

Legal Thoughts of Personal Financial Information Security in the Digital Economy

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Abstract: Personal financial information protection in China is facing great difficulties which manifests as a dispersion of legislation and low practical operability. Financial information legal system should be systematized and unified based on the current state of protection of personal financial information, in order to reduce the difficulties of judgment and enforcement of financial information infringement cases. Also a unified standard of compensation for damages (including spiritual damage compensation) should be established. Secondly, we should improve government supervision and determine a division of functions of different regulatory body, ensuring the efficiency of supervision and improving the effectiveness of government supervision. Finally, specialized financial information protection department should be established within financial institutions. We also should provide better education, training and warnings to our internal staff to protect personal financial information at source.

Keywords: Digital Economy; Financial Information Security; Financial Institutions; Supervision; Legal Systematization

1. Introduction

In recent years, the Internet and big data have accelerated in the digital economy and are playing an important role in various areas of economic and social development. The digital economy, which refers to a range of economic activities that directly or indirectly use data to direct resources to function, enhance efficiency and optimise economic structures, includes emerging technologies such as big data, cloud computing and artificial intelligence at a technical level. With the constant interaction of information and technological innovation, the digital economy, using the internet as a platform and emerging technologies as the main means, has provided a constant stream of vitality and visible efficiency in all areas of our economic development, and is generally extremely beneficial to our current economic situation.

However, the digital economy is a double-edged sword, and its rapid development has posed new challenges to China's existing legal and regulatory system. In the financial sector, while the era of big data has lowered the cost of financial operations, it has also brought challenges to existing laws and regulations and the protection of personal financial information. With the continuous development of network technology, the leakage of personal financial information has occurred from time to time, posing a certain threat to the safety of people's property, so the security of personal financial information has become a major focus and difficulty for financial services.

2. Concept definition of personal financial information and historical analysis of its protection

2.1. Concept definition of personal financial information

Personal financial information is an important part of personal information in the financial sector, and personal information is commonly referred to as information that can identify a specific natural person and related circumstances, so personal financial information can be understood as personal information that can identify a natural person and reflect the economic situation, etc., when engaging in activities related to the financial sector.^[1] Actually personal financial information is a concept proposed by scholars based on the combination of personal information protection and the development of the financial industry, and its connotation is not yet clearly defined, but its extension is very broad. The 2013 Notice of the People's Bank of China on the Protection of Personal Financial Information by Banking Financial Institutions (hereinafter referred to as the Notice) classifies personal financial information into: personal identity information, property information, account information, credit information, financial transaction

information and other derivative information acquired, processed and stored by banking financial institutions through access to the credit system of the People's Bank of China, payment system and other systems in the course of conducting business. The classification of financial information is already broad, and there are so-called derivative information as the underwriting clause, which makes its extension more variable and thus less accurate. The author integrates the views of scholars such as Xing Huiqiang to reclassify the mixed information from the perspective of rights attributes for subsequent research:

(1) Basic personal information. It is general personal identification information that can identify a specific natural person, including personal private information such as identity card number, academic qualifications and home address;

(2) Personal financial information. It is the sum of personal property information, account information, financial transaction information and credit information, including personal income, real estate and vehicles status, personal account status, credit card repayment and loan status, personal credit status, transaction information which is generated in the process of receiving services and purchasing products from financial institutions, etc. Such information is the core part of personal financial information and is the most intuitive and concrete manifestation of personal information in the financial field[2];

As for the "derivative information" of the underwriting clause, it can be regarded as other relevant information obtained from the analysis of Big Data based on the above two types of information, such as personal consumption habits, risk appetite and risk tolerance, investment intention and direction, etc.

2.2. Historical analysis of personal financial information protection

In recent years, China has attached great importance to the protection of personal financial information. In addition to the 2013 Notice mentioned above, the People's Bank of China (hereinafter referred to as "the Central Bank") and other financial industry regulators in China have already put forward requirements for the protection of personal financial information in various documents, which can be found in the following table 1.

Table 1: Personal Financial Information Protection Document Summary Sheet.

Publication Date	Regulatory Document	Issuing Authority
June, 2010	Risk Management Guidelines for Outsourcing by Banking Financial Institutions	China Banking Regulatory Commission (formerly)
January, 2011	Notice on Proper Protection of Personal Financial Information by Banking and Financial Institutions	Central People's Bank
March, 2012	Circular on Further Improving the Protection of Personal Financial Information by Banking and Financial Institutions	Central People's Bank
August, 2013	Guidelines on the Protection of Consumer Rights and Interests in the Banking Sector	China Banking Regulatory Commission (formerly)
December, 2016	The People's Bank of China Implementation Measures for the Protection of the Rights and Interests of Financial Consumers.	Central People's Bank
May, 2018	Data Governance Guidelines for Banking Financial Institutions	China Banking and Insurance Regulatory Commission
October, 2019	Pilot Scheme for the Protection of Personal Financial Information (Data) (Preliminary Draft)	Central People's Bank
November, 2019	Notice on Enhancing Awareness of Personal Information Protection Obligations in accordance with the Law	China Internet Finance Association
December, 2019	Implementation Measures for the Protection of the Rights and Interests of Financial Consumers by the People's Bank of China (Draft for Comments)	Central People's Bank

3. The dilemma of personal financial information protection

The first thing that needs to be clarified is that financial information belongs to a category of personal

information, and information subjects have the right to know about the processing and use of their relevant information, and the right to personal information cannot be infringed without the information subject's knowledge and permission. However, in the context of the rapid development of big data, financial information is mostly stored or transmitted in the form of data, and due to technical limitations or lack of professionalism, the efficiency of financial data processing is accompanied by the risk of leakage.

3.1. The legal dilemma of financial information protection

As mentioned above, although China is gradually attaching importance to the protection of financial information, there are still no uniformly used legal provisions to regulate and protect it.^[3] Most of the documents on financial information do not fall into the broad category of law, but are departmental regulations with low validity, thus the rights of information subjects cannot be fully protected. Due to the lagging nature of the law, coupled with the emergence of the Internet, which has led to a dramatic increase in the amount of information of all kinds. It is difficult for existing laws to cover the protection of all types of personal information in all areas, and there is a legislative gap when it comes to providing legal protection for such information that is related to personal information and property security. As a result, cases of financial information leakage have become more frequent in recent years, and when legal help and protection is needed, there is a gap in the law that is not available. The existing rules do not address the issue of security of financial information at the legal level. And in the event of infringement of personal financial information, there are no defined standards for liability and damages for such infringements, making it difficult for victims to obtain judicial support for financial and moral compensation.^[4]

3.2. The practical dilemma of financial information protection

When individuals or businesses buy or sell products or services from relevant financial institutions as consumers, they implicitly hand over their corresponding financial information to the financial institutions for processing and utilization. Under the premise, financial consumers are in a relatively vulnerable position. After the information is delivered, it is difficult to effectively protect the consumer's right to know their financial information. In addition to the leakage of information, the storage of personal financial information within the financial institution is not completely confidential and the security of financial information cannot be fully protected by the relevant staff of the institution, as evidenced by a number of cases where most of the leakage of financial information is due to the intentional or negligent actions of staff. Moreover, China's Civil Procedure Law provides that "whoever claims, whoever proves", so if a consumer believes that another person or institution has violated the security of his or her information, the burden of proof is on him or her to prove the relevant facts. However, in practice, the leakage of financial information is generally hidden, making it difficult for consumers to prove their rights and interests as injured parties.

4. Analysis of the causes of personal financial information leakage

In recent years, cases of personal financial information leakage have occurred at home and abroad and are commonplace. Behind each vivid case is a large amount of financial information leakage as well as property and moral losses to the victims. The author believes that there are three main reasons for the leakage of personal financial information.

4.1. Mismanagement by staff

Personal financial information, which has both personality and property attributes, is of great value. And the possession of the information itself affects the distribution of wealth, and therefore becomes a means and target for some to profit. The author believes that the leakage of personal financial information is mainly due to the lack of awareness of information protection among the internal staff of financial institutions, who leak their personal financial information without the consent of the information subject, causing moral and property losses to the victims. In judicial practice, many cases are caused by the intentional or negligent infringement of the staff responsible for storing and processing financial information, which invariably indicates that the staff within the financial institutions either make profiteering from customers' financial information due to moral flaws or negligently leak customers' financial information due to a lack of awareness of information protection. Financial institutions, on the

other hand, occupy the advantageous position of holding information resources and are more inclined to over-collect personal financial information in order to assess risk or willingness to invest, while neglecting to protect the security of their information.

4.2. Ethical constraints have not kept pace with technological advances

It is well known that financial information is mostly stored, transported and processed in the form of data, which cannot be separated from the changes and advances in technology. Technology is a double-edged sword, with positive impacts, as well as negative impacts, such as hacking, virus attacks, system vulnerabilities, etc., as seen in practice. With the increasing use of big data, the demand for information and data from financial institutions is extremely high, which has accelerated the formation of a "black industry chain" and made the theft of other people's financial information more rampant. Criminals who blatantly steal and sell personal financial information in order to make a bigger profit show that their moral standards are low, their legal awareness is weak, and that if they have advanced technology but not the moral character to match it, they will be "doomed".

4.3. Insufficient regulation and crackdown

In practice, most acts of infringement of personal financial information (including leakage and illegal trading, etc.) are imposed by administrative authorities with administrative penalties, and criminal liability is not sufficiently pursued. Although the criminal law is modest and should be applied with caution, it does not mean that the criminal law is just a mere ornament in the field of financial information crimes. Since the criminal law has its own criteria for determining and punishing infringement of citizens' personal information, the perpetrators should be held criminally responsible in accordance with the principle of the law of crime and punishment if the conditions of criminal composition are met.^[5] Unfortunately, in judicial practice, very few cases of infringement of financial information have reached the stage of filing or sentencing. This will result in insufficient deterrence of the law, and the cost of violating the law is too low, which encourages the financial information criminals and makes it difficult to combat the infringement to the greatest extent. Moreover, even if administrative penalties are imposed, the amount of damages is not easy to determine and the rights and interests of victims are difficult to be effectively safeguarded as there is not yet a uniform legal standard for the definition of victims' losses.

5. The path to protection of personal financial information

5.1. Systematising the legal regime for financial information

As the laws and regulations on the protection of financial information are scattered, the lack of uniform recognition and evaluation standards has often led to a deadlock in judicial practice in the adjudication and determination of financial information infringement cases.^[6] Therefore, the formation of a unified legal system is more conducive to transforming the protection of personal financial information from theory to practice and to the future implementation of the law. The author believes that the personal financial information protection law can refer to the framework and principles in the Personal Information Protection Law, which stems from the consistency of their ownership and logical homology.^[7] Based on this, the author believes that it is possible to combine the relevant standards already in force in the financial industry (mentioned above), and to build a more complete system from three levels: laws and regulations (e.g. the Network Security Law, the Interpretation of Several Issues on the Application of Law in Handling Criminal Cases of Infringement of Citizens' Personal Information, etc.), departmental regulations (e.g. Certain Provisions on Regulating the Market Order of Internet Information Services), and industry standards (e.g. the Code on Personal Information Security).

At the same time, the remedy mechanism also needs to be improved in the laws and regulations. As mentioned above, when financial information infringement occurs, it is difficult for the victim to prove the case and the amount of damages is difficult to determine. The author believes that in addition to the existing administrative and criminal penalties, civil compensation and remedies for financial information infringement should also be supplemented, such as improving the attribution of the burden of proof, unifying the standard of compensation for property damage caused by infringement, and improving measures for the protection of personal financial information. In addition, the author believes that personal financial information belongs to the category of personal information, which is also known as personal rights and interests, and has strong personality attributes due to its characteristics of identifying the owner of the information. Therefore, when personal information is improperly disclosed or leaked,

personal rights and interests are bound to be infringed, and human dignity will also be greatly challenged and threatened. Then the tortfeasor should have a legal basis to demand compensation for moral damage, so a sound moral damage compensation system should be established, and different cases should be integrated to unify the standard of moral damage compensation as far as possible. The balance should be struck between fully protecting the legal rights and interests of the tortfeasor and avoiding the tortfeasor's "asking for a lot of money".

5.2. Improving the government regulatory powers

The right of government regulation has already been described and will not be repeated here. References to the right of government regulation must be linked to the freedom of the market. The market is free to develop and operate with efficiency in mind, while government regulation is focused on control and safety in mind.^[8] The contradiction between the two makes it difficult to control the "degree" of government regulation. Too much will restrict the freedom of the market economy, while too little will make it difficult to ensure the security of financial information. In practical terms, our government's supervision of the financial market is on the low side.^[9] There are two reasons for this situation. Firstly, the department which is responsible for regulating personal information is the Internet Information Department, while the department which is responsible for administrative penalties in the financial industry is the "one bank and two committees", leading to a significant reduction in regulatory deterrence. Secondly, different regulatory documents provide different regulatory bodies, and a number of law enforcement agencies, such as the Internet information department, the People's Bank of China, the CBRC, the credit industry regulator and the banking industry regulator, have certain regulatory powers. One of the administrative principles is the principle of consistency of power and responsibility. Nowadays, there are too many subjects of regulatory power, and their corresponding responsibilities cannot be clarified, resulting in the lack of unity of power and responsibility and the inability to implement the responsibilities in place, making the regulation a certain degree of confusion, and it is difficult to implement the provisions of the legal norms on the protection of personal financial information.

Based on this, the government's supervisory power should be improved, specifically by reasonably dividing the government's supervisory power over the protection of personal financial information, clarifying the division of functions among different supervisory bodies, improving the current chaotic situation of exercising power, and enhancing supervisory efficiency.^[10] From the current situation of financial information regulation in China, both the People's Bank and the Internet Information Department play an important role. The People's Bank should take up the responsibility of protecting personal financial information of financial institutions, collecting and utilizing personal financial information and incorporating it into financial supervision to ensure regulatory efficiency. The net information department, on the other hand, is a special department responsible for overseeing the national information and data protection work in the context of "Internet + finance", and should carry out special and independent supervision of financial information in the Internet field and give it certain authoritative administrative penalty rights, so as not to reduce the effectiveness of regulation.

5.3. Standardisation of internal control in financial institutions

The protection of personal financial information is the same as the protection of personal information in general in that both have an information control subject. Individuals or enterprises will hand over their personal financial information to financial institutions for storage, transportation and use when buying or selling financial institution products or receiving financial institution services.^[11] As the recipient of the information, the financial institution has the obligation to properly store the personal information of its customers and not to leak it, but in judicial practice many cases of financial information leakage originate from poor storage by the financial institution, which indicates the lack of awareness of personal financial information protection among the internal staff of the financial institution. Therefore, financial institutions should improve and perfect their internal control mechanisms and strive to solve the problem of information leakage at the source.

From a macro perspective, financial institutions and relevant financial information processors should set up special financial information protection departments, be independently responsible for financial information protection, improve the financial information protection management system, clarify the responsibilities of the special department and the positions and staff within the department, achieve unity of authority and responsibility, and hold the staff responsible for violating the relevant provisions of financial information protection and leaking personal financial information. In this way, a "red line" can

be established to regulate the behavior of staff. From a micro perspective, the financial security awareness of financial practitioners should be cultivated, for which education and training activities can be carried out for staff within the sector to learn about the relevant laws and regulations on information protection and to carry out warning education to strengthen the awareness of personal financial information protection.

6. Conclusion

Personal financial information security is related to the information and property security of individuals, enterprises and related financial institutions, as well as national interests and security, and has gradually become a social focus issue in China. It is undeniable that the protection of personal financial information in China is still facing greater difficulties, mainly due to the excessive fragmentation in legislation and the low operability in practice, which makes it difficult for victims to defend their rights and interests. Due to the weak awareness of financial information protection among the internal staff of financial institutions, financial information has been artificially leaked, or due to the insufficient crackdown, certain perpetrators have used technology to engage in illegal and criminal activities, which has become increasingly rampant and repeatedly prohibited. And there are many examples of personal financial information leakage or improper use in recent years.

Based on the current situation of personal financial information protection, the systematization and unification of the legal system of financial information should be put on the agenda. With the unified restraint and management of the law, the difficulty of judgment and implementation of financial information infringement cases will be greatly reduced, and the interests of victims will be specifically safeguarded because of the unified standard of damage compensation. Secondly, government supervision and internal control of financial institutions should be "two-handed" to improve the effectiveness of government supervision without reducing the efficiency of the market, and to clarify the division of functions of different supervisory bodies to ensure supervisory efficiency. Financial institutions should set up special financial information protection departments internally, and strengthen education, training and warnings for staff to protect personal financial information at source. Protect personal financial information.

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