ONLINE APPENDIX TO

Bridging the gap: the design of bank loan contracts and distance

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There are three sections in this Online Appendix. Section 1 reports on the determinants of lender-borrower distance. Section 2 reports on and tabulates several robustness tests for the results reported in the main body of the paper. Section 3 relates our paper to Engelberg, J., Gao, P., Parsons, C., 2012. Friends with Money. Journal of Financial Economics 103, 169–188.

SECTION 1

Table OA.1
Determinants of distance to lender.

This table reports estimates from regressions of *Ln(Distance to lender)* as the dependent variable. We obtain our information on contract terms, lead arrangers, and participant lenders from DealScan, and our accounting and borrower characteristics from Compustat and CRSP. The sample contains loans with covenant information that were issued by U.S. commercial banks between 2005 and 2008. Compustat-based and CRSP-based variables are winsorized at both tails using 1% cutoff values. All variables are defined in Table 1 (in the paper). The models are described as follows: 1–2. "Big Three" (BIG3) banks. Sample of loans with J.P. Morgan Chase, Bank of America, or Citigroup as lead arranger. 3–4. Other banks. Loans from the non-BIG3. 5–6. All. *City* (*State*) are indicator variables for each borrower city (state). All regressions include an intercept. Standard errors, which are reported in parentheses below the coefficient estimates, are corrected for heteroskedasticity and simultaneous facility-level and borrower-level clustering (Petersen, 2009). We use ***, **, and * to denote that the coefficient estimate is different from zero at the 1%, 5%, and 10% levels (two-tailed), respectively.

		BIG3		Other banks		All	
Variable categories	Independent variables	(1)	(2)	(3)	(4)	(5)	(6)
Borrower location	Included dummies	City *** State ***		City *** State ***		City *** State ***	
Borrower characteristics	Ln(Firm size)		0.0301		0.1242 ***		0.0885 ***
			(0.045)		(0.036)		(0.034)
	Ln(1 + Firm age)		−0.0723		−0.1642 ***		−0.1150 ***
			(0.052)		(0.052)		(0.040)
	Leverage		−0.3100		0.5423 **		0.1342
			(0.307)		(0.236)		(0.221)
	Ln(1 + Lending frequency)		−0.0268		0.0747		0.0184
			(0.078)		(0.063)		(0.056)
	Loss		0.1432		0.2958 ***		0.2055 *
			(0.175)		(0.110)		(0.109)

Table OA.1 (*continued*)

Variable categories	Independent variables	BIG3 (1)	BIG3 (2)	Other banks (3)	Other banks (4)	All (5)	All (6)
	Ln(1 + St.dev. returns)		−2.8909		9.4442 *		3.5966
			(6.971)		(5.086)		(4.785)
	Book-to-market		0.0662		−0.0267		0.0204
			(0.118)		(0.088)		(0.081)
	D_R		−0.2840		0.0354		−0.1081
			(0.322)		(0.285)		(0.235)
	$D_R \cdot$ Rating		0.0324		−0.0008		0.0132
			(0.026)		(0.024)		(0.019)
	Reputed auditor		0.2394		−0.0357		0.0683
			(0.239)		(0.100)		(0.128)
	Included dummies		Industry **		Industry *		Industry *
	Number of observations	4,002	4,069	4,406	4,406	8,408	8,408
	R-squared	71%	9%	37%	10%	41%	7%

Consistent with our reasoning in the paper that lender-borrower distance is mainly a function of borrower location, we find that, except for some industry dummies, none of the borrower characteristics load significantly for the sample of loans with J.P. Morgan Chase, Bank of America, or Citigroup—the “Big Three” (BIG3)—as lead arranger (column 2). Regressions with only borrower city and state indicator variables, however, show high explanatory power; with *R*-squareds ranging from 37% for loans from other banks (i.e., the non-BIG3; column 3) to 71% for loans from the BIG3 (column 1).

SECTION 2

Table OA.2

The "Big Three": J.P. Morgan Chase, Citigroup, and Bank of America.

This table presents estimates from ordered logistic regressions of *Covenant intensity* on *Ln(Distance to lender)*, run separately for loans with J.P. Morgan Chase (column 1), Bank of America (column 2), or Citigroup (column 3) as the lead arranger. We obtain our information on contract terms, lead arrangers, and participant lenders from DealScan, and our accounting and borrower characteristics from Compustat and CRSP. The sample contains loans with covenant information that were issued by U.S. commercial banks between 2005 and 2008. Compustat-based and CRSP-based variables are winsorized at both tails using 1% cutoff values. All variables are defined in Table 1 (in the paper). Standard errors, which are reported in parentheses below the coefficient estimates, are corrected for heteroskedasticity and simultaneous facility-level and borrower-level clustering (Petersen, 2009). We include intercepts, lender state indicators, year indicators, and industry indicators in all the regressions. We use ***, **, and * to denote that the coefficient estimate is different from zero at the 1%, 5%, and 10% levels (two-tailed), respectively.

	J.P. Morgan Chase	Bank of America	Citigroup
	(1)	(2)	(3)
Ln(Distance to lender)	0.1216 **	0.2532 ***	0.0767 **
	(0.056)	(0.076)	(0.036)
Ln(Distance to closest participant)	0.0203	−0.0003	0.0258
	(0.040)	(0.032)	(0.031)
Ln(Count lenders in syndicate)	0.0281	0.0758	−0.1185
	(0.122)	(0.119)	(0.089)
Ln(Loan size)	0.0140	0.0046	0.0299
	(0.078)	(0.072)	(0.058)
Secured loan	0.7796 ***	0.6880 ***	0.6176 ***
	(0.168)	(0.165)	(0.143)
Ln(Loan maturity)	−0.0725	−0.0938	0.0032
	(0.126)	(0.121)	(0.088)
Revolver loan	−0.4977 ***	−0.5351 ***	−0.2341 ***
	(0.106)	(0.092)	(0.090)
Ln(Loan spread)	1.1866 ***	1.3679 ***	0.6055 ***
	(0.178)	(0.166)	(0.140)
Ln(Firm size)	−0.3587 ***	−0.4372 ***	−0.2052 ***
	(0.096)	(0.086)	(0.067)
Ln(1 + Firm age)	0.0713	0.0091	−0.0199
	(0.103)	(0.084)	(0.068)
Leverage	0.5132	0.7006	0.2573
	(0.556)	(0.448)	(0.420)

Table OA.2 (*continued*)

	J.P. Morgan Chase	Bank of America	Citigroup
	(1)	(2)	(3)
Ln(1 + Lending frequency)	0.0416	0.1363	−0.0166
	(0.132)	(0.119)	(0.092)
Loss	−0.1558	−0.5494 *	0.0192
	(0.287)	(0.269)	(0.204)
Ln(1 + St.dev. returns)	−33.745 ***	−17.628	−10.2457
	(12.788)	(12.056)	(11.987)
Book-to-market	−0.2260	−0.2161	−0.5107 **
	(0.269)	(0.134)	(0.232)
D_R	−0.9011	−0.7834	−0.2303
	(0.607)	(0.539)	(0.458)
$D_R \cdot$ Rating	0.0910 *	0.0888 *	0.0110
	(0.053)	(0.047)	(0.039)
Reputed auditor	0.4337	0.1963	0.2796
	(0.370)	(0.242)	(0.267)
Number of observations	1,498	1,689	815
Pseudo R-squared	14%	15%	16%

The results are similar to those contained in Table 2 in the paper; the “Big Three” banks (i.e., J.P. Morgan Chase, Citigroup, and Bank of America) show similar reliance on protective covenants when dealing with a remote borrower.

Table OA.3
Potential endogeneity of distance: Instrumental variable approach.

This table presents second-stage estimates from a 2SLS IV regression of *Covenant intensity* on *Ln(Distance to lender)*—using industry-level and state-level medians of logged lender-borrower distance, characterizing the borrower's industry and regional environment, respectively—as instruments. We obtain our information on contract terms, lead arrangers, and participant lenders from DealScan, and our accounting and borrower characteristics from Compustat and CRSP. The sample contains loans with covenant information that were issued by U.S. commercial banks between 2005 and 2008. Compustat-based and CRSP-based variables are winsorized at both tails using 1% cutoff values. All variables are defined in Table 1 (in the paper). We include an intercept, lender state indicators, year indicators, and industry indicators in the regression. We use ***, **, and * to denote that the coefficient estimate is different from zero at the 1%, 5%, and 10% levels (two-tailed), respectively.

Variable categories	Independent variables	
Distance	Ln(Distance to lender)	0.1196 ***
		(0.040)
	Ln(Distance to closest participant)	0.0411 **
		(0.016)
Lender characteristics	Ln(Count lenders in syndicate)	0.1426 ***
		(0.051)
	Reputed bank	−0.1253 ***
		(0.029)
Loan characteristics	Ln(Loan size)	0.0040
		(0.042)
	Secured loan	0.6337 ***
		(0.080)
	Ln(Loan maturity)	−0.0418
		(0.060)
	Revolver loan	−0.5387 ***
		(0.069)
	Ln(Loan spread)	0.8569 ***
		(0.072)
Borrower characteristics	Ln(Firm size)	−0.2690 ***
		(0.040)
	Ln(1 + Firm age)	−0.0451
		(0.037)
	Leverage	0.6473 ***
		(0.181)
	Ln(1 + Lending frequency)	0.0077
		(0.055)
	Loss	−0.1786 *
		(0.105)

Table OA.3 (*continued*)

Variable categories	Independent variables	
Borrower characteristics (C'd)	Ln(1 + St.dev. returns)	−14.723 ***
		(4.701)
	Book-to-market	−0.2338 ***
		(0.070)
	D_R	−0.2097
		(0.258)
	$D_R \cdot$ Rating	0.0210
		(0.021)
	Reputed auditor	0.1382
		(0.101)
	Number of observations	8,408
	Number of facilities	3,112
	Number of companies	1,562
	R-squared	40%

As we argue in the paper, and supported by the results reported in Table OA.1, due to the landscape of the U.S. market for syndicated loans, lender-borrower distance is mainly a function of borrower location. To formally test whether there is endogenous lender-borrower matching in the data, following Knyazeva and Knyazeva (2012), we use characteristics of the borrower's regional and industry environment—captured by industry-level and state-level medians of logged lender-borrower distance, respectively—as instruments.

As we discuss in the paper, the first-stage results and diagnostics support our choice of instruments. Specifically, in untabulated analysis, we find a first-stage partial *R*-squared of 27% and a first-stage partial *F*-statistic of 859.09 ($p < 0.01$). Further, both instruments pass the Hansen *J*-test for overidentifying restrictions; the null hypothesis of exogeneity cannot be rejected (*J*-statistic = 0.12). A Durbin-Wu-Hausman test, however, cannot reject the null of exogeneity. This is evidence that *Ln(Distance to lender)* is not endogenous.

The results from the second-stage 2SLS IV regression, reported in Table OA.3, are similar to those reported in Table 2 in the paper.

Table OA.4
Potential endogeneity of distance: Repeating lending experiences.

Standard errors, which are reported in parentheses below the coefficient estimates, are corrected for heteroskedasticity and borrower-level clustering. We include intercepts and lagged dependent variables in all the regressions. We use ***, **, and * to denote that the coefficient estimate is different from zero at the 1%, 5%, and 10% levels (two-tailed), respectively.

Model	$Distance^C$	$Secured^C$	$Revolver^C$	Loan $size^C$	Loan $spread^C$	Firm $size^C$	$Loss^C$	N	Pseudo R^2
(1)	0.7075*	1.8718***	0.0919	−0.7635	2.9223*	10.434**	1.2195	347	20%
	(0.372)	(0.617)	(0.549)	(3.980)	(1.695)	(4.931)	(0.770)		
(2)	0.9150**	1.8071***	0.1613	0.1442	3.5214**	9.7300*	1.3629*	347	21%
	(0.412)	(0.659)	(0.553)	(3.801)	(1.688)	(5.077)	(0.771)		

As an alternative to using instrumental variables, we examine a borrower's repeated lending experiences with different compositions of the syndicate (i.e., varying syndicate structure) over time. Given the time between successive tranches (the sample median is only 172 days), this changes approach not only accounts for omitted time-invariant factors, it also accounts for omitted low time-varying factors (e.g., credit ratings).[1] This is an important advantage of this approach. For sample firms that repeatedly accessed the market between 2005 and 2008, we first aggregate loans with multiple lead arrangers into one observation (by calculating the average distance between the borrower and the lead banks which hold the largest fraction of the loan; Ivashina, 2009), and then compute changes in contract characteristics across two successive tranches. Specifically, we estimate the following ordinal logistic model

[1] In about one-fourth of our repeated lending experiences, credit ratings are available. In all cases, credit ratings did not change between tranches (untabulated).

$$Prob.\left(Covenant\ intensity_{i,t}^{C}\right) = F(\alpha' Distance\ to\ lender_{i,t}^{C} + \beta' Z_{i,t}^{C} + \gamma' Covenant\ intensity_{i,t-1} + \mu_{i,t}) \quad \text{(A1)}$$

where $F(\cdot) = e(\cdot)/\left(1 + e(\cdot)\right)$, wherein the dependent variable, $Covenant\ intensity_{i,t}^{C}$, is set to one in cases where the number of covenants increased between two consecutive tranches *j* and *k* of firm *i*, and zero otherwise. Similarly, $Distance\ to\ lender_{i,t}^{C}$ is an indicator variable set to one in cases where the average borrower-lender distance increased between two consecutive tranches *j* and *k* of firm *i*, and zero otherwise. $Z_{i,t}^{C}$ is a vector including the following control variables: $Secured_{i,t}^{C}$, a dummy variable set to one if, unlike its loan tranche *j*, firm *i*'s next tranche *k* is secured, and zero otherwise; $Revolver_{i,t}^{C}$, a dummy variable set to one if, unlike its loan tranche *j*, firm *i*'s next tranche *k* does contain revolving facilities, and zero otherwise; and $Loss_{i,t}^{C}$, a dummy variable set to one if, unlike its loan tranche *j*, firm *i*'s next tranche *k* is negotiated when the borrowing firm reports an accounting loss, and zero otherwise. Further, we include $Loan\ size_{i,t}^{C}$, measured as the relative change in loan amount between tranches *j* and *k* of firm *i*; $Loan\ spread_{i,t}^{C}$, measured as the relative change in the all-in spread drawn between loan tranches *j* and *k* of firm *i*; and $Firm\ size_{i,t}^{C}$, measured as the relative change in the size of firm *i* between tranches *j* and *k*. Finally, we include the lagged dependent variable, $Covenant\ intensity_{i,t-1}$, as an additional control variable.

Table OA.4 presents the results. Consistent with our primary tests, reported in the paper, the coefficient on $Distance\ to\ lender_{i}^{C}$ is significantly positive (Model 1; *p* = 0.06, two-sided). We obtain similar results if we replace $Distance\ to\ lender_{i}^{C}$ by $Distance\ to\ closest\ participant_{i}^{C}$ (Model 2).

While the evidence supports our predictions, we caution the reader that the reduced sample used to estimate Eq. (A1) differs from our main sample in at least one important respect, namely, the lending frequency is higher. This difference may be either demand driven (e.g., high growth firms having greater financing needs) or supply driven (e.g., riskier borrowers requiring more tranching loans; Maskara, 2010). These factors may interfere with our analysis.

Table OA.5

Simultaneity of loan terms: Simultaneous equations analysis.

Standard errors are obtained using the 3SLS option provided under Stata's REG3 procedure. We obtain our information on contract terms, lead arrangers, and participant lenders from DealScan, and our accounting and borrower characteristics from Compustat and CRSP. The sample contains loans with covenant information that were issued by U.S. commercial banks between 2005 and 2008. Compustat-based and CRSP-based variables are winsorized at both tails using 1% cutoff values. All variables are defined in Table 1 (in the paper). We include an intercept, lender state indicators, year indicators, and industry indicators in the regression. We use ***, **, and * to denote that the coefficient estimate is different from zero at the 1%, 5%, and 10% levels (two-tailed), respectively.

Variable categories	Independent variables	
Distance	Ln(Distance to lender)	0.0591 ***
		(0.013)
	Ln(Distance to closest participant)	0.0350 ***
		(0.012)
Lender characteristics	Ln(Count lenders in syndicate)	−0.1226
		(0.118)
	Reputed bank	−0.0278
		(0.052)
Loan characteristics	Ln(Loan size)	0.0593
		(0.040)
	Secured loan	0.2330
		(0.879)
	Ln(Loan maturity)	1.7605 ***
		(0.631)
	Revolver loan	−0.3250 ***
		(0.107)
	Ln(Loan spread)	0.9687 **
		(0.439)
Borrower characteristics	Ln(Firm size)	−0.1548 ***
		(0.043)
	Ln(1 + Firm age)	0.0131
		(0.028)

Table OA.5 (*continued*)

Variable categories	Independent variables	
Borrower characteristics (C'd)	Leverage	0.1934
		(0.130)
	Ln(1 + Lending frequency)	0.0543
		(0.082)
	Loss	0.1537 **
		(0.076)
	Ln(1 + St.dev. returns)	8.8585 *
		(5.062)
	Book-to-market	−0.1253
		(0.100)
	D_R	−1.0052 **
		(0.484)
	$D_R \cdot$ Rating	0.0944 **
		(0.042)
	Reputed auditor	0.0590
		(0.087)
	Number of observations	2,986
	Number of facilities	1,340
	Number of companies	689
	R-squared	25%

We estimate the following simultaneous equations model,

$$\begin{aligned} \textit{Covenant intensity}_i = {} & \beta_0 + \beta_1 \textit{Ln(Distance to lender}_i) + \beta_2 \textit{Ln(Loan spread}_i) + \\ & \beta_3 \textit{Ln(Loan maturity}_i) + \beta_4 \textit{Secured loan}_i + \text{Controls} + \varepsilon_{[A2]} \end{aligned} \quad \text{(A2)}$$

$$\begin{aligned} \textit{Ln(Loan spread}_i) = {} & \gamma_0 + \gamma_1 \textit{Covenant intensity}_i + \gamma_2 \textit{Ln(Loan maturity}_i) + \\ & \gamma_3 \textit{Secured loan}_i + \text{Average spread} + \text{Default spread} + \varepsilon_{[A3]} \end{aligned} \quad \text{(A3)}$$

utilizing a set of instrumental variables drawn from Bharath, Dahiya, Saunders, and Srinivasan (2011). Specifically, we instrument for loan spread, using *Average spread* and *Default spread* as instrumental variables. *Average spread* is the average spread of loans completed over the previous three months. *Default spread* is measured as the difference between the yields on

Moody's seasoned corporate bonds with Baa rating and ten-year U.S. government bonds.

$$Ln(Loan\ maturity_i) = \delta_0 + \delta_1\ Covenant\ intensity_i + \delta_2\ Ln(Loan\ spread_i) + \delta_3\ Secured\ loan_i + \text{Average maturity} + \text{Maturity(t-1)} + \varepsilon_{[A4]} \quad \text{(A4)}$$

We instrument for loan maturity, using *Average maturity* and firm *i*'s lagged *Maturity* as instrumental variables. *Average maturity* is the average maturity of new loans across all banks over the previous three months.

$$Secured\ loan_i = \lambda_0 + \lambda_1\ Covenant\ intensity_i + \lambda_2\ Ln(Loan\ spread_i) + \lambda_3\ Ln(Loan\ maturity_i) + \text{Loan concentration} + \text{Industry tangibility} + \varepsilon_{[A5]} \quad \text{(A5)}$$

Finally, we instrument for securitization, using *Loan concentration* and *Industry tangibility* as instrumental variables. *Loan concentration* is the ratio of the loan amount to the sum of existing debt and the amount of loan. *Industry tangibility* is the median industry (four-digit SIC) ratio of property, plant, and equipment (PPE) to total assets.

Table OA.5 reports the results. Our inferences remain unchanged.

Table OA.6

"Oil team"- and regional office-borrower distance.

This table presents estimates from ordered logistic regressions of *Covenant intensity* on *Ln(Distance to lender)*. The models are described as follows: 1. Oil and gas extraction. This sample includes loans to firms in the oil and gas extraction industry (SIC codes 13 and 21) with J.P. Morgan Chase, Bank of America, or Citigroup as the lead arranger. Large banks frequently have an "oil team" that deals with the entire array of bank products offered to the oil and gas extraction industry. We use Houston, Texas city center as a proxy for the location of an "oil team." We allow for separate slope coefficients on our distance measure depending on whether an "oil team" is available within 100 miles from the borrower's headquarters, or not. 2. Bank of America (BofA) regional office. This sample includes loans with Bank of America as the lead arranger. We obtain regional office locations from corp.bankofamerica.com/business/bi/us-canada. We allow for separate slope coefficients on our distance measure depending on whether a regional office is available within 100 miles from the borrower's headquarters, or not. The analysis evaluates syndicated loans. We obtain our information on contract terms, lead arrangers, and participant lenders from DealScan, and our accounting and borrower characteristics from Compustat and CRSP. Compustat-based and CRSP-based variables are winsorized at both tails using 1% cutoff values. All variables are defined in Table 1 (*continued on next page*)

Table OA.6 (*continued*)

(*continued from previous page*) in the paper. Standard errors, which are reported in parentheses below the coefficient estimates, are corrected for heteroskedasticity, and simultaneous facility-level and borrower-level clustering. We include intercepts, year indicators, and industry indicators in all the regressions. We use ***, **, and * to denote that the coefficient estimate is different from zero at the 1%, 5%, and 10% levels (two-tailed), respectively.

		Oil and gas extraction	BofA regional office
		(1)	(2)
Test variables:			
Model 1	Ln(Distance to lender)$^{OT<100}$	0.5362 *	
		(0.282)	
	Ln(Distance to lender)$^{OT\geq100}$	0.5558 *	
		(0.289)	
Model 2	Ln(Distance to lender)$^{RO<100}$		0.2357 ***
			(0.076)
	Ln(Distance to lender)$^{RO\geq100}$		0.2718 ***
			(0.075)
Coefficient equality tests:			
Model 1:	Ln(Distance to lender)$^{OT<100}$ = Ln(Distance to lender)$^{OT\geq100}$: χ^2 = 0.08		
Model 2:	Ln(Distance to lender)$^{RO<100}$ = Ln(Distance to lender)$^{RO\geq100}$: χ^2 = 2.90*		
Control variables:		Included	Included
Number of observations		332	1,689
Pseudo *R*-squared		23%	15%

One limitation of our analysis is that banks have at least three ways that they can organize their activities: location, product, and customer. Large banks, for example, frequently have an "oil team" that deals with the entire array of bank products offered to the oil and gas extraction industry (Brickley, Linck, and Smith, 2003).[2] While we control for industry-related demand for and supply of products and banking services in our regressions, by including industry-fixed

[2] We are grateful to the referee for alerting us to this.

effects, this potentially lowers the power of our tests. To shed some light on this issue, we perform three sensitivity analyses.

First, we assess the impact of including firms from the oil and gas extraction industry (SIC codes 13 and 21) in our sample on our results. We find that 99 out of 1,562 firms (6%) in our sample are oil and gas firms, and 55 of them are headquartered in the state of Texas, and 35 in Houston, Texas. Most of these firms (73%) have J.P. Morgan Chase, Bank of America, or Citigroup as their lead arranger. We re-run Eq. (1) this time excluding observations from the oil and gas industry. Untabulated results confirm that the inferences remain the same.

Second, we estimate Eq. (1) using a subsample of loans to firms from the oil and gas extraction industry, with J.P. Morgan Chase, Bank of America, or Citigroup—the three largest banks, in terms of the U.S. lending volume on a lead-arranged basis, with incentives to establish an "oil team"—as the lead arranger. We use Houston, Texas city center as a proxy for the location of an "oil team." We allow for separate slope coefficients on our distance measure depending on whether an "oil team" (OT) is available within 100 miles from the borrower's headquarters, or not. (Our results are robust to alternative cut-offs.) Table OA.6, column 1 reports the results. The coefficients on $\mathit{Ln(Distance\ to\ lender)}^{OT<100}$ and $\mathit{Ln(Distance\ to\ lender)}^{OT\geq 100}$ are positive and significant at $p < 0.06$ (two-tailed; one-tailed p-value of 0.03) or better. We attribute the lower p-values partly to the lower statistical power with 332 observations. A formal test shows that the null hypothesis of coefficient equality cannot be rejected at conventional levels of significance. This suggests that (for the subsample of loans to firms from the oil and gas extraction industry) the distance effect documented in the paper is not correlated with the presence of an "oil team" nearby.

Third, in addition to city-based branch offices or "oil teams," large banks extend their activities through regional offices. Regional office locations are made available only on Bank of America's website: corp.bankofamerica.com/business/bi/us-canada. Therefore, Table OA.6, column 2 reports the results on the impact of regional office-borrower distance on our findings for the sample of loans with Bank of America as lead arranger. Specifically, we allow for separate slope coefficients on our distance measure depending on whether a regional office (RO) is available within 100 miles (column 1) from the borrower's headquarters, or not. We find significantly positive coefficients on both *Ln(Distance to lender)*$^{RO<100}$ and *Ln(Distance to lender)*$^{RO\geq100}$. A formal test shows that the null hypothesis of coefficient equality needs to be rejected at $p = 0.08$ (two-sided). Thus, this evidence fits well with findings on the effect of branch-borrower distance (Table 5 in the paper); the closer a borrower is located to a bank's regional office, the lower the information asymmetry at loan origination.

SECTION 3

As part of their study, Engelberg, Gao, and Parsons (2012) analyze loan covenants as a function of personal connections between firm employees and bank employees. We believe that our findings are unlikely to be attributable to uncontrolled personal relationships for the following reasons.

First, Engelberg, Gao, and Parsons (2012) document that covenants are *less likely* to be required between connected firms and syndicate banks, and when they are used, are *fewer* in number. In our paper, we argue that distance erodes a lender's ability to gather borrower information. If this is true, then, from the perspective of either party, personal bank-firm connections should be more valuable when firms seek to borrow from a remote lender. Indeed, personal connections are often cited as mitigating asymmetric information problems (e.g., La Porta, Lopez-de-Silanes, and Zaparripa, 2003). Contrary to this prediction, however, we find that lenders offering funds to nonproximate firms are more likely to select a *larger* number of covenants, and those covenants are, as we show in Table 6 in the paper, significantly tighter.

Second, common location may lead to the formation of personal relationships between borrowers' and lenders' respective employees. To make sure that our distance measure is not simply capturing such bank-firm relationships, we have re-estimated Eq. (1), this time excluding observations in which a borrowing firm's headquarters is located within 100 miles of the lender's headquarters. Further, following Engelberg, Gao, and Parsons (2012), we have included in the regressions indicators for previous banking relationships if a borrower has conducted a prior deal with a current syndicate partner. Untabulated results (available from the authors upon request) from both tests show that our findings remain strong and, thus, are not driven by pre-existing connections between the firm and syndicate banks.

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