Review on Virtual Currency Regulation of Various Countries and Its Enlightenment to China

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Abstract: The boom in virtual currency has greatly impinged financial order in China. However, there exist numerous deficiencies in the supervision of virtual currency in China. This paper analyzes the measurements that developed countries have adopted, for example, the US, Europe and Japan. Then useful propositions are provided on the basis of these analyses to effectively regulate virtual currency in China.

1. Effects of Virtual Currency on Financial Order in China

China's virtual currency presents a rapid development trend since Shanda Group firstly introduced its own virtual currency in 2002. (Chen, 2010)Virtual currency can not only buy virtual goods and value-added services on websites, but also pay for some physical products and services that can only be purchased in RMB. Though virtual currency cannot be converted into RMB, there exist a slew of transaction websites and sellers, which indirectly realizes the two-way convertibility between virtual currency and RMB. With the development of virtual economy, the issuing body, the quantity and the type of virtual currency will expand in the future. Meanwhile, its scope of use will gradually enlarge and the boundary between virtual currency and real currency will become more ambiguous, thereby impacting the macroeconomic environment and financial order.

1.1 Impact Currency Issuance Rights of Central Bank and Influence the Effectiveness of Monetary Policies

Central bank in China usually regulates the macro economy by issuing currency in the modern financial system. Central bank in China monopolizes the currency issuance, regulates and controls the macro economy to safeguard national interests. There are two views regarding the definition of virtual currency. (Chen, 2010)One view is that virtual currency is equivalent to electronic currency, that is, the currency in electronic form without physical substance. (Newman, 1992) The other is that virtual currency refers to the digital equivalent of circulation and payment function through grid system, which is stored in the network of related electronic devices in the digital form by a certain issuing body based on public information network and by means of computer technology and communication technology. At present, the virtual currency merely assumes the function of transaction medium within a certain range, which has little effect on the legal status of RMB. Nevertheless, with the further development of virtual currency, it may compete with RMB, breaking the monopoly of currency issuance by the central bank. On one hand, the variety, quantity, and issuing body of virtual currency will grow considerably, thereby gradually enhancing the currency attribute of virtual currency. On the other hand, it is possible for multiple issuing enterprises to share the same or several virtual currencies mutually and then a unified virtual currency will be established. In 2005, Baidu signed an agreement with 24 companies, including Shanda, Netease, Unionpay and Alipay, to promote 'Baidu coin' as a currency that can be exchanged freely online.

1.2 Affect the Money Supply and Trigger Inflation

The legal money supply of a country depends on the supply of base money and the corresponding money multiplier. The central bank determines the final money supply according to the macro-control objective of a country. A country must have enough gold in its money supply to

keep inflation in check. Since the virtual currency is issued at no cost, the issuing body will continuously increase the supply of virtual currency in order to maximize profits, leading to the devaluation of virtual currency. (Tian, 2017)As long as virtual currency and real currency cannot achieve two-way exchange, the depreciation of virtual currency will be difficult to affect the real currency market. However, the private transaction of virtual currency can realize the two-way exchange to some extent. With the massive issuance of virtual currency, the money multiplier will increase and money supply will be enlarged, thus causing the rise in prices and the devaluation of the currency, triggering the inflation in the real world and impacting the normal financial order.

1.3 Breed crimes such as money laundering, gambling and illegal fund raising, and to disrupt financial order

Because of virtuality, concealment and rapidity of network money laundering, (Tian, 2017)it is easier for criminals to take advantage of specious transaction of virtual currency for capital conversion or transfer. Internet has become a new channel for criminals to launder money. More than 90 percent of the electronic games in China are equipped with gambling functions at present. Online game operators obtain profits from digital game revenue based on a certain proportion. It is estimated that this income can account for 5 percent to 10 percent of the revenue of online game companies. In 2005, the general administration of press and publication in China issued the notice on prohibiting online games from engaging in gambling activities, in an attempt to manage the problem of virtual games being used as gambling tools. The trading records of virtual currency is hard to detect and track. Virtual currency trading can be done anywhere, anytime due to its convenience and decentralization. Its issuers, traders, users and transaction records cannot be effectively tracked and monitored, making the virtual currency a new tool of crime, project cash flow of terrorist organization and other tax evasion. Therefore, many criminals make use of virtual currency to hide transfer and storage of illegal funds.

2. Problems of Virtual Currency Supervision in China

The financial risk of virtual currency has raised the attention of relevant administration departments and they tried to regulate it. In 2007, the ministry of culture, the People's Bank of China and 14 other ministries issued the notice on further strengthening the management of Internet bar and online games, proposing that People's Bank of China should strengthen the regulation and management of virtual currency in online games to prevent the impaction on real economic and financial order. The notice stipulated strict limits on the total amount of virtual currency issued by online game operators and the purchase amount of individual online game players. Virtual transactions should be strictly differentiated from physical trade of e-commerce. The virtual currency issued by online game operators cannot be used to buy physical goods. If a consumer needs to redeem the virtual currency into legal tender, the amount should not exceed the original purchase amount. Resale of virtual currency is also prohibited. In 2009, with the consent of the People's Bank of China, the ministry of culture and the ministry of commerce issued the notice on strengthening the management of virtual currency in online games. At present, the supervision of virtual currency in China still has the following problems:

2.1 Incomplete Laws and Regulations

At present, China has not introduced ad-hoc laws and regulations for virtual currency and virtual currency legislation is still blank. Though related administrative departments have specifically introduced several regulatory documents of virtual currency regulation, the legislative level is low and the rules are principle. Lack of detailed rules for implementation has led to poor management on the basis of inadequate evidence and enforceability.

2.2 Unclear Management Subjects and Ambiguous Responsibilities

The supervision of virtual currency involves the People's Bank of China, the ministry of culture and the ministry of commerce. The notice on further strengthening the management of Internet bar and online emphasizes that the People's Bank of China should reinforce the regulation and management of virtual currency in online games, while the notice on strengthening the management of virtual currency in digital games underlines the dominancy of the ministry of culture and commerce. (Zhu, 2014)These two documents give different descriptions of the responsibilities of different departments, indicating that there are disparities in the division of duties of virtual currency supervision. In addition, the establishment of the current monitor mechanism is in the form of normative documents from national administration department. It is not directly authorized by laws and regulations, which is likely to cause confusion in management.

2.3 Lack of an Integral Set of Supervision System for Virtual Currency

The administration department has put forward certain regulatory requirements on the issuance and transaction virtual currency, but only limited to some basic principles, which are not detailed into corresponding regulatory system. We lack a whole set of system including regulating the issuance, circulation, and transaction of virtual currency, and fulfilling anti-money laundering obligations. Currently, the Law of the People's Republic of China on Anti-Money Laundering (Zhu, 2014)stipulates that the bitcoin trading platform should report suspicious transactions related to bitcoin and other virtual commodities. However, detailed contents such as the specific reporting standards, reporting period and reporting method have not been clearly specified in the law, resulting in ineffectiveness of the law.

3. Regulation Measurements of Virtual Currency in Different Countries

3.1 Regulation Measurements of Virtual Currency in the United States

There is no a unified regulatory system of virtual currency by the federal government, but each regulator of different states focuses on different risks of virtual currency.

3.1.1 Relevant Duties of Prudential Banking Regulator

Due to the Federal Deposit Insurance Corporation (FDIC), the National Credit Union Administration (NUCA) and the Office of the Controller of the Currency (OCC) (Government Accountability Office, 2014)are responsible for regulating whether deposit financial institutions are in compliance with bank secrecy laws and anti-money laundering rules, these supervision departments are also responsible for regulating financial institutions which provide financial services of virtual currency to ensure that they provide financial services for virtual currency in line with the anti-money laundering law. (Zhang, 2015) The prudential supervision institution of the banking industry main regulates whether the financial institutions comply with the provisions of the bank secrecy law from the following two aspects: one is whether the institutional framework for anti-money laundering has been established, including the necessity to identify and report the abnormal or suspicious behaviors related to anti-money laundering. The other is whether to comply with the requirements of the bank secrecy law on transaction records and reports. The regulator can correct the non-compliance of financial institutions in the bank secrecy law and anti-money laundering through a series of inspections or other regulatory measures, such as imposing fines on the institutions that violate the regulations or suspending one of their business qualifications.

3.1.2 Related Duties of the Consumer Financial Protection Bureau (CFPB)

As an independent agency under the Federal Reserve, the CFPB (Financial Crimes Enforcement Network, 2013) is responsible for implementing the Federal Financial Consumer Protection Act and has the authority to modify the specific implementation system of this law. Meanwhile, it also undertakes the duty to protect consumers when using financial products and services. In terms of regulating virtual currencies, the CFPB's responsibilities include accepting and handling consumers' complaints, studying consumer behavior, popularizing relevant knowledge of virtual currencies among the public, and monitoring the risks brought to consumers by this market. The CFPB, for example, created a database of consumer complaints under the Dodd-Frank Act. In addition, the CFPB aims to improve transparency and fairness of the market by providing consumption advice to

consumers.

3.1.3 Relevant Duties of the Securities and Exchange Commission (SEC)

The SEC (Financial Crimes Enforcement Network, 2013)oversees the securities market and takes legal actions against individuals and institutions that violate federal securities law. The SEC is committed to protecting investors' rights and safeguarding market fairness, orderliness and efficiency. Virtual currency may present the SEC with new challenges in the following aspects: firstly, whether existing laws apply to fraud in the issuance, sale and purchase of securities by using virtual currency; Second, whether the bond registration or registration exemption system applies to bonds denominated in virtual currency; Third, it is related to regulations on listing of bonds with nominal currency prices; Fourth, brokers and dealers agree that customers pay in virtual currency, which will bring anti-money laundering (Yang, 2017); Fifth, whether existing laws are applicable when the investment counselors recommend the investment of virtual currency and bonds issued with bidding price; Sixth, when brokers hold or open virtual currency accounts, problems such as how to calculate its net capital indicators emerge.

3.1.4 Relevant Duties of the Commodity Futures Trading Commission (CFTC)

The main task of the CFTC is to protect consumers and the public from fraud, market manipulation, abuse of authority and system risk. The CFTC's responsibility for regulating virtual currency depends on whether the virtual currency meets the definition of a commodity as defined by Commodity Exchange Act. Regulation of commodity futures is applicable to the cases where virtual currency-based assets are identified as commodities or derivatives that are priced on them. Under this circumstance, the CFTC will evaluate these products to ensure that they are not subject to market manipulation. Applications for listing will be reviewed. Or CFTC will examine the exchange that have listed these products.

3.2 Regulation Measurements of Virtual Currency in Europe

At present, European countries have not formed a complete system for the supervision of virtual currency, but its definition and trading rules still have referential significance for China.

3.2.1 European Union (EU)

The EU (Mo, 2018)has introduced a series of policies to enhance the transparency of virtual currency trading, and the definition of virtual currency has been constantly adjusted. The European Commission is still reviewing the regulatory framework. The European Securities and Market Authority (ESMA) undertakes the responsibility for coordinating the management standards of member states. The ESMA has recommended that retail investors be banned from trading virtual currency-related derivatives and has assessed how Markets in Financial Instruments Directive II (MiFID II), applies to digital assets. At the same time, a regulatory policy will be introduced to require verification of customers' identities and appoint platforms that use legal tender for virtual currency transactions. The ESMA also recently announced a statement to strengthen its requirements for Cryptocurrency Contracts for Differences (CFDs).

In 2012, the European Central Bank published a report on the virtual currency system, in which it defined virtual currency as "an unregulated digital currency issued by its developers, used and accepted by members of a specific virtual community. In 2015, the European Central Bank made a redefinition of virtual currency, believing that "virtual currency is a digital representation of value that can be used an alternative to currency in some cases, but is not a completely meaningful currency at present". Compared with the definition in 2012, the current definition has removed the word "currency" and replaced it with the word "digital representation", while removing the words "unregulated" and "flowing in the virtual world".

3.2.2 The United Kingdom (UK)

The UK has tightened regulations on derivatives and relevant services generated by virtual currency. Although the UK has not made it clear that it will regulate cryptocurrency, it has been

actively promoting the implementation of regulations. On late March 2018, the UK government (Jiao)announced the establishment of a virtual currency work group to help manage the risk of cryptoassets. The group includes members from the Treasury, the Bank of England, and Financial Conduct Authority (FCA). In early April, the FCA claimed that companies providing services related to cryptocurrency must comply with all relevant regulations in FCA Manual, or they will face enforcement measures. Since then, transactions related to tokens through the Initial Coin Offering (ICO) or the organization of trading activities, the provision of advice may require a license from the FCA, including cryptocurrency futures, cryptocurrency differential contracts (CFD) and cryptocurrency options.

3.2.3 France

France has gradually established business rules and a tax regime for crypto-related derivatives.

French regulators require crypto-derivatives online platforms adhere to stricter reporting and business practices. On May 2018, French regulators decided to treat cryptocurrency as chattel, lowering the tax point for individual cryptocurrency traders to 19 percent. Individuals will pay a total of 34 percent tax, including 15 percent social contribution tax. This act reduced profit losses for individual traders by almost 50 percent. As for ICO regulation, the French financial market regulator, Autorite des Marches Financiers (AMF) are preparing legislation on ICO to encourage new fundraising in domestic markets. The French economic and financial sectors confirmed that proposed regulatory framework by AMF would recognize the ICO as a legitimate investment vehicle.

3.2.4 Germany

Germany has stepped up scrutiny of virtual currency transactions through one-on-one management.

The German regulator (Mo, 2018)showed that it needed to review cryptocurrency on a case-by-case basis, with the banking, asset management, insurance and payment services laws reviewing ICO to determine which legal framework would apply. Currently, the federal agency recommends that all parties refer to the rules applicable to traditional instruments and comply with current requirements. Germany has recently cracked down on trading venues that do not have brokerage licenses.

3.2.5 Russia

Russia (Mo, 2018)tightly controls virtual currency by restricting its trading channels.

Russian regulators have repeatedly expressed opposition to the use of "digital currency as a private currency and a substitution for money". On early March 2018, the head of Russian Financial Market Committee submitted a draft bill called Digital Financial Assets, which required digital currency transactions to be conducted only through exchange service operators. The commission hopes that such an approach would prevent money-laundering attempts and other financially motivated frauds, and that the exchange must be a legitimate entity operating in Russia. In early April, Federal Service for Financial Monitoring came out against digital currency trading in Russia.

3.2.6 Regulation Measurements of Virtual Currency in Japan

Financial Service Agency clarifies the legal trading status of virtual currency though legislation. At the same time, it strengthens the protection of traders' rights and interests, and focuses on combating illegal activities such as money laundering.

On December 22, 2015, Financial Service Agency released a report regarding high advancement of payment settlement business from a working group. (Yang, 2018)It put forward the legislation suggestions of virtual currency. On the basis of the report, it submitted Law of Fund Settlement Method and other legal amendments (hereinafter referred to as the "Amendment") on March 2016. The Amendment was officially adopted on May 25, 2017 and officially implemented on April 1, 2017. It adopted a moderately regulated and innovative attitude towards virtual currency and clarified the legal status of virtual currency and its trading platform.

There are two immediate objectives, as expressed in the report. The first goal is to protect virtual currency holders and users of the exchange platform. Mt. Gox, once the world's largest bitcoin exchange, was attacked by hackers in 2014, causing a loss of about 850,000 bitcoins and about 2.8 billion yen. The event caused enormous losses for investors. Thus, it is urgent to solve the protection problem of virtual currency trading platform.

The second goal is to reinforce international cooperation in dealing with criminal acts such as money laundering and terrorist financing. On June 8, 2015, the G7 proposed that appropriate regulations should be applied to virtual currency and other emerging payment methods. On June 26, 2015, Financial Action Task Force (FATF) proposed that for trading platforms engaging in exchange between virtual currency and legal tender, it is advised to adopt registration or licensing for management. Meanwhile, it is required to adopt anti-money laundering and anti-terrorist financial measures, such as self-confirmation and declaration of suspicious transactions.

Centering on the above two objectives, the Amendment and the supporting act define the legal nature and business scope of the virtual currency trading platform, and set up corresponding business rules and regulatory rules.

4. Enlightenment to China

4.1. Strengthen Supervision on Anti-Money Laundering of Virtual Currency

Because of the anonymousness and cross-border property of virtual currency, related transaction information is hard to identify. It is recommended to prudently supervise anti-money laundering for financial institutions which provide bank account to virtual currency transaction. (Chen, 2010)Financial institutions are required to establish corresponding regulatory framework of anti-money laundering which covers virtual currency trading accounts. Meanwhile, risks of virtual currency can be monitored and resolved effectively while financial institutions are in accordance with the anti-money laundering law.

4.2. Establish a Cross-Departmental Cooperative Supervision Mechanism

It is advised to establish a cross-departmental coordination and supervision mechanism involving the People's Bank of China, China Banking Regulatory Commission, China Securities Regulatory Commission, China Insurance Regulatory Commission, Ministry of Finance and Ministry of Public Security. (Wang, 2009)Working groups should be set up to achieve all-around supervision of virtual currency. The working group should hold regular meetings to study issues related to development, operation, supervision and risk prevention of virtual currency. Professionals on virtual currency should be invited to make key explanations on the operation status of currency, legal issues and other aspects.

4.3. Pay Attention to the Protection of Financial Consumers' Rights and Interests in Virtual Currency

It is suggested that virtual currency should be contained in the scope of protection by financial departments which aim to protect consumer rights and interests. (Wang, 2009) The focus should be circulation of knowledge of virtual currency. This behavior is to show that there exist dangers such as theft and fund loss in virtual currency transaction. Financial departments should undertake the duty to receive complaints of virtual currency. At the same time, different departments should actively participate in coordination of supervision mechanism to improve the synergy of cross-departmental cooperation.

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