

Peer-to-peer lending to small businesses

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Abstract

The current paper examines loan-level data from Lending Club to look at peer-to-peer borrowing by small business. We begin by looking at characteristics of loan applications that were and were not funded and then take a more in-depth look at funded applications. Summary statistics show an increasing number of small business loan applications over time. Beginning in 2010, when consistent measures of loan purpose were recorded for all applications, loan applications for small businesses were less likely than loans for other purposes to have been funded. Logistic regression results that attempt to control for the quality of the application show that, holding all else constant, applications for a loan for a small business were roughly 35 percent more likely to have been funded than loans for other purposes. Turning our attention to funded applications, we note that funded business loans were slightly larger on average than loans funded for other purposes but paid similar interest rates. However, relative to small business loans from traditional sources, peer-to-peer small business borrowers pay an interest rate that is about two times higher. Regression results that control for application quality show that peer-to-peer loans for small businesses are charged about two-thirds of a percentage point interest rate premium over non-business loans.

*The views expressed herein are those of the authors. They do not necessarily reflect the opinions of the Federal Reserve Board or its staff.

Introduction

Among the few bright spots in small business financing in the past several years, peer-to-peer lending appears potentially to be one. While traditional financing for small businesses has fallen off substantially during the financial crisis and recession, peer-to-peer lending has grown steadily. Peer-to-peer lending is defined by Wikipedia as “the practice of lending money to previously unrelated individuals or ‘peers’ without the intermediation of traditional financial institutions (banks).”¹

Peer-to-peer lending should not be confused with crowdfunding. These are both nontraditional forms of credit that are growing in use and popularity and in some cases the terminology is used interchangeably. In peer-to-peer lending arrangements, the lender receives compensation in the form of interest and repayment of the loan. In contrast, in crowdfunding arrangements the lender is actually *funding* something rather than *lending* money and repayment is in the form of equity or other non-pecuniary compensation.²

The two primary sources of peer-to-peer lending are Prosper and Lending Club. Prosper started in 2006 as an “alternative to financial institutions that would be financially and socially rewarding.”³ Lending Club started about a year later, stating its goal as allowing “investors to earn a higher return and for borrowers to get a lower rate on personal loans than through traditional financial institutions.”⁴ Both websites use a credit score-based model for evaluating investment options. Applicants allow the evaluation of their credit to be translated into a letter grade and investors can then choose how much risk they wish to take on when funding a loan. As in traditional credit markets, higher risk translates into higher interest rates. Still, rates are lower than for alternatives, such as payday loans, and peer-to-peer lending provides funding that might not be available elsewhere.

Between 2006 and 2008 peer-to-peer lending grew steadily. It hit a snag in 2008 when the SEC determined that their loans should be classified as securities and, thus, regulated.⁵ This led both Prosper and Lending Club to put any new loans on hold until they properly registered with the SEC. Both organizations survived the reclassification and moved back onto a path of steady growth.

The steady growth in peer-to-peer lending suggests the potential for much more growth. Currently, Lending Club loans are available to borrowers in all but six states while Prosper is available in all but three states. Investors face greater restrictions. Investors in only 29 states

¹ See http://en.wikipedia.org/wiki/Peer-to-peer_lending.

² See <http://blog.lendingclub.com/2010/10/22/microfinance-crowdfunding-and-peer-to-peer-lending-explained/>.

³ See http://www.prosper.com/about/media_press_releases.aspx?t=Introducing_America%27s_First_People-to-People_Lending_Marketplace%3A_Prospers.

⁴ See <https://www.lendingclub.com/public/about-us.action>.

⁵ See <http://www.sec.gov/litigation/admin/2008/33-8984.pdf>

plus the District of Columbia are given access to Prosper. Investors in a slightly different set of 28 states have access to Lending Club.⁶ If peer-to-peer lending were to become available throughout the rest of the U.S., investment dollars could grow substantially.

Small Business Credit

Traditionally, small businesses have been thought to face increased difficulties in accessing credit than do larger businesses. Lending to small businesses is generally considered to be riskier and more costly because small firms have higher failure rates and are more vulnerable to downturns in the economy. Lending to small businesses is further complicated by their informational opacity. Most do not have the detailed financial statements and rarely have publicly traded equity so obtaining reliable information on the creditworthiness of small businesses is difficult. Previous research has found that relationship lending provides a way of mitigating the information problem (Petersen and Rajan 1994, 1995; Berger and Udell 1995; Degryse and Cayseele 2000). Because commercial banks typically provide small businesses many products other than loans, commercial banks are able to use information gathered about the business over a longer term to their advantage in assessing the creditworthiness of small businesses. For these reasons, small businesses are thought to be relatively dependent on commercial banks for loans.

During the recent economic crisis, standards on business lending at commercial banks tightened substantially. These tighter credit conditions for small business lending by banks have eased notably since 2010. Results from the Federal Reserve Board's Senior Loan Officer Opinion Survey on Bank Lending Practices (Figure 1) indicate that lending standards for small borrowers tightened substantially in 2008 and 2009 but loosened in 2010 and 2011. The net percentage of National Federation of Independent Business (NFIB) respondents reporting that credit had become more difficult to obtain, which had remained low by historical standards in the years prior to the financial crisis, rose in 2008 and reached its highest levels on record in 2009 (Figure 2). Since then, it has retraced a good portion of its increases during the financial crisis, but still remains well above pre-recessionary levels.

Coincident with the tightening of standards on lending terms, there was also a large drop in commercial lending by banks (Figure 3). Some of the drop was likely a result of the higher standards, but some of it is also likely attributable to diminished demand from small businesses

⁶ See <http://www.prosper.com/help/investing/>
<http://www.prosper.com/help/borrowing/>
<http://blog.lendingclub.com/2011/06/10/is-lending-club-available-in-my-state/>

uncertain about their future. In addition, some of the decrease was likely due to deterioration in the financial conditions of many banks during this period.⁷

Small businesses get their credit from many different sources. Statistics from the 2003 Survey of Small Business Finances (SSBF) indicate that while commercial banks are an important source of finances for small businesses, they are not the only source (Table 1).⁸ Nearly 60 percent of outstanding credit to small businesses in 2004 was provided by commercial banks, but finance companies provided over 15 percent, and other sources provided just under 10 percent. The median loan outstanding was \$20,000, but this varied with the type of provider, ranging from the median \$90,000 outstanding loan from mortgage companies to the median \$8,000 outstanding loan from a brokerage or mutual company.

There are also differences in the amount and types of credit used according to the size of the firm. For example, the median loan for firms with fewer than 10 employees was less than \$18,000 compared to \$40,000 for larger firms. This is true across all different types of lenders. The share of outstanding credit provided by each type of lender is similar across firm size for most types of lenders. The exceptions to this are mortgage companies and other providers; nearly 11 percent of funds for small firms are from mortgage companies and about 5 percent of funds are from other sources compared to 2 percent and about 11 percent of funds, respectively, for larger firms.⁹

Given the downturn in the real estate market, the availability of home equity loans to finance the business may have become more difficult in the recent period. Table 2 provides additional insights into this question. Business owners reported using personal real estate to collateralize—at least in part—loans for their businesses a fair amount: 15.6 percent of total dollars outstanding and 11.0 percent of all loans used personal real estate as collateral. Among loans from mortgage companies, the shares are even higher, with more than a quarter of outstanding dollars and nearly 60 percent of outstanding loans secured by personal real estate.

Overall, commercial bank lending to small businesses is down in the recent period; while much of this may be due to lack of demand, there is also evidence that traditional routes may have been difficult especially for the smallest small businesses (Figure 4). Such firms often require small amounts of credit and may be turning to more alternative sources such as peer-to-peer lending. The impact of such a choice is not clear. Even though such loans may allow the firm to remain

⁷ Kiser, Prager, and Scott (2012) find that the distribution of banks' supervisory ratings shifted towards worse ratings between 2007 and 2010 and those ratings downgrades were associated with significantly lower rates of growth in small business lending over this period.

⁸ While somewhat dated, the data from the 2003 SSBF provide the most current enumeration of small business borrowing from all sources with dollar amounts.

⁹ "Other" providers include: venture capital firms, small business investment companies, other business firms, family or other individuals, government agencies, suppliers, credit card processors, check clearing companies, factors, owners, retirement plans and consolidated institutions.

in business in the short term the high cost may not be sustainable in the long run.

Data

The current paper is, to our knowledge, the first paper to examine the growing peer-to-peer borrowing among small businesses. In this paper we use data on individual loans and applications from the LendingClub.com website to examine more closely the characteristics of loans that get funded as well as the interest rate paid on those loans.¹⁰ Lending Club makes their data available publicly. The data include borrower characteristics, loan status and payment information of loans that are funded, and details about all of the loan applications that were rejected. Our data set consists of 835,674 rejected loan applications and 104,741 funded loans. Both the number of loans and the average dollar amount of loans disbursed through Lending Club has grown tremendously since Lending Club's inception in 2007. Table 3 shows the volume of lending from mid-2007 through 2012. Total loans funded for small businesses grew from just under \$700,000 in 2008 to over \$22 million in 2012. Loans for other purposes grew from just over \$8 million in 2008 to nearly \$700 million in 2012. The average loan size has also grown for both groups, from \$5,400 to \$16,200 for small business loans, and from \$3,600 to \$13,400 for non-business loans. The interest rate is similar across small business loans and loans for other purposes.

Over the entire time span, small business is the sixth most frequent cited loan purpose among funded loans, totaling 3.5 percent of all funded loans. Debt consolidation is the most common loan purpose, accounting for just over half of the total, credit card payoffs follow with about 17 percent, "other" is almost 8, home improvement/purchase is just over 6, and "major purchase" is 3.8 percent. The average amount funded for "other" or "major purchase" is not presented in the table because these categories can encompass a variety of things and is less informative. Comparing small businesses loans to other popular loan purposes, the average amount funded and the interest rates across the groups are comparable, although loans for small businesses are a bit larger on average (Table 4).

Small business and non-business loans have roughly the same rate of rejection, with about 8 percent of all small business loans over the period being funded and about 12 percent of all non-business loans being funded (Table 5)¹¹. The rejection rates for small business loans are understated in 2007 and 2008 because it was not until mid-2009 that the rejected and funded loan data sets started to categorize loan purpose in the same way. In order to attempt to correct for this, every rejected entry with a loan description that included the word "business" was designated as a small business loan. Nonetheless, it is likely that many more small business loans

¹⁰ The data are publicly available at <https://www.lendingclub.com/info/download-data.action> and continuously updated. The data used for analysis in this paper were downloaded on January 17, 2013.

¹¹ The total number of funded small business loans is slightly larger in Table 5 than in Table 3. This is because Table 3 is split by the year of issuance of the loan whereas Table 5 is by year of loan application. There is some lag between application and issuance.

than we are counting were rejected in those earlier years. The percent funded in 2012 has picked up in both small business and non-business loans, but only by 0.5 percent from 6.8 to 7.3 in terms of small businesses, where it has increased by almost 5 percent for non-businesses, from 9.4 to 14.3.

Table 6 breaks down denial and acceptance rates by geography. The more populous states have more small business loan applications (California, Florida, New York, and Texas all have over 2,500 each). However, the more rural states rank the highest both in terms of percent of small business loans applications that are funded, as well as the percent of funded loans that are small business loans. Oklahoma, Montana, Alaska, and Mississippi had about 10 percent of small business loan applications being funded, as well as about 4 to 6 percent of all funded loans being small business loans.

As less traditional lending vehicles such as peer-to-peer lending are usually associated with higher interest rates, we are interested to see how the rates that small businesses receive through Lending Club loans differ from those that a small business may receive in a more formal lending setting. Figure 5 and Table 7 explore this by comparing the Lending Club small business lending rate with that reported by National Federation of Independent Business (NFIB) members. NFIB firms are split into two categories, the smallest firms – those with less than 10 employees – and larger small businesses, those having 10 or more employees. We would expect that small business owners who are seeking out financing through an alternative lending vehicle, such as Lending Club, to be less creditworthy and unable to receive financing through a traditional lending institution, such as a commercial bank. As mentioned in the previous section, assessing the creditworthiness of small businesses is difficult, particularly among the smallest businesses. For this reason we would expect that the rates for the smallest NFIB firms would be more comparable to the Lending Club small business rates. Although it is the case that the NFIB firms with fewer than 10 employees pay about a 0.5 to 1.5 percentage point higher rate than those with 10 or more employees, the NFIB reported rates are much lower than the Lending Club rates, with the smallest NFIB firms averaging about 7 percent over the period, and the Lending Club small businesses averaging over 5 percent more. Also, the NFIB firms do not experience the spike in late 2009 that the Lending Club small businesses do, which is evident in both the table and the figure.

Figure 5 tracks the mean interest rates on a monthly basis, and although there is volatility from month to month, the Lending Club small business rate fluctuates much more than the NFIB rate. This can be partially explained by the fact that there are fewer observations in the Lending Club data. Also, the NFIB rate has trended slightly downward since mid-2007, when the series begins, ending with a 2012 mean rate that is about 3 percent lower than the 2007 mean. The Lending Club rate does not experience this decline, and the small business loan rate averages about 0.9

percent higher in 2012 than 2007, and about 1.9 percent higher in 2012 than 2007 for non-business loans.¹²

Funded vs. rejected loan applications

Because some of the variables are analogous between the rejected loan applications and funded loans data sets we are able to do some regression analysis in order to discern some of the determinants of loans being funded, and if small business loan applications are more or less likely to be funded. We estimate a logistic regression, using the following variables:

$$Funded_{i\{0,1\}} = f(\text{SmallBusiness}_i, \text{Amount}_i, \text{Employment}_i, \text{HPI}_{s,t-1}, \text{Fico}_i, \text{Year}_i)$$

Where i refers to the individual application, s refers to the state of the applicant, and t is the quarter and year of the application. SmallBusiness is a dummy which equals 1 if the application is for a small business loan, and 0 if not. Amount is the amount of money requested in the application, in thousands of dollars, and Employment is the number of years that the applicant has been employed, although it is capped at 10 years. HPI is the mean of the Corelogic house price index in the state where the applicant resides, indexed such that 100=1, and averaged for state-year-quarter combinations. Fico is the Fico credit scores of the potential borrower at the time of application; it is provided as a range rather than a continuous variable. Finally, Year represents the year of application, and we include state fixed effects. Data from before 2010 is not included in the estimation, as we are unable to identify all of the small business loans in the rejected loan database during that time.

Table 8 shows our results, displayed as odds ratios. When controlling for quality of the application, loans are about 40 percent more likely to be funded when they are designated for small businesses. As expected, requesting greater amounts of money decreases the likelihood of a loan being funded; each additional \$1,000 requested decreases the likelihood of funding by about 5 percent. Each additional year of work experience increases the likelihood by about 33 percent. Having a higher FICO score also positively affects the likelihood of acceptance. We also see a positive relationship between higher home prices and the likelihood of having one's application accepted.

Interest Rate Paid

Turning to funded loans, we estimate a linear regression on the interest rate paid on the loans.

$$\text{InterestRate}_i = f(\text{SmallBusiness}_i, \text{Amount}_i, \text{TreasRate}_t, \text{Employ2}_i, \text{Fico}_i, \text{Pop}_{c,t-2}, \text{Income}_{c,t-2}, \text{HPI}_{c,t-1}, \text{Year}_i)$$

¹² There are several months in 2008 when there were no peer-to-peer loans for small business when Lending Club was coming into compliance with SEC regulations.

SmallBusiness, Amount, Fico, and Year are defined previously. HPI is the Corelogic house price index, but averaged over year/county pairs.¹³ Employ2 is a dummy that equals 1 if the borrower has over 2 years of employment, 0 if not. Population and Income are the population, in thousands of people, and the per capita income, in thousands of dollars in the county where the borrower lives. These county level controls are gathered from data provided by the U.S. Bureau of Economic Analysis.¹⁴ We also control for state level fixed-effects in the regression.

The results of this regression are displayed in Table 9. The results indicate that, all else equal, loans that are for small businesses are charged an interest rate two-thirds of a percentage points higher than loans for other purposes. Each additional \$1,000 requested increases the interest rate by 0.2 percentage points. There is a monotonic relationship between the Fico score and the interest rate; the higher the Fico score category, the lower the interest rate paid by the borrowers. The year with the highest interest rates, as seen in the descriptive statistics, is 2009. Relative to the omitted category of 2007, all the years have positive coefficients, or higher interest rates, but at over a 1 percentage point increase, 2009 is the highest. Living in a county with a higher per capita income slightly decreases the interest rate charged. There is no statistically significant relationship between either the county population or the local house price index on the interest rate charged.

Conclusions

Peer-to-peer lending has grown substantially since its inception in 2007 and has shown no signs of slowing. To the contrary, Prosper, the largest competitor in the peer-to-peer space, recently received a \$20 million equity injection and may considerably expand its lending in the very near future. As small business owners are increasingly turning to this alternative source of money to fund their businesses, policy makers may wish to keep a close eye on both levels and terms of such lending. Because such loans require less paperwork than traditional loans, they may be considered relatively attractive. However, given the relatively higher rate paid on such loans, it may be in the best interest of the business owner to pursue more formal options. More research is required to understand the long-term impact of such loans on the longevity of the firm and more education to potential borrowers is likely in order.

¹³ The location data for the denied loans is of much lower quality than for the funded loans. For the denied loans, the state is the finest level of geography that we are able to ascertain for most of the applications. For the funded loans, we are able to ascertain the county from the city and state for most loans. Thus, we use state-level controls in the logistic model, but county-level controls in the regression.

¹⁴ The data used is the “Local Area Personal Income accounts CA1-3” series, downloadable from <http://www.bea.gov/regional/downloadzip.cfm>.

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Table 1: Balance on loans to small business with any outstanding debt, by number of employees of firm

	All small businesses			Fewer than 10 employees			10 or more employees		
	Share of total	Mean per loan	Median per loan	Share of total	Mean per loan	Median per loan	Share of total	Mean per loan	Median per loan
All firms	100.0	182,288	20,000	100.0	97,999	17,149	100.0	359,096	40,000
Commercial bank	56.8	221,241	25,000	54.7	116,414	20,000	58.0	430,685	60,000
Savings bank	5.3	212,533	37,000	6.8	139,046	34,000	4.4	393,789	90,000
Savings and loan association	1.0	243,238	35,000	1.0	115,862	9,959	1.0	600,116	130,000
Credit union	0.5	27,720	15,000	1.1	23,978	13,000	0.3	43,918	30,000
Finance company	16.2	114,050	18,000	15.9	62,206	15,000	16.4	213,064	26,079
Insurance company	2.2	694,474	21,000	2.0	268,761	14,000	2.3	2,899,123	38,000
Brokerage or mutual fund company	1.0	246,251	8,000	0.7	96,853	8,000	1.1	550,066	55,000
Leasing company	3.1	126,893	9,200	2.6	60,314	8,500	3.5	238,794	14,839
Mortgage company	5.3	587,029	90,000	10.7	566,467	84,000	2.2	652,478	245,000
Other	8.5	141,832	20,000	4.6	39,503	15,000	10.8	392,207	80,000

Note: Weighted statistics from the 2003 Survey of Small Business Finances. Balances include loans include outstanding balances on lines of credit, capital leases, mortgages, motor vehicle loans, equipment loans, loans from owners, and other loans.

Table 2: Share of loans to small businesses secured by personal real estate, by number of employees of firm

	All Institutions		Fewer than 10 employees		10 or more employees	
	Share of dollars	Share of loans	Share of dollars	Share of loans	Share of dollars	Share of loans
All firms	15.6	11.0	18.5	14.7	13.9	8.8
Commercial bank	18.7	17.1	24.0	22.1	15.8	14.0
Savings bank	23.9	29.7	32.9	34.3	16.0	25.5
Savings and loan association	19.5	24.2	53.2	36.8	1.2	7.1
Credit union	27.9	13.4	20.3	10.7	45.8	18.1
Finance company	8.5	1.7	3.8	2.4	11.1	1.3
Insurance company	2.2	5.7	0.8	5.9	2.9	5.6
Brokerage or mutual fund company	4.9	7.5	0.0	0.0	6.6	10.3
Leasing company	0.0	0.0	0.0	0.0	0.0	0.0
Mortgage company	25.5	57.8	11.5	58.1	64.3	57.1
Other	5.9	5.5	11.5	5.1	4.5	5.8

Note: Weighted statistics from the 2003 Survey of Small Business Finances. Balances include loans include outstanding balances on lines of credit, capital leases, mortgages, motor vehicle loans, equipment loans, loans from owners, and other loans.

Table 3: Peer-to-peer lending volume and interest rate by Lending Club, by loan purpose and year of issue

Year	Non-business loans				Small business loans			
	Number of Loans	Dollar amount funded	Average dollar amount funded	Average interest rate	Number of Loans	Dollar amount funded	Average dollar amount funded	Average interest rate
2007	547	920,654	1,683	11.75	56	108,954	1,946	12.54
2008	2,266	8,263,108	3,647	12.07	127	686,563	5,406	11.95
2009	4,913	42,574,714	8,666	12.27	368	3,668,902	9,970	14.63
2010	12,071	118,977,140	9,856	11.97	466	5,206,469	11,173	12.45
2011	20,746	241,051,621	11,619	12.18	975	13,609,352	13,958	13.13
2012	51,981	694,887,504	13,368	13.65	1,386	22,503,937	16,237	13.39
Total	94,511	1,137,515,066	12,036	13.00	3,410	46,413,627	13,611	13.31

Note: Statistics are calculated from LendingClub.com loan issue data through December 31, 2012. Year is based on the year the loan was issued.

Table 4: Peer-to-peer lending volume and interest rate by LendingClub.com, by loan purpose and year of issue

Year	Loans to pay off credit card		Loans to pay off debt		Loans for home improvement/ home purchase		Loans for small businesses	
	Average \$ amount funded	Average interest rate	Average \$ amount funded	Average interest rate	Average \$ amount funded	Average interest rate	Average \$ amount funded	Average interest rate
2007	1,585	12.05	1,944	12.65	1,873	10.96	1,946	12.54
2008	3,715	12.02	4,295	12.61	3,571	11.64	5,406	11.95
2009	9,020	12.01	9,885	12.74	9,164	11.83	9,970	14.63
2010	11,079	11.63	11,284	12.34	9,651	11.68	11,173	12.45
2011	12,148	11.90	13,136	12.72	12,321	11.68	13,958	13.13
2012	13,063	13.33	14,429	14.11	13,611	12.49	16,237	13.39
Total	12,330	12.82	13,420	13.53	12,100	12.09	13,614	13.30

Note: Statistics are calculated from LendingClub.com loan issue data through December 31, 2012. Year is based on the year the loan was issued.

Table 5: Denied and funded applications from Lending Club, by application year

Year	Non-Business Loans			Small Business Loans*		
	Rejected	Funded	% funded	Rejected	Funded	% funded
2007	5,302	630	10.6%	8	65	89.0%
2008	25,324	2,254	8.2%	450	124	21.6%
2009	55,810	4,936	8.1%	1,393	370	21.0%
2010	106,619	12,245	10.3%	6,474	468	6.7%
2011	204,606	21,370	9.5%	13,885	1,018	6.8%
2012	319,243	53,076	14.3%	17,380	1,365	7.3%
Total	716,904	94,511	11.6%	39,590	3,410	7.9%

Note: Statistics are calculated from LendingClub.com loan data and declined loan data up to December 31, 2012. Year is based on when the application was received. * The rejected loan data set does not start identifying “loantitle” with categories that are comparable to the funded loans data set until 2009; business loans are identified as any application containing the word “business” in the “loantitle.”

Table 6: Denial and acceptance of Lending Club applications, by state of residence of applicant

State	Business loan applications		Business loans funded			State	Business loan applications		Business loans funded		
	Number	Share of all applications	Number	Share of business loans applications funded	Share of funded application that were business loans		Number	Share of all applications	Number	Share of business loans applications funded	Share of funded application that were business loans
AK	112	4.9	13	11.6	4.7	MS	10	1.7	1	10.0	3.8
AL	701	4.9	51	7.3	4.2	MT	134	5.7	17	12.7	6.3
AR	452	4.5	24	5.3	3.4	NC	1,188	5.2	86	7.2	3.5
AZ	949	5.1	80	8.4	3.7	ND	0	0.0	0	NA	NA
CA	6,289	5.4	612	9.7	3.6	NH	180	4.0	10	5.6	2.3
CO	877	5.7	71	8.1	3.7	NJ	1,427	4.5	133	9.3	3.2
CT	561	4.0	48	8.6	2.8	NM	196	4.1	7	3.6	1.4
DC	136	5.9	8	5.9	2.0	NV	588	5.4	53	9.0	3.9
DE	150	5.1	11	7.3	4.3	NY	3,297	4.7	287	8.7	3.1
FL	4,357	6.5	288	6.6	4.0	OH	1,414	4.5	91	6.4	3.1
GA	2,140	6.6	147	6.9	4.6	OK	381	4.3	36	9.4	4.7
HI	221	4.5	15	6.8	2.9	OR	493	5.9	45	9.1	3.9
IA	4	2.6	0	0.0	0.0	PA	1,355	3.7	79	5.8	2.3
ID	2	2.5	0	0.0	0.0	RI	153	3.7	12	7.8	2.6
IL	1,855	5.2	146	7.9	3.8	SC	660	5.0	44	6.7	3.8
IN	39	3.3	0	0.0	0.0	SD	92	5.1	6	6.5	3.0
KS	271	3.8	20	7.4	2.4	TN	4	0.8	1	25.0	3.2
KY	414	3.7	28	6.8	3.3	TX	3,566	5.1	278	7.8	3.8
LA	605	4.9	32	5.3	2.8	UT	375	6.4	36	9.6	5.3
MA	899	4.1	76	8.5	2.7	VA	1,181	4.4	111	9.4	3.4
MD	973	4.8	77	7.9	3.3	VT	75	3.7	5	6.7	2.6
ME	1	0.9	0	0.0	0.0	WA	931	5.7	85	9.1	4.0
MI	1,220	5.4	77	6.3	3.7	WI	520	4.4	42	8.1	3.7
MN	532	4.4	49	9.2	3.1	WV	166	3.1	9	5.4	2.1
MO	773	4.7	58	7.5	3.5	WY	79	4.3	5	6.3	2.3

Note: Statistics are calculated from LendingClub.com loan data and declined loan data up to December 31, 2012. Year is based on when the application was received. The rejected loan data set does not start identifying “loantitle” with categories that are comparable to the funded loans data set until 2009; business loans are identified as any application containing the word “business” in the “loantitle.”

Table 7: Interest rate for Lending Club loan compared to other interest rates for NFIB members, by year

Year	LC Non-Business Loans	LC Small Business Loans	NFIB Firms with 10+ employees	NFIB Firms with <10 employees
2007	11.75	12.54	8.67	9.23
2008	12.07	11.95	6.92	7.74
2009	12.27	14.63	5.54	6.92
2010	11.97	12.45	5.55	6.77
2011	12.18	13.13	5.47	6.56
2012	13.65	13.39	5.29	6.09
Total	13.00	13.31	6.06	7.03

Note: Lending Club statistics are calculated from LendingClub.com loan issue data through December 31, 2012. Year is based on when the loan was issued. NFIB statistics are calculated from monthly membership surveys done by the National Federation of Independent Business through the December 2012 survey.

Table 8: Logit estimates of whether or not the loan gets funded

	Odds Ratios
Small Business Dummy	1.397*** [13.89]
Amount Requested (In Thousands)	0.947*** [-109.48]
Years of Employment	1.334*** [247.27]
State HPI (1 yr lag, 1=100)	3.353*** [11.97]
Fico Range (<659 is the omitted level)	
660-679	115.149*** [121.32]
680-714	145.484*** [128.56]
715-749	195.248*** [134.01]
750-779	229.064*** [131.11]
780+	67.374***
Fico Range (<659 is the omitted level)	[98.92]
660-679	115.149*** [121.32]
Application year (2010 is omitted)	
2011	0.987 [-0.87]
2012	1.800*** [35.50]
Constant	0.000*** [-42.92]
Pseudo R2	0.411
N	757,621

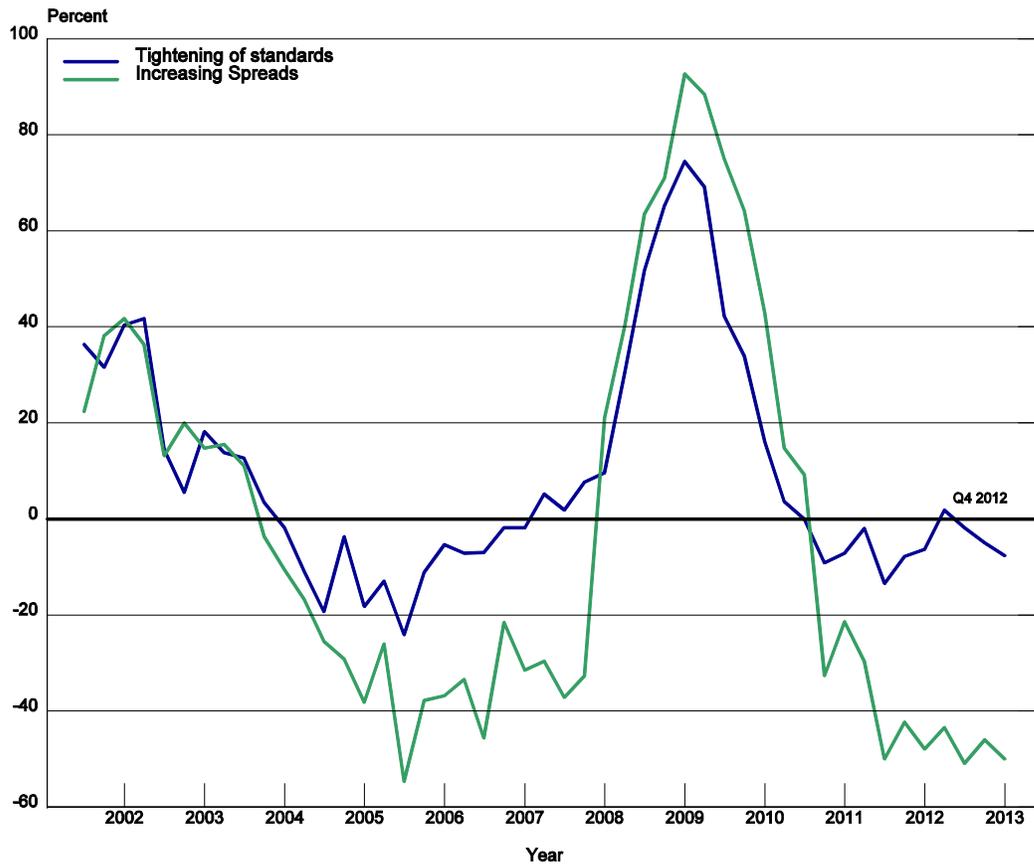
Note: t-statistics in brackets. Applications from prior to 2010 are not used in this model as they do not fully identify all business loans.

Table 9: Regression results for interest rate paid on loan

	Linear Reg
Small Business Dummy	0.631*** [14.78]
Amount Requested (In Thousands)	0.229*** [217.20]
Treasury Rate	-0.146** [-2.31]
Employment Dummy	-0.033* [-1.89]
Fico Range (640-659 is the omitted level)	
660-678	0.108 [0.89]
679-713	-3.308*** [-27.33]
714-749	-7.051*** [-58.00]
750-779	-8.996*** [-73.07]
780+	-9.524*** [-75.55]
County Population (2 yr lag, in thousands of people)	0.000 [0.00]
County Per Capita Income (2 yr lag, in thousands of dollars)	-0.004*** [-6.28]
County House Price Index (1 yr lag, 1=100)	0.036 [0.70]
Application year	
2008	0.297* [1.72]
2009	1.634*** [6.80]
2010	0.873*** [3.53]
2011	0.904*** [3.54]
2012	0.860*** [3.38]
Constant	13.693*** [45.57]
Adjusted R2	0.690
N	83,453

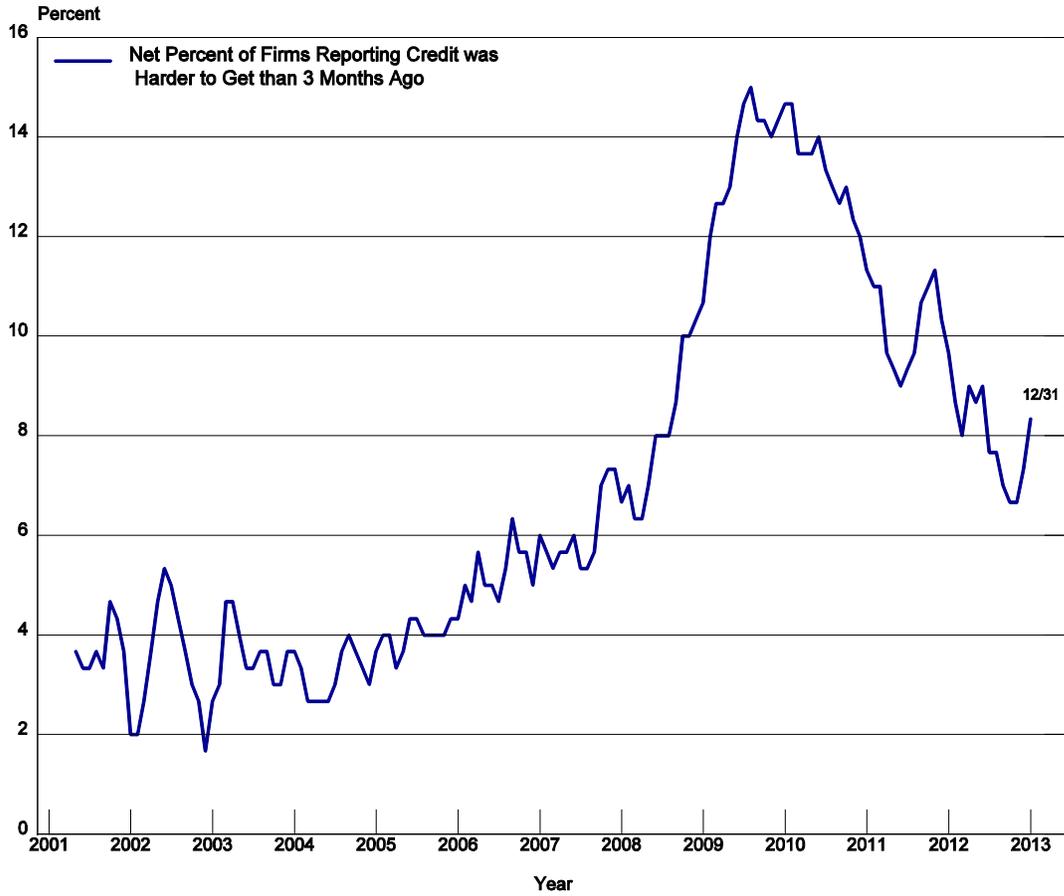
Note: t-statistics in brackets. State fixed effects included in estimation.

Figure 1: Net percent of domestic banks reporting a tightening of standards or terms on loans to small businesses



Note: Data are quarterly; not seasonally adjusted.
 Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices
www.federalreserve.gov/boarddocs/SnLoanSurvey/.

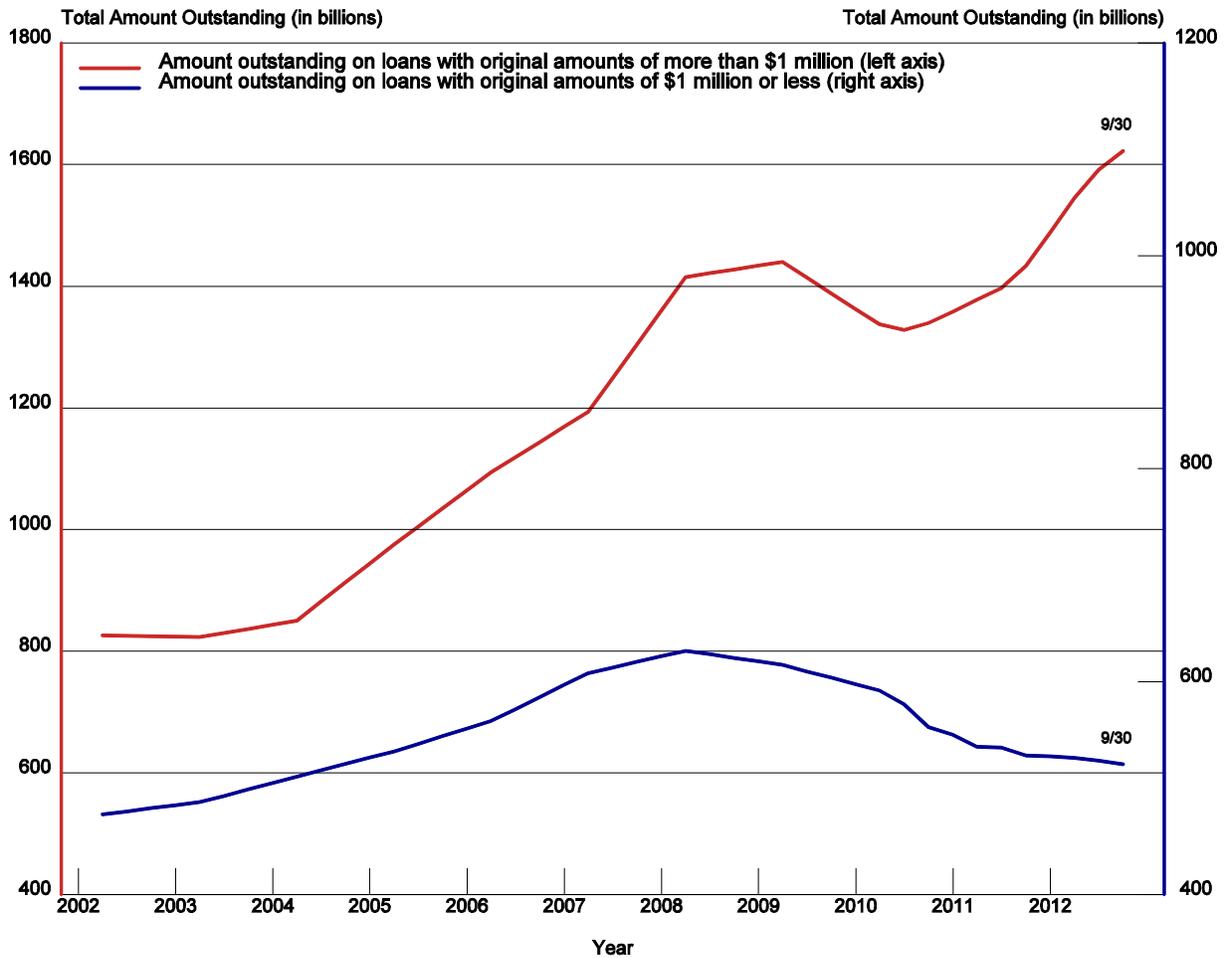
Figure 2: Net percent of firms reporting that credit was harder to get compared to 3 months ago



Note: This question is only asked of firms reporting that they regularly borrow; data are monthly; 3 month moving average is reported; not seasonally adjusted.

Source: National Federation of Independent Businesses (NFIB) Survey, Small Business Economic Trends Data <http://www.nfib.com/research-foundation/surveys/small-business-economic-trends>.

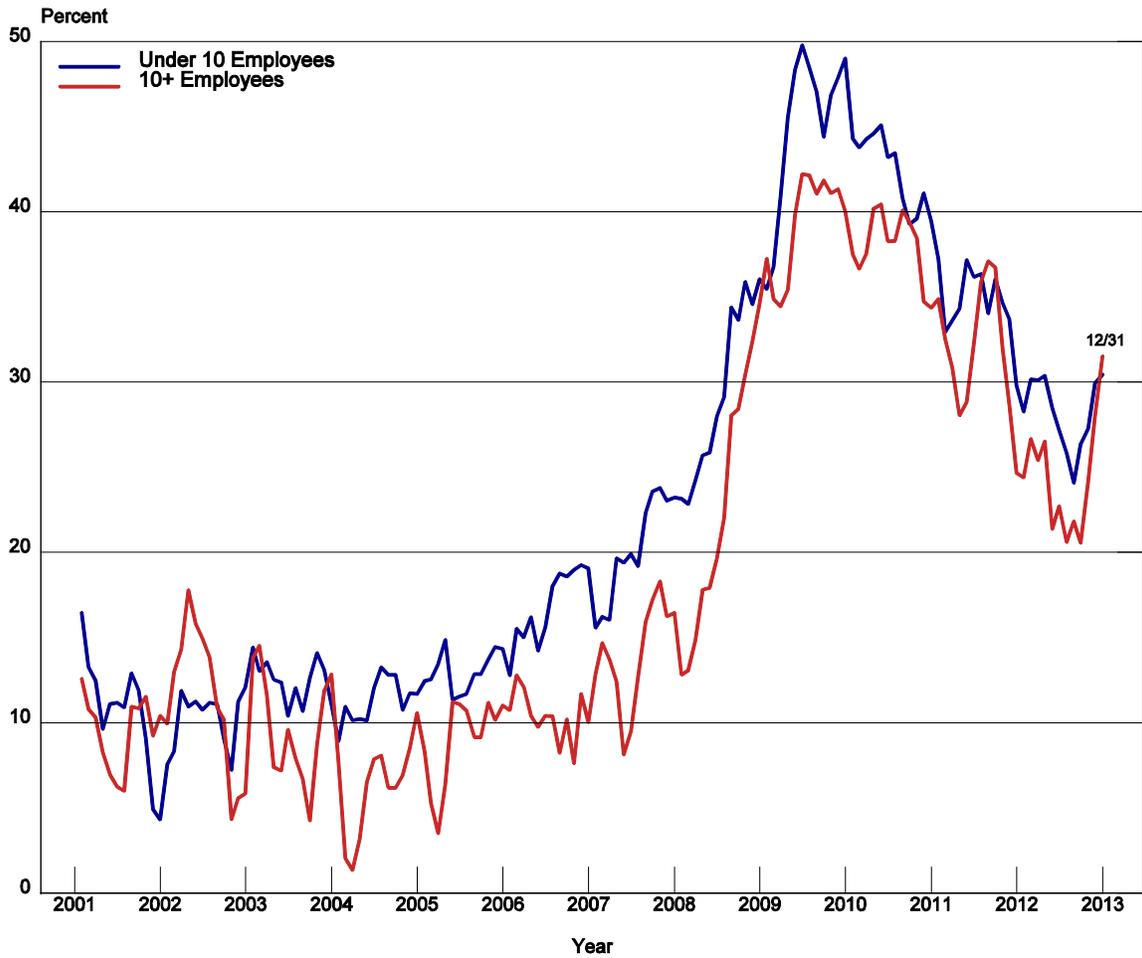
Figure 3: Amount outstanding on loans to businesses



Source: These data are constructed from special tabulations of the June 30, 2002 to September 30, 2012 Call Reports (Consolidated Reports of Condition and Income for U.S. Banks).

Note: Beginning March 2010, the data reporting frequency changed from annual to quarterly.

Figure 4: Net percent of firms reporting that credit was harder to get compared to 3 months ago, by number of employees



Note: This question is only asked of firms reporting that they regularly borrow; data are monthly; 3 month moving average is reported; not seasonally adjusted.

Source: National Federation of Independent Businesses (NFIB) Survey, Small Business Economic Trends Data <http://www.nfib.com/research-foundation/surveys/small-business-economic-trends>.

Figure 5: Interest rate paid by small business borrowers from LendingClub.com compared to NFIB borrowers

