Research Report

Pricing of Consumer Loans on Electronic Lending Marketplaces – (Comm-)Unity is Strength?

PEER-TO-PEER LENDING COMMUNITIES LIKE ZOPA, PROSPER, OR SMAVA ARE ONE OF THE MOST FASCINATING WEB 2.0 APPLICATIONS IN RETAIL BANKING. WE EXAMINE WHETHER THOSE COMMUNITIES ARE ABLE TO TAKE OVER THE FUNCTION OF BANKS IN CONSUMER LENDING.

Sven C. Berger
Bernd Skiera
Fabian Gleisner
Mark Wahrenburg

Introduction

Peer-to-peer (P2P) lending marketplaces, often referred to as the eBay for loans, receive a lot of attention lately. Consumers come together in the Internet to loan and borrow money directly from each other, so that banks are no longer part of the process. Disintermediation accomplished?

According to some opinions, P2P lending marketplaces will put serious pressure on banks' traditional consumer lending business, comparable to the reorganization of the retail industry when eBay entered the arena. A recent Gartner study predicts that by 2010, such platforms will grow to control ten percent of the worldwide market for retail lending and financial planning. Yet, all P2P lending marketplaces are comparably small and still need to survive the recent financial turbulences. We examine whether and how those platforms are able to perform core banking functions such as solvency rating and credit pricing. Our results indicate that market prices primarily reflect hard financial information such as borrowers' credit history, but the marketplace is furthermore able to process "soft" information through the repeated interaction of market participants. This allows for the funding of loans for "high risk" borrowers that do not fit in banks' traditional credit rating processes.

The way peer-to-peer lending works

The P2P lending marketplace is a website in the World Wide Web that constitutes the general conditions for person-to-person lending and administrates all current loans. Lending marketplaces differ in the way loans are originated. Some providers mediate between borrowers and lenders themselves, whereas in other marketplaces the loan rates are set in an auction. Borrowers post loan listings, and prospective lenders bid on the interest rates. Due to differing regulatory frameworks, there are numerous providers that operate nationally. Table 1 provides an overview of the three major Anglo-American and German providers and their business models, differing in the interest rate pricing process.

Provider	Prosper Marketplace, Inc.	Zopa Ltd.	Smava GmbH
URL	www.prosper.com	www.zopa.co.uk	www.smava.de
Market	USA	UK, USA, Italy, Japan (planned)	Germany
Members	760,000[a]	200,000[b]	28,000[c]
Cooperating Credit Reporting Agency	Experian plc	Equifax Inc.	Schufa Holding AG
Loan Processing Bank	Wells Fargo, Inc.	The Royal Bank of Scotland plc	biw Bank für Investments und Wertpapiere AG
Maximum Amount	25,000 USD	15,000 GBP	10,000 EUR
Pricing of Loans	Second Price Auction / Determined by BR	Second Price Auction	Determined by BR
Fees	BR initial 1%-3% of LA; LN annual 1% of LA outstanding	BR GBP 94.25 (fixed fee); LN annual 0.5% of LA outstanding	BR initial 1% of LA

[a] As of 2008-06-30; [b] As of 2008-07-07; [c] As of 2008-03-24

Table 1: Major Anglo-American and German P2P credit marketplaces and their business models.
BR = Borrower, LN = Lender, LA = Loan Amount

Despite varieties in the business models, transactions on all marketplaces are basically anonymous – participants can only see fictitious "screen names" and the information that is explicitly disclosed in borrowers' loan listings. The idea of making loans to complete strangers may seem somewhat exceptional, but it turns out that online lending communities can do a lot of what banks or credit card companies currently do. Risk is mitigated through identity verification and the provision of credible information of all participants. This includes transaction related information (requested loan amount, interest rate offered), "hard" financial information compiled of classical credit bureau data (e. g. a simplified credit score, an indicator of indebtedness, the number of open credit lines, homeownership), and "soft" descriptive information. Borrowers may describe their background, the purpose of the loan, and even include personal pictures. To add credibility, other market participants can register as "friends" and certify loan listings. During the funding process, potential lenders can pose questions to the credit applicant and discuss the borrower's listing. Often, there is an intensive interaction between the marketplace and a prospective borrower before the number of bids on a loan listing picks up.

When the loan is fully funded, most market places work together with a cooperating transaction bank due to national regulation. In the case of Germany, smava collaborates with closely linked biw Bank für Investments und Wertpapiere AG, which grants the credit to the borrower and directly forfeits to the lender.

Community formation: groups

In addition to personal profiles, borrowers and lenders can form groups. These smaller communities within the marketplace review and assess the creditworthiness of individual members. Groups thus act as financial intermediaries and are potentially beneficial for market participants by diligent screening of borrowers, and by obtaining additional information about borrowers that is not publicly available.

Every market participant can start a group, set membership criteria, and eventually become a group leader. Groups aim to lower the risk of defaults by peer pressure within close communities, therefore enable lending at better rates. Often, groups comprise of borrowers with specific backgrounds ("Army veterans", "Microsoft employees", "Apple users"). Among the most important tasks of the group leader is the screening of borrowers within the group (a voluntary due diligence known as "vetting"). Group leaders also supervise loans repayment within their group and become a first line enforcer in the collection process. In case of default, the group leader may encourage borrowers who are members of the group to repay their loans, including, if necessary, making limited repayments (called "community payments") on behalf of a member who is not able to do so. Some marketplaces offer remuneration for these services to the group leader, but in most cases, group memberships as well as other community usages are not charged to the participants.

Findings from an empirical study

In our study, we observe more than 14,000 transactions on Prosper.com, America's largest people-to-people lending marketplace, from nearly two years (2006/2007) with 87.5 Million USD in loans funded. As shown above, lenders on Prosper can evaluate individual creditworthiness through quantitative as well as qualitative figures. As the two main quantitative figures, an individual rating and an indicator of indebtedness are provided in cooperation with the credit reporting agency Experian. Qualitative information on individual income and loan purpose is mandatory, but its validity is a priori not controlled. Borrowers thereby might have an incentive to overemphasize their "quality".

We see that the average loan amounts and the interest rates (operationalized as the spread above a risk-free rate) vary heavily among the different credit grades. Best credit grades (AA) get an average loan of around 9,000 USD for approx. 250 basis points spread, where "high-risk" borrowers (credit grade HR) have to pay an average spread of 1,600 basis points for a 500 USD loan.

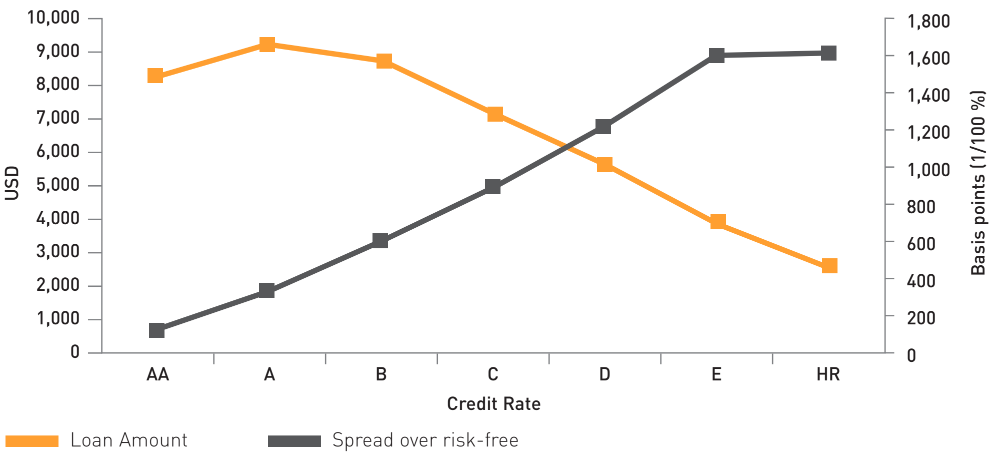

Figure 1: Loan amounts and interest rate (spread above risk-free rate) per credit grade category

When studying the determinants of interest rates, we find that traditional credit ratings have the strongest impact on interest rates. Yet, we also find clear empirical evidence that the interaction between market participants has a statistically significant influence on loan prices, and that credible signals of credit quality are highly appreciated by lenders. In particular, the marketplace values the certification by experienced market participants. Moreover, actions speak louder than words: recommendation of loan listings that are backed by investment into those loans significantly lowered the resulting interest rate. In summary, borrower credit history is very important, but personal interaction in the market also makes a big difference.

Conclusion

P2P lending marketplaces and their involved communities perform basic banking functions like rating and pricing of credit applications. In particular, we see strengths and a competitive advantage in assessing "soft" borrower information to a degree impossible in a cost-efficient, standardized mass retail business. Therefore, we will probably see some P2P lending marketplaces grow in specific market segments: the ability to process "soft" information is particularly beneficial e. g. for borrowers with weak access to credit at traditional banks because of a bad credit score. In contrast, the realized interest rates for consumers with good credit ratings are roughly the same as the best rates offered by online banks in Germany.
We would assume that in the long run, the success of P2P lending marketplaces highly depends on the capitalization of their specific competitive advantage.