

Ways of Governance of Internet Financial Crimes Based on Blockchain Perspective

-Taking Virtual Currency Money Laundering Crimes as an Example

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Abstract: Combined with the 47th Statistical Report on the Development Status of the Internet in China issued by the China Internet Information Center, it can be found that by the end of December 2020, the number of Internet users in China has exceeded 989 million, and there are 986 million mobile phone Internet users, and the mobile phone Internet access rate of the nationals has reached 99.7%. The demand for mobile internet applications has led to the development of a large number of internet industries. In the financial sector, for better financial business, many customers use financial trading platforms, but illegal criminals use blockchain technology in the name of virtual currency to carry out illegal fund raising, pyramid selling, money laundering and other criminal activities, involving a large amount of money and a relatively wide audience, which seriously affects China's Internet financial security. Therefore, the only way to ensure the safety of Internet finance is to strengthen the governance of such crimes. In this paper, based on the existing research results on blockchain technology and the governance of virtual currency money laundering crimes in Internet finance crimes, we use interdisciplinary research methods to determine the ways of governance that combine the pre-existing, ex-post and post-existing governance, taking into account the current status of legislation, existing cases, the dilemma of governance, and the existing governance achievements.

Keywords: Internet finance, virtual currency, money laundering, blockchain applications

1. Introduction to the Problem

1.1. Basic Concepts of Virtual Currencies

1.1.1. Definition of Virtual Currency

Virtual currency is a concept that has emerged with the development of blockchain technology, and there is no uniform definition in law or other disciplines. In this paper, we define virtual currency as a special commodity that is encrypted and decentralized using blockchain technology and has no solvency.

1.1.2. Main Characteristics of Virtual Currencies

1.1.2.1. Anonymity

Virtual currencies are more anonymous than traditional currencies. Although the transaction activity can be recorded on the account and can be confirmed by account matching, the identity of the account of both parties to the transaction cannot be matched one-to-one with the real identity of the trader.

1.1.2.2. De-neutralisation

Blockchain adopts a distributed data storage method, relying on a number of independent nodes in parallel to achieve the robust operation of the system and the authenticity of information transmission, abandoning the centralised management model of aggregating data to a certain core. Because of its decentralised nature, the main feature of the resulting virtual currency is its de-neutrality. The development of the Internet has transformed the mode of recording and storing information from "centralised" to "decentralised", simplifying the transaction process, improving transaction efficiency and reducing transaction costs [1].

1.1.2.3. Cross-border Liquidity

Virtual currencies are more convenient because they only require access to the internet, have no restrictions on location and take less time.

1.1.2.4. Not Legally Enforceable

Virtual currencies are not issued by the monetary authority and do not have the properties of money, such as legal reimbursement and compulsory, and are not really money in the sense of the law. The crime of money laundering of virtual currency is not really a crime.

1.2. Overview of the Crime of Virtual Currency Money Laundering

1.2.1. The Process and Mode of Using Virtual Currency for Money Laundering Crimes

There are five main modes of using virtual currencies in the West. First, criminals use the anonymity, irrevocability and speed of virtual currencies to launder money directly; second, they use virtual currencies in different regions and countries with different systems to hand over stolen money to managers and dealers to launder money; third, without the knowledge of third parties, they use peer-to-peer transfers to make three parties inject money to make them act as money mules for money laundering; fourth, they Criminals take control of legitimate users' accounts and use them for money laundering; and five, money laundering is combined with other payment methods.

1.2.2. The Specific Process

The specific process can be roughly divided into three stages, placement, cultivation and consolidation.

1.2.2.1. Placement

Firstly criminals register one or more accounts with virtual currency platforms for virtual currency transactions. Secondly the stolen money obtained in the upstream crime is transferred to a new bank account A. However, because account A has many links to the victim and is highly susceptible to police surveillance, it is only used for the final virtual currency purchase stage. Further, the criminals

find multiple virtual currency holders from the trading platform and buy virtual currency in a scattered manner. Finally, bank account A is used to make payments in batches.

1.2.2.2. Dissociation

The virtual currency account is used to make multiple virtual currency transactions, integrating the virtual currency into the mainstream secondary exchange, OTC and other cryptocurrency financial systems. Some teams offer virtual currency money laundering services by mixing stolen and non-stolen funds into multiple transactions at this stage, disrupting the objects in the transaction information on the blockchain to make it difficult or impossible for the authorities to trace, and then transferring the laundered funds to the criminal's account

1.2.2.3. Consolidation

The money laundering activity is achieved by selling the "laundered" virtual currency in the account through the platform, and then transferring the funds to a new bank account B, which is mostly legal income.

1.2.3. Key Features of Virtual Currency Money Laundering Offences

1.2.3.1. Anonymity of Transactions

Most virtual currency accounts are registered on virtual platforms and do not require strict identity verification or information entry. Criminals can make non-face-to-face purchases, transfers and withdrawals of virtual currencies without the need to provide identification information, and can do so anonymously.

1.2.3.2. Quickness of Transactions

Because virtual currency transactions can be completed at any time and anywhere on the internet at a very high speed, for example, the confirmation of a Bitcoin transaction takes less than 15 minutes, so virtual currency money laundering is very fast [1].

1.2.3.3. Diversity of Transactions

The diversity of virtual currency money laundering transactions is mainly reflected in the diversity of transaction subjects, the diversity of transaction modes and the diversity of payment methods. The transaction subject may be an individual virtual currency account or a manager and a dealer; there are five types of transaction modes mentioned above; and the payment methods include cash payment, bank transfer, Internet payment and other various methods.

1.3. Advantages of Blockchain Technology and Current Application

Blockchain technology has gone through three stages since Satoshi Nakamoto proposed the concept of Bitcoin, from simple electronic currency transactions to "smart contracts" marked by scripting language codes, and finally to the combination of blockchain with big data, cloud computing, the Internet of Things and other technologies. Blockchain is a distributed ledger in which blocks of data are linked in a sequential manner to form a chained data structure in chronological order, which is cryptographically guaranteed to be untamperable and unforgeable. The advantages of blockchain are therefore mainly tamper-evident, cryptographic and open and transparent. The advantages of its application to combat virtual currency money laundering crimes are mainly increased information storage and cross-domain information sharing.

As blockchain technology can reduce the cost of transferring assets globally in financial transactions, increase the authenticity of information and the degree of information sharing, it is widely used in the financial field including payment field, ICO, supply chain finance, bill business, securities field and insurance field.

2. Current Situation and Main Problems of Virtual Currency Money Laundering Crime Governance

2.1. Current Situation of Legislation

In December 2013, the People's Bank of China and other five ministries and commissions issued the "Notice on Preventing Bitcoin Risks", which stipulates the nature of bitcoin, considering it to be a specific virtual commodity, not a national legal tender, and not having the properties of legal compensation and coercion. It is not a currency in the true sense of the word. As can be seen from this regulation, the state has denied the legal tender nature of virtual currencies, but not their investment function. In September 2017, the People's Bank and seven other departments issued the Announcement on Preventing the Risks of Token Issuance and Financing, stating that the first token issuance involving virtual currencies such as bitcoin and ethereum is an unapproved and illegal financing act, thereby completely banning China's virtual currency financing projects in China. These regulations are only issued by various departments and are of a lower level of effectiveness.

In respect of money laundering offences, Amendment (XI) to the Criminal Law enacted in 2021 reflects the need for the construction and practice of China's anti-money laundering law system, and contains four changes from Amendment (VI) to the Criminal Law enacted in 2006. The amendment has reduced the offence of money laundering to a lower level. This amendment makes the offence of money laundering less difficult to commit and is in line with international anti-money laundering law. However, virtual currencies are still not included in the money laundering legislation. The only measures to regulate the risk of money laundering in relation to Bitcoin are the inclusion of "institutions providing services such as registration and trading of Bitcoin" in the scope of "specific non-financial institutions that shall fulfill their anti-money laundering obligations" as stipulated in Article 35 of the AML Law of the People's Republic of China in the form of a normative document. "However, there is a lack of systematic and detailed regulations on how institutions providing Bitcoin registration, trading and other services should fulfill their anti-money laundering obligations and how to supervise and manage them.

2.2. Overview of Cases

In recent years, the number of virtual currency money laundering cases has gradually increased, and as telecommunication network fraud is now at a high level, the demand for laundering of stolen funds from predicate criminals is extremely high. By logging into the WK Advance Legal Information Database, entering the advanced search interface of the adjudication documents, and typing "virtual currency" "money laundering" in the "keywords" field to search (to avoid any omissions, we changed the "keyword" column to "USDT" and "money laundering" and conducted a second search). After sifting through each of these cases, and removing cases that were completely unrelated to virtual currency money laundering, such as virtual currency fraud cases and virtual currency pyramid schemes, only 309 cases related to virtual currency money laundering remained. A careful reading of the statistics reveals the following characteristics of virtual currency money laundering crimes in China: the number of cases has increased in the last three years; the types of predicate crimes are concentrated and mostly fraud and online gambling crimes; and the gang operations and the locations of the crimes are variable.

2.3. Current State of Doctrine

In the article "Research on Virtual Currency Money Laundering: Inherent Risks, Types of Analysis and Regulatory Responses" published in *Financial Research*, Wu Yun et al. argued that the inherent risks of virtual currency transactions are mainly manifested in the following aspects: the identity of the transaction subject is more hidden; decentralisation, which makes it impossible to regulate peer-to-peer transactions; non-face-to-face transactions, which make monitoring difficult; borderless transactions, which are easily outside the sovereign jurisdiction of each country; diverse transaction methods and hidden financial chains. The financial chain is concealed [2].

In the article "The Development Risks and Systematic Governance of Private Digital Currency Driven by Blockchain Technology" published in the *Journal of Shenzhen University (Humanities and Social Sciences Edition)*, Cheng Xuejun argues that private digital currency, with blockchain as the core architecture and distributed ledger as the transaction premise, flattens the transaction intermediary and is conducive to improving the energy efficiency of governance; private digital currency can achieve controlled anonymity; private digital currency is conducive to promoting monetary Internationalisation. The paper argues that private digital currencies make deep use of blockchain technology to innovate financial products and services, breaking through the constraints of traditional legal norms, with high technical deepening, financial innovation and legal breakthroughs, and these characteristics also give rise to related financial, technical and legal risks [3].

In an article entitled "Prevention and Control of Cryptocurrency Money Laundering Crimes in the Digital Era" published in the *Chinese Journal of Criminal Law*, Zhao Binghao argues that to build a criminal compliance system for cryptocurrency money laundering, it is first necessary to improve China's anti-money laundering legal regulation system, lay the foundation of legal regulation for the criminal compliance system, promote the legalisation process of cryptocurrencies, and accurately determine the legal nature of cryptocurrencies [4].

The regulation of anti-money laundering of digital currencies in the United States is mainly divided into the federal level and the state government level. At the federal level, the Financial Crimes Enforcement Network (Fin CEN) is responsible for AML regulation of virtual currencies; at the state level, most states regulate cryptocurrencies in accordance with their existing money transfer laws, while New York State has introduced a specific regulation bill for virtual currencies. In the author's view, making trading platforms the focus of AML regulation can effectively overcome decentralisation. However, as the vast majority of transactions still need to be done through intermediary platforms to complete the exchange of digital currencies and cash, making intermediary platforms concentrate a large amount of transaction data, raising the degree of difficulty in data analysis.

3. Governance Options for Virtual Currency Money Laundering Crimes

3.1. Ex-ante Governance

The objective of ex ante governance of virtual currency money laundering crime is to objectively reduce the occurrence of crime, i.e. to narrow the space for crime so that it cannot be illegal.

3.1.1. Cultivation of Professional Talents

The cultivation of professional talents is recommended from two aspects. One is to strengthen the construction of relevant disciplines in universities and offer courses on blockchain finance, financial crime and financial anti-money laundering in relevant disciplines, so that students have a relevant knowledge base and establish correct professional ethics and values. Second, strengthen the

knowledge and skills training of blockchain and financial field practitioners on virtual currency anti-money laundering, so that they understand the seriousness of virtual currency money laundering crimes and have the ability to determine whether unscrupulous elements are conducting or have conducted virtual currency money laundering acts [5].

3.1.2. Improve the Regulatory Mechanism

Firstly, the focus of anti-money laundering regulation should be on trading platforms. Virtual currency transactions are done through intermediary platforms to exchange virtual currency and cash, which makes the intermediary platforms concentrate a large amount of transaction data. Strong regulation of trading platforms can overcome decentralisation to a certain extent. At the same time, regulation of intermediary platforms is less difficult than regulation of private users. Making intermediary services such as various trading platforms and payment companies for virtual currencies the focus of anti-money laundering regulation enhances regulatory efficiency.

Secondly, virtual currency trading platforms are required to establish internal control systems to improve anti-money laundering. Relevant regulators should conduct regular tests on the internal control systems and AML capabilities of trading platforms and make recommendations for optimisation to avoid regulatory arbitrage caused by regulatory differences.

Finally, to raise awareness of suspicious behaviour such as large monetary transactions and frequent multiple similar transactions within a short period of time, record and keep relevant transaction information and records in a focused manner to narrow down the scope of investigation.

3.2. Ex Post Facto Governance

The purpose of ex post governance of virtual currency money laundering crimes is to break the chain of crime, collect evidence of the crime, minimise the damage of the crime and achieve a high incrimination rate.

3.2.1. Strengthening International Coordination and Cooperation in the Prevention and Control of Virtual Currency Crime Risks

First, increase international cooperation channels. For cross-border virtual currency money laundering crime cases, cooperation and coordination of conflicts caused by legal differences between two countries should be actively pursued to ensure smooth anti-money laundering cooperation between countries.

Second, actively participate in international virtual currency anti-money laundering activities, such as the activities of FATF and other international anti-money laundering organisations, to promote the establishment of international anti-money laundering cooperation mechanisms and provide experience and guarantees for China to combat cross-border money laundering crimes.

3.2.2. Improving Technical Means to Investigate and Combat Virtual Currency Money Laundering Criminal Activities

The unique technical structure of blockchain can be used to increase the degree of intelligence sharing and judge the authenticity of intelligence through data sharing and data storage, enabling virtual currency money laundering crime clues to be transformed into evidence.

3.3. Ex Post Facto Governance

The aim of ex post facto governance of virtual currency money laundering crimes is to bring criminals to justice as quickly as possible with legal evidence and to keep them out of the way before the law.

3.3.1. Information Analysis

For information analysis in virtual currency money laundering crimes, "blockchain + big data" and "blockchain + data analysis" technologies can be used. While blockchain focuses on recording and verifying data, data analysis can yield actionable insights and make predictions based on large amounts of data to identify valid and legitimate evidence as quickly as possible.

3.3.2. Improve Laws and Regulations Related to Virtual Currencies

Laws and regulations relating to virtual currencies are key to bringing criminals to justice, so separate laws and regulations should be introduced immediately for virtual currencies and include them in the anti-money laundering system. Moreover, the relevant departments should organize personnel to reconstruct and improve some of the crimes of money laundering in the Criminal Law, for example, some legal provisions that constitute elements of the crime of money laundering should be amended to adapt to the interpretation of virtual currencies [6].

4. Conclusion

Firstly, this paper will sort out the concept of virtual currency and the characteristics of its application in money laundering crimes, organize the crime process and mode of virtual currency money laundering, and elaborate the role of blockchain technology in the crime of virtual currency money laundering in Internet financial crimes by combining the advantages of blockchain. Secondly, the legislation and cases of virtual currency money laundering crime are further sorted out to summarise its governance dilemma. Finally, according to the governance dilemma of virtual currency money laundering crime, six ways of governance are proposed from three perspectives: cultivating professional talents and improving the regulatory mechanism beforehand, strengthening international coordination and cooperation in preventing and controlling the risk of virtual currency crime, improving the technical means to investigate and combat virtual currency money laundering criminal activities, and analyzing information and improving the laws and regulations related to virtual currency afterwards.

There are still shortcomings in the research of this paper, such as no detailed analysis of specific cases and no specific suggestions for the revision of laws and regulations.

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