from the taxation method of traditional legal tender, the financial privacy and transaction information of digital currency are closely protected by the block chain, which makes it almost impossible for the tax authorities to trace the source with the help of the transaction itself. Digital currency transactions can easily take advantage of tax differences and information congestion between countries to evade tax obligations. Coupled with the existence of financial privacy, the ability of tax authorities to determine and collect taxes from taxpayers has also been affected to a certain extent, and the tax burden between financial entities will inevitably be distorted.

Compared with the encryption technology of mining or transaction of special currency, the encryption technology is often ahead of the regulatory technology, which leads to the lag of the regulatory means and level of the tax authorities of various countries. this situation shows that the traditional anti-tax evasion regulation has nothing to say before the strong technical barriers of digital currency. The technological gap brought about by digital currency is an insurmountable wall for tax supervision.

Finally, different countries have different policies on digital currency. The digital currency tax lowland caused by policy differences in various countries has become a hotbed of international tax

evasion and evasion. in addition, the different regimes and national conditions, as well as the immature and perfect digital currency tax rules lead to many overlaps or even blank of the corresponding tax jurisdiction in some cases.

6. The Countermeasures and Future Prospect of the tax defects of Digital currency under the International tax system

6.1. Improve relevant legislation to clarify the status of digital currency

To strictly regulate and tax digital currency transactions, it is necessary to clarify the legal status and functions of digital currency, which is a prerequisite for the taxation of digital currency in the name of the state. These include whether to give legal status to digital currencies; Whether they agree that digital currencies formally perform the function of means of payment or investment property in their territory; Whether private digital currency is allowed to coexist with fiat currency and central bank digital currency as a supplement to the current economic system needs to be regulated and restricted by law.

If the digital currency is to be included in the tax regulation by legislative means, there are two principles that should be followed: first, on the premise of ensuring the dominance of legal currency, Bitcoin is given the function of payment means in a specific field, and it is complementary to legal currency; Second, clarify the legal status of bitcoin, such as "private currency", how to treat the rise and fall of assets caused by Bitcoin price fluctuations? In the case of "property", how should the purchase of goods or payment for services in Bitcoin be taxed? All in all, digital currencies have in fact assumed the functions of money and property at the same time, and digital currencies applied in different scenarios should be classified and taxed differently according to specific circumstances.

6.2. Regulate offshore accounts to regulate cross-border transactions

Confirming the legal status of digital currency in domestic legislation can only pre-establish the legitimacy and legal basis for taxing digital currency. To solve the problem of international tax evasion caused by digital currency, it is necessary to regulate overseas accounts with frequent cross-border transactions. Here, we can learn from the Overseas Account Tax Payment Act of the United States, which came into effect in 2014, which requires all taxpayers with total assets reaching a certain amount to disclose designated foreign financial assets, and requires all accounts involved in cross-border digital currency transactions to proactively report relevant tax and transaction details [19].

The cross-border transactions of digital currencies will be regulated as general cross-border transactions, especially for accounts with large financial transactions or high transaction frequency. Once digital currency transactions become more frequent, many cross-border intermediaries will inevitably emerge, and the supervision of these institutions can effectively help tax authorities obtain information and tax materials of both parties to digital currency transactions.

6.3. Multi-department joint supervision

The difference between the transaction of digital currency and the traditional cross-border transaction is mainly that it is not subject to the supervision and restriction of the public authority, and how to effectively enforce the law in practice must be considered after establishing the tax premise for digital currency at the legislative level and after the regulatory authorities. To offset the disadvantages of anonymity and untrace ability of peer-to-peer transactions of digital currencies to the greatest extent possible, the cooperation of financial institutions, tax authorities, and government information departments is required. Although anonymity and privacy are important traits on which digital currencies depend to survive, it is debatable whether digital currencies are anonymous. As mentioned above, Bitcoin's peer-to-peer approach to transactions makes it no longer dependent on services provided by third-party intermediaries, but its transaction records are kept on the public blockchain. If the specific address being saved is identified, it is hoped that a complete record of the digital currency

transaction network can be extracted. Therefore, through the cooperation of multiple departments and requiring Internet service providers to disclose transaction information including IP addresses and email addresses to a certain extent, it is expected that cross-border transactions of digital currencies can be fully traced at the level of tax law.

6.4. Strengthen international cooperation

Under the current widely used bilateral tax treaties, to fully regulate and tax digital currency transactions, it is necessary to require almost all countries to sign bilateral tax agreements in pairs, and often such agreements are not attractive to countries with low digital currency trading volumes or underdeveloped network economy services, which is obviously extremely costly and impractical. Moreover, the rapidly changing international political landscape makes it difficult to rely solely on repeated bilateral tax treaties to regulate transactions in the digital economy.

Therefore, it is necessary to sign a universal multilateral tax treaty, and only under a multilateral framework will developing countries, which have long been low-tax countries, consider joining the information sharing channel. For example, the Multilateral Convention on Mutual Regulatory Assistance in Tax Matters formulated by the Council of Europe and the OECD, as the world's first multilateral tax cooperation treaty, provides strong support and help for member states to combat tax evasion and avoidance.

However, the convention does not make provisions on the tax evasion of digital currencies, and this convention cannot alleviate the problem of digital currency tax evasion. In July 2014, Europe issued a standard for the automatic exchange of tax-related information on financial accounts, which initially set out plans to strengthen global tax cooperation to improve tax transparency.

Multilateral tax agreements can make a strong and stable counterattack to the problem of digital currency tax evasion and tax avoidance, and more effectively avoid the gaps in the tax field caused by political and technical barriers in various countries, and ultimately improve the impact and impact of digital currency on the international economic system to a certain extent.

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