Democracy and Credit

"Democracy Doesn`t Come Cheap" But At Least Credit to Its Corporations Will Be

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Abstract

Does democratization reduce the cost of credit? Using global syndicated loan data from 1984 to 2014, we show that democratization has a sizeable negative effect on loan spreads: a one point increase in the zero-to-ten Polity IV index of democracy shaves on average 21 basis points off spreads. Reversals to autocracy hike spreads more strongly. Our results are robust to the comprehensive inclusion of relevant controls, to the instrumentation with regional waves of democratization, and to a battery of sensitivity tests. We thus highlight the lower cost of loans as one relevant mechanism through which democratization may affect economic development.

JEL classification: G21; G30; P16; P26; P27; P47

Keywords: Loan pricing; Loan spreads; Democratic institutions; Reversals

I. Introduction

How does the transition to democracy affect the cost of credit? From a macroeconomic perspective, the differences that may exist between countries in average loan terms and the resulting efficiency of financial intermediation could constitute an important channel through which democracy might affect the growth prospects of an economy (Acemoglu et al., 2015). And from a microeconomic perspective, the answer to this question has important implications for the potential competitive advantage corporations may have owing to the political environment within which they operate.

Banks, especially those involved in large and very risky corporate loans, are well-informed about the economic and political outlook of the borrowers' countries. As a consequence, banks will charge a risk premium on the basis of macroeconomic and political risk. This has been evident throughout the history of economic and political crises (e.g., Bekaert et al., 2016). In democracies − when compared to autocracies − there are more inclusive institutions and better protection of property rights, there is reduced social conflict, information flows more freely, and its citizens will be more financially literate (Figure I). These characteristics play a central role in the functioning of financial markets in general and in the pricing of loans in particular. We would therefore expect fundamental democratic developments working through these institutions and rights to matter also for loan rates.

Of course, changes in these and other characteristics may also alter the path of democratic development itself, hence any identification strategy will need to account for this possibility to properly isolate the impact of democratic development on corporate loan rates. For example, by including creditor rights in all specifications we will account for their beneficial effect on loan rates, an effect which was already documented in Qian and Strahan (2007) and Bae and Goyal

(2009). In the end, we want to isolate democratization as an independent primary, "deep" driver of corporate loan spreads.

[Please insert Figure I about here]

If democratic development plays a role in the loan pricing models of banks, then we can hypothesize that banks will charge a lower risk premium to borrowers in countries with more developed democratic institutions. The simple correlation between democratic development, as defined by the Polity IV Project, and World Bank's country-specific lending rates (in country-year panel data for 1984-2014) is indeed negative and statistically significant, i.e., -0.62 with a t-stat of 42.60 (Figure II). Also, by comparing loan terms for the − still few − loan deals after the most recent July 15, 2016, Turkish *coup d'état* attempt, relative to loan deals in 2016 but prior to the *coup*, we observe a considerable increase in the mean cost of lending of around 30 basis points (Figure III).[1]

But of course neither such a negative correlation nor the specific case-study of a potential reversal of democratic development (with a low number of observations and a concurrent increase in uncertainty in general) establishes any causality. The contribution of this paper is therefore to investigate if the correlation and specific case emanate from a causal and permanent relation directly running from democratic development to loan pricing.

[Please insert Figures II & III about here]

To establish causation, we resort to loan-level data and analyze the impact of democratic development in the borrowing firm's country on the spreads of corporate loans. Specifically, we use the syndicated loan market that includes corporate loans (loan facilities) to firms from 89 countries in the 31 years between 1984 and 2014 (data from DealScan). We match these loans with

[1] We can exclude the two outliers at the high end and the two outliers at the lower end and still obtain an increase in the average loan spread in the post-*coup* period.

accounting information for firms (Compustat) and collect − from a series of macroeconomic databases − information for all relevant institutional and economic characteristics (including various indicators of democracy) of the country in which the firm operates.

The resulting loan-level sample allows us to conduct an empirical analysis that alleviates endogeneity concerns for three main reasons. First, our specifications feature: (i) important loan characteristics that affect loan spreads as control variables, (ii) country-year characteristics (e.g., variables describing the macroeconomic and institutional environment of the borrower's country), and (iii) saturating sets of fixed effects for lead bank (i.e., the bank setting the spreads), year, and country. In this respect, the only remainder source of endogeneity can arise from within-country time-varying unobserved variables.

Second, the fielding of country fixed effects in particular yields identification from a change (advancement or reversal) in the democracy indicators. To the extent that such a change is not systematically correlated with within-country time-varying unobserved variables, our estimates are consistent and unbiased. Third, to further insulate our analysis from the possibility of such inconsistency and bias, we additionally use an instrumental variables (IV) approach. Our instrument is drawn from a recent study by Acemoglu et al. (2015) and is calculated using regional waves of democratizations and reversals (excluding the borrower's country).

Our baseline results (which come from an OLS model with fixed effects) establish that a one unit positive change in democratic development (on a zero-to-ten scale) lowers the corporate loan spread by 21 basis points. This is economically sizeable: the average loan spread in our sample is 178 basis points, implying a decrease in loan spreads by approximately 11%. The equivalent IV model yields a corresponding reduction in loan spreads by 22 basis points, and is also similar for

alternative dichotomous measurements of democracy, using indicators from the Freedom House, Boix, Miller and Rosato (2013), and Acemoglu et al. (2015), respectively.

By exploiting reversals in democratic development, we further show that reversals increase the spread of the average loan by approximately 70 basis points. Apparently, a reversal immediately poses extreme credit constraints to borrowing firms and this highlights an important channel through which corporate confidence and real output are affected.

We show that our results hold in a number of robustness tests and cannot be differently explained. Specifically, we show that democracy in the lead bank's country (when the lead bank is based in a different country than the firm) does not affect corporate spreads. Further, there is no robust evidence of simultaneity between the effect of democracy on loan spreads and other risk-related characteristics of the loan, such as the loan amount, the use of collateral and performance pricing provisions, and the number of covenants. Thus, in democracies banks price the risk premium through the spread and do not ask for lower spreads because of the use of loan guarantees or lower loan amounts.

Our final exercise is a first step to identify the role of the constitutional components of democracy on the cost of loans and the equivalent role of perception-based civil liberties. This analysis is rougher in terms of identification of causal relations but, given space considerations, provides some guidance on the potential importance of various vessels through which the effect of democracy is transmitted. From a constitutional perspective, the competitiveness of executive recruitment (mostly referring to *de jure* clause on equal opportunities of all people to be elected in office) and the competitiveness of participation (reflecting whether countries have a multi-party democratic system and associated freedom of expression) are at the forefront of the effect of democracy on loan spreads. From the perception-based indicators the most important correlates of

loan spreads are information transparency, institutional quality, and protection of property rights. These findings provide clear directions for future research to further identify country-specific sources of the cost of loans and pinpoint causal effects.

Our findings essentially highlight efficiency in loan pricing as an important channel through which a positive effect of democracy on economic activity can be established. In this sense, our analysis is contributing to the seminal literature on the nexus between democracy and economic development (Acemoglu et al., 2015; references therein) as it documents the comparative advantage of firms operating in democratic countries *vis-à-vis* those in less democratic or authoritarian countries. In turn, we expect that the beneficial effect of democratic development on the cost of loans will transmit to the real economy through higher investment spending, spending on research and development, innovation, and growth, a topic we leave for future research.[2] Our paper is also related with a relatively recent literature examining determinants of loan pricing (e.g., Bae and Goyal, 2009; Graham et al., 2014; Hasan et al., 2014; Ivashina, 2009; Qian and Strahan, 2007). We rely on the implications of this literature to build up our arguments and empirical setup.

The rest of our paper is organized as follows. Section II gives the empirical specification and describes the data and variables used. Section III discusses in detail the identification strategy and the empirical results. The Appendix offers further description of our data and variables, along with robustness tests. Section IV concludes the paper.

II. Empirical Specification, Data, and Variables

[2] Syndicated loans are granted to international firms that operate in multiple countries and have alternative sources of finance making it a less-than-ideal set of firms to identify such a direct pass-through, while marking our findings as a conservative lower bound on the magnitude of the impact.

Our goal is to examine the effect of democratic institutions on the cost of individual loans as follows:

$$Spread_{lbfct} = a_b + a'_c + a''_t + a_1 Democracy_{ct} + a_2 L_{lt} + a_3 F_{ft} + u_{lbfct} \qquad (1)$$

In equation (1) *Spread* is the spread of a loan facility over the LIBOR. The loan is given by lead bank *b* of the syndicate to firm *f* in country c, and in year *t*. *Democracy* quantifies the level of development of democratic institutions. We expect its loading a_1 to be negative. *L* and *F* are vectors of loan and firm characteristics that may also affect the *Spread*. In turn, $a_b, a'_c,$ and a''_t denote bank, country, and year fixed effects, respectively, while *u* is the remainder disturbance. We sequentially discuss our data set and variables below.

We use loan-level data (loan facilities) from DealScan, which includes the most comprehensive and historical loan-deal information available on global loan markets. Our data set covers 1984-2014, but it is quite unbalanced in terms of coverage. Essentially, for most countries loan coverage starts in 1993-1994. We drop all loans for which there is no conventional pricing (i.e., there is no spread) and this deletes all types of Islamic finance and very specialized credit lines. We have a cross-section of 45,910 loans in total, but the final number of observations will be lower due to missing observations in important explanatory variables and the matching with other data sets. For the most demanding specifications in terms of variables the number of observations is 8,664, drawn from firms operating in 80 countries.

We match the loans with firm-specific accounting information from Compustat. This matching is important to acquire information on the financial characteristics of firms that affect loan spreads. In a third round of data collection, we match the resulting data set with macroeconomic (country-year) variables from a number of freely available sources. We provide a

summary of variable definitions and sources in Table I and basic summary statistics in Table II. We also provide additional summary statistics in the Appendix.

[Please insert Tables I & II about here]

A. Measuring Democracy

Our main measure of democratic institutions is the Polity IV country-year measure for institutional democracy. We name this variable *Democracy* (in the Polity IV Project the variable name is DEMOC), ranging from 0 to 10, with 0 indicating that there is no institutional democracy and 10 indicating the maximum level of institutional democracy. An alternative measure from the Polity IV Project is the combined score, taking values from -10 to 10. In this case, -10 indicates a strongly autocratic country and 10 a strongly democratic one.

According to Polity IV (2016), *Democracy* has three dimensions: "One is the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders. Second is the existence of institutionalized constraints on the exercise of power by the executive. Third is the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. Other aspects of plural democracy, such as the rule of law, systems of checks and balances, freedom of the press, and so on are means to, or specific manifestations of, these general principles." Thus, *Democracy* is an institutions-based (not perceptions-based) indicator and allows us to examine the effect of institutional democracy to a large extent purified from perceptions; it is the preferred dependent variable of our study.

Alternative measures of democracy include, *inter alia*, indices from Freedom House, the data set of Boix, Miller, and Rosato (2013), and combinations of these measures as in Acemoglu et al. (2015). The Freedom House indicator includes information on civil and social liberties, the

rule of law and freedom from corruption and is, thus, more perceptions-based. In our case, this has the merit of potentially capturing banks' perceptions about the level of democracy. This comes, however, with an important drawback: perceptions are endogenous and this can cloud inference on whether spreads are driven by institutional changes or by changes in other economic and societal forces. *Democracy (Freedom House)* takes the value 1 if Freedom House regards a country as "free" or "partially free" and 0 otherwise.

In turn, the measure of Boix, Miller, and Rosato (2013) is purely institutions-based and dichotomous, and considers as democracies: countries (i) featuring political leaders chosen through free and fair elections and (ii) satisfy a threshold value of suffrage.[3] This measure, named here *Democracy (BMR)*, has a relatively low variability in our sample. Finally, we also use the dichotomous measure of Acemoglu et al. (2015), which considers a combination of the Polity IV and Freedom House indices.[4]

A notable feature in our summary statistics (Table II) is that almost all the mean values of our democracy indicators are very close to the fully democratic principles. This of course happens because most of the loans are originated in firms operating in fully democratic countries (e.g., the United States). This is not the case if we take the mean values by country-year, in which case the descriptive statistics on the democracy indicators are much more sensible (see Table A.I in the Appendix).

B. Loan-Level Variables

[3] This measure, in general, has the widest coverage in terms of years and countries; but this is not so in our sample, where the Polity IV index has the widest coverage.
[4] As we use this measure only in sensitivity tests, we do not replicate the construction details here and refer the reader to Appendix A1 of Acemoglu et al. (2015).

Our main dependent variable is the all-in-drawn spread (*AISD*), which is the spread of the loan facility over LIBOR plus any annual fees that the borrower must pay the lenders. The *AISD* is used in the bulk of the related literature to measure corporate loan spreads (e.g., Ivashina, 2009). The mean value of *AISD* in the sample including all control variables (15,630 loans) is 192.5 basis points. There are a few (24) loan facilities with negative *AISD*, which means that the reported spread is below the LIBOR. We keep these loans in our sample as they do not play a significant role in our estimates.

Admittedly, the *AISD* disregards some fees charged in certain, but not all, countries and firms in our sample. Specifically, *AISD* does not include information on commitment fees (paid on unused amount of loan commitments), utilization fees (paid on the drawn amount once a threshold has been exceeded), and cancellation and upfront fees. Berg, Saunders, and Steffen (2016) show that commitment plus facility fees, defined as the all-in-spread-undrawn (*AISU*), is larger for high-volatility firms. We show below that when using *AISU* (for a smaller sample due to data availability) as dependent variable, the effect of democracy is statistically insignificant; we thus concentrate the bulk of our analysis on *AISD*.

We control for a number of loan characteristics that potentially affect *AISD*. Specifically, we use the natural logarithm of the loan amount (*Loan amount*), the duration of the loan in months (*Maturity*), a dummy variable describing whether the loan facility has collateral (*Collateral*),[5] the number of lenders in the syndicate (*Number of lenders*), a dummy denoting whether the loan has performance pricing provisions (*Performance provisions*), the number of general covenants in the

[5] Given that information for *collateral* is missing for half our sample, we transform this variable by placing a value 0 for the rest of 15,630 observations if information is missing. Given our priors on reporting issues, this procedure is very likely to reflect that in many cases banks do not report use of collateral if there is no collateral. As we show in the Appendix, our results hold when using the untransformed variable and a smaller sample.

loan contract (*General covenants*), and a series of dummies denoting loan type (e.g., term loan, revolver, etc.) and loan purpose (e.g., corporate purpose, debt repay, etc.).

C. Firm- and Country-Level Variables

At the firm-level we use firm's size, the market-to-book ratio, tangibility, and leverage as measures for wealth and market power of the borrowing firms (see Table I for definitions). We expect that larger and wealthier firms (higher *Market-to-book ratio* and lower *Leverage*) will pay lower spreads. The effect of *Tangibility* is a priori ambiguous. Firms with high levels of tangible assets (as a share of total assets) could be thought of as lower-risk firms, especially if collateral is used as guarantee against default. However, firms requiring high levels of (expensive) fixed capital to operate have the tendency to generate lower levels of return on assets and, once collateral is controlled for, the effect of *Tangibility* on *AISD* could be positive.

To reduce the possibility that *Democracy* captures other country-specific characteristics observed at the country-year level, we control for variables reflecting economic and financial development and current economic conditions. For the level of economic development and growth, we use the log of GDP per capita (*GDP per capita*) and annual GDP growth rates (*GDP growth*), respectively. Note that *GDP per capita* is highly correlated with perceptions-based indicators for the quality of institutions from a number of sources (Freedom House, International Country Risk Guide, Worldwide Governance Indicators, Fraser Institute, Heritage Foundation). Including further such control variables does not introduce more information in the empirical model and yields clear signs of multicollinearity with GDP per capita. Further, these indicators can be viewed as sub-components of the quality of democratic institutions (which is the more general umbrella)

and are treated as such in our effort to identify the channels (or at least the correlates) through which democracy affects loan pricing.[6]

One variable that does seem to play an important and independent from democracy role in explaining loan spreads is the creditor rights index from Djankov, McLiesh, and Shleifer (2007). This is a 0 to 4 index measuring (1) whether there are restrictions when a debtor files for reorganization; (2) whether secured creditors are able to seize their collateral after the petition for reorganization is approved; (3) whether secured creditors are paid first out of the proceeds of liquidating a bankrupt firm; and (4) whether an administrator, and not management, is responsible for running the business during the reorganization. The *Creditor rights* index has been used by Qian and Strahan (2007) and Bae and Goyal (2009) to explain loan spreads, revealing that higher creditor rights significantly reduce spreads. As this type of (de)regulation is particularly apt to the banking industry and could have an independent effect from democracy on the cost of loans, we include this variable in *all* of our specifications.

Our loan-level variables must capture a significant part of the effect of financial development on *AISD*. However, in sensitivity tests we also directly control for financial development using a series of indicators.[7] We report results based on specifications including stock-market capitalization as a share of GDP (*Stock-market capitalization*) and the institutions-based indicator of financial freedom from the Heritage Foundation (*Financial freedom*). The first indicator reflects the size of capital markets and the second indicator characterizes bank efficiency

[6] If we do include indicators describing institutional quality alongside democracy variables, the potent effect is mostly captured by democracy, leaving these indicators statistically insignificant.

[7] We only include these controls in sensitivity tests to avoid losing observations typically from less developed countries, where much relevant information is unavailable.

and ownership control. Combined, these indicators further alleviate concerns that the effect of *Democracy* encompasses elements of financial development and freedom.[8]

III. Empirical Identification and Estimation Results

A. Identifying a Causal Effect

Using a cross-section of loans for multiple years limits the possibility of reverse causality or simultaneity: observing a change in *Democracy* due to a change in loans' spreads is highly unlikely and more so given our control variables and the fact that we have loan-level data. Identifying a causal relation running from *Democracy* to *AISD* is still challenging due to the possible presence of unobserved characteristics of the borrower's country that are correlated with both *Democracy* and *AISD*. The inclusion of the control variables, especially the loan-level and country-level ones discussed in Section II, should reduce this possibility. We are taking, however, a number of further steps as remedies for the omitted-variable bias.

A first remedy is to include country, bank, and year fixed effects. Country fixed effects control for time invariant characteristics of the borrower's country and their inclusion implies that we identify the effect of *Democracy* only from country-year observations where *Democracy* changes values from one year to the next. We do, however, examine the robustness of our results without the inclusion of country fixed effects. Bank fixed effects control for any time-invariant bank-specific characteristics that affect spreads.[9] Year fixed effects control for annual shocks common to all banks and firms in our sample (e.g., the effect of the subprime crisis). The use of these fixed effects (especially the country ones) along with the loan-level controls must capture

[8] We also experiment with a large set of variables from the Global Financial Development database by Čihák et al. (2012). We do not find any significant differences in our main results.

[9] Including bank fixed effects makes any additional time-variant bank characteristics redundant. Also, our results are robust to excluding bank fixed effects.

the effect of several unobserved variables affecting loan pricing. The only potential remainder omitted-variable bias might arise from time-variant country characteristics that correlate with both *a change* in *Democracy* and loan pricing. Note that it is unlikely that something as important as the level of democratic institutions systematically and simultaneously changes with other unobserved determinants of spreads within a country. If anything, a change in democratic institutions "outshines" and also *causes* other within country changes in the political or economic system. Also, the risk of changes in democracy being systematically correlated with specific other events that take place at different times across countries is low.

If we are indeed correct on this premise, the results from methods directly targeting the omitted-variable bias must be very similar. Thus, we do test the sensitivity of our OLS results using an IV method and the variable proposed by Acemoglu et al. (2015) as our main instrument. This variable (named *Regional democratization*) is calculated using regional waves of democratizations and reversals (excluding the borrower's country). For convenience, we replicate in Appendix A.II the notes from Acemoglu et al. (2015) on the construction of *Regional democratization*. Importantly, the IV method also alleviates concerns regarding measurement error in our democracy measures.

A second instrumental variable is available from Acemoglu et al. (2015) and refers to the probability of regional unrest (*Regional unrest*). The reason we opt for a second instrumental variable is related to econometric efficiency of the estimates (lower standard errors in the second-stage results, accompanied by lower coefficient estimates). The "region" is defined in exactly the same way with *Regional democratization*. Social unrest is a dichotomous measure of the occurrence of revolts or riots in a country. Our premise is that revolts or riots in the region affect *AISD* only by affecting the quality of democratic institutions in country *c*. In robustness tests, we

check that there is no separate channel whereby *AISD* is affected by spillovers of *Regional unrest* to social unrest in the borrower's country (and through that to democracy), by directly controlling for social unrest in the borrower's country.

Given the construction of the instruments, the model takes the form:

$$Democracy_{ct} = b_0 + b_1 Regional\ democratization + b_2 Regional\ unrest + b_3 C_{ct} + e_{ct}, \quad (2)$$

$$Spread_{lbfct} = a_b + a_c' + a_t'' + a_1 Democracy_{ct} + a_2 L_{lt} + a_3 F_{ft} + a_4 C_{ct} + u_{lbfct}. \quad (3)$$

The system of equations (2) and (3) is not the usual two-stage least squares (2SLS) model in the sense that not all variables of the 2nd stage are included in the 1st stage (Baltagi, 2008, refers to this as a feasible 2SLS). In a simple 2SLS model, where both the endogenous independent and the dependent variable are observed at the same level (e.g., at country-year), not including control variables in the first stage would be an oversight, especially if these controls significantly explain *Democracy*.[10]

There is an important reason we favor this particular IV approach here. Specifically, given the multi-level nature of our sample, we do not expect that the loan- and firm-level controls have any explanatory power on our democracy indicators (i.e., the system is triangular). We verify that the loan- and firm-level variables, if included, are completely insignificant determinants of *Democracy* and simply increase the bias of our estimates. The vector *C* in equation (2) includes the country-level controls, *Creditor rights*, *GDP per capita*, and *GDP growth*, even though in most part they are too weak predictors of *Democracy*. Thus, based on Baltagi (2008, p. 264), among

[10] Lagging Democracy produces very similar results.

others, and our discussion here, our specification of equations (2) and (3) is a consistent IV model that in our sample has much better bias properties compared to the usual 2SLS model.[11]

To satisfy the exclusion restriction, this approach assumes that regional waves of democratization are not determined by regional economic trends (Acemoglu et al., 2015). On this line of argumentation, Bonhomme and Manresa (2015) find that, after controlling for economic development, transitions to democracy are still significantly correlated within regions. Historical evidence suggests that regional patterns of democratization emanate from increased dissatisfaction with autocratic regimes across countries within a region, where countries in that region have similar histories, cultures, and political problems, and informational ties (Buera, MongeNaranjo, and Primiceri, 2011).

In sensitivity tests, we further refine our IV, using a series of additional variables in vector *C* and/or the exact same fitted values from the first stage model of Acemoglu et al. (2015). We show that these variants of equation (2) do not affect our main findings.

B. Baseline Results

We report our baseline results (OLS with fixed effects) in Table III. The first two columns report results from specifications that do not include country fixed effects. Thus, in these specifications the effect of democracy is identified both from the cross-sectional differences between countries and temporal differences within countries. The estimates on *Democracy* are statistically significant at conventional levels, indicating that a one point rise in *Democracy* reduces *AISD* by approximately 2.1 basis points (based on the specification in column 2, which includes all the control variables). Economically, this effect is relatively small: for the average loan in our sample

[11] To apply the correct mean squared error, we correct the variance-covariance matrix as in http://www.stata.com/support/faqs/statistics/instrumental-variables-regression/.

(having an *AISD* equal to 192.5), this implies a decrease in *AISD* by approximately 1.1% (calculated from 2.1*100/192.5).

[Please insert Table III about here]

The results in columns (3) and (4) identify the effect of democracy solely from its within-country variation. This implies identification only from the countries in which we observe a change in the value of *Democracy* (this takes place 171 times in 45 countries in our sample period).[12] This approach excludes other time-invariant reasons as potential omitted-variables, as long as these variables do not change in the same year with democratic institutions. As the quality of *de jure* democratic institutions is the umbrella encompassing many other institutional and constitutional characteristics of countries and outshine other more specific effects, it is already quite likely that these results are robust (for similar argumentation, see e.g., Acemoglu et al., 2015).

Importantly, the results in columns (3) and (4) show that the effect of *Democracy* is in fact quite more potent compared to the equivalent in columns (1) and (2). Based on the results from the regression including all control variables (column 4), a one point increase in *Democracy* yields a decrease in loan spreads by approximately 21 basis points. Economically, this is a very large effect, equal to an 11% decrease for the average loan in our sample. Thus, we can infer that the quality of democratic institutions explains a large part of the competitive advantage of firms in democracies compared to those in autocracies. Looking at specific examples, we note that in countries like Chile the average *AISD* in the loans originated between 1993 and 1998, when the country was scoring 8 in *Democracy*, was 71 basis points. In the years 2006-2007 (before the

[12] Note that the number of changes in the democracy variables (number of events) is not quite relevant to the sample size of the empirical analysis because by these essentially are events. What matters, and what constitutes the unit of our analysis, are the numbers of loans. In Appendix, Section A.I, we provide information on the number of loans by country.

eruption of the global financial crisis), when Chile was scoring a perfect 10 on *Democracy*, the mean *AISD* was 36 basis points. A large set of countries present similar examples.

So far, we have assumed that there are no within country time-varying unobserved variables that may simultaneously affect *Democracy* and *AISD*. Our IV strategy alleviates such concerns, along with potential concerns on measurement error of *Democracy*. In Table IV, we replicate columns (3) and (4) of Table III, this time the estimation method being the IV model of equations (2) and (3). The first-stage results are always statistical significant at the 5% level or higher. In column (2) of Table IV, which is of main interest, our results converge to those of the equivalent column (4) of Table III. If we assume that these results from the OLS and IV methods are the preferred ones in our analysis, then we infer that a point increase in *Democracy* lowers *AISD* by approximately 21-22 basis points. Given that the results from the two methods converge, we use the simpler OLS in most of our specifications and provide the equivalent IV results in Table A.IV of the Appendix.

[Please insert Table IV about here]

Still, we highlight four important sensitivity tests on the IV models, as reported in the last four columns of Table A.IV in the Appendix. The first specification (column 8) includes domestic social unrest (*Social unrest*) as a control variable in the two-stage model. This might be important as per our discussion in Section III.A. *Social unrest* is indeed significant in both stages of the model but the effect of *Democracy* remains strong. The second specification (column 9) includes only *Regional democratization* as instrument. We document a much stronger effect of democracy (equal to 77 basis points) but the standard deviation is also much higher. For this reason, we favor the results employing both instrumental variables. Specification (10) includes educational

attainment in the 15-24 age group in equation (2).[13] Finally, specification (11) uses the fitted values directly obtained from the baseline instrumental variable model of Acemoglu et al. (2015). Again, we observe a significant effect of democracy, with the fit being actually better in this model compared to other models in Table A.IV (see Section A.III in Appendix for further discussion on these results).

In our baseline results, the effect of control variables is completely aligned with expectations. The effect of *Creditor rights* is negative as in Qian and Strahan (2007) and Bae and Goyal (2009), with a one point increase in the 0 to 4 scale lowering *AISD* by approximately 40 basis points for the average loan (based on column 4, Table III). Thus, together with *Democracy*, strong creditor rights are a prerequisite for relatively cheap lending. The effect of loan-level variables is as in Ivashina (2009), Bae and Goval (2009), Cai, Saunders and Steffen (2016). Concerning the firm-level variables, larger firms, with higher market-to-book ratios pay lower spreads. In contrast, firms with higher *Leverage* and *Tangibility* pay higher spreads.[14] These results are intuitive given the share and reputation of larger firms and the adverse effects of firm risk on obtaining cheaper loans. The positive effect of *Tangibility* indicates that firms requiring high levels of (potentially expensive) fixed capital to operate have the tendency to generate lower returns and this is priced by banks as a risk premium.

C. Alternative Measures of Democracy

In the specifications of Table V, we report the results from alternative measures of Democracy using OLS. The equivalent IV results can be found in Table A.II in the Appendix (columns 1 to

[13] This variable, and other education-related variables, is the only one among more than 50 variables that seems to explain *Democracy* independently from regional democratization and country fixed effects.
[14] Note that if we do not include the market to book ratio, the positive coefficient on leverage gains in statistical and economic significance.

4). From this point onward, all of our specifications include the full set of control variables as in column 4 of Table III, unless otherwise noted. We first use *Polity* and we find (column 1) that results are qualitatively and quantitatively very close to those of column (3) of Table III (bearing in mind that *Polity* takes values from -10 to 10 compared to the 0 to 10 of *Democracy*).

[Please insert Table V about here]

Subsequently we move to the dichotomous measures of the quality of democratic institutions. Dichotomous indicators can be even better for identification purposes, as a change from 0 to 1 must give a strong signal to banks and other economic agents and thus directly alter the information content used to determine the risk premium. However, their disadvantage is that they do not fully capture the transition process to better or worse states of democracy and can produce lower fit.

Much like the measures of Democracy from Polity IV, the dichotomous measures predict a negative effect of democratic institutions on loan spreads. Specifically, *Democracy (BMR)*, *Democracy (Freedom House)* and *Democracy (Acemoglu et al.)* show (given the inclusion of country fixed effects) that transition from autocratic to democratic state lowers spreads by approximately 169, 153, and 84 basis points, respectively, for the average loan in our sample. From these specifications, we favor the estimates based on *Democracy (Acemoglu et al.)* because this measure encompasses the full set of *de jure* elements of democracy in Polity IV and the qualitative characteristics highlighted in Freedom House, and this also yields higher within-country variability.

D. Reversals and evidence from post-Soviet states

An important issue in the identification of an effect of the quality of democratic institutions has to do with asymmetries between the long process of democratization and reversals to autocratic states. Reversals are abrupt and many times take place in a somewhat unexpected (at least in the time of their occurrence) military coupes, especially during our sample period. We expect that such developments have a much sharper adverse effect on loan spreads.

To examine these asymmetric effects we introduce an interaction term between *Democracy* and *Reversals*, which is a dummy variable equal to 1 in the year a democracy reverts to an autocracy and 0 otherwise. In Table VI we report our findings from estimation with OLS (column 1) and IV (column 2). In both columns, the interaction terms between the event of a reversal and *Democracy* is positive and highly significant. Taking marginal effects from these estimates shows (according to the OLS model) that a one point increase in *Democracy* lowers *AISD* by approximately 37 basis points, while a reversal event increases *AISD* by an enormous 492 basis points. The corresponding effects from the IV results are somewhat more moderate, albeit still very large: a one point increase in Democracy decreases AISD by approximately 23 basis points, whereas a reversal event increases *AISD* by 257 basis points. All-in-all the results of Table VI remind us that it takes time to build strong democratic institutions and even longer to build trust in them and collect their benefits; and it takes very little time to destroy democratic institutions and their benefits.[15]

[Please insert Table VI about here]

An interesting exercise involves the examination of the transition of post-Soviet states to democratic countries. This is a group of countries with common and prevailing democratic development from a specific year onward. Thus, despite the fact that we have a limited number of

[15] An alternative way to approach this question would be to use the Polity IV data on *Coups d'Etat*. The results from such an analysis are quite similar with those reported here.

loans, the results should be particularly strong in these countries. In Table VII we report the results. The number of observations is 124 when we use OLS and 107 when we use IV. Due to problems related to degrees of freedom, we only use country fixed effects. Despite the small number of observations, the estimated coefficients on *Democracy* are economically very strong. According to the OLS model (column I), a one point increase in *Democracy* lowers the spread by more than 70 basis points. Again the equivalent IV results (column II) are significantly larger.

[Please insert Table VII about here]

E. Controls for Financial Development and Discrepancies between Borrower's, Lender's, and Syndication's Country

One alternative potential explanation of our findings is that the identified effect of within-country changes in democracy comes in fact from a simultaneous change in financial development, which in turn lowers spreads. We posit that besides their significance in explaining spread differences from loan characteristics, the loan-level controls should also capture a large part of the general financial conditions in the borrowers' country. Specifically, larger loans, loans with *Collateral*, a large *Number of lenders* and *General covenants*, and loans with *Performance provisions* should originate in financially developed countries. Indeed, simple pairwise correlation coefficients between these five loan-level variables and indicators of financial development (*Stock-market capitalization* and *Financial freedom* as defined in Table I) are positive and highly significant (see the correlation matrix of Table A.III in the Appendix). Thus, the loan-level variables must capture elements of financial development, allowing us to disentangle the effect of democracy on *AISD* from the respective effect of financial development.

However, to further account in our regressions for possible correlations between the effects of democracy and financial development on *AISD*, we also directly include *Stock-market capitalization* and *Financial freedom* in the specifications (1) to (3) of Table VIII. We find that these variables do not have significant effects on *AISD* and the coefficients on *Democracy* do not change substantially. The findings are similar when we include other measures of financial development (e.g., from the database by Čihák et al., 2012); even if we manage to find some measures of financial development that significantly affects *AISD*, the coefficient estimates on *Democracy* remain largely unaffected.

[Please insert Table VIII about here]

Subsequently, we examine if there are differences in our results when there is a difference between the country of the borrower and the country of the lead lender. In column (1) of Table IX we include the variable *Lender's democracy*, which is equivalent to *Democracy* but in the lead lender's country. We find that democratic institutions play a role in determining *AISD* only in the country of the borrower and not in the country of the lead lender. In column (2) we additionally introduce the interaction term between *Democracy* and *Lender's democracy* to potentially identify any heterogeneity in our main results (i.e., the slope of *Democracy*) due to the quality of democracy in the lender's country. However, the interaction term is statistically insignificant.

[Please insert Table IX about here]

In a perhaps more meticulous exercise concerning a potential role for democracy in the lead lender's country, we construct the difference between democracy in the borrower's and lead lender's countries (we name this variable *Difference in democracy*). Then, we examine possible asymmetric effects of *Democracy* on *AISD* due to discrepancies in democracy between the

borrower's and the lender's countries by interacting *Democracy* with *Difference in democracy*. Once more, the interaction term is statistically insignificant.

As a final exercise in this section, we take up the case where some loans have a different country of syndication than the borrower's country. One reason for choosing a different country of syndication could be to insulate the loan from political and macroeconomic shocks in the borrower's country. To examine this premise, we introduce the interaction term between *Democracy* and a dummy variable (named *Different country of syndication*) that takes a value 1 if the country of syndication is different than the borrower's country and 0 otherwise. However, even in this case we fail to identify any significant heterogeneity in the main effect of *Democracy*.

We can conclude from the above, that the quality of democratic institutions in the lender's country or discrepancies in democracy between the borrower's and the lender's countries or the country of syndication do not affect the relation between democracy and loan spreads.[16]

F. The Effect of Democracy on Other Loan Characteristics

An alternative explanation of our findings presented so far may be that a lower *AISD* in more democratic countries is observed due to the use of more sophisticated loan guarantees (like collateral, covenants, and performance pricing provisions) in these countries. In the econometrics jargon, there could be a three-way simultaneity between *Democracy, AISD,* and loan guarantees that produces an upward bias in the coefficient estimates on *Democracy*. We note *a priori* that this seems unlikely given that our baseline regressions essentially obtain information from changes in *Democracy* and our IV approach would clean such simultaneity effects because regional democracy is uncorrelated with domestic loan guarantees.

[16] These conclusions are also corroborated by the equivalent IV results, presented in columns (5) to (8) of Table A.IV in the Appendix.

However, to check whether a three-way simultaneity is even possible, we run regressions where we examine the effect of *Democracy* on the use of collateral, performance pricing provisions, and covenants. The first three columns of Table X report the OLS results and the last three columns the IV results. In general, there is discrepancy between the OLS and the IV results: the former suggest a negative and significant effect of *Democracy* on *Collateral* and *Performance provisions,* and a positive effect on *General covenants,* while the IV results suggest insignificant effects. In what matters here, only the positive effect of *Democracy* on *General covenants* would be a first indicator (albeit not a sufficient condition) of three-way simultaneity.[17] However, even in this case, the results are not robust when we use the IV method. Thus, we must conclude that our main results are not driven by this alternative explanation.

[Please insert Table X about here]

G. Other Sensitivity Tests

We conduct additional sensitivity tests, for which we do not find significant changes compared to our baseline results. We report these results in the Appendix.

First, we cluster standard errors by both loan facility and year to account for possible dependence (correlation) of loans within year (columns 1 to 4 of Table A.V).

Second, and more importantly, we cluster standard errors by country to account for correlation of loans within country (columns 5 to 8 f Table A.V). In the latter case, standard errors indeed somewhat rise, but the effect of all the democracy indicators remains statistically significant at conventional levels and, thus, inference is not affected.

[17] The negative effects on the other two variables are against the theoretical argument of simultaneity because, if anything, this would cause a downward bias in the estimates on *Democracy*.

Third, we examine whether our results are driven by our previous assumption that collateral is zero when it is not reported for those observations of the sample used in our baseline regression (i.e., the observations included in the summary statistics of Table II). In specification (1) of Table A.VI we show that using only the observations where collateral is non-missing reduces the number of observations from 16,630 to 8,664, but the coefficient on *Democracy* remains unaffected.

Fourth, we exclude from our sample all other loans except from term and revolver loans, which are the most conventional corporate loan deals. In general, we are interested in all loan deals and the loan type fixed effects should capture discrepancies in the pricing between loan types. However, even when we include only the most conventional loan types, our results are unaffected (see column 2 of Table A.VI).

Fifth, we examine whether the effect of *Democracy* changes when we exclude loans originated for leveraged buyouts (LBOs) or mergers and acquisitions (M&As) because these loans can lower the cost of debt by reducing the asymmetric information between the bank and the borrowing firm (Ivashina and Kovner, 2011).[18] In principle, these effects should be captured by the loan purpose fixed effects and the results (column III of Table A.VI) are indeed similar to the baseline.

Sixth, we include all banks of the syndicate, lead and non-lead, in our sample. This specification essentially assumes that, even though not formally, all banks of the syndicate play a role in the price-setting behavior of the lead arranger. The sample's size jumps to 33,108 observations, but the coefficient on *Democracy* is still close to the value of our baseline specification.

[18] The cost of financing might be lower because the bank has acquired private information about the borrowing firm from prior transactions, which might, for example, enhance its confidence in the firm's due diligence process.

A final sensitivity check relates to the role played by loan fees, as per our discussion in Section II.B, and in line with Berg, Saunders, and Steffen (2016) who show that commitment plus facility fees, defined as the all-in-spread-undrawn (*AISU*), is larger for high-volatility firms. Thus, we might expect that the cost of loans is higher in less democratic countries through higher fees. Unfortunately, the reporting of fees is more limited in DealScan's worldwide reports compared to the US reports, either because they are not present at all or there is no information on them. If the latter case holds, then we have some sample selection. Table A.V in the Appendix replicates Table III with *AISU* as the dependent variable. When using this more limited sample (6,560 observations in the more demanding specification), we do not identify a statistically significant effect of *Democracy* on *AISU*. To the extent that our results do not suffer from sample selection, it seems that the quality of democratic institutions and the political environment in general are priced only in spreads.

However, we should also note that any higher risk premia stemming from the political environment would first and foremost be included in loan spreads. Thus, if anything, our results would be downward biased in the total cost of loans if democracy affects fees. However, given the statistical insignificant results on *AISU*, this does not seem to be the case in our sample. Interestingly, there is a role for the general economic development of the country (as captured by *GDP per capita*) in shaping *AISU*.[19]

H. Components of Democracy and Correlations of the Spread with Civil-Liberty Indicators

In this subsection we take a first step toward the identification of characteristics of democracy that might affect the cost of loans. We first consider the constituents of *Democracy* (the Polity IV

[19] Other fees (besides those in *AISU*) are also reported in US or UK syndicated loan deals for which there is very little coverage in less developed countries. Again, this is either because such fees are not included in the loan deal in less-developed countries or because they are not reported.

index) but also examine the role of civil liberty indicators from various other databases. The results on the components of *Democracy* (namely *Competitiveness of executive recruitment*, *Openness of executive recruitment, Executive constraints*, *Competitiveness of participation*, as defined in Table I and in Polity IV, 2016) can be considered as causal effects and thus direct channels through which democracy affects loan spreads. The reason is that these components of democracy have a clear constitutional or institutional basis (*de jure*) and are exogenous in the sense that they are not driven by perceptions. On the same line, we can check the robustness of the results when using our IV strategy because our instrumental variables are still useful.

We report the results from this exercise in Table XI. We find that among the four constituents of *Democracy*, the one with the economically more significant impact on *AISD* is *Competitiveness of participation*. This variable changes in just 11 countries in our sample and essentially reflects whether countries have a multi-party democratic system and associated freedom of expression. The political science literature has long viewed multiparty competition and free elections as the *sine qua non* of a characterization of a country as democracy (e.g., Davenoport, 1998; De Mesquita et al., 2005). Here we show that multiparty competition and electoral freedom are the showcase of a democratic system and the most easily verified source of democracy when it comes to the loans market; among other potential benefits for the society they lower the cost of loans.

[Please insert Table XI about here]

In turn, causality in the relation between civil-liberty indicators, which capture perceptions-based characteristics of democracy, and loan spreads is less clear cut. We try the best to identify freedom-related indicators, which are not as perception-based but this is very hard from an empirical identification viewpoint. Of course, when using such indicators, we do control for the

set of fixed effects of our baseline models. However, the IVs used so far might not strictly satisfy the exclusion restriction because perceptions are endogenous to multiple societal characteristics. Still, the reported results provide an educated guess in the context of examining potential correlates of the cost of loans with civil-liberties indicators and can also be thought as an initial step toward future research.[20]

In Table XII we report results where AISD is regressed on *Information transparency* (proxy for media freedom), *Stock-market capitalization* (proxy for financial freedom), *Likelihood of unrest* and *Political stability* (proxies for political stability), *Institutional quality*, and *Property rights* (proxy for the de jure protection of property rights). We provide definitions for these variables in Table I and kindly refer the readers to more construction details in the data sources.[21]

[Please insert Table XII about here]

The results show that the stronger relations are between AISD and information transparency, institutional quality, and protection of property rights. In countries with these characteristics, the loan spreads are considerably lower. Political stability is also related with lower spreads to a considerable extent, while the size of the stock market does not seem to play a very potent role. These relations point, we believe, to the need for future research as to which institutions are important in generating competitive advantages from better-priced loans.

IV. Conclusions

[20] The present study perhaps already covered considerable ground and finding good IVs for different civil-liberty indicators will deviate the focus of the present study.

[21] The list of variables and associated sources aiming at the measurement of civil liberties is non-exhaustive. Usually, correlations between the alternatives are very high. Our choice here is guided on the basis of (i) data availability (maximize the number of available observations) and (ii) reducing the impact of endogenous perceptions.

Using global syndicated loan data from 1984 to 2014, we show that more democracy has a sizeable negative effect on loan spreads: a one point increase in the zero-to-ten Polity IV index of democracy for example shaves on average 21 basis points off spreads. Reversals to autocracy hike spreads more strongly. As we have shown, our results are robust to the comprehensive inclusion of relevant controls, to the instrumentation with regional waves of democratization, and survives in a battery of other sensitivity tests. We thus highlight the lower cost of loans as one relevant mechanism through which democratization may affect economic development. Democracy may not be cheap, but its corporations may benefit from lower syndicated loan rates. In sum, our findings highlight one way in which corporations benefit from societal developments.

Our empirical analysis also provides a roadmap for future research on the channeling of the effect of democracy to economic development *via* lending pricing. This can be approached from a microeconomic perspective, especially focusing on credit constraints and innovative acuity of firms. It can also be approached from a macroeconomic viewpoint if the spotlight is placed on information transparency and associated institutions that are more prevalent in democratic countries and have a well-established effect on loan pricing. As we have already covered considerable ground, we leave these ideas for future research.

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Table I
Variable definitions and sources

Variable	Description	Source
A. Dependent variables in main specifications		
AISD	All-in-spread-drawn, defined as the sum of the spread over LIBOR plus the facility fee.	DealScan and Thomson Reuters
AISU	All-in-spread-undrawn, defined as the sum of the facility fee and the commitment fee.	idem
B. Explanatory Variables: Loan characteristics		
Loan amount	Log of the loan facility amount in millions of dollars.	idem
Maturity	Log of loan duration in months.	idem
Collateral	Dummy equal to one if the loan is secured with collateral, zero otherwise.	idem
Number of lenders	The number of banks involved in the syndicated loan.	idem
Performance provisions	Dummy equal to one if the loan has performance pricing provisions, zero otherwise.	idem
General covenants	The number of covenants in the loan contract.	idem
Loan type	A series of dummy variables indicating loan type (e.g., term loans, revolvers, etc.)	idem
Loan purpose	A series of dummy variables indicating loan purpose (e.g., corporate purpose, debt repay, etc.).	idem
C. Explanatory variables: Borrower characteristics		
Firm size	Log of total firm assets.	Compustat
Market-to-book ratio	The ratio of the market value of assets to the book value of assets.	idem
Tangibility	The ratio of tangible assets to total assets (multiplied by 100).	idem
Leverage	The ratio of total debt to total assets (multiplied by 100).	idem
D. Explanatory variables: Borrower's country characteristics		
Democracy	The indicator is an additive eleven-point scale (0-10). 0 indicates no institutional democracy and 10 indicates a maximum level of institutional democracy.	Polity IV Project (2016)
Polity	Combined Polity Score: The Polity score is computed by subtracting the autocracy score from the Democracy score; the resulting unified polity scale ranges from +10 (strongly democratic) to -10 (strongly autocratic).	Polity IV Project (2016)
Reversals	A dummy variable equal to 1 in the year a democracy reverts to an autocracy and 0 otherwise.	Acemoglu et al. (2015)
Competitiveness of executive recruitment	The extent that prevailing modes of advancement give subordinates equal opportunities to become superordinates.	Polity IV Project (2016)
Openness of executive recruitment	Recruitment of the chief executive is "open" to the extent that all the politically active population has an opportunity, in principle, to attain the position through a regularized process.	Polity IV Project (2016)
Executive constraints	The extent of institutionalized constraints on the decision-making powers of chief executives, whether individuals or collectivities.	Polity IV Project (2016)
Competitiveness of participation	The extent to which alternative preferences for policy and leadership can be pursued in the political arena.	Polity IV Project (2016)
Democracy (Freedom House)	Continuous measure equal to one if country is a full democracy and zero otherwise.	Freedom House
Democracy (BMR)	Dummy variable equal to one if country is a democracy, zero otherwise.	Boix, Miller, and Rosato (2013)

Democracy (Acemoglu et al.)	The dichotomous measure of democracy constructed by Acemoglou et al. (2015). Details can be found in Appendix A1 of that paper, available here: http://economics.mit.edu/files/11227	Acemoglu et al. (2015)
Creditor rights	The creditor rights index measures: (1) whether there are restrictions, such as creditor consent, when a debtor files for reorganization; (2) whether secured creditors are able to seize their collateral after the petition for reorganization is approved, that is, whether there is no automatic stay or asset freeze imposed by the court; (3) whether secured creditors are paid first out of the proceeds of liquidating a bankrupt firm; and (4) whether an administrator, and not management, is responsible for running the business during the reorganization. A value of one is added to the index when a country's laws and regulations provide each of these powers to secured lenders. The index aggregates the scores and varies between 0 (poor creditor rights) and 4 (strong creditor rights).	Djankov, McLiesh, and Shleifer (2007); own calculations
GDP per capita	GDP per capita in constant prices.	WDI
GDP growth	Annual GDP growth rate.	WDI
Stock-market capitalization	The ratio of stock market capitalization to GDP.	WDI
Financial freedom	The Index scores an economy's financial freedom by looking into the following five broad areas: (i) the extent of government regulation of financial services; (ii) the degree of state intervention in banks and other financial firms through direct and indirect ownership; (iii) the extent of financial and capital market development; (iv) government influence on the allocation of credit, and (v) openness to foreign competition. These five areas are considered to assess an economy's overall level of financial freedom that ensures easy and effective access to financing opportunities for people and businesses in the economy. An overall score on a scale of 0 to 100 is given to an economy's financial freedom through deductions from the ideal score of 100.	Heritage Foundation
Information transparency	Index for the existence of a free and independent media.	Williams (2015)
Unrest	A dummy variable taking the value 1 if there is social (occurrence of riots and revolts) in a given year/country and 0 otherwise.	Acemoglu et al. (2015)
Political stability	Combines several indicators which measure perceptions of the likelihood that the government in power will be destabilized or overthrown by possibly unconstitutional and/or violent means, including domestic violence and terrorism.	Worldwide Governance Indicators
Institutional quality	The economic institutional quality measure by Kunčič, described in detail in https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxhbGphemt1bmNpY3xneDo0MmE4OGM0NzQ0Njk1YzIw	Kunčič (2014)
Property rights	Legal structure and security of property rights.	Fraser Institute

E. Instrumental variables

Regional democratization	Regional waves of democratization and transitions to nondemocracy, excluding information in the borrower's country (for construction details, see Appendix).	Acemoglu et al. (2015)
Regional unrest	Regional unrest, excluding information in the borrower's country (for details, see Appendix).	Acemoglu et al. (2015)

Table II
Summary statistics

	Obs.	Mean	Std. Dev.	Min.	Max.
AISD	15,630	192.51	153.98	-212.50	1,600
AISU	6,548	31.78	23.77	1.00	375.00
Democracy	15,630	9.65	1.39	0	10
Polity	15,630	9.52	2.16	-10	10
Competitiveness of executive recruitment	15,630	2.96	0.24	1	3
Openness of executive recruitment	15,630	3.99	0.12	1	4
Executive constraints	15,630	6.83	0.66	1	7
Competitiveness of participation	15,630	4.85	0.57	0	5
Democracy (BMR)	14,591	0.97	0.16	0	1
Democracy (Freedom House)	14,591	0.96	0.20	0	1
Democracy (Acemoglu et al., 2015)	14,591	0.97	0.16	0	1
Creditor rights	15,630	1.46	0.92	0	4
Loan amount	15,630	17.82	2.18	7.18	24.47
Maturity	15,630	46.38	34.65	0.00	1,140
Collateral	15,630	0.45	0.50	0	1
Number of lenders	15,630	5.32	6.81	1	67
Performance provisions	15,630	0.24	0.43	0	1
General covenants	15,630	2.08	2.24	0	10
Firm size	15,630	20.57	2.41	6.91	28.87
Firm market-to-book ratio	15,630	1.96	21.85	0.09	2,665
Firm tangibility	15,630	0.031	0.025	0	0.099
Firm leverage	15,630	0.032	0.18	0.00	14.20
GDP per capita	15,630	34,319	8,957	1,606	62,043
GDP growth	15,630	3.31	2.85	-14.8	14.47
Stock-market capitalization	14,431	108.09	41.41	0.005	299.6
Financial freedom	14,062	73.23	15.92	30.0	90.0
Information transparency	14,590	79.88	6.25	40.00	88.00
Unrest	14,232	12.72	33.32	0	100
Political stability	11,663	0.44	0.54	-2.81	1.67
Institutional quality	14,120	0.78	0.09	0.31	0.89
Property rights	14,062	83.19	13.78	10	95
Regional democratization	15,630	0.93	0.21	0	1
Regional unrest	15,630	0.12	0.11	0	1

Table III
Democracy and loan spreads: Baseline results

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD* and all variables are defined in Table I. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. Specifications (1) and (3) include only loan-level controls and specifications (2) and (4) additionally include firm and macro-level controls. The first two specifications do not include country fixed effects and the latter two include country fixed effects.

	(1)	(2)	(3)	(4)
Democracy	-1.457**	-2.089***	-15.462***	-21.161***
	[-2.270]	[-2.973]	[-4.744]	[-5.090]
Creditor rights	-3.591***	-4.272***	-52.529***	-39.574***
	[-2.683]	[-3.124]	[-3.621]	[-2.640]
Loan amount	-10.511***	-5.235***	-14.752***	-8.277***
	[-17.534]	[-7.216]	[-22.953]	[-10.694]
Maturity	-0.097**	-0.078**	-0.082**	-0.044
	[-2.558]	[-1.967]	[-2.129]	[-1.109]
Collateral	57.557***	50.063***	52.841***	46.738***
	[27.055]	[20.067]	[25.036]	[18.839]
Number of lenders	-1.589***	-0.878***	-0.968***	-0.473***
	[-12.019]	[-6.108]	[-7.309]	[-3.214]
Performance provisions	-26.454***	-29.006***	-28.527***	-30.624***
	[-12.002]	[-11.551]	[-12.905]	[-12.108]
General covenants	4.496***	5.621***	4.047***	5.103***
	[8.576]	[9.273]	[7.758]	[8.397]
Firm size		-12.619***		-11.116***
		[-17.397]		[-15.138]
Firm market-to-book ratio		-0.117***		-0.113***
		[-5.030]		[-4.930]
Firm tangibility		187.850***		166.678***
		[4.704]		[4.166]
Firm leverage		10.985		12.324*
		[1.591]		[1.754]
GDP per capita		-0.000		-0.005***
		[-0.595]		[-5.022]
GDP growth		-5.173***		-3.545***
		[-8.168]		[-4.519]
Observations	20,575	15,634	20,571	15,630
Adjusted R-squared	0.506	0.531	0.527	0.546
Loan type effects	Y	Y	Y	Y
Loan purpose effects	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y
Country effects	N	N	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan

Table IV
Democracy and loan spreads: IV results

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD* and all variables are defined in Table I. Estimation method is the IV procedure of equations (2) and (3) with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. Specification (1) includes only loan-level controls and specification (2) additionally includes firm and macro-level controls.

	(1)	(2)
Democracy	-26.327***	-22.615**
	[-2.840]	[-2.343]
Creditor rights	-54.100***	-45.276***
	[-3.739]	[-2.956]
Loan amount	-15.166***	-8.525***
	[-22.022]	[-10.573]
Maturity	-0.029	-0.025
	[-0.743]	[-0.604]
Collateral	52.716***	47.926***
	[23.353]	[18.602]
Number of lenders	-0.600***	-0.359**
	[-4.113]	[-2.327]
Performance provisions	-28.860***	-30.727***
	[-11.963]	[-11.684]
General covenants	4.656***	5.459***
	[8.429]	[8.792]
Firm size		-10.848***
		[-14.055]
Firm market-to-book ratio		-0.108***
		[-5.062]
Firm tangibility		185.085***
		[4.355]
Firm leverage		10.779*
		[1.691]
GDP per capita		-0.004***
		[-4.050]
GDP growth		-2.960***
		[-3.061]
Observations	17,179	14,575
Adjusted R-squared	0.540	0.548
Loan type effects	Y	Y
Loan purpose effects	Y	Y
Year effects	Y	Y
Bank effects	Y	Y
Country effects	Y	Y
Clustered standard errors	Loan	Loan

Table V
Alternative measures of democracy

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD* and all variables are defined in Table I. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. The measures of democracy are *Polity*, *Democracy (BMR)*, *Democracy (Freedom House)*, and *Democracy (Acemoglu et al.)* in specifications (1) to (4), respectively.

	(1)	(2)	(3)	(4)
Polity	-12.444***			
	[-4.258]			
Democracy (BMR)		-168.843***		
		[-5.247]		
Democracy (Freedom House)			-152.773***	
			[-7.385]	
Democracy (Acemoglu et al.)				-84.071**
				[-2.413]
Creditor rights	-40.306***	-36.466**	-39.817***	-47.945***
	[-2.702]	[-2.370]	[-2.651]	[-3.124]
Loan amount	-8.274***	-8.538***	-8.441***	-8.518***
	[-10.691]	[-10.610]	[-10.473]	[-10.581]
Maturity	-0.044	-0.025	-0.026	-0.024
	[-1.111]	[-0.602]	[-0.629]	[-0.584]
Collateral	46.804***	47.643***	47.862***	47.806***
	[18.860]	[18.524]	[18.631]	[18.544]
Number of lenders	-0.472***	-0.363**	-0.358**	-0.351**
	[-3.206]	[-2.363]	[-2.328]	[-2.281]
Performance provisions	-30.581***	-31.069***	-30.820***	-30.767***
	[-12.089]	[-11.809]	[-11.731]	[-11.695]
General covenants	5.087***	5.539***	5.526***	5.475***
	[8.371]	[8.921]	[8.905]	[8.816]
Firm size	-11.093***	-10.881***	-10.893***	-10.878***
	[-15.101]	[-14.124]	[-14.164]	[-14.107]
Firm market-to-book ratio	-0.113***	-0.109***	-0.108***	-0.109***
	[-4.929]	[-5.065]	[-5.087]	[-5.055]
Firm tangibility	166.923***	187.431***	185.814***	187.179***
	[4.172]	[4.418]	[4.387]	[4.407]
Firm leverage	12.333*	10.821*	10.802*	10.821*
	[1.755]	[1.707]	[1.718]	[1.704]
GDP per capita	-0.005***	-0.005***	-0.006***	-0.005***
	[-4.935]	[-4.709]	[-5.323]	[-4.412]
GDP growth	-3.590***	-3.083***	-2.118**	-3.176***
	[-4.525]	[-3.338]	[-2.388]	[-3.428]
Observations	15,630	14,575	14,575	14,575
Adjusted R-squared	0.546	0.549	0.550	0.548
Loan type	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y
Country effects	Y	Y	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan

Table VI
Reversals

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD* and all variables are defined in Table I. In specification (1) the estimation method is OLS and in specification (2) the IV procedure of equations (2) and (3). Standard errors in both specification are clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification.

	(1)	(2)
Democracy	-36.642***	-22.915**
	[-6.538]	[-2.349]
Reversals	-272.986***	-415.180*
	[-4.170]	[-1.856]
Democracy*Reversals	79.242***	70.210**
	[5.317]	[2.221]
Creditor rights	-46.232***	-46.548***
	[-3.034]	[-3.066]
Loan amount	-8.530***	-8.530***
	[-10.589]	[-10.580]
Maturity	-0.023	-0.023
	[-0.557]	[-0.568]
Collateral	47.422***	47.887***
	[18.416]	[18.586]
Number of lenders	-0.375**	-0.359**
	[-2.437]	[-2.326]
Performance provisions	-30.909***	-30.755***
	[-11.757]	[-11.693]
General covenants	5.553***	5.462***
	[8.944]	[8.798]
Firm size	-10.992***	-10.846***
	[-14.272]	[-14.052]
Firm market-to-book ratio	-0.109***	-0.108***
	[-5.071]	[-5.056]
Firm tangibility	184.398***	185.510***
	[4.343]	[4.364]
Firm leverage	10.799*	10.769*
	[1.705]	[1.689]
GDP per capita	-0.005***	-0.004***
	[-4.856]	[-3.969]
GDP growth	-2.968***	-2.984***
	[-3.259]	[-3.086]
Marginal effect of Democracy	-36.58***	-22.86**
	[-6.53]	[-2.34]
Marginal effect of Reversals	492.40***	257.02***
	[4.75]	[2.93]
Observations	14,575	14,575
Adjusted R-squared	0.549	0.548
Loan type effects	Y	Y
Loan purpose effects	Y	Y
Year effects	Y	Y
Bank effects	Y	Y
Country effects	Y	Y
Clustered standard errors	Loan	Loan

Table VII
Results from post-Soviet states

The table reports coefficients and t-statistics (in brackets) from models where the sample is restricted to post-Soviet states. Dependent variable is *AISD* and all variables are defined in Table I. In specification (1) the estimation method is OLS and in specification (2) the IV procedure of equations (2) and (3). Standard errors in both specification are clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification.

	(1)	(2)
Democracy	-72.211**	-367.252***
	[-2.563]	[-2.634]
Creditor rights	-41.578	-61.366
	[-0.781]	[-1.058]
Loan amount	-27.410*	-35.303*
	[-1.966]	[-1.705]
Maturity	-0.458	-0.672
	[-0.918]	[-1.553]
Collateral	75.385***	64.539**
	[2.864]	[2.269]
Number of lenders	-1.074	-0.580
	[-0.594]	[-0.283]
Performance provisions	-47.392*	-27.974
	[-1.823]	[-0.974]
General covenants	248.610***	204.583***
	[18.351]	[8.267]
Firm size	-24.231***	-26.864***
	[-2.814]	[-2.789]
Firm market-to-book ratio	-24.246*	-31.089
	[-1.687]	[-1.578]
Firm tangibility	130.488	238.239
	[0.266]	[0.371]
Firm leverage	-1,729.863	-1,798.052
	[-1.445]	[-1.483]
GDP per capita	-0.003	0.018*
	[-0.536]	[1.870]
GDP growth	-8.799***	-9.039***
	[-3.031]	[-3.242]
Observations	124	107
Adjusted R-squared	0.371	0.411
Country effects	Y	Y
Clustered standard errors	Loan facility	Loan facility

Table VIII
Controlling for financial development

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD* and all variables are defined in Table I. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification.

	(1)	(2)	(3)
Democracy	-22.848***	-21.150***	-23.569***
	[-5.361]	[-4.776]	[-5.231]
Creditor rights	-41.704***	-5.989	4.052
	[-2.710]	[-0.156]	[0.095]
Loan amount	-9.343***	-7.756***	-8.814***
	[-11.192]	[-9.579]	[-10.007]
Maturity	-0.019	-0.003	0.027
	[-0.467]	[-0.076]	[0.646]
Collateral	50.326***	41.771***	45.582***
	[18.670]	[15.582]	[15.437]
Number of lenders	-0.306*	-0.555***	-0.360**
	[-1.912]	[-3.558]	[-2.116]
Performance provisions	-31.020***	-32.004***	-32.582***
	[-12.089]	[-12.462]	[-12.507]
General covenants	4.900***	5.661***	5.439***
	[8.012]	[9.065]	[8.645]
Firm size	-11.164***	-11.341***	-11.465***
	[-14.233]	[-14.688]	[-13.836]
Tobin's q	-0.112***	-0.110***	-0.109***
	[-5.098]	[-5.884]	[-6.146]
Tangibility	173.661***	170.901***	178.837***
	[4.113]	[4.051]	[4.004]
Leverage	12.044*	9.066	8.729
	[1.707]	[1.581]	[1.509]
GDP per capita	-0.004***	-0.004***	-0.003**
	[-3.271]	[-4.062]	[-2.291]
GDP growth	-1.753*	-3.216***	-1.495
	[-1.731]	[-4.002]	[-1.447]
Stock-market capitalization	-0.043		0.037
	[-0.532]		[0.437]
Financial freedom		-0.135	-0.140
		[-0.757]	[-0.719]
Observations	14,396	14,038	12,820
Adjusted R-squared	0.545	0.550	0.549
Loan type	Y	Y	Y
Loan purpose	Y	Y	Y
Year effects	Y	Y	Y
Bank effects	Y	Y	Y
Country effects	Y	Y	Y
Clustered standard errors	Loan	Loan	Loan

Table IX

Differences between the borrower's country, lender's country, and country of syndication

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD* and most variables are defined in Table I. *Lender's democracy* is *Democracy* in the lender's country. *Difference in democracy* is the difference between *Democracy* in the borrower's and the lender's countries. *Different country of syndication* is a dummy variable taking the value 1 if the country of syndication is different than the borrower's country and 0 otherwise. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. All specifications include the control variables of specification (2) in Table III, results on which are not reported due to space considerations.

	(1)	(2)	(3)	(4)
Democracy	-21.274***	-23.038***	-24.184**	-21.232***
	[-5.029]	[-4.747]	[-2.414]	[-5.113]
Lender's democracy	-1.462	-2.684		
	[-0.150]	[-0.277]		
Democracy*Lender's democracy		0.179		
		[0.759]		
Difference in democracy			3.371	
			[0.350]	
Democracy*Difference in democracy			-0.347	
			[-1.483]	
Different country of syndication				5.130
				[0.436]
Democracy*Different country of syndication				0.290
				[0.215]
Observations	15,430	15,430	15,430	15,430
Adjusted R-squared	0.543	0.543	0.543	0.546
Loan type	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y
Country effects	Y	Y	Y	Y
Control variables	Y	Y	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan

Table X
Effect of democracy on other loan characteristics

The table reports coefficients and t-statistics (in brackets). The dependent variable is denoted in the second line of the table. In the first three specifications, estimation method is OLS with standard errors clustered by loan. In the latter three specifications, estimation method is the IV procedure of equations (2) and (3) with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification.

	(1) Collateral	(2) Performance provisions	(3) General covenants	(4) Collateral	(5) Performance provisions	(6) General covenants
Democracy	-0.038**	-0.035**	0.240***	0.016	-0.014	-0.024
	[-2.422]	[-2.450]	[4.808]	[0.487]	[-0.660]	[-0.307]
Creditor rights	0.171***	0.033	0.279*	0.167***	0.032	0.371**
	[2.971]	[0.873]	[1.718]	[2.860]	[0.796]	[2.335]
Spread	0.001***	-0.000***	0.001***	0.001***	-0.000***	0.001***
	[16.830]	[-12.185]	[8.277]	[16.508]	[-11.787]	[8.686]
Loan amount	-0.023***	0.012***	0.116***	-0.024***	0.013***	0.121***
	[-8.534]	[5.249]	[10.709]	[-8.339]	[5.550]	[10.580]
Maturity	0.001***	0.000***	0.001**	0.001***	0.000***	0.001**
	[4.414]	[3.537]	[2.527]	[4.204]	[3.615]	[2.207]
Collateral		0.022***	0.973***		0.025***	0.963***
		[2.885]	[25.373]		[3.117]	[24.020]
Number of lenders	-0.001**	0.006***	0.006**	-0.002**	0.006***	0.006**
	[-2.491]	[10.193]	[2.531]	[-2.527]	[9.678]	[2.250]
Performance provisions	0.027***		1.498***	0.030***		1.513***
	[2.888]		[30.005]	[3.122]		[29.227]
General covenants	0.049***	0.063***		0.048***	0.064***	
	[26.091]	[31.401]		[24.656]	[30.815]	
Firm size	-0.026***	-0.008***	0.024***	-0.025***	-0.009***	0.027***
	[-10.819]	[-4.303]	[2.638]	[-10.234]	[-4.229]	[2.770]
Firm market-to-book ratio	-0.000***	0.000***	-0.000	-0.000***	0.000***	-0.000
	[-5.111]	[6.383]	[-0.340]	[-4.986]	[6.233]	[-0.340]
Firm tangibility	-0.546***	0.201	0.071	-0.570***	0.224	-0.059
	[-3.875]	[1.552]	[0.117]	[-3.801]	[1.628]	[-0.090]
Firm leverage	-0.031**	-0.002	0.152*	-0.031**	-0.002	0.159**
	[-2.049]	[-0.064]	[1.946]	[-2.187]	[-0.080]	[1.968]
GDP per capita	0.000	0.000***	0.000	0.000	0.000***	0.000
	[0.820]	[3.124]	[0.165]	[0.273]	[2.585]	[0.650]
GDP growth	-0.001	0.002	-0.002	-0.002	0.001	0.003
	[-0.250]	[0.827]	[-0.229]	[-0.488]	[0.226]	[0.288]
Observations	15,630	15,630	15,630	14,575	14,575	14,575
Adjusted R-squared	0.432	0.356	0.449	0.437	0.360	0.454
Loan type	Y	Y	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y	Y	Y
Year effects	N	N	Y	Y	Y	Y
Bank effects	N	N	Y	Y	Y	Y
Country effects	Y	Y	Y	Y	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan	Loan	Loan

Table XI
Channels of the effect of democratic institutions on loan spreads: Results from components of the Polity IV index

The table reports coefficients and t-statistics (in brackets). The dependent variable is denoted in the second line of the table and all variables are defined in Table I. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. The variable *Democracy channel* is defined by the variable in the first line of the table.

	(1) Competitiveness of executive recruitment	(2) Openness of executive recruitment	(3) Executive constraints	(4) Competitiveness of participation
Democracy channel	-1.454***	-0.055*	-0.088*	-17.699**
	[-3.056]	[-1.787]	[-1.955]	[-2.455]
Creditor rights	-50.032***	-49.671***	-50.486***	-25.089
	[-3.171]	[-3.248]	[-3.441]	[-0.408]
Loan amount	-8.471***	-9.392***	-8.794***	-6.589***
	[-10.504]	[-11.197]	[-10.526]	[-7.408]
Maturity	-0.023	-0.019	-0.032	0.028
	[-0.557]	[-0.468]	[-0.742]	[0.649]
Collateral	47.827***	50.182***	48.888***	37.885***
	[18.537]	[18.535]	[18.735]	[12.396]
Number of lenders	-0.377**	-0.302*	-0.382**	-0.705***
	[-2.437]	[-1.863]	[-2.470]	[-4.014]
Performance provisions	-30.724***	-30.696***	-30.294***	-35.727***
	[-11.682]	[-11.926]	[-11.466]	[-11.711]
General covenants	5.464***	4.863***	5.405***	6.829***
	[8.798]	[7.941]	[8.700]	[8.805]
Firm size	-10.875***	-11.170***	-10.391***	-11.386***
	[-14.100]	[-14.144]	[-13.255]	[-13.352]
Tobin's q	-0.108***	-0.112***	-0.105***	-0.110***
	[-5.042]	[-5.080]	[-4.999]	[-6.206]
Tangibility	184.527***	173.837***	174.244***	186.012***
	[4.344]	[4.108]	[4.060]	[3.864]
Leverage	11.082*	12.136*	10.927*	6.390
	[1.736]	[1.728]	[1.742]	[1.355]
GDP per capita	-0.004***	-0.003***	-0.005***	-0.005***
	[-3.558]	[-2.666]	[-5.010]	[-4.885]
GDP growth	-2.968***	-2.615**	-3.815***	-2.780***
	[-3.070]	[-2.484]	[-4.041]	[-3.395]
Observations	14,573	14,328	14,203	11,598
Adjusted R-squared	0.548	0.543	0.547	0.550
Loan type	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y
Country effects	Y	Y	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan

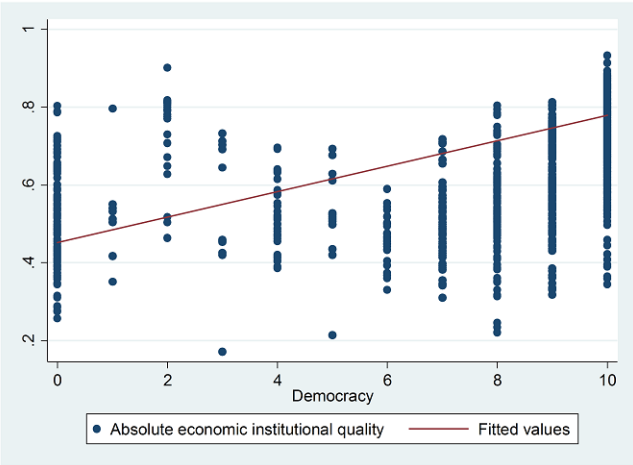
Table XII
Civil liberties and loan spreads

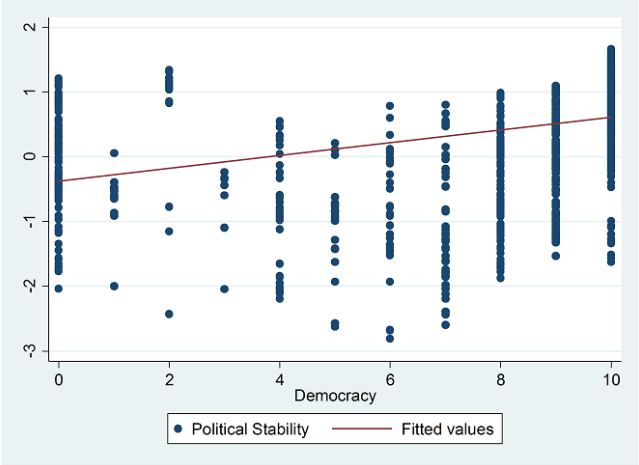
The table reports coefficients and t-statistics (in brackets). The dependent variable is denoted in the second line of the table and all variables are defined in Table I. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. The variable Civil liberty is defined by the variable in the first line of the table.

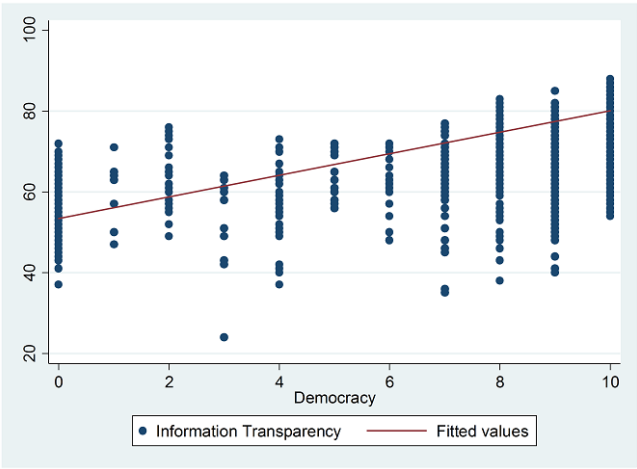
	(1) Information transparency	(2) Stock-market capitalization	(3) Likelihood of unrest	(4) Political stability	(5) Institutional quality	(6) Property rights
Civil liberty	-1.454***	-0.066	-0.088*	-17.699**	-237.140***	-13.526***
	[-3.056]	[-0.797]	[-1.955]	[-2.455]	[-4.278]	[-3.316]
Creditor rights	-50.032***	-49.730***	-50.486***	-25.089	-30.999*	-26.277
	[-3.171]	[-3.290]	[-3.441]	[-0.408]	[-1.894]	[-0.522]
Loan amount	-8.471***	-9.336***	-8.794***	-6.589***	-8.280***	-7.325***
	[-10.504]	[-11.180]	[-10.526]	[-7.408]	[-10.140]	[-8.297]
Maturity	-0.023	-0.019	-0.032	0.028	-0.009	0.021
	[-0.557]	[-0.469]	[-0.742]	[0.649]	[-0.211]	[0.477]
Collateral	47.827***	50.623***	48.888***	37.885***	46.833***	35.873***
	[18.537]	[18.755]	[18.735]	[12.396]	[17.785]	[11.649]
Number of lenders	-0.377**	-0.299*	-0.382**	-0.705***	-0.390**	-0.673***
	[-2.437]	[-1.861]	[-2.470]	[-4.014]	[-2.470]	[-3.860]
Performance provisions	-30.724***	-30.783***	-30.294***	-35.727***	-31.283***	-37.338***
	[-11.682]	[-11.990]	[-11.466]	[-11.711]	[-11.898]	[-12.397]
General covenants	5.464***	4.833***	5.405***	6.829***	5.596***	7.908***
	[8.798]	[7.902]	[8.700]	[8.805]	[9.017]	[9.794]
Firm size	-10.875***	-11.116***	-10.391***	-11.386***	-10.987***	-11.276***
	[-14.100]	[-14.156]	[-13.255]	[-13.352]	[-13.943]	[-13.388]
Tobin's q	-0.108***	-0.111***	-0.105***	-0.110***	-0.107***	-0.107***
	[-5.042]	[-5.105]	[-4.999]	[-6.206]	[-5.242]	[-7.594]
Tangibility	184.527***	174.661***	174.244***	186.012***	171.285***	194.913***
	[4.344]	[4.136]	[4.060]	[3.864]	[3.973]	[4.078]
Leverage	11.082*	12.109*	10.927*	6.390	9.981	6.850
	[1.736]	[1.713]	[1.742]	[1.355]	[1.627]	[1.455]
GDP per capita	-0.004***	-0.003***	-0.005***	-0.005***	-0.003**	-0.005***
	[-3.558]	[-2.736]	[-5.010]	[-4.885]	[-2.489]	[-4.486]
GDP growth	-2.968***	-2.227**	-3.815***	-2.780***	-2.872***	-2.159***
	[-3.070]	[-2.119]	[-4.041]	[-3.395]	[-3.063]	[-2.625]
Observations	14,573	14,328	14,203	11,598	14,091	11,708
Adjusted R-squared	0.548	0.543	0.547	0.550	0.551	0.550
Loan type	Y	Y	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y	Y	Y
Year effects	Y	Y	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y	Y	Y
Country effects	Y	Y	Y	Y	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan	Loan	Loan

Figure I
Correlates of democracy

The figure reports the correlation between the institutionalized democracy index (Polity IV Project) and four freedom-related variables that play a potential role in the cost of corporate loans. Figure I-I economic institutional quality (index from Kunčič, 2014), Figure I-II political stability (index from the World Governance Indicators), Figure I-III covers information transparency (index from Williams, 2014) and Figure I-IV financial literacy (index from Standard & Poor's).







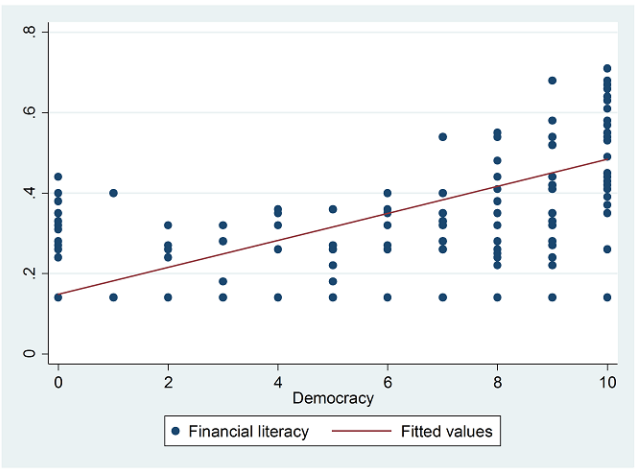


Figure II
Institutionalized democracy and aggregate lending rates

The figure reports the correlation between the institutionalized democracy index (Polity IV Project) and the aggregate lending interest rate from the World Development Indicators (WDI). 0 indicates no institutional democracy and 10 indicates a maximum level of institutional democracy. The panel consists of 89 countries over 1984-2014. The slope of the regression line is -0.62 with t-stat = 42.60.

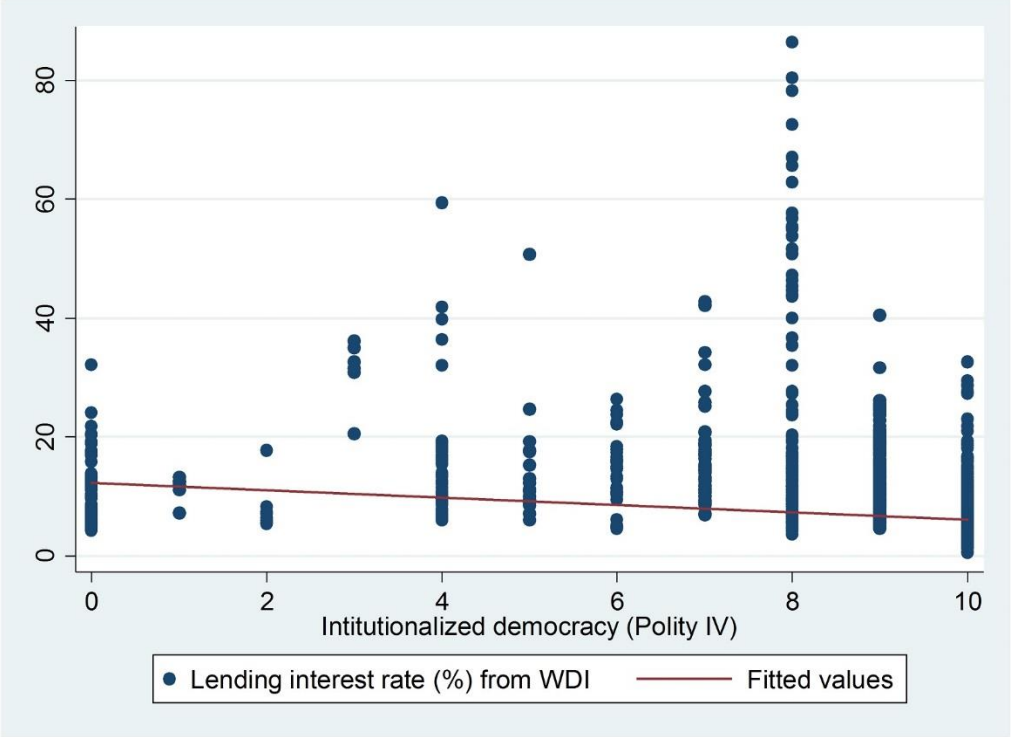
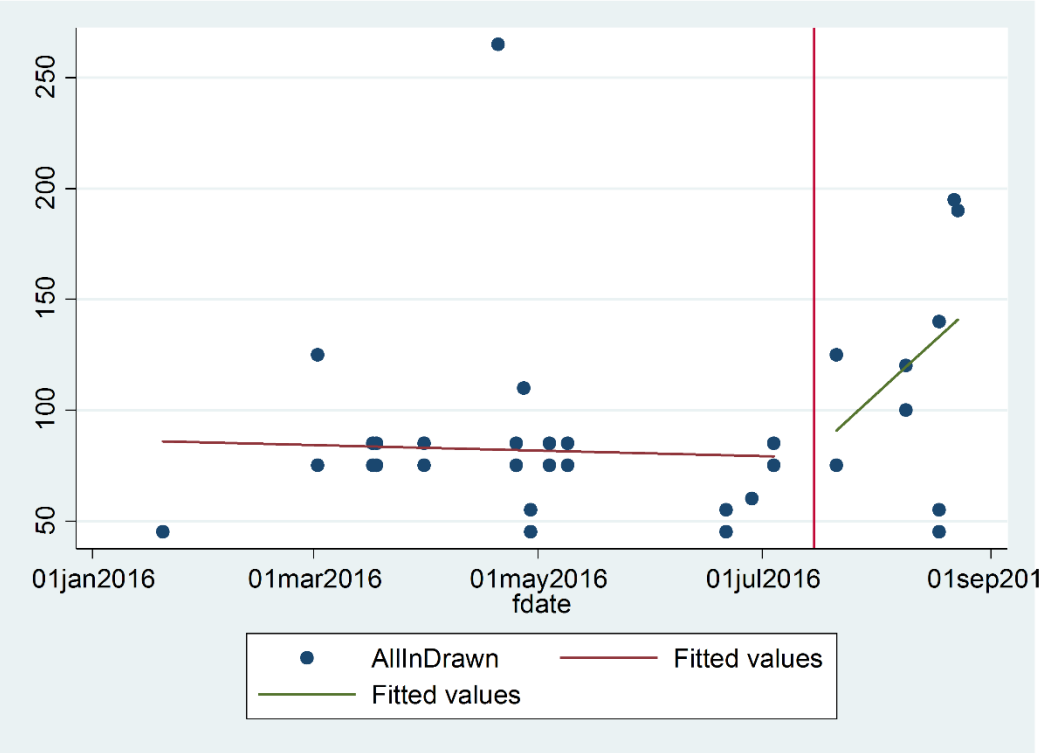


Figure III
Total cost of loans before and after the 2016 Turkish *coup d'état* attempt

The figure reports the total cost of loans (as measured from Berg, Saunders, and Steffen, 2016; defined in Table I) before and after the Turkish coup d'état attempt on July 15, 2016. There are 24 loan facilities before July 15, 2016 and 9 loan facilities after that date. These are conventional loan facilities in the sense that we drop all loans for which there is no conventional pricing (i.e., there is no spread) and this deletes all types of Islamic finance and very specialized credit lines.



Online Appendix for
"Democracy Doesn`t Come Cheap"
But At Least Credit to Its Corporations Will Be Cheaper

Abstract

This online appendix includes additional information on the sample and empirical results of the paper "Democracy Doesn`t Come Cheap" But At Least Credit to Its Corporations Will Be Cheaper. The first section includes additional information on the construction of the sample and summary statistics. The second section discusses in detail the construction of the instrumental variables (IVs). The third section provides more results from the IV method. The last two sections examine the sensitivity of our results from econometric and sample-selection viewpoints, respectively.

AI. Sample Construction and Additional Summary Statistics

We begin with the full set of loans in DealScan. This sample includes 86,198 loan facilities, corresponding to 65,042 loan packages. The unit of our analysis is still the loan facility. The difference between the two is that the loan facility refers to each individual portion of a deal, whereas the deal itself possibly (but obviously not usually) comprises more than one loan facilities and covers the full amount of credit granted to the firm on that occasion. A loan-facility analysis is appropriate for the following reason. Loan facilities may have different starting dates, maturity, amount, and loan type. Hence, multiple loan facilities, even when in the same loan deal, are not fully dependent observations (e.g., simply adding facilities and ignoring their differences, may therefore introduce a bias in the estimates). However, all results presented in this paper are robust to a loan-package analysis.

From this initial sample, we exclude loan facilities that do not report an *AISD*. This excludes specific loan categories, such as loans given by Islamic banks. We then match the sample of borrowers with data from Compustat and other macroeconomic sources as indicated in Table I. The matching process between DealScan and Compustat is done using the link-table provided by WRDS (facility and gvkey). For each and every one of the measures of democracy and the control variables included in our baseline specifications there are some missing observations, which lower the number of observations to the numbers shown in the lower part of each table. For replication purposes the data set with the full set of observations and Stata codes (do file) is available to editors and referees under the understanding that it will not be publicly available due to restrictions from DealScan and Compustat.

In Table A.I we provide summary statistics for the country-year sample only (i.e., when we collapse all variables in our sample by country and year). These statistics provide a better

reflection of the averages and variability of the variables observed at the country-year level. In Table A.II we provide the number of loans by country in our sample, as well as the standard deviation of the democracy indicators used in the empirical analysis. Note that this table is important to view for the analysis that includes country fixed effects in the estimations, because only countries with a positive (non-zero) standard deviation in the democracy indicators affect the results.

Last, Table A.III report the pairwise correlation coefficients between the loan characteristics and two indices of financial development (stock-market capitalization and Financial freedom as defined in Table I). This is important to view when discussing the role of financial development in the relation between democracy and loan pricing (mainly the discussion of results reported in Table VII).

[Please insert Tables A.I, A.II, & A.III about here]

AII. Discussion of Instrumental Variables' Construction

In this section, we more or less replicate the discussion in Acemoglu et al. (2015) with respect to the construction of the main IV used in our empirical analysis. For each country *c*, let D_{ct0} denote whether the country was a democracy or nondemocracy in 1960, and R_c denote the geographic region in which the country lies. These regions are Africa, East Asia and the Pacific, Eastern Europe and Central Asia, Western Europe and other developed countries, Latin America and the Caribbean, the Middle East and the North of Africa, and South Asia. We assume that democracy in country *c* is influenced by democracy in the set of countries in the same region that also share a similar political history, meaning an equal value for D_{ct0}.

This approach defines the regional influence to democratize that a country *c* faces, Z_{ct}, as

$$Z_{ct} = \frac{1}{|I_c|} \sum_{c' \in I_c} D_{c't}. \quad \text{(A.1)}$$

In (A.1), I_c is the set of countries c' influencing democracy in country c. Z_{ct} is the jack-knifed average of democracy in a region × the initial regime cell, which leaves out the own-country observation. We name this instrumental variable *Regional democratization*. We use the exact same procedure to construct the variable *Regional unrest*, using the variable *Social unrest* as the starting point of the construction process.

AIII. Additional Results from the IV Method

Table A.IV reports additional results from the IV method described in equations (2) and (3). In the first four columns, we measure democratic development using variables other than *Democracy*. In columns (5) to (7) we replicate the OLS results of columns I-III of Table VIII. In column (8) we control for *Social unrest* in the second stage of the regression to saturate the IV model from any effects of social unrest in the specific country. In column (9) we use Regional democratization as our sole instrumental variable. The statistical significance of the results is completely in line with the results reported in the tables of the main text. In some cases, the economic significance rises considerably, which can be attributed to the relative increase in bias from the IV model. As results in our baseline specifications between the OLS and the IV methods are very similar, we conduct most of our analysis using the OLS method.

[Please insert Table A.IV about here]

Some more extensive discussion is warranted for the specifications in columns (10) and (11). In these specifications, we considerable change the first stage of the model of equations (2) and (3) of the main text. In specification (10), we include in the vector *C* numerous other country-year control variables. We experiment with more than 50 variables (from numerous sources) describing economic and social development (e.g., literacy, educational attainment, life

expectancy, infant mortality, R&D expenses, government expenditure, capital and income tax rates, etc.). We also use variables describing economic and financial freedom, freedom from corruption, trade freedom, and interest rate liberalization. We find that using country fixed effects, takes away any statistical significance of the economic variables as determinants of democracy, a result in line with Acemoglu et al. (2015). The only set of variables that does explain democracy independently from regional democratization and unrest and country fixed effects is educational attainment in the 15-25 age group (variable from Gender and Education Association) and other education-related variables. Thus, we use this variable in the first stage of the IV model. We find that our results are economically a bit more potent.

In specification (11) we directly use the fitted values from column 2 of Table 6 in Acemoglu et al. (2015) as our measure for democracy. This measure controls, *inter alia*, for lags of regional waves of democratization to capture possible regional dynamics. In this way we further exclude the possibility of a three-way correlation between regional waves of democratization, average lending rates, and unobserved regional characteristics. The only difference from Acemoglu et al. (2015) is that we use *Democracy*, as this is the main variable of our study to better capture democratic development and transition. The results are economically stronger and thus, if anything, unobserved regional variables downward bias our baseline estimates.

AIV. Sensitivity Tests on the Clustering of Standard Errors

An important sensitivity test resides on the type of standard-error clustering. There are two issues worth noting here. One is that there could be within-year clustering of errors due to e.g. common unobserved shocks affecting spreads in specific time-periods (e.g., the subprime crisis period). The second, and perhaps more important, is that there is an equivalent within-country clustering of

standard errors. In Table A.V we report robustness tests for these two issues. In columns (1) to (4) we confirm that all our democracy indicators are robust to the double clustering of standard errors by loan *and* year. In columns (5) to (8) we confirm that our results robust to the clustering of standard errors by country. We must note that results are also robust to the clustering of standard error by country *and* year (results available on request).

[Please insert Table A.V about here]

AV. Additional Sensitivity Tests from a Sample-Selection Viewpoint

In Table A.VI we report sensitivity tests from a sample-selection viewpoint. We conduct the tests using specification (4) of Table III, on which we base most of our inference. In specification (1) of Table A.VI we only include observations where collateral is non-missing (i.e., we do not impute zero collateral when collateral is missing). In specification (2), we strictly include term and revolver loans and exclude other specialized loan facilities. In specification (3) we exclude loans for LBOs and M&As. In specification (4), we do not exclude the participant (non-lead) banks from the sample, which results in a significant increase in sample size. Evidently, results are very similar to our baseline.

[Please insert Table A.VI about here]

AVI. Results for *AISU*

In Table A.VII we replicate Table IV, when using *AISU* (the sum of facility and commitment fees) as dependent variable (as per our discussion in Section II.B). This yields a smaller sample due to

data unavailability (fewer loans report *AISU*, especially outside U.S.). The results show a limited effect of Democracy on fees, especially when we use country fixed effects (see columns 3 and 4).

[Please insert Table A.VII about here]

Table A.I
Summary statistics of main variables by country-year

The table reports the number of observations, mean, standard deviation, minimum and maximum obtained from collapsing the loan-level sample by country and year.

	Obs.	Mean	Std. Dev.	Min.	Max.
AISD	1,112	148.61	123.53	-212.50	1,555.00
AISU	617	32.44	29.32	3.00	325.00
Democracy	1,462	7.59	3.40	0	10
Polity	1,462	6.57	5.63	-10	10
Competitiveness of executive recruitment	1,462	2.60	0.76	0	3
Openness of executive recruitment	1,462	3.79	0.78	0	4
Executive constraints	1,462	5.94	1.66	1	7
Competitiveness of participation	1,462	3.99	1.32	0	5
Democracy (BMR)	1,194	0.82	0.39	0	1
Democracy (Freedom House)	3,040	0.48	0.50	0	1
Democracy (Acemoglu et al., 2015)	3,059	0.61	0.49	0	1
Regional democratization	3,069	0.55	0.40	0	1
Regional unrest	3,069	0.21	0.16	0	1

Table A.II
Number of loans by country and mean and standard deviation of Democracy

The table reports the number of observations, and the mean and standard deviation of *Democracy* by country.

Country	Obs.	Mean of Democracy	Std. Dev. of Democracy
Argentina	32	7.72	0.46
Australia	359	10.00	0.00
Austria	12	10.00	0.00
Belgium	44	9.05	1.01
Brazil	57	8.00	0.00
Bulgaria	9	9.00	0.00
Canada	216	10.00	0.00
Chile	51	8.98	0.71
China	98	0.00	0.00
Colombia	9	7.00	0.00
Czech Republic	12	10.00	0.00
Denmark	52	10.00	0.00
Egypt	5	0.60	0.55
Finland	60	10.00	0.00
France	481	9.00	0.00
Germany	260	10.00	0.00
Greece	37	10.00	0.00
Hungary	19	10.00	0.00
India	208	9.00	0.00
Indonesia	48	8.00	0.00
Ireland	77	10.00	0.00
Israel	14	9.86	0.36
Italy	171	10.00	0.00
Japan	305	10.00	0.00
Kazakhstan	2	0.00	0.00
Korea	197	7.99	0.07
Kuwait	4	0.00	0.00
Malaysia	15	4.27	0.70
Mexico	53	7.13	1.59
Namibia	2	6.00	0.00
Netherlands	210	10.00	0.00
New Zealand	16	10.00	0.00
Norway	69	10.00	0.00
Oman	2	0.00	0.00
Pakistan	2	6.00	0.00
Panama	7	9.00	0.00
Papua New Guinea	2	4.00	0.00

Peru	8	6.75	3.11
Philippines	26	8.00	0.00
Poland	26	9.85	0.37
Portugal	36	10.00	0.00
Romania	8	8.88	0.35
Russia	100	5.17	0.40
Saudi Arabia	14	0.00	0.00
Singapore	145	2.00	0.00
Slovak Republic	5	9.20	0.45
Slovenia	5	10.00	0.00
South Africa	54	9.00	0.00
Spain	209	10.00	0.00
Sri Lanka	2	6.50	0.71
Sweden	93	10.00	0.00
Switzerland	87	10.00	0.00
Taiwan	737	9.97	0.16
Thailand	19	3.63	4.04
Turkey	163	8.17	0.38
USA	9,743	10.00	0.00
Ukraine	12	6.50	0.52
United Arab Emirates	20	0.00	0.00
United Kingdom	896	10.00	0.00
Venezuela, Republic	2	6.00	0.00
Vietnam	3	0.00	0.00

Table A.III
Correlation matrix between financial development and loan characteristics

The table reports pairwise correlation coefficients between variables related to financial development and loan characteristics. The * mark denotes statistical significance at the 1% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Loan amount	1						
(2) Collateral	0.0645*	1					
(3) Number of lenders	0.4033*	-0.0224*	1				
(4) Performance provisions	0.2728*	0.2359*	0.2315*	1			
(5) General covenants	0.2186*	0.4008*	0.1459*	0.5494*	1		
(6) Stock-market capitalization	0.2465*	0.1562*	0.0363*	0.2537*	0.2533*	1	
(7) Financial freedom	0.4211*	0.1743*	0.0266*	0.2627*	0.2271*	0.4352*	1

Table A.IV
Sensitivity tests using the IV method

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD*. All variables are defined in Table I, except from the following: *Lender's democracy* is *Democracy* in the lender's country. *Difference in democracy* is the difference between *Democracy* in the borrower's and the lender's countries. *Different country of syndication* is a dummy variable taking the value 1 if the country of syndication is different than the borrower's country and 0 otherwise. *Social unrest* is a dichotomous measure of the occurrence of revolts or riots in a country at a specific year. Estimation method is the IV procedure of equations (2) and (3) with standard errors clustered by loan. The instruments used are *Regional democratization* and *Regional unrest* (also defined in Table I), except from specification (9) where *Regional democratization* is the only instrument. In column (10), we use a series of additional control variables in the first stage regression (equation 2), as discussed in the text of Appendix A.III. In column (11), we use directly in equation (3), the fitted values from the baseline instrumental variable model of Acemoglu et al. (2015), as further discussed in Appendix A.III. The lower part of the table denotes the type of fixed effects used in each specification.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Democracy					-21.687**	-25.089**	-22.687**	-26.938***	-77.075***	-26.750***	-47.523***
					[-2.138]	[-2.059]	[-2.267]	[-2.646]	[-4.890]	[-2.140]	[-8.461]
Polity	-22.510***										
	[-2.856]										
Democracy (BMR)		-704.895***									
		[-4.645]									
Democracy (Freedom House)			-98.034*								
			[-1.680]								
Democracy (Acemoglu et al.)				-576.658***							
				[-4.096]							
Creditor rights	-45.222***	-44.786***	-45.302***	-44.977***	-46.007***	-46.003***	-41.115***	-51.038***	-44.565***	-49.198***	-43.320***
	[-2.951]	[-2.930]	[-2.960]	[-2.938]	[-2.993]	[-2.993]	[-2.646]	[-3.449]	[-2.924]	[-3.213]	[-2.729]
Loan amount	-8.527***	-8.531***	-8.522***	-8.530***	-8.721***	-8.722***	-8.711***	-8.794***	-8.529***	-8.506***	-8.526***
	[-10.573]	[-10.575]	[-10.573]	[-10.574]	[-10.670]	[-10.671]	[-10.656]	[-10.519]	[-10.577]	[-10.541]	[-10.602]
Maturity	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025	-0.031	-0.025	-0.024	-0.024
	[-0.604]	[-0.603]	[-0.603]	[-0.604]	[-0.604]	[-0.606]	[-0.603]	[-0.711]	[-0.602]	[-0.575]	[-0.590]
Collateral	47.937***	48.000***	47.916***	47.975***	47.835***	47.828***	47.510***	48.885***	48.024***	48.081***	47.817***
	[18.610]	[18.653]	[18.594]	[18.637]	[18.496]	[18.491]	[18.397]	[18.750]	[18.668]	[18.647]	[18.602]
Number of lenders	-0.357**	-0.346**	-0.361**	-0.351**	-0.356**	-0.357**	-0.370**	-0.381**	-0.343**	-0.363**	-0.321**
	[-2.315]	[-2.250]	[-2.338]	[-2.275]	[-2.293]	[-2.296]	[-2.382]	[-2.460]	[-2.227]	[-2.351]	[-2.092]
Performance provisions	-30.729***	-30.726***	-30.725***	-30.728***	-30.601***	-30.601***	-30.828***	-30.313***	-30.721***	-30.752***	-30.968***
	[-11.685]	[-11.688]	[-11.681]	[-11.687]	[-11.593]	[-11.593]	[-11.685]	[-11.475]	[-11.686]	[-11.681]	[-11.788]
General covenants	5.454***	5.432***	5.463***	5.440***	5.460***	5.460***	5.513***	5.404***	5.424***	5.424***	5.484***
	[8.785]	[8.753]	[8.797]	[8.765]	[8.784]	[8.784]	[8.872]	[8.698]	[8.742]	[8.739]	[8.832]
Firm size	-10.850***	-10.862***	-10.848***	-10.857***	-10.761***	-10.762***	-10.865***	-10.399***	-10.868***	-10.843***	-10.993***
	[-14.056]	[-14.076]	[-14.055]	[-14.067]	[-13.776]	[-13.776]	[-13.936]	[-13.259]	[-14.087]	[-13.998]	[-14.272]
Firm market-to-book ratio	-0.108***	-0.108***	-0.108***	-0.108***	-0.107***	-0.107***	-0.108***	-0.105***	-0.108***	-0.108***	-0.109***
	[-5.064]	[-5.073]	[-5.061]	[-5.070]	[-5.065]	[-5.066]	[-5.068]	[-4.997]	[-5.077]	[-5.064]	[-5.034]
Firm tangibility	185.008***	185.644***	185.312***	185.234***	190.716***	190.629***	189.932***	173.263***	186.327***	187.544***	185.411***
	[4.354]	[4.372]	[4.360]	[4.361]	[4.456]	[4.454]	[4.437]	[4.035]	[4.389]	[4.411]	[4.371]

Firm leverage	10.750*	10.644*	10.813*	10.677*	10.827*	10.820*	10.728*	10.780*	10.628*	10.759*	10.804*
	[1.686]	[1.670]	[1.698]	[1.674]	[1.701]	[1.701]	[1.691]	[1.719]	[1.670]	[1.700]	[1.699]
GDP per capita	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***	-0.005***	-0.005***	-0.005***	-0.004***	-0.004***
	[-4.079]	[-4.280]	[-4.031]	[-4.195]	[-3.993]	[-3.999]	[-4.521]	[-4.975]	[-4.378]	[-3.686]	[-3.489]
GDP growth	-2.904***	-2.929***	-3.059***	-2.868***	-3.025***	-3.023***	-2.793***	-3.375***	-3.078***	-1.938*	-2.743***
	[-3.001]	[-3.051]	[-3.172]	[-2.972]	[-3.092]	[-3.090]	[-2.933]	[-3.451]	[-3.239]	[-1.672]	[-2.952]
Lender's democracy					-7.286	-10.148					
					[-0.746]	[-0.932]					
Democracy*Lender's democracy						0.352					
						[0.499]					
Difference in democracy							-11.014				
							[-1.639]				
Democracy*Difference in democracy							-1.067				
							[-1.539]				
Social unrest								11.765***			
								[2.637]			
Observations	14,575	14,575	14,575	14,575	14,389	14,389	14,389	14,203	14,575	14,575	14,575
Adjusted R-squared	0.548	0.549	0.548	0.548	0.545	0.545	0.546	0.547	0.549	0.549	0.550
Loan type	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clustering	Loan	Loan	Loan	Loan	Loan	Loan	Loan	Loan	Loan	Loan	Loan

Table A.V
Sensitivity to the type of clustering of standard errors

The table reports coefficients and t-statistics (in brackets). Dependent variable is *AISD* and all variables are defined in Table I. Estimation method is OLS. In specifications (1) to (4) the standard errors are clustered by loan and year, and in (5) to (8) by country. The lower part of the table denotes the type of fixed effects used in each specification.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Democracy	-21.161***				-21.161**			
	[-3.794]				[-2.197]			
Democracy (BMR)		-168.843***				-168.843***		
		[-3.465]				[-3.988]		
Democracy (Freedom House)			-152.773***				-152.773***	
			[-4.448]				[-5.628]	
Democracy (Acemoglu et al.)				-84.071**				-84.071***
				[-2.200]				[-2.701]
Creditor rights	-39.574**	-36.466*	-39.817**	-47.945**	-39.574**	-36.466*	-39.817**	-47.945**
	[-2.261]	[-1.905]	[-2.145]	[-2.458]	[-2.027]	[-1.726]	[-2.027]	[-2.369]
Loan amount	-8.277***	-8.538***	-8.441***	-8.518***	-8.277***	-8.538***	-8.441***	-8.518***
	[-7.805]	[-7.401]	[-7.343]	[-7.373]	[-3.167]	[-3.340]	[-3.257]	[-3.319]
Maturity	-0.044	-0.025	-0.026	-0.024	-0.044	-0.025	-0.026	-0.024
	[-0.683]	[-0.390]	[-0.410]	[-0.379]	[-0.526]	[-0.263]	[-0.274]	[-0.253]
Collateral	46.738***	47.643***	47.862***	47.806***	46.738***	47.643***	47.862***	47.806***
	[8.824]	[8.369]	[8.405]	[8.330]	[6.600]	[6.530]	[6.661]	[6.638]
Number of lenders	-0.473**	-0.363*	-0.358*	-0.351*	-0.473**	-0.363*	-0.358*	-0.351*
	[-2.483]	[-1.915]	[-1.819]	[-1.848]	[-2.530]	[-1.916]	[-1.890]	[-1.875]
Performance provisions	-30.624***	-31.069***	-30.820***	-30.767***	-30.624***	-31.069***	-30.820***	-30.767***
	[-8.364]	[-8.209]	[-8.287]	[-7.922]	[-6.330]	[-6.086]	[-5.808]	[-5.755]
General covenants	5.103***	5.539***	5.526***	5.475***	5.103***	5.539***	5.526***	5.475***
	[3.680]	[3.977]	[3.978]	[3.900]	[10.626]	[11.154]	[11.308]	[11.941]
Firm size	-11.116***	-10.881***	-10.893***	-10.878***	-11.116***	-10.881***	-10.893***	-10.878***
	[-13.714]	[-12.181]	[-12.116]	[-12.025]	[-8.667]	[-9.250]	[-9.212]	[-9.266]
Tobin's q	-0.113***	-0.109***	-0.108***	-0.109***	-0.113***	-0.109***	-0.108***	-0.109***
	[-5.698]	[-6.082]	[-6.073]	[-6.070]	[-10.826]	[-10.350]	[-10.708]	[-10.286]
Tangibility	166.678***	187.431***	185.814***	187.179***	166.678***	187.431***	185.814***	187.179***
	[3.361]	[3.542]	[3.545]	[3.518]	[3.605]	[3.855]	[3.802]	[3.849]
Leverage	12.324	10.821	10.802	10.821	12.324***	10.821***	10.802***	10.821***
	[1.346]	[1.310]	[1.310]	[1.303]	[5.607]	[5.325]	[5.414]	[5.318]

GDP per capita	-0.005**	-0.005**	-0.006**	-0.005*	-0.005**	-0.005**	-0.006**	-0.005*
	[-2.413]	[-2.070]	[-2.375]	[-1.926]	[-2.147]	[-2.029]	[-2.333]	[-1.914]
GDP growth	-3.545**	-3.083**	-2.118	-3.176**	-3.545**	-3.083	-2.118	-3.176*
	[-2.765]	[-2.210]	[-1.539]	[-2.252]	[-2.413]	[-1.671]	[-1.199]	[-1.710]
Observations	15,630	14,575	14,575	14,575	15,630	14,575	14,575	14,575
Adjusted R-squared	0.546	0.549	0.550	0.548	0.546	0.549	0.550	0.548
Loan type	Y	Y	Y	Y	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y	Y	Y	Y	Y
Year effects	Y	Y	Y	Y	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y	Y	Y	Y	Y
Country effects	Y	Y	Y	Y	Y	Y	Y	Y
Clustered standard errors	Loan&Year	Loan&Year	Loan&Year	Loan&Year	Country	Country	Country	Country

Table A.VI
Additional sensitivity tests from a sample-selection viewpoint

The table reports coefficients and t-statistics (in brackets). Dependent variable is AISD. All variables are defined in Table I. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. In specification (1) we only include observations where collateral is non-missing (i.e., we do not impute zero collateral when collateral is missing). In specification (2), we strictly include term and revolver loans and exclude other specialized loan facilities. In specification (3) we exclude loans for LBOs and M&As. In specification (4), we do not exclude the participant (non-lead) banks from the sample, which results in a significant increase in sample size.

	(1)	(2)	(3)	(4)
Democracy	-22.128**	-21.665***	-17.414***	-18.711***
	[-2.646]	[-5.152]	[-3.910]	[-5.953]
Creditor rights	-126.603***	-39.030***	-34.142**	-22.211**
	[-5.352]	[-2.616]	[-2.301]	[-2.545]
Loan amount	-10.055***	-8.212***	-7.367***	-10.225***
	[-6.791]	[-10.425]	[-8.754]	[-18.765]
Maturity	-0.221*	-0.054	-0.161***	-0.079**
	[-1.983]	[-1.260]	[-3.185]	[-2.279]
Collateral	68.589***	47.476***	47.442***	49.996***
	[13.476]	[18.807]	[17.876]	[32.767]
Number of lenders	-0.660*	-0.462***	-0.794***	-0.153**
	[-1.886]	[-3.105]	[-4.778]	[-2.053]
Performance provisions	-33.521***	-30.653***	-26.328***	-33.553***
	[-5.981]	[-12.091]	[-9.433]	[-21.299]
General covenants	6.097***	5.013***	4.764***	5.129***
	[4.321]	[8.241]	[6.817]	[13.894]
Firm size	-5.719***	-11.258***	-11.044***	-9.900***
	[-5.301]	[-14.983]	[-13.650]	[-20.980]
Tobin's q	-0.069***	-0.113***	-0.114***	-0.131***
	[-5.416]	[-4.970]	[-5.376]	[-2.715]
Tangibility	206.535**	167.613***	240.929***	99.758***
	[2.448]	[4.154]	[5.604]	[4.375]
Leverage	9.652	12.227*	15.464	17.840**
	[1.137]	[1.741]	[1.112]	[2.022]
GDP per capita	-0.005*	-0.005***	-0.005***	-0.003***
	[-1.935]	[-4.993]	[-4.691]	[-5.943]
GDP growth	-4.678***	-3.440***	-3.469***	-3.602***
	[-3.617]	[-4.306]	[-4.133]	[-6.458]
Observations	8,664	15,401	12,740	33,108
Adjusted R-squared	0.509	0.541	0.567	0.551
Loan type	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y
Country effects	Y	Y	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan

Table A.VII
Results for AISU

The table reports coefficients and t-statistics (in brackets). Dependent variable is AISU and all variables are defined in Table I. Estimation method is OLS with standard errors clustered by loan. The lower part of the table denotes the type of fixed effects used in each specification. Specifications (1) and (3) include only loan-level controls and specifications (2) and (4) additionally include firm and macro-level controls. The first two specifications do not include country fixed effects and the latter two include country fixed effects.

	(1)	(2)	(3)	(4)
Democracy	-1.095*	-0.130	3.115	3.617
	[-1.774]	[-0.168]	[0.727]	[0.703]
Creditor rights	2.985***	1.413**	-4.683	-2.249
	[5.307]	[2.251]	[-0.975]	[-0.455]
Loan amount	-2.305***	-1.442***	-2.357***	-1.514***
	[-10.047]	[-5.107]	[-10.591]	[-5.426]
Maturity	-0.032*	-0.025	-0.026	-0.016
	[-1.773]	[-1.376]	[-1.435]	[-0.890]
Collateral	9.182***	8.690***	9.194***	8.667***
	[15.201]	[12.719]	[15.278]	[12.738]
Number of lenders	-0.116***	-0.141***	-0.117***	-0.102**
	[-2.591]	[-2.940]	[-2.605]	[-2.134]
Performance provisions	-2.229***	-2.346***	-2.283***	-2.526***
	[-3.637]	[-3.716]	[-3.667]	[-3.923]
General covenants	1.219***	1.351***	1.208***	1.276***
	[8.643]	[9.412]	[8.647]	[9.008]
Firm size		-1.021***		-0.869***
		[-4.398]		[-3.749]
Tobin's q		-0.011***		-0.010***
		[-4.389]		[-4.199]
Tangibility		51.898***		45.576***
		[4.795]		[4.366]
Leverage		1.708		1.781
		[0.986]		[1.025]
GDP per capita		-0.000***		-0.002***
		[-3.742]		[-3.425]
GDP growth		-0.761*		-0.661
		[-1.899]		[-1.153]
Observations	8,271	6,567	8,262	6,560
Adjusted R-squared	0.310	0.330	0.326	0.343
Loan type	Y	Y	Y	Y
Loan purpose	Y	Y	Y	Y
Year effects	Y	Y	Y	Y
Bank effects	Y	Y	Y	Y
Country effects	N	N	Y	Y
Clustered standard errors	Loan	Loan	Loan	Loan