The Development of Peer to Peer Lending

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Abstract

With the rapid development of Internet information technologies such as mobile payment, social networking, big data and cloud computing, changes in mass consumption patterns and innovations in modern financial concepts, the integration and penetration of the Internet and the financial industry are deepening. As a financial innovation, peer to peer lending (P2P) financing model has an important impact on traditional financial models, monetary policy, financial supervision and financial consumer rights protection. This paper introduced the P2P financing model and the research status of foreign countries, and analyzed the foreign cases, and obtained the main characteristics of the P2P financing model and pointed out its future development trend.

Keywords

Peer to peer lending(P2P); Internet finance; financial innovation.

1. Introduction

P2P credit is a peer-to-peer lending model that does not use traditional financial institutions as a medium. It builds a web platform through a P2P credit company, usually without a bank access permit. The borrower and the lender can register on the platform, the person who needs the money publishes the information referred to as the bidding, and the person who has the idle money participates in the bidding. Once the both sides agree on the amount, duration and interest rate, the transaction will be reached. Among them, the P2P credit company is responsible for inspecting the credit status of the borrower and collects account management fees and service fees. The essence is a private lending method, which originated from the concept of crowdsourcing.

The development background of the P2P financing model is that formal financial institutions have not been able to effectively solve the financing problems of SMEs and replace private finance. The information technology represented by the Internet has greatly reduced the degree of information asymmetry and transaction costs, which has enabled the direct financial transactions between individuals, the first human financial model, to renew its vitality and make up for the shortcomings of formal financial institutions. The first P2P online lending platform in the world, Zopa, was established in March 2005 in the UK. At present, the P2P financing model has developed into a global emerging industry.

2. P2P Cases Study

2.1. Kiva

Kiva is a non-profit organization that was established in 2005 as a joint lender and a microfinance institution in developing countries. Kiva selects local eligible lending opportunities through 154 microfinance institutions (known as “field partners”) in 62 developing countries. These loan opportunities are posted on Kiva's website, including

information on the amount, duration and use of the loan; the age, educational background and economic status of the borrower; the basic situation and performance of the microfinance institution as a recommender.

Lenders browse this loan information on Kiva's website and decide which loans to invest in, of which the investment in a single loan must be no less than $25. Kiva also provides some analysis tools to facilitate lenders to build loan portfolios. The funds provided by the lenders are handed over to the microfinance institution via Kiva, and Kiva itself does not charge any interest. However, when the microfinance company gives the funds to the borrower, it will charge a certain interest difference to cover the management cost of the loan. The annual loan interest rate assumed by the borrower is about 30% on average.

Kiva will track and announce loan usage at any time before funds are recovered. After the borrower repays the loan, the microfinance company will repay the loan to the lender via Kiva (Huang Kai, 2011). As of mid-2012, Kiva has promoted 460,000 loans with a total amount of US$340 million and an average loan amount of US$397, involving a total of 800,000 lenders and 830,000 borrowers. The total default rate of the loan is 1.03%.

2.2. Prosper

Prosper, established in 2006, was one of the first commercial organizations to conduct a personal loan business. Any registered customer with U.S. legal citizenship, social security number, personal tax number, bank account number, and personal credit score of more than 520 can engage in loan transactions in the Prosper platform. Many of the business models pioneered by Prosper are used by other lenders, including: publishing loan needs and information on borrowers online; lenders browsing loan information online and building loan portfolios; establishing secondary trading platforms for loans, etc. As of mid-2012, Prosper has contributed $373 million in loans. Here are two points to highlight.

Firstly, Prosper's risk pricing mechanism. Prosper initially used Dutch auctions to determine the matching of fund supply and demand and loan interest rates, and later switched to an interest rate pricing mechanism based on internal ratings. Prosper has established an internal rating system based on the borrower's information, called “Prosper Rating”, which is divided into AA, A, B, C, D, E, and HR files from high to low. The lower the Prosper rating, the worse the credit status of the borrower and the higher the loan loss rate.

Table 1. The rating and credit risk of Prosper company (Source: Prosper company website)

Rating	Average annual loss rate
AA	0.00-1.99%
A	2.00–3.99%
B	4.00–5.99%
C	6.00–8.99%
D	9.00–11.99%
E	12.00–14.99%
HR	≥ 15.00%

Secondly, Prosper determines the loan rate based on the borrower's Prosper rating, loan term, and whether there is a Prosper loan before. The lower the Prosper rating, the longer the loan term, or the previous Prosper loan, the higher the loan interest rate, and vice versa. In general, the annual loan interest rate is between 5.65% and 33.04%.

Table 2. The loan interest rate of Prosper company (Source: Prosper company website)

Rating	Loan term (year)	Have you ever had a Prosper loan? (Y/N)	Average annual loan interest rate
AA	1	N	5.65%
AA	3	N	7.49%
AA	5	N	10.71%
AA	1	Y	5.65%
AA	3	Y	7.49%
AA	5	Y	10.71%
A	1	N	9.43%
A	3	N	12.49%
A	5	N	16.74%
A	1	Y	8.37%
A	3	Y	10.87%
A	5	Y	14.92%
B	1	N	12.13%
B	3	N	15.94%
B	5	N	20.36%
B	1	Y	11.44%
B	3	Y	15.07%
B	5	Y	19.46%
C	1	N	14.67%
C	3	N	19.37%
C	5	N	23.58%
C	1	Y	14.67%
C	3	Y	19.37%
C	5	Y	23.58%
D	1	N	19.52%
D	3	N	24.87%
D	5	N	28.36%
D	1	Y	18.31%
D	3	Y	23.62%
D	5	Y	27.20%
E	1	N	23.09%
E	3	N	29.04%
E	5	N	32.45%
E	1	Y	22.81%
E	3	Y	28.70%
E	5	Y	32.12%
HR	3	N	31.77%
HR	3	N	31.77%

Secondly, the profit mechanism of Prosper. Prosper does not assume the credit risk of the loan. The main job is to confirm the identity and personal information of the borrower and provide loan service throughout the life cycle. For borrowers, Prosper charges a certain percentage of the loan amount, between 0.4% and 4.5%. The lower the borrower's Prosper rating, the higher the rate. For lenders, Prosper charges an annual fee of 1% on the scale of the transaction.

2.3. Lending Club

Lending Club mainly includes the four points.

Firstly, the situation of borrowers in Lending Club is generally upper-middle class: FICO credit score averages 715 points; debt (excluding mortgage loans)/income ratio averages 14.07%; credit history length averages 15 years; The average income is $70,000, which is in the top 10% of the US; the loan amount is an average of $11,000.

Secondly, Lending Club also adopts a risk pricing mechanism in which the loan interest rate is linked to the borrower's internal rating. The lower the rating, the higher the loan interest rate (Fig.1). The Lending Club middle-year loan interest rate averaged 14.21% and the default rate was 4%.

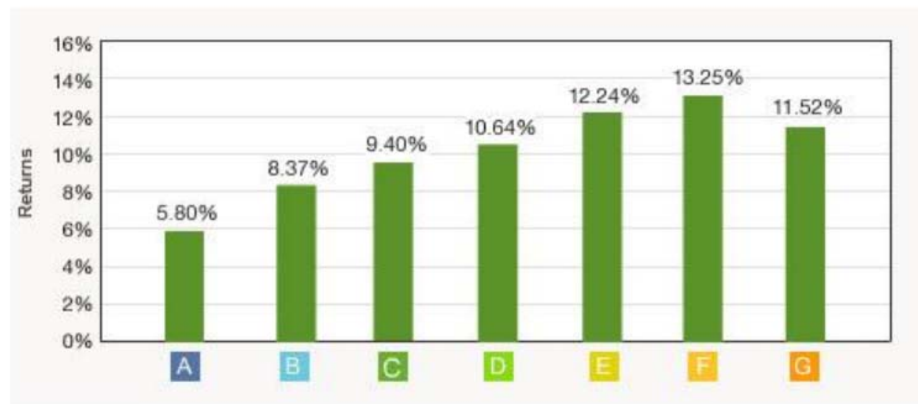

Fig 1. The risk pricing mechanism of Lending Club (Source: Lending Club website)

Thirdly, the use of loans in order is: credit card debt (70.37%), improved housing (7.09%), commercial (5.16%), large purchases (3.21%), auto financing (1.88%) and other uses (12.28%). Fourthly, from the perspective of lenders, the effect of risk dispersion is very obvious. For example, the Lending Club statistics show that if a lender invests 100 loans, the probability of losing money is 1%; for a 400 loan, the probability of losing a loss is 0.20%; if you invest 800 loans, it is almost impossible to make a loss (Fig. 2).

3. The Analysis of P2P Case

P2P network lending is short-term and small amount, and it is essentially a small-scale private lending. Its advantages are mainly reflected in convenience, speed and reduction of information asymmetry. Through the online lending platform, users can obtain relevant information and adjust the remaining funds. P2P network lending broadens the channels of personal investment, increases the utilization rate and rate of return of social idle funds, and promotes economic development.

The main features of P2P network lending include: firstly, it is simple and straightforward. The lender and the borrower directly sign the loan contract, mutual understanding of the other party's identity information and credit information, and the lender is informed of the borrower's repayment progress in time. Secondly, credit screening, the lender can evaluate and select the credit information of the borrower. The borrower with high credit rating will be given priority and the loan interest rate may be more favorable. The third is to diversify investment and reduce risks. The lenders distribute funds to multiple borrowers and provide small loans. The risks are dispersed to the greatest extent. Fourthly, the threshold and cost are low. P2P network lending enables everyone to become a credit sender and user, and credit transactions can be easily carried out. Social idle funds can be better configured.

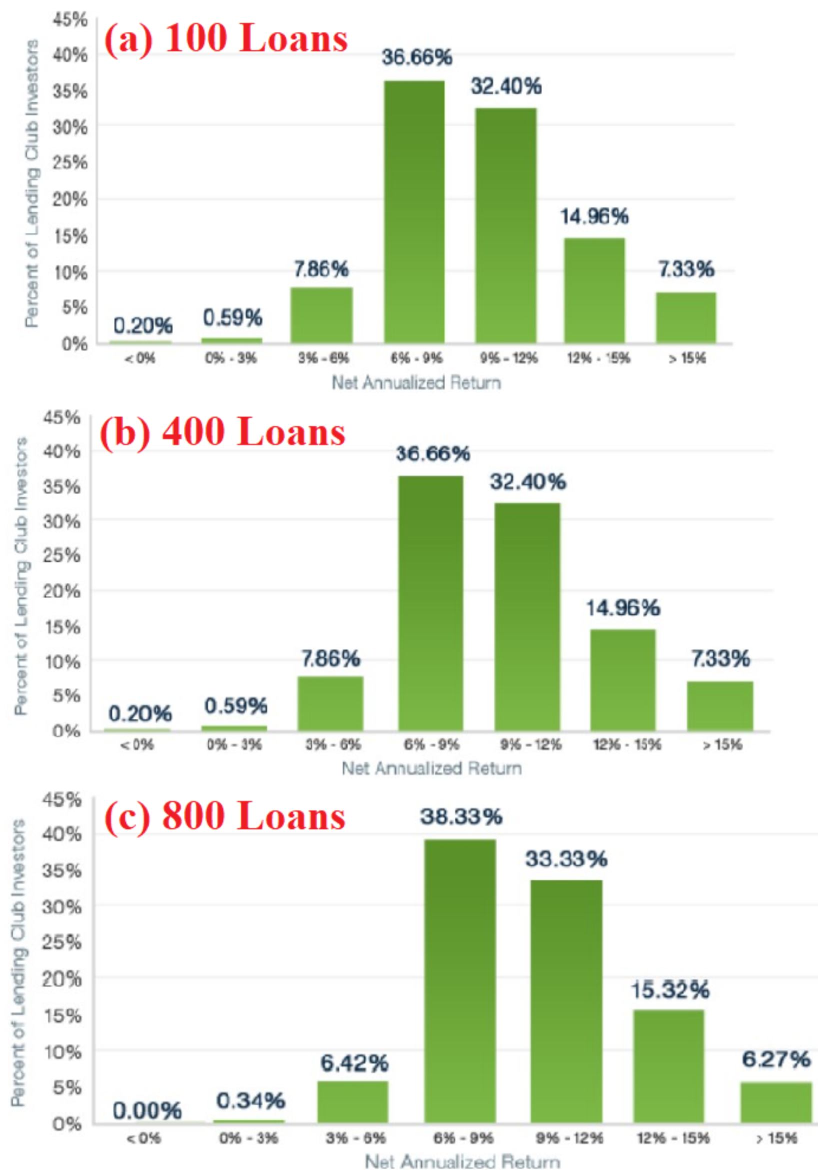

Fig 2. The risk dispersion effect of Lending Club loans (Source: Lending Club website)

4. The Research Status of Peer to Peer Lending

At present, there is not much research on the P2P financing model. Foreign research on online lending should be more in-depth, such as analysis of borrower characteristics, factors affecting the success of borrowing, information protection of borrowers, network joint insurance, fraud of loan group organizers, etc. But overall, the research on P2P financing model needs further research.

Duarte et al. analyzed the role of credit in financial transactions, even in countries with sound laws, and found that social networks through borrowers can reduce adverse factors and make loan defaults smaller [1]. Freedman et al. studied on Prosper company and found that the "soft information" exposed by social networks is conducive to compensating for the lack of "hard information" [2]. Thomas Hildebrand et al. found that when a loan organizer places a loan risk at a secondary position for higher management fee income, it is possible to default on the loan. If the loan organizer has a large share of the participating loan, he will choose a loan project with a lower probability of default [3]. These studies are very instructive for risk control of P2P network lending

5. The Development Trend in the Future

The innovation of information technology has led to the decline of the importance of traditional financial intermediation. The debate on the relationship between direct finance and indirect finance in the Internet age continues. Will the electronic financial market replace the traditional indirect financial institutions and let the borrowers and lenders directly finance? Recent research predicts that such retail loans may account for 10% of the world's loan market. We believe that every big bank will have its own online lending within five years, and it will become the most important financial service innovation of this century. It is expected that the relevant theoretical development and practice of this new thing will be more mature and perfect.

6. Conclusions

The existence and development of P2P financing model must have its necessity. As a financial innovation, it is inevitable that some problems will be encountered in the early stage of development. We cannot negate them because of problems happening. The P2P financing model provides individuals with new financing channels and financing facilities to meet the financial needs of grassroots people. Moreover, the procedure is simple and flexible, and it is a useful supplement to the existing banking system. It may become the main financial model in the future, and its development has strong economic and social significance.

References

[1] Duarte J, Siegel S, Young L. Trust and Credit: The Role of Appearance in Peer-to-peer Lending[J]. Review of Financial Studies, 2012, 25(8):2455-2483.

[2] Freedman S and Jin G Z. Dynamic Learning and Selection: the Early Years[D]. Working paper, University of Maryland.

[3] Hildebrand T, Rocholl J, Schulz A. Flight to Where Evidence from Bank Investments During the Financial Crisis[J]. Social Science Electronic Publishing, 2012.