

Online Appendix for

“Where You Live Matters: Local Bank Competition, Online Marketplace Lending, and Disparity in Borrower Benefits”

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Appendix A1. First Stage Regressions and Full Estimation Results

In this appendix, we report the first stage regressions in our 2SLS estimations and complete estimation results including the coefficients for all control variables.

Table A1. First Stage Results from Table 2 Columns (1) – (4)

DV: Local market competition measures	(1)	(2)	(3)	(4)
log(Bank Expansion IV)	0.527*** (0.003)	0.495*** (0.003)	0.869*** (0.003)	0.117*** (0.002)
Business Degree (%)	0.038*** (0.001)	0.036*** (0.001)	-0.013*** (0.000)	0.038*** (0.001)
Poverty (%)	-0.039*** (0.001)	-0.045*** (0.001)	0.048*** (0.001)	-0.039*** (0.001)
Race: Black	0.005*** (0.000)	0.004*** (0.000)	0.002*** (0.000)	0.005*** (0.000)
Origin: Hispanic	0.005*** (0.000)	0.006*** (0.000)	-0.006*** (0.000)	0.005*** (0.000)
% Change Housing Index	-0.339*** (0.020)	-0.126*** (0.021)	0.120*** (0.014)	-0.339*** (0.020)
% Change Unemployment	0.199*** (0.024)	0.147*** (0.024)	-0.210*** (0.019)	0.199*** (0.024)
% Change Capital Gains	-0.071*** (0.004)	-0.066*** (0.004)	-0.048*** (0.004)	-0.071*** (0.004)
Lender-to-population Ratio	0.615*** (0.016)	0.276*** (0.014)	0.365*** (0.011)	0.615*** (0.016)
Log(Population Density)	0.221*** (0.002)	0.227*** (0.002)	-0.094*** (0.001)	0.221*** (0.002)
Loan Amount, thousand \$	-0.001*** (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.001*** (0.000)
Interest Rate, %	0.003*** (0.001)	0.003** (0.001)	-0.000 (0.001)	0.003*** (0.001)
Income / Cost of Living	-0.000 (0.000)	-0.001** (0.001)	0.003*** (0.001)	-0.000 (0.000)
Debt-to-Income Ratio	0.075*** (0.019)	0.028 (0.020)	0.090*** (0.018)	0.075*** (0.019)
Homeownership Status (1/0)	0.011*** (0.003)	0.005* (0.003)	0.000 (0.002)	0.011*** (0.003)
Bankcard Utilization	0.005 (0.005)	0.001 (0.005)	-0.012*** (0.004)	0.005 (0.005)
Current Credit Lines	0.002*** (0.000)	0.002*** (0.000)	-0.001*** (0.000)	0.002*** (0.000)
Delinquencies	0.003* (0.002)	0.003* (0.002)	-0.001 (0.001)	0.003* (0.002)
Credit Inquiries	0.005*** (0.001)	0.006*** (0.001)	-0.004*** (0.001)	0.005*** (0.001)
Years Employed	-0.001* (0.000)	-0.001* (0.000)	-0.000 (0.000)	-0.001* (0.000)
Public Records	0.008*** (0.003)	0.006** (0.003)	-0.001 (0.002)	0.008*** (0.003)
Revolving Balance, thousand \$	0.000 (0.000)	0.000** (0.000)	-0.000*** (0.000)	0.000 (0.000)
Credit grade fixed effects	Yes	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes	Yes
F statistic	4,738.07	4708.11	9304.53	482.89
Num. obs.	165,780	165,780	165,780	165,780

* $p < 0.1$; ** $p < 0.5$; *** $p < 0.01$.

Table A2. Local Market Competition and Early Payoff with CEM Matching

DV: Early payoff (1/0)	(1)	(2)	(3)
log(# FDIC insured bank branches)	0.032*** (0.010)		
log(Total deposits in FDIC insured banks)		0.018*** (0.006)	
HHI			-0.135*** (0.041)
Business Degree (%)	0.002 (0.002)	0.003* (0.002)	0.005*** (0.002)
Poverty (%)	0.003 (0.002)	0.002 (0.002)	-0.005* (0.003)
Race: Black	-0.001 (0.001)	-0.000 (0.001)	-0.001 (0.001)
Origin: Hispanic	-0.000 (0.000)	-0.000 (0.000)	0.001 (0.000)
% Change Housing Index	0.096 (0.058)	0.087 (0.059)	0.075 (0.059)
% Change Unemployment	-0.242*** (0.065)	-0.242*** (0.065)	-0.209*** (0.066)
% Change Capital Gains	0.016 (0.010)	0.016 (0.010)	0.020* (0.010)
Lender-to-population Ratio	0.020 (0.034)	-0.002 (0.036)	-0.020 (0.038)
Log(Population Density)	-0.008 (0.006)	-0.006 (0.006)	0.012*** (0.003)
Loan Amount, thousand \$	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Interest Rate, %	0.010*** (0.003)	0.011*** (0.003)	0.011*** (0.003)
Income / Cost of Living	0.004** (0.002)	0.004** (0.002)	0.004** (0.002)
Debt-to-Income Ratio	-0.819*** (0.059)	-0.819*** (0.058)	-0.829*** (0.058)
Homeownership Status (1/0)	0.083*** (0.008)	0.083*** (0.008)	0.083*** (0.008)
Bankcard Utilization	-0.212*** (0.015)	-0.212*** (0.015)	-0.210*** (0.015)
Current Credit Lines	0.003*** (0.001)	0.003*** (0.001)	0.004*** (0.001)
Delinquencies	-0.019*** (0.005)	-0.019*** (0.005)	-0.019*** (0.005)
Credit Inquiries	0.041*** (0.004)	0.041*** (0.004)	0.041*** (0.004)
Years Employed	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Public Records	0.024*** (0.008)	0.024*** (0.008)	0.024*** (0.008)
Revolving Balance, thousand \$	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Credit grade fixed effects	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes
Num. obs.	165,780	165,780	165,780

* $p < 0.1$; ** $p < 0.5$; *** $p < 0.01$.

**Table A3. The Moderating Role of Increases in Interest Rates and FICO Score Improvements
(Table 3 in the paper)**

DV: Early payoff (1/0)	(1)	(2)	(3)
log(# Local lending institutions)	0.035** (0.015)	0.021* (0.012)	0.036** (0.016)
log(# Local lending institutions) * Interest rate (1/0)	0.005** (0.002)		
log(# Local lending institutions) * 1(FICO increase)		0.025** (0.010)	-0.000 (0.014)
1(FICO increase)		0.144*** (0.054)	0.105 (0.077)
Business Degree (%)	0.002 (0.003)	0.001 (0.002)	0.004 (0.003)
Poverty (%)	0.001 (0.004)	-0.001 (0.003)	0.006 (0.004)
Race: Black	-0.000 (0.001)	-0.000 (0.001)	-0.001 (0.001)
Origin: Hispanic	0.000 (0.001)	-0.000 (0.000)	-0.000 (0.001)
% Change Housing Index	0.264*** (0.094)	0.009 (0.074)	0.266*** (0.097)
% Change Unemployment	-0.267** (0.110)	-0.337*** (0.082)	-0.082 (0.108)
% Change Capital Gains	0.022 (0.016)	0.016 (0.013)	0.015 (0.017)
Lender-to-population Ratio	0.168*** (0.056)	0.017 (0.044)	0.010 (0.057)
Log(Population Density)	-0.015 (0.010)	-0.003 (0.008)	-0.013 (0.010)
Loan Amount, thousand \$	0.001 (0.001)	-0.002** (0.001)	-0.000 (0.001)
Interest Rate, %	0.007 (0.006)	0.010** (0.004)	0.021*** (0.006)
Income / Cost of Living	0.012*** (0.002)	0.004* (0.003)	0.004*** (0.002)
Debt-to-Income Ratio	-0.690*** (0.090)	-0.894*** (0.075)	-0.635*** (0.092)
Homeownership Status (1/0)	0.075*** (0.013)	0.087*** (0.010)	0.076*** (0.014)
Bankcard Utilization	-0.171*** (0.023)	-0.164*** (0.019)	-0.274*** (0.025)
Current Credit Lines	0.003** (0.001)	0.004*** (0.001)	0.003** (0.001)
Delinquencies	-0.015* (0.008)	-0.005 (0.005)	-0.071*** (0.016)
Credit Inquiries	0.044*** (0.006)	0.044*** (0.005)	0.035*** (0.006)
Years Employed	-0.002 (0.002)	0.001 (0.001)	-0.003* (0.002)
Public Records	0.031** (0.013)	0.028*** (0.009)	0.039* (0.023)
Revolving Balance, thousand \$	-0.002*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Credit grade fixed effects	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes
Num. obs.	65,426	107,351	58,419

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A4. Bank M&As and Early Payoff (Table 7 in the paper)

DV: Early payoff (1/0)	(1)	(2)	(3)
Merger (1/0)	-0.066*** (0.025)	-0.132*** (0.033)	-0.231*** (0.059)
# Local lending institutions before M&A)	0.017 (0.017)	0.045** (0.020)	0.067 (0.048)
HHI before M&A	-0.106*** (0.038)	-0.075* (0.042)	-0.159 (0.110)
Business Degree (%)	0.001 (0.004)	0.010** (0.005)	0.018* (0.009)
Poverty (%)	-0.006 (0.006)	-0.005 (0.007)	0.004 (0.013)
Race: Black	-0.000 (0.001)	-0.001 (0.001)	-0.003 (0.003)
Origin: Hispanic	0.001 (0.001)	0.001 (0.001)	0.000 (0.003)
% Change Housing Index	0.597*** (0.136)	0.440*** (0.169)	-0.070 (0.320)
% Change Unemployment	-0.354** (0.163)	-0.606*** (0.187)	-0.187 (0.423)
% Change Capital Gains	0.005 (0.026)	0.005 (0.029)	0.109** (0.052)
Lender-to-population Ratio	-0.164 (0.105)	-0.061 (0.124)	-0.050 (0.201)
Log(Population Density)	-0.011 (0.013)	-0.021 (0.015)	-0.069** (0.035)
Loan Amount, thousand \$	-0.001 (0.001)	-0.005*** (0.001)	-0.006*** (0.002)
Interest Rate, %	0.016** (0.007)	0.016** (0.007)	-0.001 (0.012)
Income / Cost of Living	0.008*** (0.002)	0.016*** (0.002)	0.015*** (0.004)
Debt-to-Income Ratio	-0.363*** (0.106)	-0.577*** (0.118)	-0.826*** (0.205)
Homeownership Status (1/0)	0.089*** (0.016)	0.107*** (0.018)	0.176*** (0.032)
Bankcard Utilization	-0.246*** (0.027)	-0.217*** (0.031)	-0.253*** (0.062)
Current Credit Lines	0.006*** (0.002)	0.005** (0.002)	-0.005 (0.003)
Delinquencies	-0.043*** (0.011)	-0.067*** (0.012)	-0.130*** (0.022)
Credit Inquiries	0.020*** (0.007)	-0.017** (0.008)	-0.036*** (0.014)
Years Employed	0.001 (0.002)	0.000 (0.002)	-0.013*** (0.004)
Public Records	0.050** (0.021)	0.006 (0.027)	-0.196*** (0.049)
Revolving Balance, thousand \$	-0.002*** (0.001)	-0.004*** (0.001)	-0.003** (0.001)
Credit grade fixed effects	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes
Num. obs.	46,206	36,526	11,855

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A5. Examining Smaller Markets: Bank M&As and Early Payoff (Table 8 in the paper)

DV: Early payoff (1/0)	(1)	(2)	(3)
Sample:	Counties with fewer than 250 Lending Institutions	Small Cities	Medium Cities
log(# Local lending institutions)	0.079*** (0.020)		
Merger (1/0)		-0.183* (0.100)	-0.052 (0.037)
# Local lending institutions before M&A)		0.016 (0.045)	0.001 (0.016)
HHI before M&A		-0.029 (0.049)	0.018 (0.021)
Business Degree (%)	0.002 (0.003)	-0.016*** (0.006)	0.006** (0.003)
Poverty (%)	0.006 (0.003)	-0.026** (0.011)	0.005 (0.004)
Race: Black	-0.000 (0.001)	-0.000 (0.002)	-0.001 (0.001)
Origin: Hispanic	-0.001** (0.001)	0.005** (0.002)	-0.000 (0.001)
% Change Housing Index	0.124 (0.116)	-0.370* (0.219)	0.316*** (0.100)
% Change Unemployment	-0.216** (0.108)	-0.139 (0.200)	-0.252** (0.116)
% Change Capital Gains	0.035** (0.015)	0.028 (0.037)	0.017 (0.020)
Lender-to-population Ratio	-0.030 (0.055)	0.012 (0.166)	0.024 (0.067)
Log(Population Density)	-0.017 (0.012)	0.057*** (0.016)	-0.004 (0.008)
Loan Amount, thousand \$	-0.002* (0.001)	0.003 (0.002)	0.004*** (0.001)
Interest Rate, %	0.012* (0.006)	0.001 (0.014)	0.019*** (0.007)
Income / Cost of Living	0.008*** (0.002)	0.012** (0.005)	0.008*** (0.002)
Debt-to-Income Ratio	-0.776*** (0.107)	-0.677*** (0.230)	-0.552*** (0.112)
Homeownership Status (1/0)	0.073*** (0.016)	0.050 (0.034)	0.061*** (0.017)
Bankcard Utilization	-0.243*** (0.027)	-0.124* (0.064)	-0.168*** (0.030)
Current Credit Lines	0.001 (0.002)	-0.003 (0.004)	0.003* (0.002)
Delinquencies	-0.022** (0.010)	-0.022 (0.022)	-0.047*** (0.012)
Credit Inquiries	0.040*** (0.007)	0.046*** (0.015)	0.035*** (0.007)
Years Employed	0.001 (0.002)	-0.016*** (0.004)	0.000 (0.002)
Public Records	0.017 (0.011)	-0.041 (0.039)	0.019 (0.015)
Revolving Balance, thousand \$	-0.002*** (0.001)	-0.000 (0.001)	-0.003*** (0.001)
Credit grade fixed effects	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes
Num. obs.	48,408	10,371	41,446

* $p < 0.1$; ** $p < 0.5$; *** $p < 0.01$.

Appendix A2. Robustness Checks

In this appendix, we report the tables for all robustness checks discussed in Section 5.2.

Table A6. Examining Borrowers Who Pay on Time

DV: Early payoff (1/0)	(1)
log(# Local lending institutions)	-0.004 (0.008)
Business Degree (%)	-0.005*** (0.001)
Poverty (%)	0.000 (0.002)
Race: Black	0.000 (0.000)
Origin: Hispanic	0.000 (0.000)
% Change Housing Index	-0.121** (0.052)
% Change Unemployment	0.120** (0.057)
% Change Capital Gains	0.003 (0.009)
Lender-to-population Ratio	0.004 (0.031)
Log(Population Density)	0.009* (0.005)
Loan Amount, thousand \$	-0.005*** (0.000)
Interest Rate, %	-0.024*** (0.003)
Income / Cost of Living	-0.006*** (0.001)
Debt-to-Income Ratio	0.399*** (0.049)
Homeownership Status (1/0)	-0.030*** (0.007)
Bankcard Utilization	0.244*** (0.013)
Current Credit Lines	-0.003*** (0.001)
Delinquencies	0.034*** (0.004)
Credit Inquiries	-0.062*** (0.003)
Years Employed	0.006*** (0.001)
Public Records	-0.005 (0.007)
Revolving Balance, thousand \$	0.002*** (0.000)
Credit grade fixed effects	Yes
Loan category fixed effects	Yes
State-by-year fixed effects	Yes
Num. obs.	165,780

* $p < 0.1$; ** $p < 0.5$; *** $p < 0.01$.

Table A7. Local Market Competition and Early Payoff (Logit)

DV: Early payoff (1/0)	(1)	(2)	(3)	(4)
log(# Local lending institutions)	0.053*** (0.016)			
log(# FDIC insured bank branches)		0.056*** (0.017)		
log(Total deposits in FDIC insured banks)			0.032*** (0.010)	
HHI				-0.236*** (0.072)
First Stage Residuals	-0.045** (0.020)	-0.053** (0.021)	-0.033** (0.015)	-0.276*** (0.074)
Business Degree (%)	0.003 (0.003)	0.003 (0.003)	0.005* (0.003)	0.008*** (0.003)
Poverty (%)	0.004 (0.004)	0.005 (0.004)	0.003 (0.004)	-0.009* (0.005)
Race: Black	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Origin: Hispanic	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)
% Change Housing Index	0.180* (0.103)	0.169 (0.103)	0.154 (0.103)	0.134 (0.104)
% Change Unemployment	-0.435*** (0.116)	-0.433*** (0.116)	-0.432*** (0.116)	-0.375*** (0.117)
% Change Capital Gains	0.029 (0.018)	0.029 (0.018)	0.029 (0.018)	0.036* (0.019)
Lender-to-population Ratio	0.014 (0.061)	0.031 (0.060)	-0.009 (0.063)	-0.040 (0.068)
Log(Population Density)	-0.012 (0.011)	-0.013 (0.011)	-0.010 (0.010)	0.022*** (0.006)
Loan Amount, thousand \$	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Interest Rate, %	0.019*** (0.006)	0.019*** (0.006)	0.019*** (0.006)	0.019*** (0.006)
Income / Cost of Living	0.009*** (0.003)	0.009*** (0.003)	0.009*** (0.003)	0.008** (0.003)
Debt-to-Income Ratio	-1.414*** (0.106)	-1.411*** (0.106)	-1.411*** (0.106)	-1.430*** (0.107)
Homeownership Status (1/0)	0.146*** (0.015)	0.146*** (0.015)	0.147*** (0.015)	0.147*** (0.015)
Bankcard Utilization	-0.372*** (0.026)	-0.372*** (0.026)	-0.372*** (0.026)	-0.369*** (0.026)
Current Credit Lines	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)	0.006*** (0.002)
Delinquencies	-0.036*** (0.009)	-0.036*** (0.009)	-0.036*** (0.009)	-0.035*** (0.009)
Credit Inquiries	0.070*** (0.006)	0.070*** (0.006)	0.070*** (0.006)	0.071*** (0.006)
Years Employed	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)	-0.002 (0.002)
Public Records	0.039*** (0.014)	0.039*** (0.014)	0.040*** (0.014)	0.040*** (0.014)
Revolving Balance, thousand \$	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)
Credit grade fixed effects	Yes	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes	Yes
Num. obs.	165,780	165,780	165,780	165,780

* $p < 0.1$; ** $p < 0.5$; *** $p < 0.01$.

Note. In the Paper, we use Probit models because of the feasibility to incorporate IVs. For robustness, we present the results of logit estimations, using the control function approach. As such, the residuals from the first stage using the instrumental variable and other controls are included as an additional control variable.

Table A8. Local Market Competition and Early Payoff (Logit; Odds Ratios)

DV: Early payoff (1/0)	(1)	(2)	(3)	(4)
log(# Local lending institutions)	1.054*** (0.017)			
log(# FDIC insured bank branches)		1.058*** (0.018)		
log(Total deposits in FDIC insured banks)			1.032*** (0.010)	
HHI				0.745*** (0.092)
First Stage Residuals	0.956** (0.019)	0.948** (0.020)	0.968** (0.015)	0.759*** (0.056)
Business Degree (%)	1.003 (0.003)	1.003 (0.003)	1.005* (0.003)	1.008*** (0.003)
Poverty (%)	1.004 (0.004)	1.005 (0.004)	1.003 (0.004)	0.991* (0.005)
Race: Black	0.999 (0.001)	0.999 (0.001)	0.999 (0.001)	0.999 (0.001)
Origin: Hispanic	0.999 (0.001)	0.999 (0.001)	0.999 (0.001)	1.001 (0.001)
% Change Housing Index	1.198* (0.123)	1.185 (0.122)	1.167 (0.121)	1.143 (0.119)
% Change Unemployment	0.647*** (0.075)	0.649*** (0.075)	0.649*** (0.075)	0.687*** (0.080)
% Change Capital Gains	1.029 (0.019)	1.029 (0.019)	1.029 (0.019)	1.037* (0.019)
Lender-to-population Ratio	1.014 (0.062)	1.031 (0.061)	0.991 (0.063)	0.961 (0.065)
Log(Population Density)	0.988 (0.010)	0.987 (0.011)	0.990 (0.010)	1.023*** (0.006)
Loan Amount, thousand \$	1.001 (0.001)	1.001 (0.001)	1.001 (0.001)	1.001 (0.001)
Interest Rate, %	1.019*** (0.006)	1.019*** (0.006)	1.019*** (0.006)	1.019*** (0.006)
Income / Cost of Living	1.009*** (0.003)	1.009*** (0.003)	1.009*** (0.003)	1.009** (0.003)
Debt-to-Income Ratio	0.243*** (0.026)	0.244*** (0.026)	0.244*** (0.026)	0.239*** (0.025)
Homeownership Status (1/0)	1.157*** (0.017)	1.158*** (0.017)	1.158*** (0.017)	1.158*** (0.017)
Bankcard Utilization	0.689*** (0.018)	0.689*** (0.018)	0.690*** (0.018)	0.691*** (0.018)
Current Credit Lines	1.006*** (0.002)	1.006*** (0.002)	1.006*** (0.002)	1.006*** (0.002)
Delinquencies	0.965*** (0.009)	0.965*** (0.009)	0.965*** (0.009)	0.965*** (0.009)
Credit Inquiries	1.072*** (0.007)	1.072*** (0.007)	1.073*** (0.007)	1.074*** (0.007)
Years Employed	0.998 (0.002)	0.998 (0.002)	0.998 (0.002)	0.998 (0.002)
Public Records	1.040*** (0.015)	1.040*** (0.015)	1.040*** (0.015)	1.041*** (0.015)
Revolving Balance, thousand \$	0.997*** (0.001)	0.997*** (0.001)	0.997*** (0.001)	0.997*** (0.001)
Credit grade fixed effects	Yes	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes	Yes
Num. obs.	165,780	165,780	165,780	165,780

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table A9. Local Market Competition and Early Payoff (Prosper Dataset)

DV: Early payoff (1/0)	(1)	(2)	(3)	(4)
log(# Local lending institutions)	0.030*** (0.011)			
log(# FDIC insured bank branches)		0.031*** (0.011)		
log(Total deposits in FDIC insured banks)			0.020*** (0.007)	
HHI				-0.337*** (0.122)
Business Degree (%)	-0.002 (0.003)	-0.002 (0.003)	-0.001 (0.003)	0.005 (0.003)
Poverty (%)	0.002 (0.005)	0.002 (0.005)	0.001 (0.005)	-0.015** (0.007)
Race: Black	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
Origin: Hispanic	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.002 (0.001)
% Change Housing Index	-0.002 (0.122)	-0.009 (0.122)	-0.009 (0.122)	-0.008 (0.122)
% Change Unemployment	0.222 (0.141)	0.223 (0.141)	0.225 (0.141)	0.303** (0.146)
% Change Capital Gains	0.008 (0.021)	0.008 (0.021)	0.008 (0.021)	0.014 (0.021)
Lender-to-population Ratio	0.154* (0.079)	0.159** (0.079)	0.149* (0.079)	0.198** (0.077)
Log(Population Density)	-0.006*** (0.002)	-0.006*** (0.002)	-0.006*** (0.002)	-0.006*** (0.002)
Loan Amount, thousand \$	0.041*** (0.005)	0.041*** (0.005)	0.041*** (0.005)	0.041*** (0.005)
Interest Rate, %	0.003** (0.001)	0.003** (0.001)	0.003** (0.001)	0.002* (0.001)
Income / Cost of Living	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Debt-to-Income Ratio	0.041** (0.017)	0.041** (0.017)	0.042** (0.017)	0.039** (0.017)
Homeownership Status (1/0)	-5.064* (2.907)	-5.049* (2.907)	-5.026* (2.907)	-4.789* (2.895)
Bankcard Utilization	-0.004*** (0.002)	-0.004*** (0.002)	-0.004*** (0.002)	-0.004*** (0.002)
Current Credit Lines	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Delinquencies	0.046*** (0.006)	0.046*** (0.006)	0.046*** (0.006)	0.047*** (0.006)
Credit Inquiries	-0.002** (0.001)	-0.002** (0.001)	-0.002** (0.001)	-0.002** (0.001)
Years Employed	0.020* (0.011)	0.020* (0.011)	0.020* (0.011)	0.021** (0.010)
Public Records	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)	-0.001** (0.000)
Revolving Balance, thousand \$	-0.002 (0.003)	-0.002 (0.003)	-0.001 (0.003)	0.005 (0.003)
Credit grade fixed effects	Yes	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes	Yes
Num. obs.	35,885	35,885	35,885	35,885

* $p < 0.1$; ** $p < 0.5$; *** $p < 0.01$.

Table A10. Local Market Competition and Early Payoff (Alternative Definition of Early Payoff / Employees instead of Institutions)

Robustness check:	Alternative Definition of Early Payoff			Employees
	(1)	(2)	(3)	(4)
DV: Paid off Early: (first month paid off early) [last payment % of loan amount]	Paid off Early (3)[35%]	Paid off Early (6)[45%]	Paid off Early (6)[45%]	Paid off Early (6)[45%]
log(# Local lending institutions)	0.029*** (0.009)	0.032*** (0.009)	0.029*** (0.009)	0.023*** (0.007)
log(# employees at local lending inst.)	0.001 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Business Degree (%)	0.001 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Poverty (%)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.001 (0.001)
Race: Black	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Origin: Hispanic	0.082 (0.057)	0.089 (0.059)	0.079 (0.059)	0.100* (0.058)
% Change Housing Index	-0.284*** (0.064)	-0.244*** (0.065)	-0.249*** (0.066)	-0.248*** (0.065)
% Change Unemployment	0.010 (0.010)	0.016 (0.010)	0.018* (0.010)	0.016 (0.010)
% Change Capital Gains	0.033 (0.034)	0.010 (0.035)	0.014 (0.035)	0.002 (0.036)
Lender-to-population Ratio	-0.006 (0.006)	-0.009 (0.006)	-0.008 (0.006)	-0.007 (0.006)
Log(Population Density)	-0.000 (0.001)	0.001* (0.001)	0.001* (0.001)	0.001 (0.001)
Loan Amount, thousand \$	0.015*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.010*** (0.003)
Interest Rate, %	0.005** (0.002)	0.004** (0.002)	0.004** (0.002)	0.004** (0.002)
Income / Cost of Living	-0.945*** (0.060)	-0.794*** (0.058)	-0.755*** (0.058)	-0.821*** (0.058)
Debt-to-Income Ratio	0.090*** (0.008)	0.084*** (0.008)	0.086*** (0.008)	0.083*** (0.008)
Homeownership Status (1/0)	-0.242*** (0.014)	-0.206*** (0.015)	-0.202*** (0.015)	-0.212*** (0.015)
Bankcard Utilization	0.004*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
Current Credit Lines	-0.024*** (0.005)	-0.019*** (0.005)	-0.018*** (0.005)	-0.019*** (0.005)
Delinquencies	0.044*** (0.004)	0.040*** (0.004)	0.040*** (0.004)	0.041*** (0.004)
Credit Inquiries	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.001 (0.001)
Years Employed	0.015** (0.007)	0.024*** (0.008)	0.023*** (0.008)	0.024*** (0.008)
Public Records	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Revolving Balance, thousand \$	0.001 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Credit grade fixed effects	Yes	Yes	Yes	Yes
Loan category fixed effects	Yes	Yes	Yes	Yes
State-by-year fixed effects	Yes	Yes	Yes	Yes
Num. obs.	165,780	165,780	165,780	165,780

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Appendix A3. Additional Tables

In this appendix, we report additional tables not included in the paper.

Table A11. A Summary of All Empirical Findings

Category	Section / Table	Test	Summary of results
Main Results	Section 5.1.1 / Table 2	Instrumental variable methods	- Instrument county level deposit prediction exploiting exogeneity of geographic distance of main branch and inter-state banking regulation. Results indicate that borrowers from more competitive markets are more likely to pay off their loans.
	Section 5.2 / Tables 4 & 5	CEM Matching	- Match borrowers and replicate analysis. Results are consistent.
	Section 5.1.3/ Table 2	Leveraging Dodd-Frank Supervisory Stress Test Regulation Changes	Exploit exogenous shocks to local bank lending attributed to regulatory changes in Stress Testing Criteria. Results are consistent.
Supplementary Analysis: Placebo Test	Section 5.2.1/Appendix	Borrowers that pay on time without large one-time payment	- Borrowers that pay on time but don't use large one-time payments (they make incremental payments) are not impacted by local lending institutions.
Mechanisms	Section 5.3.1 / Table 3	Interest Rate Changes	- Use platform assigned interest rate changes and identify that, otherwise similar borrowers, with higher interest rate are more likely to payoff loan early if they are from a more competitive market.
	Section 5.3.2 / Table 3	Moderating role of FICO score improvements	- A borrower who is from a more competitive market and has an improvement in her FICO score is even more likely to pay off her P2P debt early if she has a relatively lower FICO score to start with.
	Section 5.3.3 / Tables 4 & 5	Repeat borrowers	- A repeat borrower who is from a more competitive market and has paid off her first P2P loan has a higher usage of the local market at the time of the second loan request.
	Section 5.4 / Table 6	Small Business Lending	- Using a panel of state/year level observations, we identify that when states increase CRA lending, P2P borrowers' payoff rates increase.
	Appendix	Logit regressions	- Results are consistent.
Robustness	Appendix	Prosper data	- Results are consistent.
	Appendix	Different definitions of early payoff	- Results are consistent.
	Appendix	An additional market competition measure	- Results are consistent.

Table A12. The Moderating Role of FICO Score Improvements (Alternative Threshold)

DV: Early payoff (1/0)	(1) Initial FICO score \leq 680	(2) Initial FICO score $>$ 680
log(# Local lending institutions)	0.033***	0.007
* 1(FICO increase)	(0.012)	(0.011)
log(# Local lending institutions)	0.007	0.038***
	(0.015)	(0.006)
1(FICO increase)	0.137**	0.120*
	(0.068)	(0.058)
Demographics	Yes	Yes
Economic conditions	Yes	Yes
Loan characteristics	Yes	Yes
Credit grade fixed effects	Yes	Yes
Loan category fixed effects	Yes	Yes
State-by-year fixed effects	Yes	Yes
Num. obs.	63,294	102,468

* $p < 0.1$; ** $p < 0.5$; *** $p < 0.01$.

Table A13. CEM Balance Metrics

	Full Sample Means		Matched Sample Means	
	<i>Low Market Competition</i>	<i>High Market Competition</i>	<i>Low Market Competition</i>	<i>High Market Competition</i>
% Borrowers Grade = A	18.80	19.22	19.50	19.50
% Borrowers Grade = D	13.40	13.96	12.52	12.52
Loan Amount, thousand \$	12.77	12.95	12.25	12.26
Interest Rate, %	13.27	13.28	12.92	12.92
Debt-to-income Ratio	17.17	15.75	16.26	16.24
Income/Cost of Living	6.65	5.58	5.98	5.93
% Own Home	0.65	0.47	0.57	0.57
Num. obs.	82,778	83,002	50,533	50,533

Note: This table presents the balance metrics for the full sample and the CEM sample.

Table A14. Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Paid off Early (1/0)	1													
2 # of Lending Institutions	0.01	1												
3 Business Degree	0	0.3	1											
4 Poverty	-0.01	-0.01	-0.23	1										
5 Race: Black	-0.01	0.19	0.15	0.47	1									
6 Origin: Hispanic	0.01	0.39	0.16	0.23	-0.06	1								
7 % Change Housing Index	0.02	0.32	0.07	-0.02	-0.1	0.36	1							
8 % Change Unemployment	-0.02	-0.13	-0.06	0.05	0.12	-0.07	-0.33	1						
9 % Change Capital Gains	0	-0.06	-0.04	-0.03	0.01	-0.07	-0.14	0.12	1					
10 Lender-to-population Ratio	0	-0.16	-0.11	-0.16	-0.1	-0.44	-0.27	0.14	-0.05	1				
11 Loan Amount, thousand \$	0.01	0.02	0.02	-0.05	-0.01	0	0.02	0	-0.01	0.02	1			
12 Interest Rate, %	0	0	0.01	0.01	0.02	0.02	0.04	-0.02	-0.03	-0.02	0.04	1		
13 Income / Cost of Living	0.02	-0.12	0.04	0	-0.02	-0.1	-0.08	0.04	-0.02	0.09	0.33	-0.06	1	
14 Debt-to-Income Ratio	-0.04	-0.11	0.02	0.01	-0.03	-0.05	-0.02	-0.01	-0.04	0.02	0.03	0.13	-0.12	1
15 Homeownership Status (1/0)	0.02	-0.22	0.08	-0.04	-0.05	-0.14	-0.1	0.04	-0.01	0.06	0.16	-0.12	0.25	0.02
16 Bankcard Utilization	-0.02	-0.03	-0.01	0.01	-0.01	-0.01	0.23	-0.21	-0.2	0	0.04	0.31	0.01	0.22
17 Current Credit Lines	0.01	0.01	0.04	-0.01	0.03	0	0.01	-0.04	-0.03	0	0.18	-0.01	0.15	0.3
18 Delinquencies	0	0	0.01	0	0.01	0	0.01	-0.03	-0.01	-0.01	0	0.09	0.05	0
19 Credit Inquiries	0.04	-0.01	0.04	-0.01	-0.01	-0.01	-0.03	0.01	0.01	0.01	0	0.23	0.08	0.01
20 Years Employed	0	-0.07	0	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	0.12	-0.01	0.12	0.03
21 Public Records	0.02	-0.03	0	0	-0.01	-0.04	-0.01	-0.07	-0.01	0	-0.07	0.07	-0.01	-0.04
22 Revolving Balance, thousand \$	-0.01	0.03	0.01	-0.05	-0.01	-0.02	0.01	-0.01	-0.02	0.03	0.36	-0.03	0.29	0.16

Correlation Matrix (Continued)

Variables	15	16	17	18	19	20	21	22
15 Homeownership Status (1/0)	1							
16 Bankcard Utilization	-0.01	1						
17 Current Credit Lines	0.13	0.02	1					
18 Delinquencies	0.05	0.02	0.06	1				
19 Credit Inquiries	0.08	-0.06	0.11	0.03	1			
20 Years Employed	0.19	0.05	0.06	0.03	0	1		
21 Public Records	0	0.02	-0.03	-0.01	0.02	0.02	1	
22 Revolving Balance, thousand \$	0.17	0.12	0.23	-0.03	-0.01	0.11	-0.09	1