

Discussions on Information Disclosure and Liquidation Safety of P2P Online Lending Industry

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Abstract—P2P online lending has faced many problems in recent years after explosive growth. The successive collapse of the P2P online lending platforms in 2018 has raised concerns about the prospects of this industry, which has become one of the core problems to be solved in the future development of Chinese P2P online lending industry. This paper discusses how to improve the quality, integrity, independence and credibility of information disclosure, and how to improve the independence and security of fund trust and liquidation services from the perspective of major service providers in the P2P online lending industry, such as P2P online lending platforms, bonding companies, fund trusteeship institutions, industry information platform, and liquidation institutions that may emerge in the future. This provides a feasible way to reduce the risk of bankruptcy of online lending platforms and enhances the credibility of the online lending industry. It has practical value for the main service providers of the online lending industry to improve the quality of service and the regulatory practice of regulatory authorities.

Keywords—P2P online lending; Information disclosure; Fund trusteeship; Liquidation

I. INTRODUCTION

P2P online lending is a new business model in which a qualified P2P online lending platform acts as an information intermediary, and borrowers post their loans and investors bid on these loans through the platforms. P2P online lending first developed in Britain and the United States in 2005, then it was introduced to China in 2007. It's market size in China far surpassed that of Britain and the United States in 2013. The huge potential market has attracted the attention of venture capital, which is gradually invested in the online lending markets. According to incomplete statistics, there are 137 platforms with the background of venture capital in China by 2017, and most platforms have been continuously invested by venture capital in their operation process. We can see that the P2P online lending industry has gradually been recognized by the capital in the development process.

At the same time, the risks behind the rapid development can't be ignored. According to the annual report of China's online lending industry in 2018 released by WDZJ.com. The number of normal operating P2P online lending platforms in China had dropped to 1021 by the end of 2018, and the total number of collapsed and problematic platforms in 2018 was

1279 [1]. The phenomenon of successive collapse in 2018 has brought great economic losses to investors, reduced the trust of investors in the network lending platform, and cast a shadow on the development of the P2P online lending industry. The types of platform bankruptcy include escaping with money, false bids, high interest rate bids, dismantling bids, self-financing and so on. The reasons of platform bankruptcy mainly come down to the following three aspects.

- The operator of P2P online lending platform is a malicious fraud. By exploiting the loopholes of fund trusteeship, it can directly escape with the funds of investors.
- The operator of P2P online lending platform invests the obtained funds into other industries through self-financing. In order to obtain money, the platform divides the huge financing demands into several bids and lists them. And the identity of the borrowers of the bids is fictitious, while the actual holder of the identity certificate remains unaware. The essence of self-financing of P2P online lending platform is illegal fund-raising and illegal absorption of public deposits.
- The transaction of P2P online lending platform is real, but its credit audit ability is insufficient, which leads to excessive bad debts and drags down the platform or the scale of transaction is too small to make sufficient profit, which makes the operation of the platform unsustainable, and then goes bankrupt.

Information disclosure and liquidation of P2P online lending industry play an important role in alleviating the risk of platform bankruptcy caused by the above reasons. For the risk of malicious fraud running away, the key is to strengthen the independence of fund trusteeship companies and liquidation security. For the risk of platform self-financing, we need to strengthen the disclosure of the real information of borrowers and the disclosure of the complete information of bonding companies to prevent it. For the risk of insufficient credit auditing ability of platforms, by strengthening the information disclosure of platforms and borrowers, investors can more easily identify the relevant risks and select high-quality platform.

The collapse of P2P online lending platforms is not conducive to the development of industry. It is urgent to strengthen external supervision. However, while calling for supervision, the public is worrying that the over-regulation will

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create artificial obstacles to the development of the P2P online lending. In this case, if the P2P online lending platforms can strengthen self-discipline while improving the information disclosure mechanism, and ensure the safety of investors' funds storage and liquidation, and demonstrate to investors and regulatory authorities that they have no suspicions of malicious fraud and illegal fund-raising, it can eliminate the negative concerns of regulatory authorities and the public to a certain extent, thereby reducing over-regulation. Therefore, the discussion of information disclosure and liquidation security of P2P online lending industry has important practical significance for the establishment of order in the P2P online lending industry.

II. RELATED LITERATURE

Information asymmetry is a serious problem that the P2P online lending industry has to face [2]. Information disclosure is an effective measure to alleviate this problem and fostering the trust of investors. At present, the research on information disclosure and investor trust mainly studies from the perspective of borrowers and platforms.

Pätzsch S et al.(2010) study the contribution of unstructured, vague, or unverified information to trust building in online communities based on data from the largest online social lending platform called Smava.de in Germany, and point out that disclosing personal information will potentially expose borrowers to privacy risks [3]. Chen et al.(2011) point out that the social capital, including structural and relational social capital, is an important factor affecting the trust of lenders' towards borrowers on P2P online lending market [4]. Kuwabara et al.(2011) study the investor's trust evaluation mechanism for borrowers in the online lending market based on the data of Prosper.com. They believe that investors can evaluate the borrowers based on the information related to their financial ability to repay and socially defined reliability. That is, investors can make decisions to trust borrowers instead of simply make an investment decision under risk [5]. Michels J(2012) believes that information disclosure plays an important role in improving market efficiency. He demonstrates that voluntary and unverifiable disclosure of information has enormous economic benefits in reducing the cost of debt and increasing bidding activity based on the dataset from Prosper.com [6]. Yan Y et al.(2016) make an empirical analysis on the data collected from 70 Chinese P2P platforms, the research finds that the financial and credit status of P2P platforms are key elements in building the trust of investors and impacting their decisions. But the disclosure of information by the borrowers does not significantly affect the number of investors [7]. Ge R et al.(2017) believe that borrowers' choice to self-disclose their social media account and social media presence acts as signals of borrowers' creditworthiness and predict their default probability [8]. Jiang Y et al.(2018) find that government regulatory events restrict the herding effect, suggesting that more information disclosure and stricter operation standards reduce the value of observational learning after studying the herding behaviors of investors when choosing which platform to invest [9].

From the literature above, it's easy to find that the research on information disclosure in P2P online lending mainly focuses

on the importance and significance of information disclosure to improve the success rate of borrowing and enhance the trust of the platform from the perspective of borrowers and platforms, while few studies focus on the specific implementation mechanism of information disclosure. Considering the successive collapse of P2P online lending platforms, the role of information disclosure has become increasingly prominent. So this paper explores how to enhance the trust level of the public (especially investors) in the P2P online lending platform and the whole industry from the perspective of industry information disclosure and fund trusteeship and liquidation security, which has important value for relevant participants in the P2P online lending and regulatory authorities, and the research provides us a new perspective.

III. INFORMATION DISCLOSURE

There is a significant problem of information asymmetry among the participants of P2P online lending. From the perspective of investors and platforms, investors are basically in a weak position in information. As an advantageous party, platforms and other related institutions can establish investors' trust through information disclosure if they want to promote their own development and industry progress. Only by actively disclosing all kinds of information concerned by lenders and borrowers can more investors be attracted to participate in P2P online lending transactions. This section will discuss the information disclosure of P2P online lending industry from different perspectives.

A. Disclosure of Investor-Related Information

Firstly, investors are concerned about the investment cost. Investment cost is an important factor affecting investment returns and decisions, which may include interest charged by P2P online lending platform, restrictions on account cash withdrawal and time delay, as well as account registration fee, and the cost of risk guarantee fund withdrawal, etc. Secondly, the integrity of historical transaction data and the convenience of query enable investors to analyze the average level of bad debts and average returns of online lending platform. Thirdly, information related to risk assurance. Under the situation that platforms cooperate with bonding companies or guarantee itself, we should disclose the relevant information about guarantee ability of bonding companies or platforms according to the following discussion. In the case of using risk guarantee fund to protect investor's rights and interests in P2P platforms, detailed and complete disclosure rules of risk guarantee fund should be made.

In a word, the P2P online lending platform should disclose the cost, returns and risk information that investors focus on as true as possible. True and complete information disclosure can improve the transparency of online lending platforms and the development of investors' confidence in P2P online lending.

B. Disclosure of Information Relevant to Bonding Company

Investors' investment in P2P online lending is essentially a fixed-income bond investment as well as a credit investment for borrowers and bonding companies. It is difficult for investors to make professional judgments on the credit of the

borrower. In the case of repayment delay (or bad debt), the difficulty and cost of collection make it difficult for investors to recover the funds. In this situation, investors' confidence in the P2P online lending market mainly comes from the credit of the bonding company and the risk security mechanism of the platform. Therefore, the platform should coordinate with the bonding company and proactively disclose complete information that helps to access the bonding company's guarantee ability, compensate capability and sustainable capability. This will help attract more investors and promote the healthy development of the P2P online lending, thus increase its market share in the financial market.

At present, the content of the bonding company's information disclosure is almost only registered capital, which makes it difficult for investors to evaluate the guarantee credit of the bonding company. For the platform that directly provides guarantee of principal and interest, it is also necessary to disclose the relevant information which is helpful to judge the guarantee ability of the platform, just like the bonding company. In order to improve the public's confidence (especially investors) in the bonding company's guarantee ability, it should adopt an information disclosure mechanism like public listed companies, such as quarterly disclosure of financial reports and monthly risk assessment reports. Financial reports may be worked out and disclosed in accordance with the requirements of accounting of bonding institutions. Guarantee risk assessment report mainly discloses the relevant quantitative indicators of risk management of bonding institutions, including the amount of capital (or assets) undertaking guarantee risk, the total amount of principal and interest of unpaid loans under guarantee, guarantee leverage coefficient, guarantee success rate, guarantee income, guarantee compensation rate, guarantee cost, and compensation recovery rate and reserve adequacy ratio, etc.

C. Disclosure of Platform Operation Data

Since there is a time span for the loan to be repaid, if the platform fails to operate normally after the loan is borrowed, the investor's debt investment will face the risk of being difficult to recover. In order to attract investors to participate in transactions, the platforms must convince investors that they can operate sustainably and steadily.

Only by actively disclosing their own operational and financial data can the P2P platforms fully convince investors of their ability to continue operations. From the perspective of measuring the ability of the P2P platforms to maintain stable operation, the data should include: (1) actual registered capital; (2) monthly operating income and other income, of which the operating income should be completed through the platform of the month; (3) the main monthly total expenditure and the main components of the expenditure, and the necessary explanation to them; (4) the total monthly assets of the P2P platforms and the amount of current assets.

For the P2P platforms that directly guarantee the loan principal and interest repayment, they also need to disclose the information about the guarantee capability and the guarantee risk, just like the bonding company mentioned above. The platforms for guaranteeing the investor's investment principal

(or principal and interest) with risk protection funds shall publish the cash balance, income, expenses and details of the funds, as well as the bad debt details corresponding to the compensation support, the principal and interest of the platform outstanding loans and the details of the loan items. In this way, investors can evaluate the investment risk of the platform based on the analysis of the security capability and leverage coefficient of the platform risk guarantee funds for outstanding loans.

D. Disclosure of Borrower's Related Information and Borrowing Cost Information

The borrower's relevant information can be divided into two aspects: one is the borrower's personal identification, personal and family income information; the other is the borrower's personal and family past credit information. These are the concerns of investors and bonding companies. In order to demonstrate to investors that it's not a self-financing lending platform, the online lending platform can draw lessons from the practice of borrowers using video files to win investors in American online lending transactions. The borrower states its identity, address, occupation and income level, as well as the purpose of borrowing, quota and repayment plan in the video. It not only can close the psychological distance between the lender and the borrower, but also prove the authenticity of the loan. Because the video file is vivid and real, it is difficult to be fake. The platform confirms the borrower's relevant information and, to a certain extent, clarifies the suspicion of the platform's self-financing.

The information of borrowing cost of P2P online lending platform includes the following parts: (1) interest cost; (2) after-loan expenses such as management fee, guarantee fee and the required payment time, which are charged by P2P online lending platform and bonding company; (3) pre-loan cost, such as pre-loan evaluation fee; (4) the review pass rate and pre-loan evaluation of P2P platform and bonding company. The evaluation time, the average listing time and the success rate constitute the time cost and opportunity cost of the lender, which also affect the decision-making of the borrower.

E. Disclosure of Information Platform of Independent P2P Online Lending Industry

The information platform of online lending industry is operated independently. It provides all participants with information related to the P2P online lending. The information platform mainly provides the latest information related to the current lending transactions of various online lending platforms. In addition, it discloses some basic information of the platforms, as well as some news and forum information related to online lending transactions. The information disclosure of the independent information platform requires the joint participation of the information platforms, the online lending platforms and the bonding companies.

From the perspective of information platform, the current information platform mainly cooperates with the platform to obtain data access rights, then using network technology to collect data from the official website of the platform, while relevant data of some unauthorized platforms can't be obtained

on the information platform, so the integrity and continuity of data can't be guaranteed. Therefore, the information platform should seek the cooperation with the online lending platforms and the bonding companies, so that they can actively disclose complete transaction data and other relevant data every day. Active cooperation between online lending platforms and bonding companies can guarantee the integrity, continuity and timeliness of data sources, and enhance the information value of information platforms.

From the perspective of online lending platforms and bonding companies, online lending platforms need to cultivate the initiative and enthusiasm of information disclosure to information platforms, actively cooperate with information platforms, and continuously complete data reporting to information platforms. They should be aware of the positive effect of information disclosure on the operation of the platform. Because the fierce competition in the market requires strong competitiveness of platforms and bonding companies, so they can withstand the test of the market and gain the trust of investors. Since the information platforms are independent to some extent, publishing relevant data on the information platforms can better prove the good financial condition, stable operation and reliable guarantee of the online lending platforms and the bonding companies, compared with the data released by themselves. However, when striving for cooperation, the information platforms should also avoid the interest relations with the platforms, which may lead to preference for the online lending platforms and bonding companies. Such as selectively publishing data or publishing false data. Only by strengthening their independence can information platforms build up their credibility.

IV. FUND TRUSTEESHIP AND LIQUIDATION SECURITY

The main reason for the malicious fraud is that the P2P online lending platforms have the rights to allocate funds from intermediate accounts. In order to thoroughly eliminate such risks, the independence of fund trusteeship must be ensured, and must base on a secure clearing mechanism.

Intermediate account is set up for transaction verification and account clearance, and it is a necessary part of the P2P platform. However, the current fund trustee does not promise to verify the request for allocation of funds from the escrow account based on real transactions. The main reason is that there is no clearing mechanism accepted by all parties involved in the online loan transactions. Safe and reliable fund trusteeship must have two characteristics: one is independence, that is, the transfer of funds between two special accounts of any participants can only base on the liquidation report of actual transactions; the other is the authenticity recognition mechanism of the liquidation report.

For all participants in online lending transactions, there should be a corresponding account liquidation report every day. The report mainly consists of three parts. The first part is the online loan transaction and credit repayment clearing information of the day, describing the changes in cash rights and creditor's rights and debts caused by online loan transactions and debt repayments on the day; the second part is the information of clearing service cost, including the changes

of cash rights and interests caused by the revenue and expenditure of intermediary fee, guarantee fee and liquidation service fee on that day; and the third part is the information of the records of the transfer of funds and the balance of cash equity of the account on the day. The data of the account daily clearing report is derived from the transaction data provided by the P2P online lending platform, the record of the transfer of the current account funds provided by the fund custodian institution, and the account clearing result of the previous day.

In the absence of an independent liquidation agency, the fund trustee can adopt a simple alternative way to complete the liquidation process, and ensure the liquidation security by delaying the transfer of funds, as well as eliminating the risk of arbitrary manipulation of the accounts of investors and borrowers by the P2P online lending platform. A brief description of this process is as follows.

Set three fixed clearing time points including the starting point of daily liquidation, the publication time of daily liquidation report and the completion time of daily liquidation execution. For the convenience of description, it is assumed that these three time points are 4 pm, 5 pm, and 7 pm.

The calculation of the liquidation report for the day is carried out from 4 to 5 pm daily. The daily liquidation process of all online credit accounts can be implemented by the P2P platform or fund trusteeship agencies, and if there is an independent liquidation agency, it can be implemented by the liquidation agency. P2P online lending platform provides information on all online lending transactions, debt settlement or guarantee compensation, as well as agency fees, management fees, guarantee fees and other service fees related to these transactions from 4 p.m. of previous day to 4 p.m. of the same day. At the same time, the fund custodian provides the transfer records of funds on the current day of all accounts.

The liquidation report is published from 5 p.m. to 7 p.m. every day. The liquidation report should be published by the fund trustee or liquidation agency rather than P2P online lending platform. Only in this way can the interests of investors and borrowers be ensured, and the liquidation report can be widely recognized by the participants of the P2P online lending. During this period, all participants mentioned above can inquire about the liquidation report of their accounts on that day. If there is any controversy over the authenticity of the transaction or the amount of related expenses, the public can challenge the fund trusteeship institution or liquidation institution. And transaction will be delayed and will not be liquidated until the dispute is settled. If no objection is raised, the liquidation result is considered to be recognized.

At 7 p.m. every day, the fund trustee will carry out the actual liquidation between accounts according to the liquidation result without objection after the announcement, that is, to complete the transfer of funds between accounts.

The core of the above-mentioned liquidation process is to carry out liquidation of transfer of funds between accounts only once a day at a fixed time point, and to publish the liquidation report in advance and delay the execution time of the actual liquidation, so as to ensure the right of relevant participants (especially investors and borrowers) to raise objections. In this

way, the transfer of funds between all accounts is bound to be in accordance with the liquidation results recognized by all relevant parties of transactions.

If the fund trustee announces the liquidation results and delays the liquidation of objectionable transactions, the fund trustee provides the transaction liquidation service to a certain extent, although the calculation of the liquidation report is not necessarily completed by the fund trustee. The fund trustee or liquidation institution can further improve its services by providing daily liquidation report and the access to monthly liquidation report over a certain period of time (e.g. the last three months). It can also provide advance paid SMS notification service for investors to remind them of daily liquidation report at the time of publication of the daily liquidation report mentioned above.

With the liquidation report approved by all relevant parties, the fund trustee can effectively restrict the control of P2P online lending platform over the online loan intermediate account funds, and the possibility of malicious roll-ups running can be really eliminated. In this way, the information mentioned above will no longer be disclosed by platform or bonding company alone, but will become reliable data based on daily liquidation report approved by relevant parties of online lending transactions.

All in all, a safe liquidation mechanism can truly guarantee the security of investors' funds and interests. The fund custody service of the fund custodian is truly independent of the P2P online lending platform.

V. ACTIVELY LEADING THE FUTURE TREND OF P2P ONLINE LENDING INDUSTRY

On the one hand, the P2P online lending platforms that provide intermediary services and the bonding companies that provide guarantee services should take the initiative to disclose information, prove the reliability of the platform, discard the suspicion of misappropriating investors' funds and unreliable or false guarantee through complete information disclosure. If the P2P online lending platforms and bonding companies can actively disclose the complete information of themselves, the transparency of the P2P online lending industry will be greatly improved, and the development of the industry can sustainable. Through strictly self-discipline and information disclosure mechanism of P2P platforms and bonding companies, the market exit mechanism of P2P online lending can be improved and the market environment of the P2P online lending industry can be gradually purified which will promote the healthy development of the industry.

On the other hand, the fund trusteeship platforms, transaction clearing platforms and industry information platforms with sufficient independence are also necessary to establish a healthy industry environment. A basic consensus has been gradually established between investors and borrowers that the quality of a P2P online lending platform depends on whether it has an independent fund trusteeship and a safe liquidation mechanism, and whether it carries out continuous and complete information disclosure on the information platform. As long as P2P online lending platforms, fund trusteeship platforms and information platforms take the

initiative to lead the future development of the industry, conduct complete information disclosure, provide safe fund trusteeship and liquidation services, independent information disclosure services, the basic consensus mentioned above can be quickly formed and the cornerstone of the healthy development of the online lending industry can be achieved. And these industry leaders will certainly be able to get rapid development and occupy a favorable market share.

VI. CONCLUSION

In the rapid development of the P2P online lending, the continuous collapse of P2P online lending platforms in 2018 has cast an indispensable shadow on the future prospects of the industry, and it has become one of the key issues to be solved in the future development of the Chinese P2P online lending industry. How to effectively reduce the risk of P2P online lending platforms and attract more potential investors and borrowers to participate in P2P online lending transactions is the foundation for the development of P2P online lending industry.

This paper makes a discussion on how to improve the integrity and independence of information disclosure, how to improve the independence and security of fund trusteeship and liquidation services in the P2P online lending industry. The result of the study will help to effectively reduce the risk of platforms. And it also has an important value for both participants and regulators.

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