

P2P lending platforms

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Summary

- Business model:
 - P2P platforms don't lend money per se and instead match loan-seekers with investors who purchase notes or notes-backed securities that platforms issue; individuals and small businesses as key borrowers
 - Revenue sources: 1) loan origination fees charged to borrowers; 2) servicing fees charged to lenders as a % of interest income
- P2P-bank relationship: Huan TANG paper
 - Conclusion: compared with banks, P2P lenders have 1) similar borrower quality and 2) smaller loan size
 - Limitation: per 1), in China, P2P borrowers have much worse credit quality than bank borrowers

1 Business model: matchmaker that feeds on fees

- Matchmaker:
 - P2P platforms don't lend money and instead match loan-seeking borrowers with investors who purchase notes or notes-backed securities issued by P2P platforms
 - Individuals and small businesses as key borrowers
- Revenue source:
 - Loan origination fees charged to borrowers
 - Servicing fees charged to investors as a % of their interest income
 - Other fees charged to investors
- Loan pricing, e.g. Lending Club:
 - Assign one of 35 credit grades (A1 - G5) to a given loan based on borrower's credit score, DTI ratio, credit history, requested loan amount and loan maturity
 - Each credit grade is associated with respective interest rate

2 Lender profile¹⁾: P2P with 4x bank loan return and 30x approval speed

	“Big 4” ²⁾	“Big 4”	Online consumer finance companies	P2P	Findings
Product	● Consumer loan	● Credit card	● Point-in-sale loan	● Unsecured personal loan	● P2P generates higher lender return - 4x banks
Loan interest	● 4.5%	● 18%	● 15%	● 12-18%	● P2P processes borrower applications faster - P2P 24 hours vs. bank 1 month
TTM	● <=2 years	● <= 2 months	● <=1 years	● <= 2 years	
Credit limit (RMB)	● <= 300k	● <= 100k	● <= 50k	● <= 500k	
Approval	● <= 30 days	● 30 days	● Hours	● <= 24 hours	● P2P is less demanding on qualification materials for loan application
Application materials	<ul style="list-style-type: none"> ● ID ● Proof of income ● Proof of taxation ● Proof of employment ● Proof of residence 		<ul style="list-style-type: none"> ● ID ● Third-party credit rating (i.e. Sesame Credit) 		

Bank
 Non-bank

1) China figures; 2) 四大行: Bank of China, Agricultural Bank of China, Industrial and Commercial Bank of China, China Construction Bank
 Source: 51 Credit Card prospectus; Oliver Wyman; Agricultural Bank of China

Backup: loan procedure: Lending Club

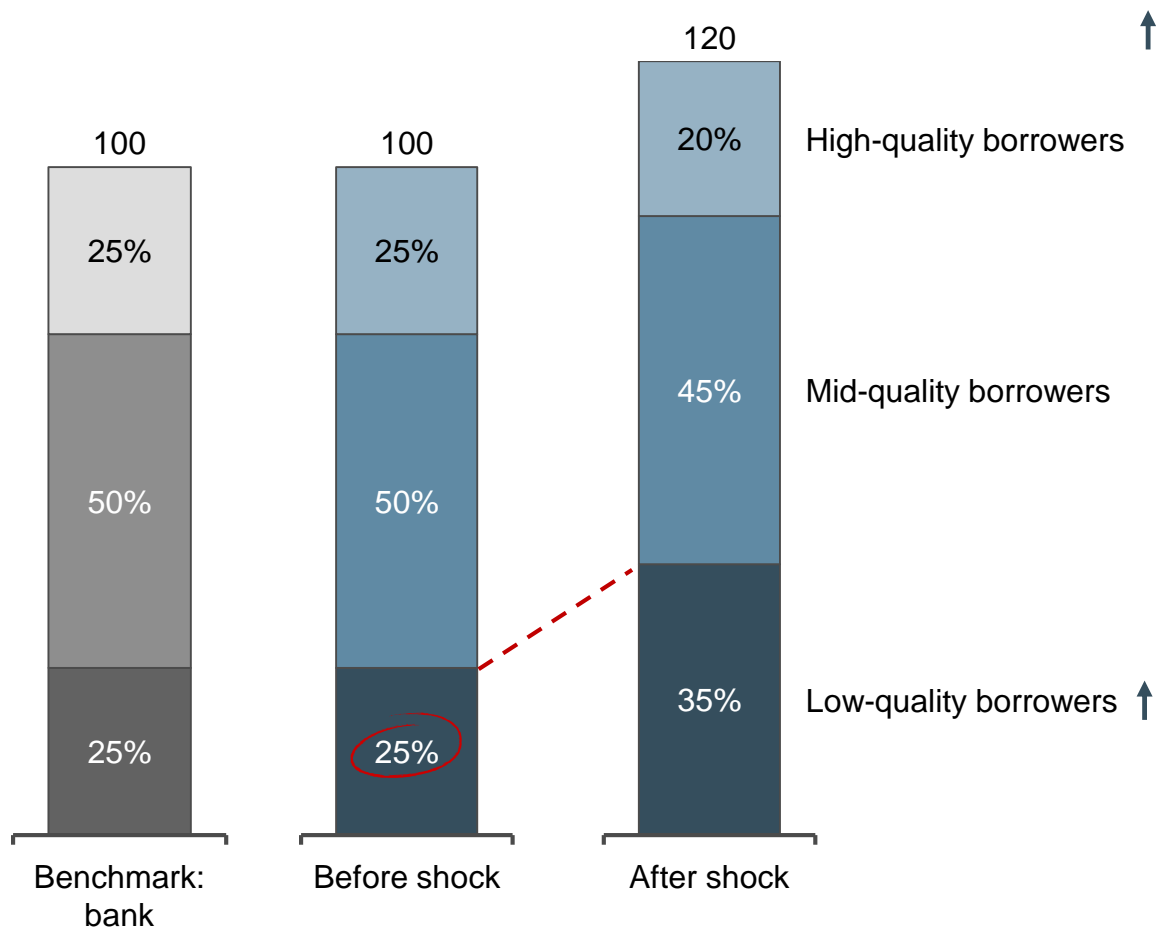
- Borrow:
 - Applicant reports name, address, purpose of requested funds, and amount to be borrowed
 - Platform acquires information on her credit report using above info: pass those with debt-to-income (DTI) ratio < 0.35 and FICO > 660 and offers them with a menu of loans with different amounts, maturities (36 or 60 months) and interest rates
 - Applicant chooses a proposed loan from the menu; a loan request is then listed on Lending Club's website and becomes accessible to investors
- Lend / invest:
 - Lenders compete to fund the loan on a first-come, first-served basis
 - Lenders observe the loan characteristics and certain information from the borrower's credit report

3 Huan TANG paper: P2P-bank relationship

- Key question: are P2P lenders competitor or complement of banks?
 - Competitor: compete with banks for same client pool and have similar borrower credit quality distribution
 - Complement: mainly serve low-quality borrowers unqualified to and thus excluded by banks
- Purpose: determine P2P lending industry's scope of credit expansion
 - If competitor, credit expansion is limited to borrowers already with access to bank loans
 - If complement, expand by offering loans to those with credit quality unqualified to banks
- Conclusion: P2P lenders are competitor to banks per borrower quality and complement per loan size; that is to say, compared with banks, P2P lenders have:
 - Similar borrower credit quality
 - Smaller loan size
- Scenario: *negative credit shock*
 - Def.: a shock that causes banks to tighten lending criteria, i.e. low-quality borrowers lose access
 - Upon shock, whether low-quality borrowers shift to P2P depends on P2P's relationship with banks

4 Huan TANG paper: assumption 1/2: if competitors

Borrower credit quality distribution before and after shock (%)¹⁾



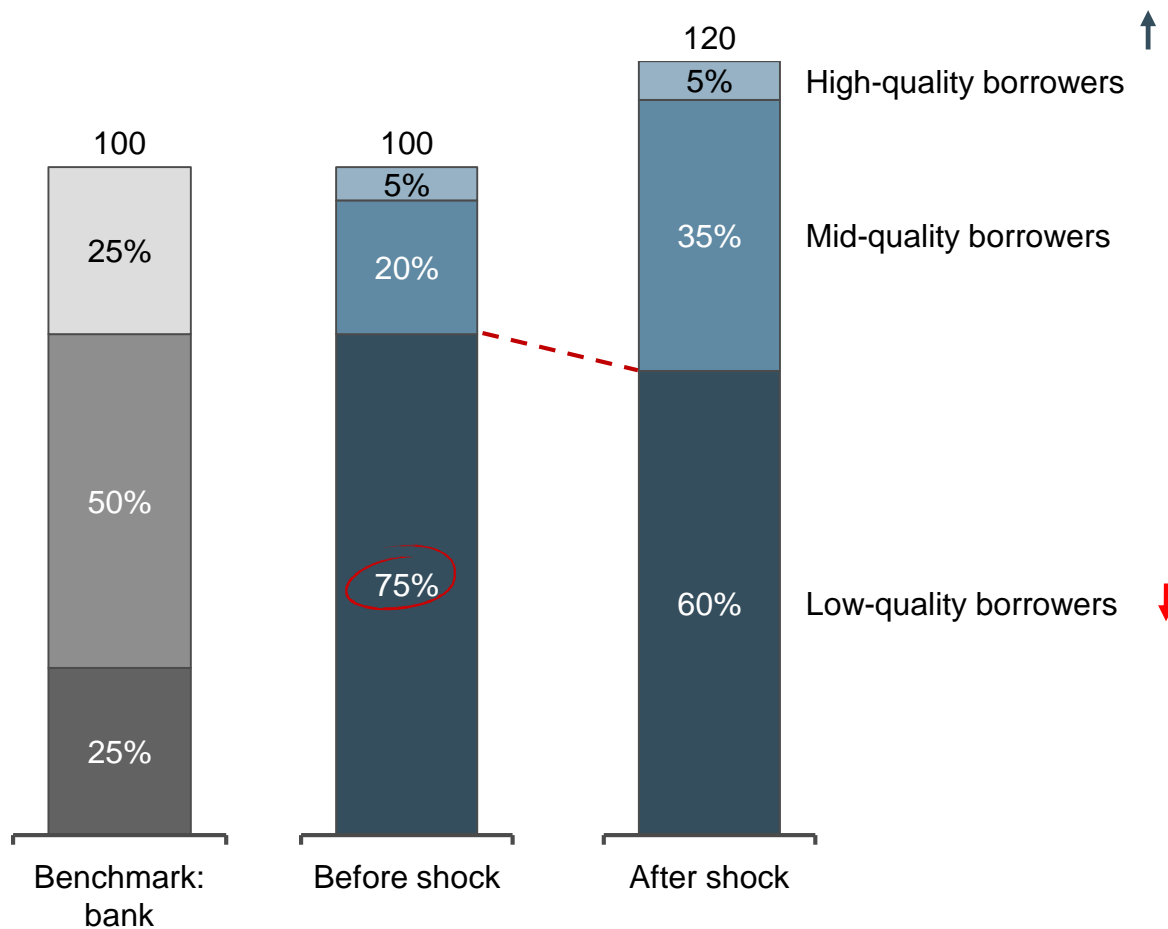
Findings

- Before shock: P2P and banks serve identical clients, therefore with similar (illustrated as identical) distribution of borrower quality
- After shock: low-quality bank borrowers migrate to P2P, therefore
 - Lower average borrower credit quality
 - Bigger borrower base

1) % figures assigned in rough for illustration purposes, subject to validation
Source: Huan TANG paper

5 Huan TANG paper: assumption 2/2: if complements

Borrower credit quality distribution before and after shock (%)¹⁾



Findings

- Before shock: P2P lenders have higher low-quality borrowers% vs. banks; low-quality borrowers as key clients
- After shock: some mid-quality borrowers (higher quality than existing P2P borrowers) migrate to P2P, therefore
 - Higher average borrower credit quality
 - Bigger borrower base

1) % figures assigned in rough for illustration purposes, subject to validation
Source: Huan TANG paper

Backup: assumption 1/2: if competitors

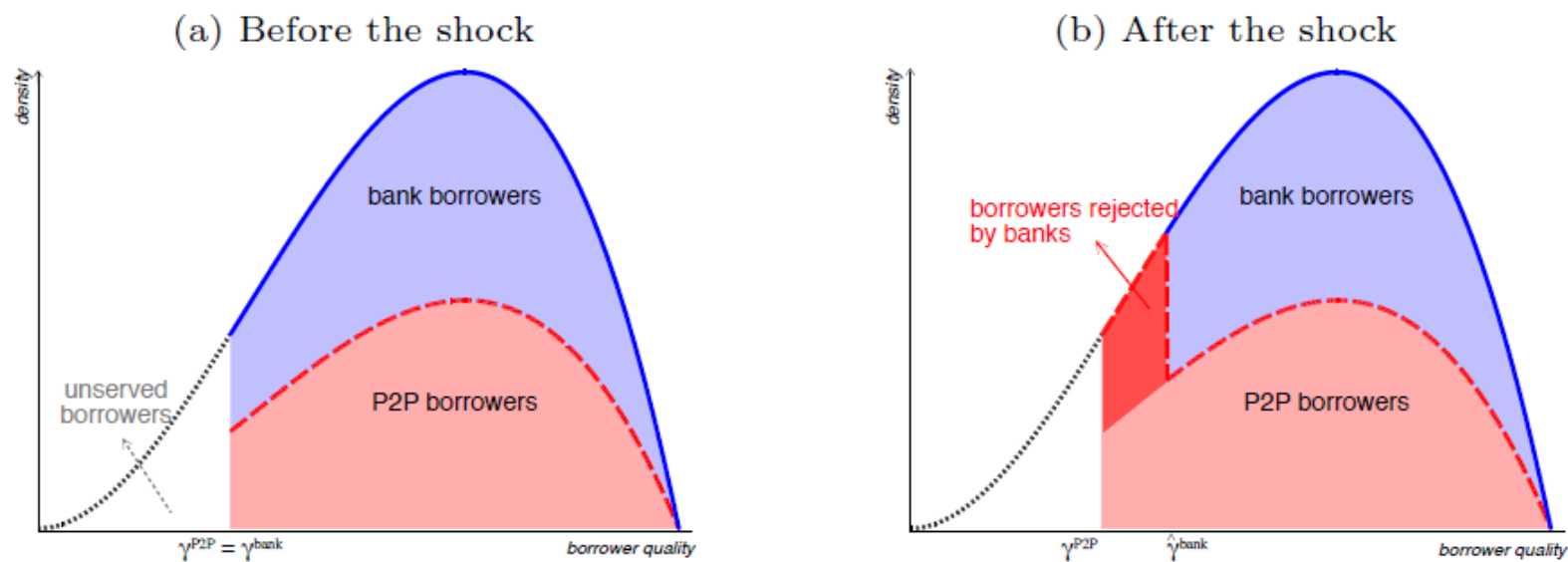


Figure 1
Borrower Quality Distribution: Perfect Substitutes

This figure shows the change in the P2P borrower quality distribution when banks tighten their lending criteria. The uppermost plotted line marks the aggregate distribution of borrower quality. Panel (a) shows the initial distribution of P2P borrowers (area under the dashed curve) in the case of perfect substitutability where P2P platforms and banks serve the same borrower segment. Panel (b) shows the distribution after banks tighten their lending criteria; borrowers in the darker area switch from banks to P2P platforms.

Backup: assumption 2/2: if complements

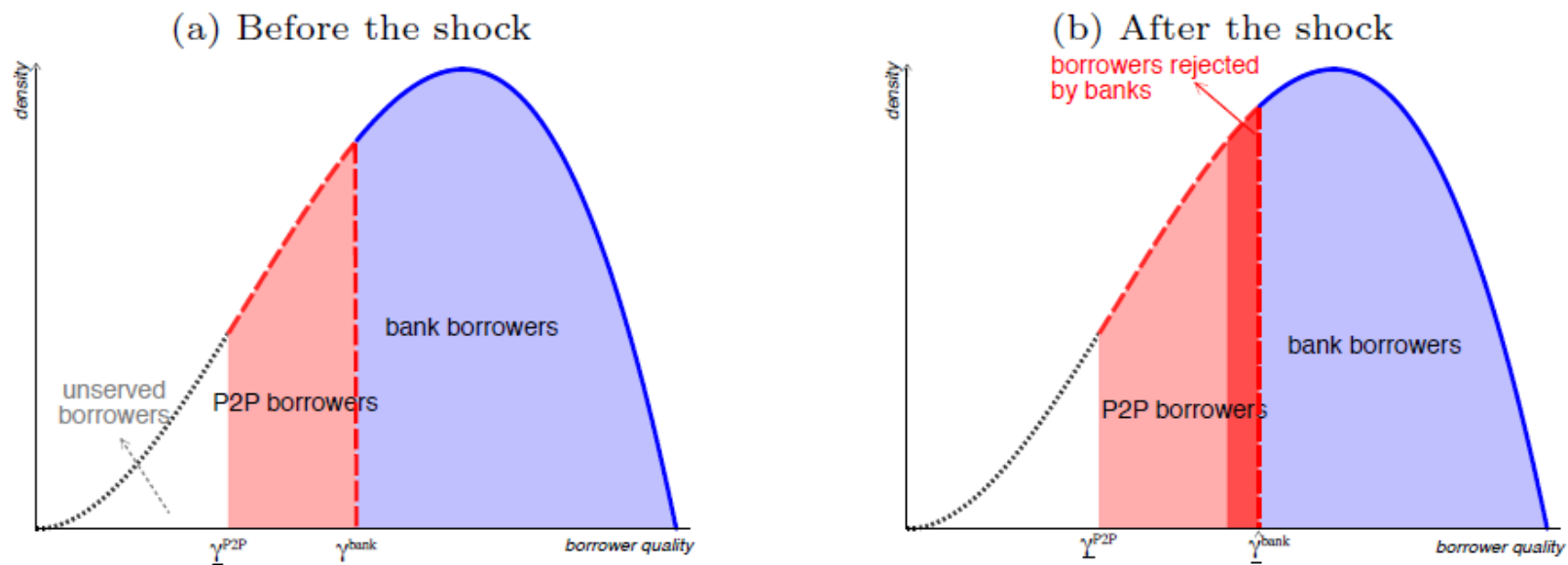


Figure 2
Borrower Quality Distribution: Perfect Complements

Huan TANG paper: deduction: 2010 FAS 166/167 negative shock case

- Background: in 2010, FASB new policy required banks to consolidate securitized off-balance sheet assets onto their balance sheets and include them in their risk-weighted assets, causing negative shock:
 - Banks must consolidate over USD 600 bn assets, over 80% were revolving consumer loans
 - Lower small business lending and mortgage approval rates, higher mortgage sales rates and average quality of credit card loans
- Analysis, step 1: examine treatment effect of FAS 166/167 on P2P loan application and origination volumes; findings:
 - Higher demand / more P2P loan application: relative to the control group, treated markets experienced a disproportionate increase in P2P loan applications after 2011, 25% increase in the number of applications and a 39% increase in their respective dollar amounts.
 - Higher number and amount of P2P loans: vs. pre-shock level, number (amount) of loans increased by a factor of 1.1 (1.5).
- Analysis, step 2: test predictions concerning the shock's effect on the distribution of P2P borrower quality¹⁾; findings:
 - Drop in all the quantiles of the distribution

7 Limitation to applicability: China as exception

- Conclusion 1 - same borrower quality
 - Implication: P2P addresses credit overdraft
 - Limitation: China, where majority of P2P borrowers are unqualified for bank credit per se; P2P not as alternative but as singly available option
- Conclusion 2 - smaller loan size
 - Implication: lower fixed cost of originating lowers vs. banks, therefore specialize in providing smaller loans
 - Limitation: n/a

Backup: China: regulation recently tightened due to large fails

- Regulatory system not yet complete; Current overseeing authorities:
 - Central bank
 - China Banking Regulatory Commission (银监会)
 - China Insurance Regulatory Commission (保监会)
 - Local financial affair offices (当地金融办)
- Key filings:
 - 《关于促进线上金融健康发展的指导意见》
 - 《线上金融风险专项整治工作实施方案》
 - 《网络借贷信息中介机构业务活动管理暂行办法》
 - 《网络借贷资金存管业务指引》
 - 《网络借贷信息中介机构业务活动信息披露指引》
 - 《关于规范整顿[现金贷]业务的通知》
 - 《关于做好p2p网络借贷风险专项整治整改验收工作的通知》

Backup: Lender profile: China: comparison of different lender types

	Bank		Non-bank offline lending companies		Non-bank online consumer finance companies	
	<ul style="list-style-type: none"> ● Big 4¹⁾ 	<ul style="list-style-type: none"> ● Big 4 	<ul style="list-style-type: none"> ● Small loan companies 	<ul style="list-style-type: none"> ● Licensed consumer finance companies 	<ul style="list-style-type: none"> ● Online consumer finance companies 	<ul style="list-style-type: none"> ● P2P companies
Product	<ul style="list-style-type: none"> ● Consumer loan 	<ul style="list-style-type: none"> ● Credit card 	<ul style="list-style-type: none"> ● Secured loan 	<ul style="list-style-type: none"> ● Unsecured loan 	<ul style="list-style-type: none"> ● Point-in-sale loan 	<ul style="list-style-type: none"> ● Unsecured personal loan
Loan interest	<ul style="list-style-type: none"> ● 4.5% 	<ul style="list-style-type: none"> ● 18% 	<ul style="list-style-type: none"> ● 5% 	<ul style="list-style-type: none"> ● 20% 	<ul style="list-style-type: none"> ● 15% 	<ul style="list-style-type: none"> ● 12-18%
TTM	<ul style="list-style-type: none"> ● <=2 years 	<ul style="list-style-type: none"> ● <= 2 months 	<ul style="list-style-type: none"> ● <=3 years 	<ul style="list-style-type: none"> ● <= 3 years 	<ul style="list-style-type: none"> ● <=1 years 	<ul style="list-style-type: none"> ● <= 2 years
Credit limit (RMB)	<ul style="list-style-type: none"> ● <= 300k 	<ul style="list-style-type: none"> ● <= 100k 	<ul style="list-style-type: none"> ● <= 500k 	<ul style="list-style-type: none"> ● <= 30k 	<ul style="list-style-type: none"> ● <= 50k 	<ul style="list-style-type: none"> ● <= 500k
Approval	<ul style="list-style-type: none"> ● <= 30 days 	<ul style="list-style-type: none"> ● 30 days 	<ul style="list-style-type: none"> ● <= 7 biz days 	<ul style="list-style-type: none"> ● Hours 	<ul style="list-style-type: none"> ● Hours 	<ul style="list-style-type: none"> ● <= 24 hours
Application materials	<ul style="list-style-type: none"> ● ID ● Proof of income ● Proof of taxation ● Proof of employment ● Proof of residence 		<ul style="list-style-type: none"> ● ID ● Proof of income ● Proof of employment ● Proof of residence ● Proof of asset (per secured loan) 		<ul style="list-style-type: none"> ● ID ● Third-party credit rating (i.e. Sesame Credit) 	

1) 四大行: Bank of China, Agricultural Bank of China, Industrial and Commercial Bank of China, China Construction Bank
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