

# ***“Rat Trading” Crime and Its Prevention in the Stock Market***

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**Abstract:** “Rat trading”—“front-running” in the U.S.—is a typical criminal behaviour in the securities market. To better reduce the emergence of “rat trading” behaviour, this paper expounds on the essence of “rat trading” behaviour through theoretical analysis. It highlights the defects in the current “rat trading” behaviour management. Because of the existing flaws, this paper puts forward solutions for the reference of relevant personnel.

## **1. Introduction**

As a core component of the national financial system, the securities market plays a crucial role in asset allocation, financing and macro-control. With the reform and development of China’s financial needs, securities crime has maintained a high growth trend, adversely affecting the order and safe product of the national financial market. On April 25, 2018, the second branch of the Beijing People’s Procuratorate put forward in the “Securities Crime Procuratorial White Paper”: First of all, the frequency of “rat trading” cases continues to increase. More than 90 % of the securities crime cases in many years belong to “rat trading” cases. The actor uses his information advantage to conduct market position construction, which is difficult to guarantee the fundamentality of the securities market and then affects the foundation and foundation of the securities market. Then, the case involves a wide range of areas. In the early years, “rat trading” appeared in issuing public funds, transaction management and other parts. It has penetrated different categories, such as asset management, banking and insurance, asset evaluation, and fund custody. It changes the traditional “rat trading” behaviour model in some senses. [1]

Moreover, from the perspective of handling cases by procuratorial organs, more than 30 % belong to the mode of everyday crime, that is, to maintain the characteristics of gang crime. Because of the weak certainty of the “judicial interpretation”, judicial personnel cannot grasp the essence of corruption in time, which makes the use of criminal law face many difficulties. [2]

Under social change, the change of criminal law has higher standards and requirements, which requires criminal law to maintain more substantial initiative and enthusiasm to meet the trend of social development. Early intervention and pre-punishment can be directly selected for prevention in the rapidly changing financial field. The legislation of the crime of undisclosed information

transactions is similar to the above model. It can now solve the traditional legislative model and problems.

## 1.1 The concept of securities investment fund “rat trading”

“Rat trading” cannot be defined as a definite legal concept. Fundamentally, “rat trading” is an academic term foreign countries use to enter China, and all legal provisions are unclear. From the beginning, “rat trading” is a criminal act in the funds’ field, which is then transformed into the illegal operation of financial activities. The “rat trading” behaviour has appeared in different economic areas such as securities, banks and futures. [3]

In contrast, the “rat trading” behaviour mainly refers to the conduct of funds, securities and other fields.

The “rat trading” studied in this paper refers to the profit-making behaviour of fund managers who choose to violate the trustee’s obligations and adopt the strategy of first buying after mastering considerable investment information and then selling financial products after pulling up the price of financial assets after investing in personal management funds.

## 2. The cognition of criminal behaviour of “rat trading”

### 2.1 Insider trading said

The insider trading theory refers to the insiders of the internal information of the securities market and the individuals who illegally obtain the insider information of the securities information. They use insider information to carry out securities trading activities and try to make profits from it. However, there are many differences between insider trading and the "crime of insider trading and disclosure of insider information" in Article 180 of the Criminal Law. The insider information of "insider trading theory" refers to information that is not disclosed to unspecified groups of society and has a direct impact on securities prices and funds, including all transaction information of funds, which is defined more broadly than the "crime of insider trading and disclosure of insider information." [4]

European and American countries directly include “rat trading” in the "insider trading theory" scope. China’s current legislation also draws on the ideas of European and American countries. Article 202, 8 of China’s "Securities Law" stipulates the "insider information" standard. Two of the more significant features are non-public and significant. Securities trading is accompanied by information unknown to the public, and data is not fully open; that is, insider information remains “non-public”. In addition, if the information is disclosed, the price of stock trading may fluctuate, so it is consistent with the importance of insider information. [5]

Therefore, some researchers have proposed that undisclosed information has the characteristics of principal and non-public comparative analysis of insider trading, disclosure of insider information crime insider information, and consistent features. Undisclosed information is business information that can play a substantial economic value and is protected by law. In this way, the “rat trading” behaviour is consistent with the disclosure of insider information and insider trading behaviour, which is anonymous financial information. It violates the relevant provisions of the transaction’s facts, thereby undermining the fair trading principles and ideas, so that the credibility of the asset management industry has an impact, which is not conducive to the maintenance of financial market order.

In 2009, the Criminal Law Amendment (VII) added 180 paragraph 4, the crime of public information transaction. The offence extends the first paragraph of article 180 of the Criminal Law, which directly characterises it as “insider trading”. In 2016, the Supreme People’s Court explained

that insider trading for public information is consistent with the criteria for judging the crime of insider information. Hence, the nature of the crime of insider information and the interests behind it are the same as the crime of insider trading and disclosure of insider information in the first paragraph, which can be included in the scope of "insider trading theory".[6]

It can be seen that the core logic behind the official interpretation of the concept of "rat trading" - the description of the behaviour of "rat trading" in the crime of using undisclosed information transactions is the "insider trading theory".

However, the "insider trading theory" itself is also reasonable, but there are still many difficulties to resolve. Practitioners will inevitably be accompanied by securities trading information in customer capital trading, but the financial manager who manages customer funds has no right to disclose information to the public. That is to say, if the financial manager directly tells the data when using the customer's capital investment, discloses the information to the public in advance, and then continues to perform the previous transaction, then from the perspective of "insider trading theory", it still cannot meet the "non-public" characteristics of insider information. Currently, the legal nature of "rat trading" does not match the theoretical point of view. [7]

In addition, whether the internal information has the characteristics of materiality is also the core indicator to identify the "rat trading" behaviour. If the practitioner builds the "rat trading" and purchases securities through customer funds, but the customer funds do not enjoy the profit of the stock price rise, or the increase in the stock price is not the result of the customer's property investment. At this time, the materiality of the insider information cannot be reasonably defined, so evaluating all the "rat trading" behaviour through the "insider trading theory" is problematic.

## 2.2 Breach of faith

"Breach of trust" appeared in Japan and Germany in the early years. It mainly refers to the behaviour of individuals who violate their obligations under the provisions of the law, the instructions of public security organs, legal acts, and the handling of practice for others, and ultimately cause the loss of others' property. After the client abuses the property and transaction processing authority to violate the fiduciary duty, the behaviour can be called a breach of trust. The characteristics of "rat trading" generally occur in entrustment. For example, when investing in funds, investors entrust financial institutions to manage assets and form a trust relationship. Financial institutions need to bear the relevant obligations of good faith for investors. In contrast, fund managers, although they are fund employees of financial institutions, have a high salary level, but they should also bear the obligation of trust. Therefore, practitioners have no direct connection with investors, but practitioners can operate and apply the facts of customer funds. [8]

They are analysed at the factual level, and practitioners and investors maintain a trusting relationship. Then, practitioners must bear the obligation of honesty, loyalty and diligence to investors. If investors do not trust practitioners, it will be difficult for practitioners to use investors' funds directly. Therefore, trust can provide the basis for the efficient development of the financial industry. The emergence of "rat trading" behaviour will make investors lose confidence in the industry.

Before 2009, the CSRC had repeatedly defined "rat trading" as a breach of trust, which is also prohibited by Article 18 of the Securities Investment Fund Law of the People's Republic of China (from now on referred to as the "Fund Law"), that is, "not to serve as a fund custodian or any position of other fund managers", and to define the qualifications of fund managers, monitors, managers and other practitioners, to avoid the direct conflict of interest between the above personnel and the original investors when they assume the functions of fund managers, which will harm the protection of investors' funds. It is not conducive to protecting investors' trust

relationships, so it conforms to the trust theory.

However, “perfidy” itself also has obvious shortcomings. The breach of trust behaviour itself requires the trustee to make a judgment when he is lost or at risk. However, if the client’s capital investment information is used, he does not maintain the attitude of the person in charge of the client and assumes the obligation of good faith. Then, while profiting, the client also benefits from it. If it does not lead to losses for investors or even higher profits, it can be defined as "taking a ride". He evaluates it as a direct violation of the trust system.

## **2.3 The reason why “rat trading” is repeatedly banned**

### **2.3.1 The characteristics of low risk and high return lead to**

The problem of “rat trading” is mainly because the risks and benefits of crime are negligible; that is, the risk of fund experience is not high when the crime is committed, but if the “rat trading” behaviour is smooth, high returns can be obtained. Among them are many factors: First, the fund’s “rat trading” is difficult to be checked for a long time. From a practical point of view, most cases are fund rewards that pass information to others and allow others to trade securities. Although similarities and differences in transactions can be seen, fund managers will not be convicted if the exchange of information between fund managers and operators cannot be found. [9]

Therefore, it can be judged that the “rat trading” cases currently investigated are only the tip of the iceberg. Many “rat trading” behaviours make fund managers produce enormous benefits. Second, more fund punishment intensity is needed to maintain the threat. Combined with the analysis of past “rat trading” cases, fund managers tend to make profits after seriously damaging the interests of the fund. After confiscating illegal income, they still cannot compensate for the lost fund share. At the same time, due to the lack of punishment intensity, they will generally be sentenced to 1-5 years.

In some cases, fund managers will be sentenced to probation. Combined with the abovementioned content, fund managers face low risk and high return temptation because their loyalty obligations must be maintained. Some fund managers will inevitably violate the rules and increase the risk of “rat trading”.

### **2.3.2 Fund company’s internal control system is not wholly led to**

The rampant “rat trading” behaviour needs to consider the personal qualities of fund managers and other practitioners and also requires the internal control of fund managers. Fund managers need to shoulder the obligation of trust for fund investors to ensure that job behaviour does not harm the interests of the fund. Without adequate external supervision of funds, the lack of internal control of fund management companies will lead to many illegal acts. Article 17 of the Law of the People’s Republic of China on Securities Investment Funds does not specify the securities trading behaviour of fund practitioners. Still, it requires fund managers and other practitioners not to carry mobile phones to work to reduce the occurrence of illegal behaviours of fund managers. From a practical point of view, some fund companies often choose the above measures to restrict because of their relatively perfect internal control system. [10]

The advantages of the internal supervision mechanism of fund companies will directly affect the internal organisational structure of fund managers. The organisational structure itself will have a direct impact on the ownership structure. Currently, most of the fund management rights are concentrated in the hands of two or three shareholders. In this mode, the control of the fund management company will be affected, which could be more conducive to the orderly development of the company’s management activities. Not only that, the independent director system needs to

meet the different standards within the fund company, which result in the lack of supervision function of independent directors. Many problems of fund management companies need to be more effectively supervised, which seriously limits fund companies' development and adversely affects fund holders' interests.

### **3. Prevention of “rat trading” in the Securities Market**

#### **3.1 Increase the accountability for the behaviour of the “rat trading”.**

To strengthen the pursuit of administrative responsibility of “rat trading”, this paper mainly analyses three aspects: First, establish a more diversified administrative punishment mode of “rat trading”, provide a basis for punishment work and increase the intensity of administrative punishment. Taking complete account of the requirements of “Securities Law” and “Fund Law”, the “rat trading” behaviour is defined. The punishment measures are market ban, confiscation of illegal income, fines and cancellation of fund qualification. [11]

After 2015, the CSRC directly cancelled the qualification of fund practitioners as a standard for prohibition, mainly because the legal effect of nullifying the capability of fund practitioners and the “market ban” remains the same. After the “rat trading” is sentenced, when the illegal income and fines are confiscated, it will generally appear in the criminal judgment “confiscating the illegal income and fines”. Finally, the administrative punishment for “rat trading” behaviour is kept single. Therefore, it is necessary to increase the administrative penalty mode further, maintain a more decadent processing direction, and simultaneously provide a basis for the “rat trading” administrative penalty. We should solve the problem of the base of the administrative liability of the private fund “rat trading” and the application of the “Securities Law” and “Fund Law” as soon as possible.

Second, to provide greater rights to the CSRC to reduce the difficulty of investigating and dealing with “rat trading” behaviour. When judging the “rat trading” behaviour, the CSRC needs to rely on two operations: the actor controls the securities trading account, and there is a convergence transaction. In inspecting the actual control account evidence of the perpetrator, it is mainly to follow up on the address of the instruction issued to determine whether the perpetrator is related to the address. Convergence trading primarily relies on three indicators: the type of trading securities, trading direction, and trading time range. [12]

“Rat trading” is a hidden behaviour, and evidence collation is difficult. The primary function of the CSRC is supervision, and it is also a unit for discovering illegal acts. From the perspective of the CSRC, there is no restriction on personal freedom and the right to seize items. In judging the above evidence, the requirement is to take the perpetrator's computer and other things, mostly fixed evidence. Otherwise, if the perpetrator does not cooperate with the investigation, the CSRC will transfer it to the judicial organ after the study, which is prone to the loss of evidence and limits the punishment of “rat trading” behaviour. The author proposes that the “rat trading” behaviour is more challenging to investigate and deal with. Without affecting the “Constitution” background, citizens' freedom can be unrestricted, and greater rights need to be provided to the CSRC. For example, after verifying the transaction address, the computer can be seized to maintain the stability of the perpetrator's illegal evidence.

#### **3.2 Joint supervision of government and industry**

The China Securities Regulatory Commission plays a vital role in regulating the behaviour of “rat tradings”. After 2017, the China Securities Regulatory Commission cracked down more severely on the behaviour of “rat trading” s and used more diversified measures to limit the

behaviour of “rat trading”. Effectively promote the behaviour into the criminal identification through judicial means to investigate the “rat trading” behaviour, directly hand over the personnel involved to the public security organs. Effectively apply the resources of the Ministry of Public Security, organise illegal crackdowns, and enhance the intensity of special law enforcement. Undoubtedly, the “rat trading” case was controlled under the crackdown of the CSRC. Extraterritorial countries supervise the “rat trading” behaviour, which is convenient for adopting a variety of regulatory models, and actively learn from the advanced experience of foreign countries.

We compare the analysis of the above two models, and it can be found that the strict supervision of the government is more suitable for the early stage of market development. The management is implemented through authoritative laws and systems to ensure the steady growth of the fund industry. The most significant advantage of the industry self-regulation model is that it can enhance the development momentum of the industry. [13]

In contrast, after 1993, China’s economic life investment fund boom emerged, lagging behind other countries in terms of time. Although China’s economy has maintained a good development trend and people have maintained a more robust enthusiasm for investment activities, the fund is an independent investment channel. The fund has supported rapid development in this context. We need a series of problems in the favourable securities investment fund market, which is currently in the early stage of development. For example, because fund practitioners lack moral literacy and do not have the obligation of loyalty, many speculative behaviours occur when organising securities investment activities, such as “rat trading”, insider trading, and multi-fund interest transmission. Due to the lack of investment awareness and risk management awareness, investors eventually lead an impact on investment success rate and directly impact social stability and development. At the same time, because the legal system is imperfect, the government will prioritise centralised supervision when choosing the positive supervision mode and the industry self-discipline supervision mode. However, it will also maintain industry self-discipline to some extent to solve the shortcomings and problems of government supervision, such as low management efficiency. It can respond to emergencies in the securities market on time, flexibly deal with the issue of industry self-discipline, and avoid illegal acts the first time. China’s fund industry self-regulatory agencies include China Securities Investment Fund Industry Association and fund custodians. There are the following problems in the self-regulation of domestic funds: first, the self-regulation management work has yet to be strictly implemented; second, there are contradictions and conflicts in the provisions of multiple self-regulatory organisations. Therefore, the misconduct of fund managers could be more conducive to the stable development of the fund market. Consequently, it is particularly critical to comply with self-discipline regulations. We should give full play to the function of independent supervision in time, continue to promote the innovation and development of the fund market and establish a new supervision system with government supervision as the core and industry self-discipline committee as the auxiliary [14].

### **3.3 Establish a sound internal supervision system for fund companies**

To supervise misconduct such as “rat trading”, the government must provide joint supervision and, at the same time, use the rights of the CSRC to intervene and influence in combination with the requirements and provisions of the law. However, when the above rights are used, they are more ex-post supervision, which has an apparent lag. Through prevention and control in advance, it can effectively reduce behavioural damage such as “rat trading”. When improving the effectiveness of prevention and control in advance, the internal self-discipline supervision measures of the industry are particularly critical. For the internal practitioners of fund management companies, Article 17 of the "Fund Law" shows that the loosening of securities trading behaviour can effectively avoid the

conflict of interest of investors and carry out practical securities trading activities. Before and after the CSRC issued regulatory documents, strict restrictions were imposed on regulatory measures: fund practitioners must report securities accounts to the company in advance; fund companies must develop stringent control measures, conduct regular reports, and close.

In contrast to the practice itself, fund companies generally cannot strictly implement regulatory obligations [15]. Moreover, the regulatory authorities have not imposed strict penalties on fund companies. For example, the case of Boshi fund manager Ma Le seriously damaged investors' trust in fund companies, and the CSRC only sentenced Boshi fund to 6 months of rectification. If you want to continue to change the fund manager's lack of administrative management of internal personnel "rat trading", you should enhance the supervision intensity of fund managers. Whether by strengthening incentive policies or improving punishment mechanisms, the inner supervision effect of fund managers can be continuously improved. Specifically, by establishing a regulatory mechanism agency, the fund company must consider several aspects.

### **3.3.1 Cultivate and establish the professional ethics of the staff within the fund**

The fund company needs to abide by the fund manager's obligation to trust the fund investor, clarify its working principles and requirements, not violate the content of the law, improve the internal personnel's securities trading ethics, and determine the mechanism to prevent "rat trading". The main measures are as follows: determine the scope of the fund manager as the core practitioner, and require the fund manager and other practitioners to submit regular transaction information reports; moral education of fund practitioners; improve training and assessment work. Gradually integrate professional ethics and loyalty obligations into the management system, and use written methods to regulate behaviours, effectively reducing the occurrence of behaviours that damage the interests of fund holders.

### **3.3.2 Strict supervision of internal employee communication**

For the communication equipment of practitioners such as fund managers, it is necessary to file in advance when the relevant person changes the communication equipment. Avoid unauthorised changes in communication equipment, which is also the key for fund companies to find the convergence transaction chain. Therefore, there are strict restrictions and influences on communication tools for internal personnel to avoid essential and undisclosed information risks.

### **3.3.3 Increase the business content audit of securities traders**

Although the securities trading authority of domestic open fund practitioners, fund practitioners must face the supervision and restriction of fund companies when carrying out securities trading activities, including practitioners themselves and relatives and friends. Fund companies must increase the management of internal employees and related accounts and do a good job of regular examination and approval. Fund company practitioners also need to generate conscious reports, do an excellent job of the internal investigation of fund managers, and judge whether there is a "rat trading" case. Fund companies need to effectively apply professional analysis, financial guarantee and other models to determine whether internal personnel harm the interests of fund holders.

### **3.3.4 Improve the securities practitioners' transaction records preservation files**

It is necessary to archive the data from the information on insider securities account transactions, regular transaction reports, and regular situation notes. Based on the above information, we will maintain the integrity and then create a sound evaluation system and scoring system for the

professional ethics of fund practitioners, which can provide a basis for investors to choose fund products. At the same time, we can improve the background of fund managers through fund recruitment books.

### 3.4 Encourage informed persons to report rewards

In contrast, according to the U.S. Securities Exchange Act requirements, when judging insider trading behaviour, if the prosecution is successful and the Securities and Exchange Commission locks in insider trading behaviour, the corresponding fine will be directly imposed. After the perpetrator pays the penalty, the Securities and Exchange Commission may, in combination with the fine, provide incentives to the whistleblower based on 10% data. Under such a high bonus, many clues have emerged in the investigation of insider trading in the United States. All illegal insiders have directly become part of the action to expose unlawful transactions. China can also create a reporting reward system in the fund industry and the securities market to ensure that the public can take the initiative to enter the fight against fund managers' "rat trading" and other behaviours, not only to supervise and manage the fund managers' various improper behaviours but also to promote the public investment risk awareness and escort the sustainable development of the fund industry.

### 3.5 Use CellETF to ban "rat tradings"

The traditional fund business needs to use contract agreements, custodians and other ways to deal with "rat trading", illegal collection of personal information, false propaganda and other issues. In contrast, in the life cycle of the CellETF fund, the introduction, creation, asset allocation, and other aspects of liquidation need to be framed by intelligent contracts. Fund managers can manage fund assets within the scope of authorisation. Smart contracts are kept open and can be tampered with. These are the essential environment for the output of the CellETF fund business. The CellETF intelligent contract framework needs to solve the problems that should arise at the technical level so that the decentralisation model of the asset management business is transformed into the basis for the operation of the chain: First, the CellETF fund assets are directly handed over to the Vault contract for custody. The owner has no right to extract them now, and the fund manager can manage the fund assets within the scope of authority. In this mode, the fund manager has direct constraints [16].

Then, in the investment scope of a single CellETF issue fund, it can be presented to all users. Under such a setting, it can avoid the investment risk caused by users' ignorance of the strategy. In passive fund products, investment decisions are directly presented as smart contracts to reduce the impact of subjective operational errors.

Secondly, CellETF is a fund manager, so it has enough motivation in asset management operations. The relationship between CellETF fund issuance and management can be designed with Ethereum ecology and a broad decentralisation system to encrypt asset management issues. Fund management fees and excess revenue sharing are the performance of the current CellETF system value. The project site will organise more asset management businesses driven by interests in the future. The CellETF founding team established a prudent investment decision management framework, including professional investment and research resources. It aims to provide users with more efficient asset allocation solutions.

## 4. Summary

The behaviour of "rat trading" refers to the illegal operation of futures trading and securities



trading. From the perspective of traditional theory, “rat trading” adheres to the characteristics of a “breach of trust”. After the development of the market economy to a particular stage, there will be a rise in securities investment funds. Compared with China’s fund and legal systems and foreign developed countries, China’s overall performance could be more mature. Because of the lack of fund managers’ obligations and the backward moral level, there are a lot of improper behaviours of fund managers, mainly caused by the lack of a fund system and legal norms. Targeted preventive measures can reduce and control the “rat trading” frequency.

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