Peer-To-Peer Lending Market in China: Pricing, Risk Management and Regulation

1. Introduction

Over the last two decades the fintech industry has made significant changes to areas of the financial services market. The emergence and rapid development of fintech in China in recent years have provided policymakers with a new and powerful tool through which to improve financial inclusion. Anyone with a digital device, with a mobile phone can easily apply for a loan or lend out in an online P2P platform. There are some unique features of P2P online lending; first, application costs are very low as borrowers do not need to visit a bank. Second, P2P loan platforms are likely to be more efficient than the traditional financing route (for instance, banks), as they offer a direct link between lenders and borrowers. In theory, the entire process—from application to funding—takes at most seven days. Given low costs and efficiency, P2P platforms can play a significant role in raising funds at an affordable cost by those people who are excluded from traditional financial institutions. We examine how the financial system can be developed in a way that ensures access to finance for the credit constraint borrowers and how the potential of new technology and new business models in financial services (‘Fintech’) could be best harnessed in the interests of innovation and growth. This research project provides a better understanding of the Chinese financial system and its crucial role in supporting the future development and continued growth of the Chinese economy.

Key words: Peer-to-peer (P2P) lending; Fintech; Digitization; China.

1. Data creators

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1. Data format

All data are available in STATA DTA formats. The ASCII file is "comma separated" (file CSV), the first row of the file contains the variable names. Data are compressed in one single zip archive named “renrendai\_deposit.dta”, where the format indicates whether the file is ASCII or STATA file. Data-files can be decompressed by using a file manager (Windows) or any compression program such as 7-Zip (downloadable at [www.7-zip.org](http://www.7-zip.org)).

1. Information contained in the dataset

The dataset was compiled from a Chinese online lending platform for the research project titled `Peer-To-Peer Lending Market in China: Pricing, Risk Management and Regulation,’ Economic and Social Research Council (ESRC) grant ES/P004741/1. The data were in public domain. The dataset includes about 7.5 million listings posted over the period between October 2010 and October 2018.

The project follows General Data Protection Regulations and conforms to data confidentiality and anonymisation. Several variables that could result in the identification of borrowers or lenders have been deleted.

Table: Variable Definition

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable Name | Type | Format | Variable Label | Definition |
| LoanId | long | %12.0g | The unique ID number of loan | The unique ID number of the P2P loan listing. |
| LoanAmount | long | %12.0g | The amount of loan | The amount of P2P loan requested by the borrower (in thousand RMB).  |
| InterestRate | float | %9.0g | The rate of return | The rate of return proposed by the borrower. |
| Maturity | byte | %8.0g | Maturity (month) of loan | The maturity of P2P loan (in months). |
| CreditScore | int | %8.0g | Credit score | The credit score assigned by the platform. |
| BorrowerId | long | %12.0g | The unique ID number of the borrower | The unique ID number of the borrower who applied for the loan. |
| TotalCount | int | %8.0g | Total count for loan inquiries by the same borrower | Total Number of loans requested by the borrower. |
| SuccessCount | int | %8.0g | The number of successful loans by the same borrower | The number of successful loans (by borrower) |
| RepaidCount | int | %8.0g | Total count for repaid loans by the same borrower | The number of repaid loans (by borrower) |
| BorrowAmount | long | %12.0g | Total borrow amount by the same borrower | The total amount of loans lent out to the borrower on the platform  |
| LoanStatus | byte | %11.0g | The status of the loan | The status of P2P loan identified by the platform. LoanStatus = 1(BAD\_DEBT) if the P2P loan is identified as bad debt by the platform; LoanStatus = 2(CLOSED) if the P2P loan was repaid; LoanStatus = 3(FAILED) if the P2P loan application failed; LoanStatus = 4(IN\_PROGRESS) if the P2P loan is funded and is under repayment. |
| VerifyStatus | byte | %22.0g | Verification status of the loan | The outcome of a P2P loan in the fund-raising progress. VerifyStatus = 1(Cancel) if the P2P loan is cancelled by the borrower; VerifyStatus = 2 (None) if the P2P loan listing is not funded within 7 days. VerifyStatus = 4(SUCCESS) if the P2P loan application is successfully funded.  |
| MaritalStatus | byte | %9.0g | Marital status of the borrower | The borrower’s marital status. MaritalStatus= 1(DIVORCED) if the borrower is divorced. MaritalStatus= 2(MARRIED) if the borrower is married. MaritalStatus= 3(None) if the borrower's marital status is unknown. MaritalStatus= 4(UNMARRIED) if the borrower is not married. MaritalStatus= 5(WIDOWED) if the borrower is widowed. |
| ListingTime | float | %tc | Listing time | The time when the loan request is listed on the bidding platform after being approved by the platform. |
| UseofLoan | byte | %23.0g | Use of Loan | Loan purpose posted by the borrower. UseofLoan=1(Short Term Turnover) if the purpose of the loan application is for short term turnover. UseofLoan=2(Investment and Venture) if the loan is for investment and venturing. UseofLoan=3(Personal Consumption) if the purpose of loan application is for personal consumption. UseofLoan=4(Medical Expense) if the loan purpose is for medical expenses. UseofLoan=5(Wedding) if the purpose of loan application is for wedding expenses. UseofLoan=6(Home Improvement) if the loan purpose is for home improvement. UseofLoan=7(Car Purchase) if the loan purpose is for a car purchase. UseofLoan=8(House Purchase) if the loan purpose is housing. UseofLoan=9(Education) if the loan purpose is education. UseofLoan=10(Other) if the loan is used for other purposes. |
| JobType | byte | %21.0g | Job type of the borrower | The type of employment that the borrower is working for. JobType=1(Employed) if the borrower is employed. JobType=2(Self Employed) if the borrower is self-employed. JobType=3(Internet Entrepreneur) if the borrower is an internet entrepreneur. JobType=4(Other) if the borrower's employment status is unknown.  |
| FirmSize | byte | %16.0g | Size of firm hires the borrower | The number of employees of the firm in which the borrower is working. FirmSize=1 if the firm hires less than 10 employees. FirmSize=2 if the firm hires more than 10 but less than 100 employees. FirmSize=3 if the firm hires more than 100 but less than 500 employees. FirmSize=4 if the firm hires more than 500 employees. |
| FirmType | byte | %18.0g | Type of firm hires the borrower | The type of firm that the borrower is working at. FirmType=1(Self Employer) if the borrower is self-employed. FirmType=2(Private Firm) if the borrower is hired by a private firm. FirmType=3(Listed Firm) if the borrower is hired by a listed company. FirmType=4(State Firm) if the borrower is hired by a state-owned enterprise. FirmType=5(Foreign Firm) if the borrower is hired by a foreign company. FirmType=6(Top 500 Firm) if the borrower is hired by a world top 500.FirmType=7(Public Sector) if the borrower is hired by public service. FirmType=8(Government) if the borrower is hired by the government. FirmType=9(Other) if the firm type of the borrower is unknown. |
| EmploymentLength | byte | %17.0g | Employment length of the borrower | The length of borrower’s employment. EmploymentLength=1 if the borrower has been working for no more than 1 year. EmploymentLength=2 if the borrower has been working for 1 to 3 years. EmploymentLength=3 if the borrower has been working for 3 to 5 years. EmploymentLength=4 if the borrower has been working for longer than five years. |
| BirthDate | float | %td | Date of Birth of the borrower | Birthdate of the borrower  |
| EducationLevel | byte | %21.0g | Education level of the borrower | The education level of the borrower. EducationLevel=1(High School and below) if the borrower graduated from high school or lower. EducationLevel=2(College) if the borrower graduated from a college. EducationLevel=3(Bachelor) if the borrower holds a bachelor’s degree.EducationLevel=4(Master and Above) if the borrower holds a Master or higher degree. |
| Gender | byte | %9.0g | Gender of the borrower | The gender of the borrower. Gender=1(Male) if the borrower is male.Gender=2(Female) if the borrower is female. |
| IndustrySector | byte | %23.0g | Industry sector of the borrower | The industry sector which the borrower is working for. IndustrySector=1(government) if the borrower works in the government sector. IndustrySector=2(Public institutions) if the borrower works in the public sector. IndustrySector=3(Finance/Law) if the borrower works in the finance or law sector. IndustrySector=4(Estate) if the borrower works in the estates. IndustrySector=5(Energy) if the borrower works in the energy sector. IndustrySector=6(Education) if the borrower works in the education sector. IndustrySector=7(Leisure: cafe and hotel) if the borrower works in the cafe or hotel sector. IndustrySector=8(The construction) if the borrower works in the construction sector. IndustrySector=9(IT) if the borrower works in the IT sector. IndustrySector=10(sales) if the borrower works for sales. IndustrySector=11(Medical) if the borrower works in the medical sector. IndustrySector=12(Transport) if the borrower works in the transport sector. IndustrySector=13(industrial) if the borrower works in the industrial sector. IndustrySector=14(media) if the borrower works in the media.IndustrySector=15(agriculture) if the borrower works in the agriculture sector.IndustrySector=16(sport/art) if the borrower works in the sports or art sector.IndustrySector=17(charity) if the borrower works for a charity. IndustrySector=18(entertainment) if the borrower works in the entertainment sector. |
| Income | byte | %16.0g | Monthly income of the borrower | The monthly income of the borrower (in thousand RMB) |
| LenderId | long | %12.0g | The unique ID of the lender | The unique ID of the lender on the platform. |
| BidAmount | double | %12.0g | Bidding amount | The amount that the lender bids to the P2P loan listing. |
| AutoBidding | byte | %17.0g | Automatic bidding (or not) | A dummy variable captures whether the bidding is an automatic process through the platform, or is made by lenders. AutoBidding=1 if the bidding is made automatically by the platform. AutoBidding=0 if the bidding is made by lenders manually. |
| BiddingTime | float | %tc | Bidding time | The time when a particular lender bids to the P2P loan listing. |
| hasCar | byte | %9.0g | Car holding of the borrower | A dummy variable that captures whether the borrower has a car or not. hasCar=1 if the borrower has at least one car. hasCar=0 if the borrower has no car. |