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Language and private debt renegotiation

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Abstract

We study how language affects private debt renegotiation. We predict that stronger future time reference (FTR) languages alter the importance of renegotiation risk by lowering the perceived value of loan renegotiation. We test this hypothesis on a sample of 6500 loans issued to European firms between 1999 and 2017. We find that the use of a stronger FTR language decreases the likelihood of renegotiation and the number of renegotiation rounds. These findings are robust to several FTR proxies, various specifications including loan, borrower, and country-level variables, and potential mitigation effects from specific loan, country, or time effects. They suggest that linguistic structure influences the renegotiation process of private debt contracts.

KEYWORDS

bank loan, Europe, future tense marking, future time reference, language, renegotiation

1 | INTRODUCTION

Formal institutions, such as the legal and institutional environments, have a significant influence on financial contracting, particularly credit agreements (Bae & Goyal, 2009; Haselmann et al., 2010; Qian & Strahan, 2007). Informal social capital, trust, or culture institutions appear to have an important role in the design of private debt contracts as well (Álvarez-Botas & González, 2021; Giannetti & Yafeh, 2012; Hasan et al., 2017; Papadimitri et al., 2021; Pappas & Alice Liang, 2021). Language is a crucial feature of culture and its potential impact on economic or financial decisions and outcomes has recently attracted academic interest (Chen, 2013; Chen et al., 2017; Chi et al., 2020; Guan et al., 2022; He & Zhang, 2022; Kong et al., 2022). However, our empirical understanding of the influence of language on the design of credit agreements remains limited, while such a design is crucial for corporate policies, performance, and financial intermediation efficiency. Therefore, we

aim to shed light on the impact of language structure on the design of private debt contracts through the process of bank loan renegotiation.

In recent years, the emerging literature has shown that language structure affects cognition and behaviour, ultimately influencing economic decision-making (Mavisakalyan & Weber, 2018). Indeed, according to the linguistic relativity principle or the Sapir-Whorf hypothesis (see Kay & Kempton, 1984), people who speak different languages think differently (Boroditsky, 2001). In particular, future tense marking is one of the linguistic features that have received considerable attention in economics, following the seminal paper by Chen (2013). Findings from the linguistics literature demonstrate that languages differ in the way they encode time. Chen separates languages into two types: strong versus weak future – time reference (FTR hereafter) languages. This classification refers to how explicitly a language marks future timing. Strong FTR languages (or ‘futured languages’), such as English or French, require speakers to

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mark the future in a distinct way, using auxiliary verbs (e.g., in English) or a dedicated future tense form (e.g., in French), whereas weak FTR languages (or 'futureless languages' according to Dahl, 2000, or 'weakly-grammaticalized languages' according to Thieroff, 2000), such as German, do not. A strong FTR language requires speakers to encode explicitly a distinction between future and present events, whereas a weak FTR language allows speakers to express future events using the present tense. In other words, an obligatory marking of future events differentiates weak FTR from strong FTR; compared to strong FTR languages, weak FTR languages have more ambiguity concerning future timing.

Chen (2013) finds that when the grammatical structure of a language disassociates the future from the present, speakers of the language also disassociate the future from the present in their economic behaviour. Individuals speaking weak FTR languages exhibit longer-term-oriented behaviour, such as saving more for retirement and making more health-conscious decisions. Fuchs-Schündeln et al. (2020) confirm the linguistic-savings hypothesis.¹ Beyond individual decisions, linguistic future tense marking also affects various corporate decisions. Chen et al. (2017) find that weak-FTR language firms have higher precautionary cash holdings. Kim et al. (2017) show that firms associated with weak FTR languages engage in less accrual-based and real earnings management than firms in countries with strong FTR languages. Guan et al. (2022) find that firms in weak-FTR language countries exhibit a greater propensity for and frequency of issuing longer-horizon management forecasts. He and Zhang (2022) find that firms in weak-FTR language markets pay lower dividends. Chi et al. (2020) show that more ambiguous reference to future timing leads to higher levels of R&D investment and more patent generation while Kong et al. (2022) find that firms from countries with strong FTR languages are less likely to engage in innovative activities. Finally, Godlewski and Weill (2021) show that linguistic structure affects the terms of loan contracts as the use of strong FTR language is associated with lower loan spreads and lower collateral use, while Osei-Tutu and Weill (2021) find that banks from countries with future tense markings take more risk.

Following this growing literature, our paper aims to empirically investigate the link between future tense marking and a crucial feature of private debt contracts: renegotiation. Indeed, a major advantage of private debt contracts is their inherent flexibility as they can be renegotiated outside of financial distress (Gorton & Kahn, 2000; Smith & Warner, 1979; Zinbarg, 1975). The renegotiation of credit agreements allows revising the terms of a loan in the case of contingencies and serves as an ex-post remedy

to the initial contractual incompleteness, improving contract efficiency² (Aghion & Bolton, 1992; Grossman & Hart, 1982; Hart & Moore, 1988, 1999). If doing so results in Pareto improvements by modifying the original contract with mutually beneficial revisions, then when the counterparties to the initial loan contract agree on a renegotiation, this means that such an outcome is the most preferable solution and the benefits of renegotiation outweigh its costs. In this case, the 'net (present) value' of renegotiation is positive.

The benefits of loan renegotiation imply an updated, more complete, and efficient contract in accordance with the borrower's or project's current situation (as well as the current economic or business environment), improving their creditworthiness. Renegotiation also facilitates the monitoring process for the lender, which in turn may relax financial constraints and facilitate access to credit (via lower interest rates or collateral requirements). It allows, for instance, for an increased facility amount, extended maturity, or looser covenants, which translate into greater investment capacities or reduced cost of debt, ultimately improving the borrower's financial position. Renegotiation may also signal an active debt management policy, leading to enhanced financial flexibility and better access to capital markets. Lenders can also discover private information during the renegotiation process and use control rights (through covenants) to incentivise the borrower and alleviate moral hazards and agency problems. Through renegotiation, borrowers and lenders can also preserve valuable relationships, and lenders may achieve better credit risk management by implementing up-to-date, risk-adjusted terms in the loan agreement.

Loan renegotiation, however, also bears several costs, such as transaction costs (e.g., amendment or prepayment fees), coordination costs (in the case of multiple lenders), administrative and legal costs, time, effort, and other resources. It also allows creditors to interfere with managerial actions or borrowers' investments. Lenders may lose some of their bargaining power and ability to control borrowers' actions. They can also be sensitive regarding signals to the market about borrowers' conditions when engaging in a renegotiation process. Borrowers may adopt riskier projects if they anticipate the lender's willingness to renegotiate loan terms if needed. Another cost is related to uncertainty regarding the outcome of the renegotiation process, especially in the case of "failed" renegotiations leading to potential losses of financial flexibility, reputation, and relationship.

According to recent evidence, initial conditions, such as initial loan terms or legal and institutional environments, are important drivers of loan renegotiation (Godlewski, 2020;

Nikolaev, 2018; Paligorova & Santos, 2016; Saavedra, 2018). Language structure and future tense marking belong to these initial conditions. We build our hypothesis on the link between FTR languages and bank loan renegotiation as follows.

Strong FTR languages are associated with less future-oriented behaviours. This linguistic characteristic creates a perception that the future is more distant from the present. In strong FTR languages, speakers are required to grammatically mark future times, while weak FTR languages do not have such a requirement. The reduced future orientation in strong FTR languages affects the comprehension of long-term consequences related to the decision to renegotiate debt and the assessment of the borrowers' future financial prospects and performance.

The first way that language may affect future choices is by changing how distant future events feel ('bias in time perception' according to Chen, 2013). Consequently, a strong FTR language contributes to a heightened sense of psychological distance between the present and the future. This psychological distance, commonly referred to as the 'distance hypothesis' by Ayres et al. (2023), or the 'time preference' effect according to Chi et al. (2020), leads to a higher discount rate for future rewards. As a result, the value of future rewards is diminished, negatively impacting the net present value of renegotiation and, consequently, the entire renegotiation process.

The second way that language may affect future choices is by leading speakers to have different beliefs about the precision of the timing of future rewards. Consequently, strong FTR speakers possess a more precise and less ambiguous perception of future timing. They tend to perceive a narrower distribution of future outcomes compared to weak FTR speakers. This heightened precision in future timing assessment has implications for evaluating the costs and benefits associated with the renegotiation decision. Specifically, it influences the perception of risks inherent in the loan contract, such as renegotiation risk, as discussed by Godlewski and Weill (2021). This precision in assessing future outcomes, known as the 'precision hypothesis' proposed by Ayres et al. (2023), or the 'timing uncertainty' effect as highlighted by Chi et al. (2020), has a mitigating effect on renegotiation risk. Consequently, it negatively influences the renegotiation process.

In summary, the influence of strong FTR languages on bank debt renegotiation can be understood through the distance and precision hypotheses. The distance hypothesis suggests that strong FTR languages create a psychological distance between the present and the future, leading to a higher discount rate and

diminishing the value of future rewards. The precision hypothesis posits that strong FTR languages provide a more precise assessment of future timing, mitigating renegotiation risk by enhancing the understanding of future outcomes.

We consider two major aspects of the renegotiation process: the likelihood of renegotiation and the number of renegotiation rounds. This allows us to capture two major features of renegotiation: the renegotiation decision and the renegotiation process itself.³ We use the classification of languages based on the data from Chen (2013): strong versus weak FTR languages, the former requiring the use of a dedicated marking of the future, including inflectional markers. We also carefully consider the borrower and lender country FTR languages, and we control for a large set of control variables, including loan and borrower characteristics, along with country economic, financial, legal, religious, cultural, and language characteristics.

We use a sample of almost 6500 loans issued to almost 4500 firms from 18 European countries between 1999 and 2017 extracted from Bloomberg. On average, 1 out of 4 of these loans is renegotiated at least once during the sample period. A vast majority of these loans are syndicated loans, representing the largest private debt market and the major source of external financing for firms worldwide (3.5 trillion USD and 8216 deals, of which Europe accounts for 22% of the proceeds and 15% of worldwide deals respectively, according to Refinitiv (2020)). We focus on the European credit market for two main reasons. First, it provides a diverse linguistic area in which both strong-FTR and weak-FTR languages coexist. Romance languages (e.g., French, Italian), Slavic languages (e.g., Czech, Polish), English, and Hungarian belong to the family of strong-FTR languages. All Germanic languages other than English (e.g., German, Swedish) and Finnish belong to the family of weak-FTR languages. Second, the design of credit agreements is much more important in Europe, as its financial system is bank-based, and private debt remains the major source of external financing for firms (de Haan et al., 2012; Gomes & Phillips, 2012). Furthermore, the European legal environment is less protective of creditors, making the design of loan contracts crucial because the security level of this design may be a substitute for the country-level protection of investors (Miller & Reisel, 2012). For instance, according to Favara et al. (2012), lenders' recovery rate in the US is close to 90% while it is below 70% in the European Union.

We find that a strong FTR language alters the importance of renegotiation risk, with a lower perceived value of renegotiation. Our findings remain valid when using the borrower FTR, the (lead) lender FTR, and when both

FTR are the same (i.e., for domestic loans). The results hold when borrower variables or various country-level variables are included, specifically related to knowledge of foreign languages and proficiency, the proportion of the foreign-born population, long-term orientation, and economic policy uncertainty. Our findings are robust to potential specific mitigation effects that could alter the perception of future events, such as loans with long maturity, or term loans, or for specific purposes, such as acquisitions, Leverage Buy Out (LBO), or debt refinancing. This is also true for country-level factors, such as better knowledge of a foreign language, higher proficiency, a larger foreign-born population, greater long-term orientation, or economic policy uncertainty, as well as periods of financial crises. Finally, our results are robust to alternative measures of FTR, model specifications, and clustering.

Our paper contributes to several debates in the literature. We contribute to the growing research on the impact of linguistic structure on economic and financial outcomes by investigating the influence of future tense on loan renegotiation (Chen, 2013; Chen et al., 2017; Godlewski & Weill, 2021; Guan et al., 2022; Kim et al., 2017; Kong et al., 2022; Osei-Tutu & Weill, 2021). The closest paper is by Godlewski and Weill (2021) who investigate the influence of FTR on loan characteristics at origination in Europe, while we extend this research further by looking into loan renegotiation. We also extend the growing literature on how culture affects financial contracting (Álvarez-Botas & González, 2021; Giannetti & Yafeh, 2012; Hasan et al., 2017; Papadimitri et al., 2021; Pappas & Alice Liang, 2021). Finally, we contribute to the literature on private debt renegotiation (Godlewski, 2020; Nikolaev, 2018; Roberts, 2015; Roberts & Sufi, 2009). The closest paper is by Godlewski (2020) who investigate the impact of legal and institutional characteristics on private debt renegotiation in Europe but does not consider the influence of language and FTR at all.

The remainder of the paper is organized as follows. Section 2 presents the empirical design. Section 3 reports the results. Section 4 concludes.

2 | EMPIRICAL DESIGN

Our data come from several sources.⁴ First, we use the classification of languages based on the data from Chen (2013).⁵ Strong-FTR languages require the use of an obligatory and dedicated marking of the future, and weak-FTR languages do not have such a requirement (Thieroff, 2000). Our first key independent variable is *Strong FTR*, equal to 1 if the language of the borrower

(lender) is a strong-FTR language and 0 otherwise. We also consider a more restrictive definition of strong-FTR languages by relying on the use of inflectional markers (such as the future suffixes in French).⁶ Our second key independent variable is *Very strong FTR*, equal to 1 if the language of the borrower (lender) has inflectional markers for the future time and 0 otherwise.

We consider both borrower and (lead) lender⁷ languages in our analysis. Indeed, a bank loan agreement involves a borrower and at least one lender, and both contracting parties can come from different countries. However, we focus on the influence of the language of the borrower, notably following Godlewski and Weill (2021), and consider the language of the (lead) lender as a robustness check.

We mainly focus on borrower language because cross-country analyses of bank loan renegotiation consider the determinants at the borrower country level (Godlewski, 2020) as well as the literature on the determinants of loan characteristics (Bae & Goyal, 2009; Qian & Strahan, 2007). Furthermore, our sample covers large loans to large companies that have important bargaining powers, and it is usually the borrower who initiates the renegotiation process. This issue only has importance for cross-country loans in our sample, which represents 38% of the observations. All other cases (62%) are domestic loans for which the languages of the borrower and the lender are the same.⁸

Moreover, we exclude three European multilingual countries: Belgium, Luxembourg, and Switzerland, to restrict the sample to European countries with one dominant language to ensure proper identification of the borrower language (as in Godlewski & Weill, 2021).

Second, we use the Bloomberg Professional Terminal Service (Bloomberg) as the main source of information about loan renegotiation, loan origination, the lenders' pool, and the borrower. We extract all loan amendments in Europe and all loans issued to European borrowers (excluding financial and government entities) with effective dates between January 1999 and December 2017. The dataset contains information on loan renegotiation date and the number of renegotiation rounds if a loan is amended several times over time as well as information on the loans such as the facility amount, maturity, covenants, collateral, type (revolver or term), purpose (corporate, refinance, or acquisition), and currency. It also provides information on lenders, such as the number of lenders, nationalities (country of incorporation), roles (or titles), and identity (names). We merge the information on loan amendments and loan agreements at origination with the lenders' information using unique loan identifiers. At this stage, the sample size is mostly affected by missing information on lenders, especially

on their roles (or titles), which is a crucial input for identifying the lead lender of a syndicate. Next, we use borrower identifiers to gather firms' characteristics, including descriptive information (name, industry sector, and country) and financial variables. This step drastically reduces the size of the sample with financial information on the borrowing companies.

We consider two variables to describe a renegotiation process: renegotiation decision likelihood (*Renegotiation* equals 1 if a loan is renegotiated, 0 if otherwise) and renegotiation process (*Rounds* equals the number of times a loan was renegotiated, 0 for non-renegotiated loans up to 12 times). By doing so, we offer alternative empirical perspectives on the renegotiation process: a simple binary decision to renegotiate a loan and a dynamic perspective considering that a loan can be renegotiated in multiple iterations before maturity.

Third, we gather (borrower) country-level variables using data from different sources: the World Bank, Djankov et al. (2007), Eurostat, Pew Research Centre, Hofstede Website, OECD, and the Policy Uncertainty Website. These contain various control variables related to economic growth, credit, stock markets development, banking system risk, creditors' rights, rule of law, foreign language knowledge, foreign-born population, religion, national culture orientation, and economic policy uncertainty.

We control for a large number of variables at the loan, syndicate, borrower, and country levels. All of these variables are measured at the time of loan origination and are expected to influence the renegotiation process according to the existing literature (Godlewski, 2020; Nikolaev, 2018; Saavedra, 2018). We consider the most important loan terms, such as amount, maturity, collateral, and covenants,⁹ and the number of previously issued loans as well as loan origination year, type, purpose, and currency.¹⁰ We also include characteristics of the banking pool, such as the number of lenders, the presence of league table lead lenders, and previous lead bank-borrower relationships.¹¹ We include borrower rating as a proxy for transparency and control for borrower financial characteristics to take their bargaining power and financial health into account, by including size, leverage, liquidity, and profitability proxies.¹² We also include industry sector dummies.

We consider the economic (GDP annual growth), credit (private credit to GDP), and stock markets (value of listed shares to GDP) development, and the banking sector riskiness (bank z-score) of the borrower's country because these factors affect information asymmetry and outside options for refinancing (Levine et al., 2000; Rajan & Zingales, 1998); hence they influence the renegotiation process. We include the legal origin, creditor protection, and rule of law indices, following notably

Country	Loans	Firms	Mean Reneg.	Strong FTR	Very strong FTR
Austria	64	46	30.50%	0	0
Czechia	38	33	9.09%	1	0
Denmark	59	45	21.79%	0	0
Finland	134	77	27.76%	0	0
France	1171	740	20.20%	1	1
Germany	942	643	30.04%	0	0
Greece	54	39	3.67%	1	0
Hungary	37	23	35.58%	1	0
Ireland	104	66	45.56%	1	0
Italy	519	394	17.23%	1	1
Netherlands	514	362	38.96%	0	0
Norway	239	178	29.45%	0	0
Poland	69	50	28.29%	1	0
Portugal	32	28	2.70%	1	1
Slovenia	14	12	19.32%	1	0
Spain	887	635	17.92%	1	1
Sweden	172	117	29.78%	0	0
UK	1457	968	25.70%	1	0

TABLE 1 Descriptive statistics by country.

Note: This table shows the number of loans and firms, the average percentage of renegotiated loans, and FTR classification (Strong and Very strong) by (borrower) country.

Bae and Goyal (2009) and Qian and Strahan (2007), and economic policy uncertainty (EPU index) because the legal environment directly influences debt contracts and thus the renegotiation process (Godlewski, 2020).¹³ We also control for cultural variables such as religion (% of Christians) and long-term orientation of society (Hofstede) (Chen et al., 2017; Kong et al., 2022), because religion may affect financial decisions and risk-taking behaviour, while long-term orientation may influence future-oriented decisions; as such, cultural values and norms impact the perception of dealing with uncertainty and planning for the future. Finally, we also include proxies for foreign language knowledge

(% of adults knowing at least one foreign language), proficiency (% of adults with a proficient level of the best-known foreign language), and the percentage of foreign-born people. These variables aim to capture the degree of language diversity and openness that may influence the link between FTR language and the renegotiation process.

Table 1 displays the composition of the sample by (borrower) country, providing the number of loans and firms, the average proportion of renegotiated loans, and the language classification as *Strong* or *Very strong* FTR. Table 2 reports the descriptive statistics for all variables.¹⁴ Figure 1 shows the evolution of the number of

TABLE 2 Descriptive statistics for all variables.

Variable	Mean	SD	P25	Median	P75
Renegotiation	0.25	0.43	0.00	0.00	0.00
Renegotiation rounds	0.32	0.61	0.00	0.00	0.00
Strong FTR	0.66	0.47	0.00	1.00	1.00
Very strong FTR	0.34	0.47	0.00	0.00	1.00
Strong FTR (Lender)	0.66	0.47	0.00	1.00	1.00
Very strong FTR (Lender)	0.38	0.49	0.00	0.00	1.00
Amount	1672.16	29,553.34	113.21	303.51	840.77
Maturity	6.31	3.85	4.90	5.50	7.24
Covenants	0.08	0.28	0.00	0.00	0.00
Secured	0.39	0.49	0.00	0.00	1.00
Previous issues	3.55	3.13	2.00	3.00	5.00
Rating	0.13	0.34	0.00	0.00	0.00
Lenders	8.84	9.03	4.00	6.00	11.00
League	0.13	0.34	0.00	0.00	0.00
Relationship	0.17	0.38	0.00	0.00	0.00
GDP growth	1.79	2.27	0.96	2.01	3.10
Private credit	113.46	37.31	84.49	110.02	140.69
Stock market	78.68	34.62	47.35	76.10	108.33
Bank Z score	12.04	5.46	7.51	11.41	15.80
Rule of law	1.44	0.55	1.26	1.65	1.78
Creditor rights	2.35	1.36	1.00	3.00	4.00
Christians	68.29	12.70	63.00	64.30	78.60
Long term orientation	58.42	14.12	51.13	52.90	67.00
Proficient	26.59	10.04	19.90	22.00	29.80
Foreign language	31.92	9.12	20.00	34.80	41.60
Foreign born	10.40	3.58	9.20	11.29	12.61
Global EPU	108.87	45.88	73.49	100.43	133.40
Sales	5393.33	12,542.67	222.46	964.04	4013.39
Debt/Equity	1.74	3.60	0.36	0.77	1.54
Current ratio	0.02	0.01	0.01	0.01	0.02
Operating margin	0.07	0.31	0.04	0.08	0.16

Note: This table provides the main descriptive statistics for all variables.

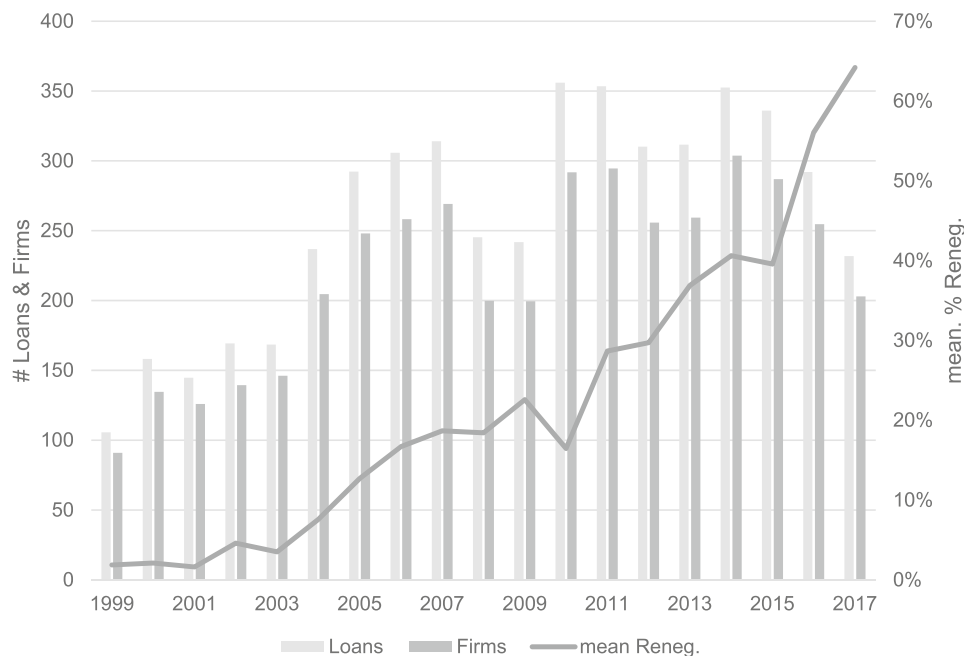


FIGURE 1 Evolution of loans, firms, and mean % of renegotiated loans by year.

loans and firms by year, as well as the average proportion of renegotiated loans.

We observe a cyclical evolution in the credit market, with an increasing renegotiation trend. Firms and loans in France, the UK, Germany, Spain, the Netherlands, and Italy represent the majority of the sample. We notice an important between country heterogeneity in renegotiation, ranging from 2.7% in Portugal to 45.6% in Ireland (the sample average is 25.3%). *Strong FTR* and *Very strong FTR* represent about two-thirds and one-third of the sample respectively, regardless of the country of reference (borrower or lender). Including non-renegotiated loans, the average number of rounds equals 0.32 (std. dev. 0.61).¹⁵

Additionally, the average loan is large (equivalent to 1.7 billion USD), has a maturity above 6 years, and rarely bears covenants but is secured in 40% of the cases. An average firm has previously issued nearly 4 loans. The average syndicate has almost 9 members, while more than 1 out of 10 lead banks belong to a league table and in almost 1 out of 5 cases; the lead bank already had a relationship with a firm. Borrowers have a rating in 13% of the cases, are large (5.4 billion USD of sales), and have financial leverage close to 2, with a 7% operating margin and a current ratio of 2%. Finally, it is noted that, on average, 10% of the population is foreign-born, while almost one out of three adults declare knowing at least one foreign language, and 27% declare being proficient in their best-known foreign language.¹⁶

To analyse the influence of language FTR and the renegotiation process, we estimate the following model:

$$\text{Renegotiation}_{ijk} = \alpha + \beta FTR_{ijk} + \gamma X_i + \delta Y_k + \theta Z_j + \varepsilon_{ijk}$$

Renegotiation is alternatively a dummy variable equal to 1 if a loan is renegotiated (0 otherwise) or a polytomous variable equal to the number of renegotiations rounds (0: no renegotiation – 4: four or more renegotiation rounds). We estimate the equation using probit or Poisson regression respectively. Alternatively, *FTR* is a dummy equal to 1 if *Strong FTR* or *Very strong FTR* variable is used and can be related to the borrower or the (lead) lender country. Furthermore, *X* is the set of loan- and syndicate-specific control variables; *Y* is the set of firm-specific control variables; *Z* is the set of country-level control variables; *i*, *j*, *k* denote loan-syndicate, firm, and country respectively.¹⁷

3 | RESULTS

In this section, we first provide and discuss univariate results, then we present and discuss our main estimation results, and we propose several robustness checks.

3.1 | Univariate results

We investigate whether future tense marking influences the loan renegotiation process. First, we provide univariate statistics with t-test results for differences in means for all variables by renegotiation status (1/0) and by FTR variables (*Strong* and *Very strong*) respectively in Tables 3 and 4.

TABLE 3 Univariate statistics and *T*-tests for all variables by Renegotiation.

	No renegotiation	Renegotiation	<i>T</i> -test
Strong FTR	0.6825	0.6115	(12.38)***
Very strong FTR	0.3620	0.2866	(13.09)***
Strong FTR (Lender)	0.6694	0.6310	(4.98)***
Very strong FTR (Lender)	0.3918	0.3622	(3.72)***
Amount (log)	5.5813	6.0580	(−23.50)***
Maturity	6.2784	6.4133	(−2.74)**
Covenants	0.0564	0.1703	(−34.18)***
Secured	0.3373	0.5421	(−35.06)***
Previous issues	3.4766	3.7636	(−7.26)***
Rating	0.1060	0.2032	(−23.95)***
Lenders	7.5017	12.3833	(−40.94)***
League	0.1326	0.1356	(−0.71)
Relationship	0.1525	0.2341	(−15.95)***
GDP growth	1.8115	1.7364	(2.60)**
Private credit	113.0574	114.9761	(−3.78)***
Stock market	79.7765	74.1176	(11.28)***
Bank Z score	12.2259	11.3308	(12.09)***
Rule of law	1.4377	1.4573	(−2.91)**
Creditor rights	2.3364	2.4097	(−4.42)***
Christians	68.5351	67.5540	(6.36)***
Long term orientation	58.0988	59.3766	(−7.45)***
Proficient	26.3055	27.4603	(−9.34)***
Foreign language	31.9725	31.7640	(1.84)
Foreign born	10.0432	11.5162	(−33.77)***
Global EPU	103.2628	125.9142	(−41.56)***
Sales (log)	6.7119	7.0534	(−12.94)***
Debt/Equity	1.7565	1.6994	(1.30)
Current ratio	0.0154	0.0151	(1.66)
Operating margin	0.0733	0.0778	(−1.20)

Note: This table shows the means of all variables by renegotiation status and *t*-test results for the significance of the difference in means. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Most of the *t*-statistics are significant. Loan renegotiation is associated with weaker FTR languages. These first univariate results confirm our hypothesis that due to a lower perceived value of renegotiation, stronger FTR languages should have a negative effect on the renegotiation process. Renegotiated loans are larger, with longer maturities, and more covenants and are secured more often. Loan renegotiation more often involves larger syndicates and relationship lending. Renegotiating firms are rated more often and are larger. Renegotiation occurs more often in environments with lower GDP growth and stock market development, larger credit markets, and less risky banking sectors. Renegotiation is also associated with greater economic

policy uncertainty and is linked to greater rule of law and stronger creditor rights. Additionally, in strong or very strong FTR environments, loans are smaller, with longer maturities and fewer covenants, and are less often secured. They are funded by smaller syndicates with more reputable lead lenders. Borrowers are less rated, smaller, and have larger financial leverage.

3.2 | Main estimations

Next, we perform regressions examining loan renegotiation likelihood and loan renegotiation rounds. The estimations are reported in Tables 5–7.¹⁸

TABLE 4 Univariate statistics and *T*-tests for the loan, lender, and firm variables by Strong FTR and Very strong FTR.

	No strong FTR	Strong FTR	<i>T</i> -test	No very strong FTR	Very strong FTR	<i>T</i> -test
Amount (log)	6.0236	5.5345	(26.48)***	5.8506	5.4079	(24.09)***
Maturity	5.8854	6.5285	(−14.47)***	6.0238	6.8601	(−18.93)***
Covenants	0.1009	0.0764	(7.90)***	0.0964	0.0620	(11.20)***
Secured	0.4069	0.3787	(5.18)***	0.3948	0.3756	(3.55)***
Previous issues	3.2874	3.6900	(−10.83)***	3.4706	3.7060	(−6.41)***
Rating	0.1541	0.1179	(9.68)***	0.1392	0.1126	(7.17)***
Lenders	9.4660	8.5017	(8.39)***	8.9268	8.6768	(2.19)*
League	0.0830	0.1587	(−20.14)***	0.1093	0.1793	(−18.73)***
Relationship	0.1769	0.1732	(0.78)	0.1762	0.1714	(1.02)
Sales (log)	7.0515	6.6664	(16.28)***	6.8233	6.7085	(4.75)***
Debt/Equity	1.5688	1.8264	(−6.56)***	1.5798	2.1351	(−13.84)***
Current ratio	0.0158	0.0151	(5.35)***	0.0156	0.0146	(6.61)***
Operating margin	0.0675	0.0774	(−2.96)**	0.0723	0.0789	(−1.93)

Note: This table shows the means of all variables by FTR classification (Strong and Very strong) and *t*-test results for the significance of the difference in means. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Table 5 presents our main results examining the relation between renegotiation likelihood, rounds, *Strong FTR*, and *Very strong FTR*. The first two columns provide results using borrower country FTR variables. The next two columns show the results using the (lead) lender country FTR variables. Finally, the last two columns provide results using the domestic loans subsample, where borrower and lender country and therefore FTR are the same. Panel A does not include borrower variables, while Panel B shows results that include borrower variables. In all regressions, we control for loan, syndicate, and country characteristics. Standard errors are clustered at the firm level.

In Panel A, we find that stronger FTR has a significant and negative influence on the renegotiation process in all specifications, with two notable exceptions.¹⁹ The level of significance is the highest when considering the borrower country's FTR. For instance, according to the marginal effects (cf. Table A3), a strong and very strong future tense referencing language decreases renegotiation likelihood by 3.48% and 4.01% respectively. Similarly, a strong and very strong future tense referencing language decreases the expected number of renegotiation rounds by 7.69% and 10.05% respectively. This first series of results confirms the univariate results and therefore our hypothesis that stronger FTR languages have a negative

influence on the renegotiation process because of the lower perceived value of renegotiation. This influence is present regarding the borrower FTR, the (lead) lender FTR, and when both FTR are the same (i.e., for domestic loans).

Regarding the control variables, we notice that most of the loan and syndicate variables are significant and positive, while country-level variables are not significant (except for GDP growth, which has a positive influence on renegotiation). As expected, secured loans are more prone to renegotiation (Bester, 1994) while amending restrictive covenants allows counterparties to rebalance the allocation of contractual control rights (Dessein, 2005; Garleanu & Zwiebel, 2009). Larger loans with longer maturities are renegotiated more often because they are associated with lower information asymmetry and less uncertainty (Berger et al., 2005; Mosebach, 1999). Larger syndicates are associated with less informational frictions (Lee & Mullineaux, 2004; Preece & Mullineaux, 1996; Sufi, 2007), while debt dispersion protects creditors from opportunistic expropriation (Hege & Mella-Barral, 2005), thus favouring the renegotiation process. Lender reputation mitigates adverse selection and helps signal the quality of the deal (Bushman & Wittenberg-Moerman, 2012; Ross, 2010), easing the prospect of renegotiation.

TABLE 5 Loan renegotiation and future tense reference – main estimations.

Panel A	Borrower country FTR			Lender country FTR			Same country Borrower & Lender		
	Renegotiation		Rounds	Renegotiation		Rounds	Renegotiation		Rounds
	–0.155** (0.063)	–0.178*** (0.064)	–0.205*** (0.078)	–0.268*** (0.081)	–0.152** (0.065)	–0.141 (0.090)	–0.179** (0.082)	–0.127 (0.084)	–0.286*** (0.107)
Strong FTR									
Very strong FTR									
Amount (log)	0.150*** (0.027)	0.150*** (0.028)	0.236*** (0.034)	0.236*** (0.034)	0.143*** (0.031)	0.230*** (0.041)	0.149*** (0.033)	0.151*** (0.033)	0.185*** (0.044)
Maturity	0.051*** (0.008)	0.051*** (0.008)	0.077*** (0.011)	0.077*** (0.011)	0.043*** (0.009)	0.077*** (0.015)	0.044*** (0.010)	0.043*** (0.010)	0.062*** (0.014)
Covenants	0.735*** (0.086)	0.733*** (0.086)	0.837*** (0.090)	0.832*** (0.091)	0.780*** (0.105)	1.076*** (0.138)	0.761*** (0.123)	0.758*** (0.123)	1.146*** (0.157)
Secured	0.346*** (0.058)	0.349*** (0.058)	0.445*** (0.074)	0.455*** (0.075)	0.348*** (0.064)	0.529*** (0.090)	0.360*** (0.076)	0.362*** (0.076)	0.559*** (0.095)
Previous issues	0.009 (0.012)	0.008 (0.012)	0.009 (0.013)	0.008 (0.014)	0.027* (0.014)	0.011 (0.018)	0.036** (0.018)	0.035* (0.018)	0.036* (0.021)
Rating	0.273*** (0.072)	0.275*** (0.073)	0.292*** (0.080)	0.287*** (0.080)	0.261*** (0.083)	0.410*** (0.101)	0.360*** (0.094)	0.359*** (0.094)	0.484*** (0.104)
Lenders	0.019*** (0.005)	0.019*** (0.005)	0.012*** (0.003)	0.012*** (0.003)	0.017*** (0.006)	0.017*** (0.005)	0.017*** (0.007)	0.017*** (0.007)	0.023*** (0.008)
League	0.147** (0.069)	0.144** (0.069)	0.229*** (0.082)	0.220*** (0.082)	0.138* (0.077)	0.269*** (0.099)	0.189*** (0.091)	0.181** (0.091)	0.338*** (0.115)
Relationship	–0.079 (0.067)	–0.080 (0.067)	–0.077 (0.075)	–0.078 (0.075)	–0.091 (0.071)	–0.069 (0.091)	–0.180*** (0.083)	–0.181** (0.083)	–0.167 (0.110)
GDP growth	0.046** (0.023)	0.041* (0.022)	0.059* (0.030)	0.049 (0.030)	0.069*** (0.024)	0.103*** (0.034)	0.073*** (0.029)	0.073** (0.029)	0.117*** (0.041)
Private credit	–0.001 (0.001)	–0.002 (0.001)	–0.001 (0.002)	–0.001 (0.002)	–0.001 (0.001)	–0.000 (0.002)	–0.001 (0.002)	–0.001 (0.002)	–0.001 (0.003)
Stock market	0.002 (0.001)	0.002 (0.001)	0.001 (0.002)	0.002 (0.002)	0.002 (0.002)	0.001 (0.002)	0.002 (0.002)	0.001 (0.002)	0.003 (0.003)

(Continues)

TABLE 5 (Continued)

Panel A	Borrower country FTR			Lender country FTR			Same country Borrower & Lender		
	Renegotiation		Rounds	Renegotiation		Rounds	Renegotiation		Rounds
	Renegotiation	Rounds		Renegotiation	Rounds		Renegotiation	Rounds	
Bank Z score	−0.007 (0.006)	−0.002 (0.006)	−0.011 (0.008)	−0.004 (0.008)	−0.009 (0.007)	−0.007 (0.007)	−0.018** (0.009)	−0.002 (0.008)	−0.014 (0.010)
Firms	4166	4166	4166	4166	3596	3596	3612	2706	2721
Loans	6082	6082	6082	6082	5250	5250	5274	3951	3973
pseudo- R^2	0.26	0.26	0.26	0.26	0.22	0.22	0.22	0.22	0.21
log-likelihood	−6438.47	−6436.82	−10327.98	−10320.54	−4897.90	−4900.82	−7145.41	−3389.02	−4704.86
Panel B	Borrower country FTR			Lender country FTR			Same country Borrower & Lender		
	Renegotiation		Rounds	Renegotiation		Rounds	Renegotiation		Rounds
	Renegotiation	Rounds		Renegotiation	Rounds		Renegotiation	Rounds	
Strong FTR	−0.146** (0.064)	−0.258** (0.114)		−0.241** (0.103)	−0.230** (0.113)		−0.202** (0.096)	−0.347** (0.139)	
Very strong FTR	−0.050 (0.107)	−0.132 (0.127)		−0.108 (0.109)	−0.146 (0.125)		−0.014 (0.143)	−0.191 (0.155)	
Amount (log)	0.044 (0.038)	0.047 (0.038)	0.072* (0.040)	0.073* (0.040)	0.040 (0.042)	0.077 (0.050)	0.024 (0.049)	0.030 (0.048)	0.042 (0.055)
Maturity	0.063*** (0.015)	0.063*** (0.015)	0.074*** (0.017)	0.075*** (0.018)	0.054*** (0.016)	0.070*** (0.019)	0.069*** (0.021)	0.065*** (0.021)	0.074*** (0.022)
Covenants	0.894*** (0.131)	0.888*** (0.131)	1.151*** (0.135)	1.156*** (0.135)	0.991*** (0.151)	1.262*** (0.162)	0.953*** (0.181)	0.951*** (0.181)	1.205*** (0.197)
Secured	0.360*** (0.100)	0.369*** (0.101)	0.460*** (0.115)	0.477*** (0.116)	0.429*** (0.112)	0.587*** (0.120)	0.457*** (0.134)	0.465*** (0.135)	0.718*** (0.138)
Previous issues	0.010 (0.018)	0.008 (0.018)	0.021 (0.020)	0.017 (0.020)	−0.011 (0.023)	−0.009 (0.028)	−0.007 (0.029)	−0.008 (0.029)	0.010 (0.034)
Rating	0.418*** (0.107)	0.420*** (0.107)	0.448*** (0.108)	0.455*** (0.110)	0.424*** (0.121)	0.459*** (0.122)	0.460*** (0.142)	0.451*** (0.142)	0.401*** (0.128)
Lenders	0.017** (0.007)	0.017** (0.007)	0.013*** (0.004)	0.013*** (0.004)	0.025*** (0.009)	0.017*** (0.006)	0.031*** (0.009)	0.039*** (0.009)	0.039*** (0.009)

TABLE 5 (Continued)

Panel B	Borrower country FTR			Lender country FTR			Same country Borrower & Lender		
	Renegotiation		Rounds	Renegotiation		Rounds	Renegotiation		Rounds
League	0.157 (0.110)	0.148 (0.110)	0.278** (0.118)	0.265** (0.119)	0.116 (0.122)	0.083 (0.120)	0.216* (0.128)	0.133 (0.149)	0.295* (0.158)
Relationship	−0.140 (0.094)	−0.138 (0.094)	−0.090 (0.097)	−0.083 (0.098)	−0.146 (0.106)	−0.140 (0.106)	−0.050 (0.112)	−0.296** (0.127)	−0.287** (0.138)
GDP growth	0.077** (0.034)	0.079** (0.034)	0.088** (0.042)	0.086** (0.041)	0.079** (0.039)	0.086** (0.039)	0.105** (0.046)	0.109** (0.051)	0.130** (0.052)
Private credit	0.001 (0.002)	0.001 (0.002)	−0.000 (0.002)	0.000 (0.002)	0.002 (0.002)	0.002 (0.002)	0.001 (0.003)	0.001 (0.003)	0.000 (0.003)
Stock market	0.001 (0.002)	0.001 (0.002)	0.001 (0.003)	0.000 (0.003)	0.001 (0.003)	0.001 (0.003)	−0.001 (0.003)	0.004 (0.003)	0.003 (0.004)
Bank Z score	−0.017 (0.011)	−0.015 (0.012)	−0.032*** (0.012)	−0.028** (0.013)	−0.020 (0.012)	−0.019 (0.012)	−0.038*** (0.014)	−0.009 (0.014)	−0.034* (0.018)
Sales (log)	0.003 (0.014)	0.004 (0.014)	0.023 (0.015)	0.024 (0.015)	0.003 (0.016)	0.005 (0.016)	0.025 (0.017)	0.028 (0.017)	0.033* (0.019)
Debt/Equity	0.002 (0.007)	0.002 (0.007)	−0.005 (0.007)	−0.006 (0.007)	0.002 (0.007)	0.001 (0.007)	−0.013 (0.009)	0.003 (0.009)	−0.007 (0.011)
Current ratio	−0.554 (2.002)	−0.425 (1.999)	−0.642 (2.162)	−0.412 (2.166)	0.388 (2.030)	0.235 (2.029)	−0.236 (2.263)	3.246 (2.509)	1.260 (2.793)
Operating margin	0.058 (0.087)	0.051 (0.086)	0.103 (0.092)	0.088 (0.092)	0.006 (0.093)	−0.004 (0.093)	0.049 (0.103)	−0.049 (0.095)	0.020 (0.104)
Firms	1905	1905	1912	1912	1677	1677	1684	1280	1285
Loans	2781	2781	2792	2792	2448	2448	2459	1869	1876
pseudo-R ²	0.24	0.23	0.21	0.21	0.25	0.25	0.21	0.26	0.23
log-likelihood	−5800.73	−5810.31	−9049.52	−9074.79	−4552.40	−4570.38	−6856.33	−3331.20	−4847.83

Note: This table presents the results of Probit and Poisson regressions examining the relationship between the future tense reference and renegotiation. The dependent variables are alternatively *Renegotiation* (= 1 if a loan is renegotiated, 0 otherwise) and *Rounds* (= 0: no renegotiation to 4; four or more renegotiation rounds). The main explanatory variables are *Strong FTR* and *Very strong FTR*. We present three alternative specifications: using borrower country FTR, (lead) lender country FTR, and a subsample where the borrower and lead lender are from the same country (i.e., domestic loans). Panel A provides the results without borrower variables while Panel B provides the results including borrower variables. Definitions of all variables are provided in the Appendix A. Standard errors (in brackets) are clustered by borrower. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. Control variables that are not displayed but included are loan type (term loan), loan purpose (acquisition, general corporate, LBO, project finance, debt refinancing, working capital), loan currency (EUR, GBP, USD), borrower industry sector, and year.

TABLE 6 Loan renegotiation and borrower future tense reference – additional estimations.

Panel A	Renegotiation											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Strong FTR	−0.132** (0.060)		−0.768*** (0.231)		−0.727*** (0.223)		−0.780*** (0.262)		−0.719*** (0.224)		−0.771*** (0.262)	
Very strong FTR		−0.157** (0.062)		−0.576*** (0.191)		−0.443** (0.199)		−0.588** (0.254)		−0.443** (0.198)		−0.580** (0.254)
Amount (log)	0.153*** (0.027)	0.153*** (0.027)	0.153*** (0.028)	0.154*** (0.027)	0.155*** (0.027)	0.156*** (0.027)	0.155*** (0.027)	0.156*** (0.027)	0.155*** (0.027)	0.156*** (0.027)	0.155*** (0.027)	0.155*** (0.027)
Maturity	0.053*** (0.008)	0.053*** (0.008)	0.053*** (0.008)	0.053*** (0.008)	0.052*** (0.008)	0.052*** (0.008)	0.052*** (0.008)	0.052*** (0.008)	0.052*** (0.008)	0.052*** (0.008)	0.051*** (0.008)	0.051*** (0.008)
Covenants	0.757*** (0.084)	0.755*** (0.084)	0.758*** (0.084)	0.763*** (0.084)	0.764*** (0.084)	0.767*** (0.084)	0.760*** (0.084)	0.761*** (0.084)	0.766*** (0.084)	0.769*** (0.084)	0.762*** (0.084)	0.763*** (0.084)
Secured	0.347*** (0.054)	0.349*** (0.054)	0.353*** (0.054)	0.353*** (0.054)	0.358*** (0.053)	0.356*** (0.054)	0.358*** (0.053)	0.356*** (0.054)	0.356*** (0.053)	0.354*** (0.053)	0.356*** (0.053)	0.354*** (0.053)
Previous issues	0.014 (0.013)	0.014 (0.013)	0.016 (0.013)	0.015 (0.013)	0.015 (0.013)	0.015 (0.013)	0.016 (0.013)	0.015 (0.013)	0.015 (0.013)	0.015 (0.013)	0.016 (0.013)	0.015 (0.013)
Rating	0.301*** (0.065)	0.305*** (0.065)	0.297*** (0.065)	0.298*** (0.064)	0.295*** (0.064)	0.297*** (0.064)	0.298*** (0.064)	0.297*** (0.064)	0.293*** (0.064)	0.294*** (0.064)	0.296*** (0.064)	0.295*** (0.064)
Lenders	0.019*** (0.004)	0.018*** (0.004)	0.019*** (0.004)	0.018*** (0.004)	0.018*** (0.004)	0.018*** (0.004)	0.018*** (0.004)	0.018*** (0.004)	0.018*** (0.004)	0.018*** (0.004)	0.018*** (0.004)	0.018*** (0.004)
League	0.150** (0.065)	0.148** (0.065)	0.136** (0.065)	0.142** (0.065)	0.152** (0.065)	0.151** (0.065)	0.156** (0.066)	0.154** (0.066)	0.152** (0.065)	0.152** (0.065)	0.157** (0.066)	0.154** (0.066)
Relationship	−0.050 (0.062)	−0.048 (0.062)	−0.054 (0.062)	−0.051 (0.062)	−0.051 (0.062)	−0.050 (0.062)	−0.048 (0.062)	−0.048 (0.062)	−0.052 (0.062)	−0.051 (0.062)	−0.050 (0.062)	−0.049 (0.062)
Bank Z score	−0.011 (0.007)	−0.008 (0.007)	−0.002 (0.008)	0.006 (0.009)	−0.002 (0.007)	0.001 (0.009)	−0.003 (0.008)	−0.001 (0.010)				
Foreign language	−0.003 (0.004)	−0.002 (0.004)	−0.013** (0.006)	−0.007 (0.006)	−0.019*** (0.006)	−0.011* (0.006)	−0.016** (0.008)	−0.015** (0.008)	−0.019*** (0.006)	−0.012** (0.006)	−0.016** (0.008)	−0.015** (0.008)
Proficient					0.013** (0.005)	0.009* (0.005)	0.009 (0.007)	0.008 (0.008)	0.013** (0.005)	0.009* (0.005)	0.009 (0.007)	0.008 (0.008)

T A B L E 6 (Continued)

Panel A	Renegotiation											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rule of law			−0.418*** (0.155)	−0.179 (0.110)	−0.567*** (0.173)	−0.250** (0.120)	−0.502** (0.230)	−0.220 (0.183)	−0.558*** (0.174)	−0.246** (0.120)	−0.493*** (0.230)	−0.213 (0.183)
Creditor rights			−0.183*** (0.056)	−0.118*** (0.042)	−0.212*** (0.057)	−0.126*** (0.042)	−0.203*** (0.058)	−0.142*** (0.048)	−0.212*** (0.057)	−0.128*** (0.042)	−0.204*** (0.058)	−0.143*** (0.048)
Christians							0.001 (0.007)	0.010 (0.006)			0.000 (0.007)	0.010 (0.007)
Long term orientation							−0.004 (0.007)	0.006 (0.006)			−0.004 (0.007)	0.006 (0.006)
Foreign born							0.003 (0.013)	0.011 (0.016)			0.002 (0.013)	0.011 (0.016)
Global EPU									−0.002* (0.001)	−0.002** (0.001)	−0.002* (0.001)	−0.002* (0.001)
Legal origin	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firms	4455	4455	4431	4431	4431	4431	4417	4417	4431	4431	4417	4417
Loans	6504	6504	6469	6469	6469	6469	6449	6449	6469	6469	6449	6449
pseudo-R ²	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
log-likelihood	−7316.93	−7314.94	−7273.37	−7284.20	−7261.23	−7278.44	−7254.06	−7263.14	−7254.21	−7270.75	−7247.39	−7256.30
Panel B	Rounds											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Strong FTR	−0.178** (0.074)		−1.015*** (0.260)		−0.918*** (0.253)		−0.913*** (0.323)		−0.911*** (0.253)		−0.902*** (0.322)	
Very strong FTR		−0.234*** (0.077)		−0.649*** (0.249)		−0.459* (0.274)		−0.762** (0.349)		−0.452* (0.273)		−0.749*** (0.349)
Amount (log)	0.227*** (0.029)	0.225*** (0.029)	0.220*** (0.029)	0.223*** (0.029)	0.221*** (0.029)	0.224*** (0.029)	0.223*** (0.030)	0.223*** (0.030)	0.221*** (0.029)	0.224*** (0.029)	0.222*** (0.030)	0.223*** (0.030)
Maturity	0.076*** (0.010)	0.076*** (0.010)	0.076*** (0.010)	0.076*** (0.010)	0.075*** (0.010)	0.075*** (0.010)	0.075*** (0.010)	0.075*** (0.010)	0.074*** (0.010)	0.075*** (0.010)	0.074*** (0.010)	0.074*** (0.010)
Covenants	0.868*** (0.081)	0.868*** (0.082)	0.881*** (0.080)	0.876*** (0.081)	0.883*** (0.081)	0.878*** (0.081)	0.884*** (0.081)	0.880*** (0.080)	0.882*** (0.081)	0.877*** (0.081)	0.883*** (0.080)	0.879*** (0.080)

(Continues)

TABLE 6 (Continued)

Panel B	Rounds											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Secured	0.425*** (0.068)	0.434*** (0.068)	0.435*** (0.065)	0.435*** (0.065)	0.440*** (0.064)	0.439*** (0.065)	0.439*** (0.064)	0.437*** (0.064)	0.440*** (0.064)	0.440*** (0.065)	0.440*** (0.064)	0.438*** (0.064)
Previous issues	0.019 (0.013)	0.019 (0.014)	0.022 (0.014)	0.020 (0.014)	0.021 (0.014)	0.019 (0.014)	0.021 (0.014)	0.021 (0.014)	0.021 (0.014)	0.019 (0.014)	0.021 (0.014)	0.021 (0.014)
Rating	0.330*** (0.068)	0.331*** (0.068)	0.316*** (0.068)	0.322*** (0.067)	0.316*** (0.067)	0.323*** (0.067)	0.317*** (0.067)	0.317*** (0.067)	0.312*** (0.067)	0.319*** (0.067)	0.313*** (0.067)	0.314*** (0.067)
Lenders	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.011*** (0.003)	0.010*** (0.003)	0.010*** (0.003)
League	0.205*** (0.076)	0.198*** (0.076)	0.190*** (0.075)	0.186*** (0.076)	0.197*** (0.076)	0.190*** (0.076)	0.201*** (0.076)	0.196*** (0.075)	0.200*** (0.076)	0.193*** (0.076)	0.204*** (0.076)	0.198*** (0.076)
Relationship	−0.058 (0.065)	−0.055 (0.066)	−0.060 (0.065)	−0.055 (0.065)	−0.054 (0.064)	−0.051 (0.065)	−0.052 (0.064)	−0.050 (0.064)	−0.058 (0.065)	−0.055 (0.065)	−0.055 (0.064)	−0.054 (0.065)
Bank Z score	−0.015 (0.009)	−0.010 (0.009)	−0.005 (0.010)	0.001 (0.013)	−0.004 (0.009)	−0.003 (0.013)	−0.010 (0.011)	−0.007 (0.013)	−0.005 (0.009)	−0.004 (0.013)	−0.011 (0.011)	−0.007 (0.013)
Foreign language	−0.002 (0.005)	−0.000 (0.005)	−0.016*** (0.007)	−0.009 (0.006)	−0.022*** (0.007)	−0.013*** (0.006)	−0.023*** (0.008)	−0.021*** (0.008)	−0.021*** (0.007)	−0.013*** (0.006)	−0.023*** (0.008)	−0.021*** (0.008)
Proficient					0.010* (0.006)	0.010 (0.007)	0.006 (0.008)	0.004 (0.010)	0.011* (0.006)	0.010 (0.007)	0.006 (0.008)	0.004 (0.010)
Rule of law			−0.503*** (0.174)	−0.134 (0.132)	−0.590*** (0.185)	−0.182 (0.136)	−0.529* (0.303)	−0.180 (0.227)	−0.581*** (0.185)	−0.175 (0.137)	−0.514* (0.304)	−0.169 (0.228)
Creditor rights			−0.240*** (0.060)	−0.146*** (0.051)	−0.248*** (0.058)	−0.144*** (0.050)	−0.224*** (0.068)	−0.165*** (0.057)	−0.249*** (0.058)	−0.146*** (0.050)	−0.224*** (0.068)	−0.166*** (0.057)
Christians							0.004 (0.009)	0.017** (0.008)			0.004 (0.009)	0.017** (0.008)
Long term orientation							−0.001 (0.008)	0.011 (0.008)			−0.001 (0.008)	0.011 (0.008)
Foreign born							0.021 (0.019)	0.032 (0.022)			0.021 (0.019)	0.031 (0.022)

TABLE 6 (Continued)

Panel B	Rounds											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Global EPU												
Legal origin	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firms	4455	4455	4431	4431	4431	4431	4417	4417	4431	4431	4417	4417
Loans	6504	6504	6469	6469	6469	6469	6449	6449	6469	6469	6449	6449
pseudo-R ²	0.26	0.26	0.26	0.25	0.26	0.25	0.26	0.25	0.26	0.25	0.26	0.26
log-likelihood	-11817.35	-11811.45	-11741.59	-11769.01	-11734.47	-11763.55	-11722.29	-11731.20	-11731.15	-11759.92	-11719.15	-11727.98

Note: This table presents the results of regressions examining the relationship between the future tense reference and renegotiation. In Panel A, the dependent variable is *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise). In Panel B, the dependent variable is *Rounds* (=0: no renegotiation to 4: four or more renegotiation rounds). The main explanatory variables are *Strong FTR* and *Very strong FTR* using borrower country FTR. Definitions of all variables are provided in the Appendix A. Standard errors (in brackets) are clustered by borrower. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. Control variables that are not displayed but included are loan type (term loan), loan purpose (acquisition, general corporate, LBO, project finance, debt refinancing, working capital), loan currency (EUR, GBP, USD), borrower industry sector, and year.

In Panel B, we notice that due to the limited availability of borrower-level variables (with proxies for size, financial leverage, liquidity, and profitability), the sample size is reduced by more than half. Nevertheless, the coefficients of *Strong future* remain significant and negative across all specifications. A strong future tense referencing language decreases renegotiation likelihood by up to 6.11% and the expected number of renegotiation rounds by up to 12.12% (cf. Table A3). However, the coefficients of *Very strong future* are not significant anymore, although their negative signs remain across all specifications. Hence, taking borrower characteristics into account (with a drastic reduction in sample size) does not affect our main findings regarding the negative influence of *Strong future* on the renegotiation process. None of the borrower variables is significant in any specification.

Following our main estimations, Tables 6 and 7 present the results using borrower FTR only and include additional country-level variables. Table 6 provides results without borrower variables while Table 7 includes borrower variables. For each table, Panel A provides the results for *Renegotiation*, while Panel B provides the results for *Rounds*. Due to the correlations between various country-level variables, we proceed with several alternative specifications. We consider the sensitivity of our main findings by including the percentage of adults knowing at least one foreign language, the percentage of adults proficient in their best-known foreign language, and the percentage of foreign-born people. We also include proxies for the quality of the legal environment and creditor rights protection. We additionally control for religion and long-term orientation as well as uncertainty related to economic policies and legal origin.

Indeed, as previously stated, the legal environment directly influences debt contracts and thus the renegotiation process (Bae & Goyal, 2009; Godlewski, 2020; Qian & Strahan, 2007). Religion can affect financial decisions and risk-taking behaviour, while long-term orientation can influence future-oriented decisions, because cultural values and norms affect the perception of dealing with uncertainty and planning (Chen et al., 2017; Kong et al., 2022). Foreign language knowledge and proficiency, and the percentage of foreign-born people, capture the degree of language diversity and openness that can influence the link between FTR and the renegotiation process.

In both tables and panels and across all specifications, we find that stronger FTR has a significant and negative influence on the renegotiation process. Therefore, our main finding remains robust to the inclusion of additional country-level variables, notably foreign language knowledge. Furthermore, the economic significance of our findings, as measured by marginal effects, is greatly enhanced. Indeed, regarding Table 6, a strong future and

TABLE 7 Loan renegotiation and borrower future tense reference – additional estimations (including borrower variables).

Panel A	Renegotiation											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Strong FTR	−0.193** (0.093)		−0.289** (0.134)		−0.272** (0.124)		−0.461** (0.226)		−0.269** (0.125)		−0.460** (0.216)	
Very strong FTR		−0.101 (0.106)		−0.042 (0.277)		−0.123 (0.286)		−0.171 (0.348)		−0.121 (0.285)		−0.171 (0.348)
Amount (log)	0.050 (0.037)	0.052 (0.037)	0.048 (0.037)	0.048 (0.037)	0.049 (0.037)	0.050 (0.037)	0.048 (0.037)	0.049 (0.037)	0.048 (0.037)	0.049 (0.037)	0.048 (0.037)	0.049 (0.037)
Maturity	0.070*** (0.015)	0.069*** (0.015)	0.069*** (0.015)	0.069*** (0.015)	0.069*** (0.015)	0.069*** (0.015)	0.069*** (0.015)	0.069*** (0.015)	0.069*** (0.015)	0.068*** (0.015)	0.069*** (0.015)	0.068*** (0.015)
Covenants	0.903*** (0.131)	0.897*** (0.131)	0.896*** (0.130)	0.898*** (0.130)	0.897*** (0.130)	0.898*** (0.130)	0.885*** (0.130)	0.887*** (0.130)	0.896*** (0.130)	0.898*** (0.130)	0.885*** (0.130)	0.887*** (0.130)
Secured	0.353*** (0.097)	0.361*** (0.097)	0.361*** (0.096)	0.360*** (0.096)	0.362*** (0.097)	0.362*** (0.097)	0.360*** (0.096)	0.361*** (0.096)	0.362*** (0.097)	0.362*** (0.097)	0.360*** (0.096)	0.361*** (0.096)
Previous issues	0.019 (0.020)	0.018 (0.019)	0.021 (0.020)	0.020 (0.019)	0.021 (0.020)	0.019 (0.019)	0.021 (0.020)	0.020 (0.019)	0.021 (0.020)	0.019 (0.019)	0.021 (0.020)	0.020 (0.019)
Rating	0.447*** (0.100)	0.452*** (0.101)	0.445*** (0.101)	0.442*** (0.101)	0.445*** (0.101)	0.441*** (0.101)	0.446*** (0.101)	0.443*** (0.101)	0.446*** (0.101)	0.442*** (0.101)	0.446*** (0.101)	0.444*** (0.101)
Lenders	0.018** (0.007)	0.017** (0.007)	0.018** (0.007)	0.018** (0.007)	0.018** (0.007)	0.017** (0.007)	0.017** (0.007)	0.017** (0.007)	0.017** (0.007)	0.017** (0.007)	0.017** (0.007)	0.017** (0.007)
League	0.193* (0.101)	0.180* (0.101)	0.179* (0.102)	0.173* (0.103)	0.181* (0.103)	0.177* (0.103)	0.191* (0.104)	0.186* (0.104)	0.182* (0.103)	0.178* (0.103)	0.192* (0.104)	0.186* (0.104)
Relationship	−0.073 (0.086)	−0.066 (0.086)	−0.087 (0.086)	−0.087 (0.086)	−0.086 (0.086)	−0.085 (0.086)	−0.077 (0.086)	−0.078 (0.086)	−0.085 (0.087)	−0.084 (0.087)	−0.077 (0.086)	−0.078 (0.086)
Bank Z score	−0.015 (0.012)	−0.012 (0.012)	−0.014 (0.012)	−0.020 (0.016)	−0.014 (0.012)	−0.022 (0.016)	−0.017 (0.014)	−0.021 (0.017)	−0.014 (0.013)	−0.022 (0.016)	−0.017 (0.014)	−0.020 (0.017)
Foreign language	−0.007 (0.006)	−0.006 (0.006)	−0.006 (0.009)	−0.003 (0.009)	−0.008 (0.010)	−0.006 (0.009)	−0.008 (0.012)	−0.007 (0.012)	−0.007 (0.010)	−0.006 (0.009)	−0.008 (0.012)	−0.007 (0.012)
Proficient					0.002 (0.008)	0.005 (0.009)	−0.008 (0.011)	−0.006 (0.012)	0.002 (0.008)	0.005 (0.009)	−0.008 (0.011)	−0.006 (0.012)

TABLE 7 (Continued)

Panel A	Renegotiation											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rule of law			0.120 (0.242)	0.328* (0.168)	0.097 (0.273)	0.288 (0.192)	−0.007 (0.350)	0.229 (0.292)	0.100 (0.273)	0.290 (0.192)	−0.006 (0.350)	0.230 (0.293)
Creditor rights			−0.066 (0.083)	−0.007 (0.061)	−0.070 (0.085)	−0.009 (0.062)	−0.060 (0.088)	−0.010 (0.073)	−0.068 (0.085)	−0.009 (0.062)	−0.060 (0.088)	−0.010 (0.073)
Christians							−0.002 (0.010)	0.003 (0.009)		−0.002 (0.010)		0.003 (0.009)
Long term orientation							−0.008 (0.011)	−0.002 (0.010)		−0.008 (0.011)		−0.002 (0.010)
Foreign born							0.033* (0.019)	0.033 (0.023)		0.033* (0.019)		0.033 (0.023)
Global EPU									−0.001 (0.002)	−0.001 (0.002)	−0.000 (0.002)	−0.000 (0.002)
Sales (log)	0.002 (0.013)	0.004 (0.013)	0.001 (0.013)	0.002 (0.013)	0.001 (0.013)	0.002 (0.013)	0.001 (0.013)	0.002 (0.013)	0.001 (0.013)	0.002 (0.013)	0.001 (0.013)	0.002 (0.013)
Debt/Equity	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)	0.000 (0.006)
Current ratio	−0.777 (1.979)	−0.654 (1.981)	−0.831 (1.985)	−0.832 (1.978)	−0.802 (1.974)	−0.794 (1.972)	−0.677 (1.955)	−0.733 (1.952)	−0.812 (1.971)	−0.804 (1.969)	−0.682 (1.953)	−0.739 (1.949)
Operating margin	0.032 (0.080)	0.023 (0.080)	0.048 (0.079)	0.047 (0.079)	0.047 (0.079)	0.047 (0.078)	0.050 (0.078)	0.049 (0.078)	0.047 (0.079)	0.047 (0.078)	0.050 (0.078)	0.049 (0.078)
Legal origin	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firms	2044	2044	2042	2042	2042	2042	2037	2037	2042	2042	2037	2037
Loans	2984	2984	2981	2981	2981	2981	2974	2974	2981	2981	2974	2974
pseudo- R^2	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
log-likelihood	−7002.84	−7020.03	−6986.39	−6990.78	−6985.99	−6989.12	−6967.14	−6973.75	−6985.54	−6988.64	−6967.01	−6973.60

(Continues)

TABLE 7 (Continued)

Panel B	Rounds											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Strong FTR	−0.305*** (0.109)		−0.806** (0.401)	−0.141 (0.322)	−0.807** (0.405)	−0.072 (0.344)	−1.013** (0.445)	−0.598 (0.446)	−0.812** (0.405)	−0.066 (0.344)	−1.022** (0.445)	
Very strong FTR		−0.188 (0.119)		−0.141 (0.322)		−0.072 (0.344)		−0.598 (0.446)		−0.066 (0.344)		−0.601 (0.447)
Amount (log)	0.070* (0.038)	0.069* (0.038)	0.072* (0.038)	0.071* (0.039)	0.072* (0.038)	0.073* (0.038)	0.073* (0.038)	0.072* (0.038)	0.072* (0.038)	0.073* (0.039)	0.074* (0.038)	0.073* (0.038)
Maturity	0.082*** (0.016)	0.082*** (0.017)	0.081*** (0.016)	0.081*** (0.016)	0.081*** (0.016)	0.081*** (0.016)	0.080*** (0.016)	0.079*** (0.016)	0.082*** (0.016)	0.082*** (0.016)	0.081*** (0.016)	0.081*** (0.016)
Covenants	1.153*** (0.130)	1.164*** (0.131)	1.143*** (0.128)	1.147*** (0.130)	1.143*** (0.129)	1.147*** (0.129)	1.127*** (0.129)	1.135*** (0.130)	1.152*** (0.127)	1.155*** (0.128)	1.137*** (0.127)	1.144*** (0.128)
Secured	0.375*** (0.108)	0.392*** (0.110)	0.380*** (0.105)	0.383*** (0.107)	0.380*** (0.105)	0.385*** (0.107)	0.374*** (0.105)	0.377*** (0.106)	0.384*** (0.105)	0.389*** (0.107)	0.379*** (0.105)	0.381*** (0.106)
Previous issues	0.035* (0.020)	0.032 (0.020)	0.038* (0.020)	0.033* (0.019)	0.038* (0.020)	0.032* (0.020)	0.039** (0.019)	0.036* (0.019)	0.037* (0.020)	0.031 (0.020)	0.038* (0.020)	0.035* (0.020)
Rating	0.501*** (0.096)	0.507*** (0.097)	0.504*** (0.095)	0.505*** (0.095)	0.504*** (0.095)	0.504*** (0.095)	0.493*** (0.095)	0.492*** (0.096)	0.502*** (0.095)	0.501*** (0.095)	0.490*** (0.095)	0.488*** (0.095)
Lenders	0.012*** (0.003)	0.013*** (0.003)	0.012*** (0.003)	0.012*** (0.004)	0.012*** (0.003)	0.012*** (0.004)	0.012*** (0.003)	0.012*** (0.003)	0.012*** (0.004)	0.012*** (0.004)	0.012*** (0.003)	0.012*** (0.004)
League	0.290*** (0.105)	0.266** (0.105)	0.282*** (0.105)	0.273*** (0.106)	0.282*** (0.105)	0.274*** (0.106)	0.295*** (0.106)	0.285*** (0.106)	0.279*** (0.105)	0.271** (0.106)	0.293*** (0.106)	0.282*** (0.106)
Relationship	−0.032 (0.088)	−0.016 (0.089)	−0.032 (0.087)	−0.032 (0.088)	−0.032 (0.088)	−0.031 (0.088)	−0.026 (0.088)	−0.030 (0.088)	−0.034 (0.087)	−0.033 (0.088)	−0.028 (0.087)	−0.031 (0.088)
Bank Z score	−0.027* (0.014)	−0.023 (0.015)	−0.023* (0.014)	−0.030 (0.019)	−0.023 (0.015)	−0.031 (0.019)	−0.029* (0.016)	−0.030 (0.019)	−0.024 (0.015)	−0.032 (0.019)	−0.030* (0.016)	−0.032 (0.019)
Foreign language	−0.005 (0.008)	−0.002 (0.008)	−0.011 (0.010)	−0.004 (0.010)	−0.010 (0.010)	−0.006 (0.010)	−0.015 (0.012)	−0.013 (0.012)	−0.011 (0.010)	−0.006 (0.010)	−0.015 (0.012)	−0.014 (0.012)
Proficient					−0.000 (0.009)	0.004 (0.010)	−0.013 (0.013)	−0.012 (0.015)	0.000 (0.009)	0.004 (0.010)	−0.013 (0.013)	−0.012 (0.015)

TABLE 7 (Continued)

Panel B	Rounds											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rule of law			−0.203 (0.297)	0.266 (0.194)	−0.202 (0.308)	0.241 (0.207)	−0.379 (0.398)	0.097 (0.311)	−0.214 (0.308)	0.234 (0.207)	−0.393 (0.398)	0.088 (0.311)
Creditor rights			−0.138 (0.095)	−0.008 (0.075)	−0.137 (0.095)	−0.007 (0.075)	−0.126 (0.094)	−0.035 (0.078)	−0.141 (0.095)	−0.009 (0.075)	−0.129 (0.093)	−0.037 (0.077)
Christians							−0.004 (0.013)	0.010 (0.013)			−0.003 (0.013)	0.010 (0.013)
Long term orientation							−0.009 (0.013)	0.004 (0.012)			−0.009 (0.013)	0.004 (0.012)
Foreign born							0.051** (0.025)	0.057* (0.030)			0.053** (0.025)	0.058* (0.030)
Global EPU									0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Sales (log)	0.022 (0.013)	0.024* (0.014)	0.021 (0.013)	0.022 (0.013)	0.021 (0.013)	0.022 (0.013)	0.020 (0.013)	0.021 (0.013)	0.021 (0.013)	0.022 (0.013)	0.020 (0.013)	0.022 (0.013)
Debt/Equity	−0.006 (0.006)	−0.007 (0.006)	−0.007 (0.006)	−0.006 (0.006)	−0.007 (0.006)	−0.006 (0.006)	−0.007 (0.006)	−0.006 (0.006)	−0.006 (0.006)	−0.005 (0.006)	−0.006 (0.006)	−0.006 (0.006)
Current ratio	−1.280 (2.164)	−1.088 (2.190)	−1.327 (2.161)	−1.219 (2.142)	−1.328 (2.151)	−1.188 (2.136)	−1.308 (2.121)	−1.298 (2.111)	−1.303 (2.144)	−1.169 (2.129)	−1.279 (2.114)	−1.270 (2.104)
Operating margin	0.016 (0.085)	−0.000 (0.084)	0.025 (0.085)	0.022 (0.084)	0.025 (0.085)	0.023 (0.084)	0.021 (0.084)	0.018 (0.083)	0.027 (0.085)	0.025 (0.083)	0.024 (0.083)	0.021 (0.082)
Legal origin	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firms	2048	2048	2042	2042	2042	2042	2037	2037	2042	2042	2037	2037
Loans	2990	2990	2981	2981	2981	2981	2974	2974	2981	2981	2974	2974
pseudo- R^2	0.19	0.19	0.19	0.18	0.19	0.18	0.19	0.19	0.19	0.18	0.19	0.19
log-likelihood	−10903.84	−10940.10	−10878.10	−10903.94	−10878.10	−10903.25	−10850.41	−10870.44	−10874.14	−10899.60	−10845.13	−10865.51

Note: This table presents the results of regressions examining the relationship between the future tense reference and renegotiation. In Panel A, the dependent variable is *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise). In Panel B, the dependent variable is *Rounds* (=0: no renegotiation to 4: four or more renegotiation rounds). The main explanatory variables are *Strong future* and *Very strong future* using borrower country FTR. Definitions of all variables are provided in the Appendix A. Standard errors (in brackets) are clustered by borrower. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively. Control variables that are not displayed but included are loan type (term loan), loan purpose (acquisition, general corporate, LBO, project finance, debt refinancing, working capital), loan currency (EUR, GBP, USD), borrower industry sector, and year.

TABLE 8 Loan renegotiation and borrower future tense reference – interaction terms.

Panel A				
	(1)	(2)	(3)	(4)
Long maturity	Renegotiation		Rounds	
Strong FTR	−0.778*** (0.267)		−0.872*** (0.333)	
Strong FTR × Variable	0.012 (0.072)		−0.057 (0.089)	
Very strong FTR		−0.581** (0.259)		−0.693* (0.361)
Very strong FTR × Variable		0.003 (0.087)		−0.111 (0.117)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7247.64	−7256.61	−11718.45	−11726.16
Term loan	Renegotiation		Rounds	
Strong FTR	−0.741*** (0.265)		−0.875*** (0.329)	
Strong FTR × Variable	−0.058 (0.075)		−0.053 (0.091)	
Very strong FTR		−0.532** (0.255)		−0.664* (0.357)
Very strong FTR × Variable		−0.084 (0.076)		−0.159 (0.104)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7247.01	−7255.31	−11718.90	−11724.52
Acquisition	Renegotiation		Rounds	
Strong FTR	−0.772*** (0.263)		−0.910*** (0.322)	
Strong FTR × Variable	0.006 (0.127)		0.054 (0.129)	
Very strong FTR		−0.550** (0.253)		−0.726** (0.349)
Very strong FTR × Variable		−0.210* (0.124)		−0.128 (0.138)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7247.69	−7251.91	−11719.11	−11726.78
LBO	Renegotiation		Rounds	
Strong FTR	−0.747*** (0.263)		−0.891*** (0.323)	
Strong FTR × Variable	−0.171 (0.154)		−0.115 (0.194)	
Very strong FTR		−0.582** (0.256)		−0.740** (0.353)

TABLE 8 (Continued)

LBO	(1) Renegotiation	(2)	(3) Rounds	(4)
Very strong FTR × Variable		0.022 (0.151)		−0.091 (0.189)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7244.72	−7256.57	−11718.40	−11727.79
Debt refinancing	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−0.789*** (0.265)		−0.918*** (0.326)	
Strong FTR × Variable	0.042 (0.087)		0.029 (0.097)	
Very strong FTR		−0.588** (0.257)		−0.820** (0.345)
Very strong FTR × Variable		0.020 (0.091)		0.136 (0.110)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7247.35	−7256.54	−11719.31	−11725.49
Panel B				
Foreign language	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−1.174*** (0.372)		−1.564*** (0.458)	
Strong FTR × Variable	0.515 (0.321)		0.881** (0.449)	
Very strong FTR		−1.831*** (0.380)		−2.652*** (0.680)
Very strong FTR × Variable		1.287*** (0.327)		1.956*** (0.645)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7243.39	−7249.47	−11710.71	−11720.55
Proficient	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−0.993*** (0.328)		−1.004** (0.392)	
Strong FTR × Variable	0.206 (0.213)		0.105 (0.299)	
Very strong FTR		−0.798*** (0.279)		−1.079*** (0.381)
Very strong FTR × Variable		0.257 (0.209)		0.383 (0.289)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7246.39	−7254.22	−11719.25	−11724.57

(Continues)

TABLE 8 (Continued)

Long term orientation	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−0.779*** (0.268)		−0.871*** (0.334)	
Strong FTR × Variable	0.042 (0.205)		−0.153 (0.260)	
Very strong FTR		−0.571** (0.260)		−0.732** (0.356)
Very strong FTR × Variable		−0.079 (0.225)		−0.182 (0.301)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7247.61	−7256.41	−11718.61	−11727.53
Foreign born	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−0.705** (0.292)		−0.951** (0.370)	
Strong FTR × Variable	−0.070 (0.103)		0.049 (0.139)	
Very strong FTR		−0.247 (0.295)		−0.510 (0.442)
Very strong FTR × Variable		−0.299** (0.125)		−0.194 (0.193)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7246.54	−7243.48	−11719.04	−11724.38
Global EPU	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−0.760*** (0.266)		−0.945*** (0.329)	
Strong FTR × Variable	−0.024 (0.078)		0.077 (0.090)	
Very strong FTR		−0.509* (0.260)		−0.694* (0.356)
Very strong FTR × Variable		−0.143 (0.093)		−0.109 (0.122)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7247.51	−7252.16	−11717.79	−11726.30
Post US crisis	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−0.705*** (0.270)		−0.924*** (0.342)	
Strong FTR × Variable	−0.136 (0.108)		0.039 (0.158)	
Very strong FTR		−0.468* (0.267)		−0.682* (0.373)

TABLE 8 (Continued)

Post US crisis	(1) Renegotiation	(2)	(3) Rounds	(4)
Very strong FTR × Variable		−0.237** (0.111)		−0.113 (0.172)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7244.17	−7247.02	−11719.25	−11726.78
post EZ crisis	(1) Renegotiation	(2)	(3) Rounds	(4)
Strong FTR	−0.725*** (0.268)		−0.972*** (0.338)	
Strong FTR × Variable	−0.105 (0.108)		0.137 (0.153)	
Very strong FTR		−0.484* (0.268)		−0.732* (0.374)
Very strong FTR × Variable		−0.191* (0.108)		−0.027 (0.164)
pseudo- R^2	0.26	0.26	0.26	0.26
log-likelihood	−7245.59	−7250.23	−11716.51	−11728.24

Note: This table presents the results of Probit and Poisson regressions examining the relationship between the future tense reference and renegotiation and adding specific interaction terms. The dependent variables are alternatively *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise) and *Rounds* (=0: no renegotiation to 4: four or more renegotiation rounds). The main explanatory variables are *Strong future* and *Very strong future*. Full specifications (11) and (12) from Table 6 are used. For each regression, we add an interaction term between our main explanatory variables and a specific variable (in bold). Panel A provides the results for interaction terms using loan-specific variables while Panel B provides the results for interaction terms using (borrower) country-specific variables. Long maturity, long-term orientation, foreign-born, foreign language, proficient, and global EPU equal one if their respective medians are greater or equal to 6.00, 61.46, 11.47, 34.80, 22.00, 91.83. Post-US crisis and post-EZ crisis cover loan origination periods after 15 September 2008 and 01 December 2009 respectively. For each regression, the sample contains 4417 firms and 6449 loans respectively. Definitions of all variables are provided in the Appendix A. All loan, lender, country, and control variables previously used (as in Table 6) are included but not displayed. Standard errors (in brackets) are clustered by borrower. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

very strong tense referencing language decreases renegotiation likelihood by 3.10% up to 37.71% and by 3.69% up to 18.84%, respectively, and the expected number of renegotiation rounds by 18.30% up to 41.70% and by 13.73% up to 31.34%, respectively (cf. Table A3). Turning to Table 7, a strong future tense referencing language decreases renegotiation likelihood by 5.18% up to 33.11% and the expected number of renegotiation rounds by 6.47% up to 33.12% (cf. Table A3). We observe that formal institutions have a significant and negative influence on the renegotiation process. A stronger rule of law and creditors' legal protection reduce the lender's incentives to enter a renegotiation process. Greater economic uncertainty also negatively influences renegotiation likelihood and dynamics.

3.3 | Robustness checks

We perform more specific robustness checks by focusing on the potential mitigating effects of specific variables on the negative relationship between strong future reference

markings and the renegotiation process. To do so, we include various interaction terms with proxy variables for loan terms and country variables that could influence the perception of future events. We rely on dummy variables greater or equal to the medians of the following variables: long maturity (6.00), long-term orientation (61.46), foreign born (11.47), foreign language (34.80), proficient (22.00), and global EPU (91.83). The post US and Eurozone (EZ) crisis periods cover loans originated after 15 September 2008 and 1 December 2009, respectively.

We consider loans with long maturities, term loans, and loans with purposes, such as acquisition, LBO, and debt refinancing. Longer maturity or term loans are associated with less uncertainty. Acquisition loans are associated with greater business risk and uncertainty about the operation's success. LBO loans bear greater business and financial risks. Debt refinancing loans are associated with greater risks related to the borrower's financial structure.

We also consider country-level knowledge of a foreign language, the level of proficiency, and the foreign-born population. For instance, greater knowledge and

TABLE 9 Loan renegotiation and borrower future tense reference – robustness checks using Sentence and Verb ratios.

	Borrower country FTR			Lender country FTR			Same country Borrower & Lender		
	Renegotiation	Rounds		Renegotiation	Rounds		Renegotiation	Rounds	
Table 5 A									
Sentence ratio	−0.183** (0.075)	−0.225** (0.091)		−0.154** (0.074)	−0.121 (0.101)		−0.189** (0.095)	−0.299** (0.123)	
Verb ratio	−0.181** (0.078)	−0.224** (0.095)		−0.156** (0.076)	−0.122 (0.103)		−0.190* (0.097)	−0.302** (0.126)	
Firms	4165	4165	4165	3523	3540	3540	2706	2721	2721
Loans	6081	6081	6081	5144	5168	5168	3951	3973	3973
pseudo-R ²	0.26	0.26	0.26	0.22	0.22	0.22	0.22	0.21	0.21
log-likelihood	−6438.56	−10330.57	−10331.99	−4714.19	−6783.53	−6783.68	−3390.56	−4699.41	−4699.97
Table 5 B									
Sentence ratio	−0.136 (0.109)	−0.255** (0.129)		−0.279** (0.118)	−0.306** (0.121)		−0.172 (0.142)	−0.347** (0.148)	
Verb ratio	−0.133 (0.112)	−0.255* (0.133)		−0.284** (0.122)	−0.312** (0.125)		−0.171 (0.146)	−0.349** (0.152)	
Firms	1904	1911	1911	1652	1659	1659	1280	1285	1285
Loans	2780	2790	2790	2412	2422	2422	1869	1876	1876
pseudo-R ²	0.23	0.21	0.21	0.24	0.21	0.21	0.26	0.23	0.23
log-likelihood	−5901.89	−9192.84	−9194.14	−4542.78	−6765.70	−6765.94	−3384.73	−4914.86	−4915.62
Table 6 A									
Sentence ratio	−0.170** (0.068)	−0.930*** (0.220)		−0.845*** (0.225)	−0.898*** (0.244)		−0.841*** (0.226)	−0.890*** (0.244)	
Verb ratio	−0.172** (0.070)	−1.002*** (0.232)		−0.930*** (0.241)	−1.020*** (0.266)		−0.927*** (0.242)	−1.012*** (0.265)	
Firms	4455	4431	4431	4431	4417	4417	4431	4417	4417
Loans	6504	6469	6469	6469	6449	6449	6469	6449	6449
pseudo-R ²	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
log-likelihood	−7314.66	−7262.60	−7261.27	−7261.60	−7250.56	−7248.39	−7254.29	−7243.94	−7241.79
Table 6 B									
Sentence ratio	−0.204** (0.084)	−0.971*** (0.267)		−0.909*** (0.300)	−1.086*** (0.360)		−0.903*** (0.300)	−1.073*** (0.359)	

TABLE 9 (Continued)

	Borrower country FTR		Lender country FTR		Same country Borrower & Lender	
	Renegotiation	Rounds	Renegotiation	Rounds	Renegotiation	Rounds
Verb ratio	−0.205** (0.087)	−1.038*** (0.282)	−0.993*** (0.325)	−1.256*** (0.394)	−0.987*** (0.326)	−1.243*** (0.393)
Firms	4455	4431	4431	4417	4431	4417
Loans	6504	6469	6469	6449	6469	6449
pseudo-R ²	0.26	0.25	0.25	0.26	0.26	0.26
log-likelihood	−11817.53	−11746.76	−11746.45	−11719.74	−11742.95	−11716.63
Table 7 A						
Sentence ratio	−0.205* (0.106)	−0.346 (0.327)	−0.354 (0.315)	−0.294 (0.319)	−0.354 (0.315)	−0.292 (0.319)
Verb ratio	−0.205* (0.109)	−0.379 (0.347)	−0.396 (0.335)	−0.336 (0.338)	−0.397 (0.335)	−0.334 (0.338)
Firms	2044	2042	2042	2025	2042	2025
Loans	2984	2981	2981	2957	2981	2957
pseudo-R ²	0.22	0.22	0.22	0.22	0.22	0.22
log-likelihood	−7115.38	−7093.66	−7093.65	−7014.97	−7093.54	−7014.92
Table 7 B						
Sentence ratio	−0.324*** (0.123)	−0.620* (0.352)	−0.709* (0.382)	−0.625 (0.394)	−0.709* (0.381)	−0.617 (0.394)
Verb ratio	−0.325*** (0.126)	−0.657* (0.368)	−0.777* (0.404)	−0.707* (0.418)	−0.777* (0.402)	−0.698* (0.418)
Firms	2048	2042	2042	2025	2042	2025
Loans	2990	2981	2981	2957	2981	2957
pseudo-R ²	0.19	0.18	0.18	0.18	0.18	0.18
log-likelihood	−11058.92	−11060.57	−11038.79	−11037.56	−11035.70	−10893.81

Note: This table presents the results of Probit and Poisson regressions examining the relationship between the future tense reference and renegotiation. The dependent variables are alternatively *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise) and *Rounds* (=0: no renegotiation to 4; four or more renegotiation rounds). The main explanatory variables are *Sentence ratio* and *Verb ratio*. *Sentence ratio* measures the share of sentences on future weather containing a grammatical future marker. *Verb ratio* measures the share of verbs about future weather, which are marked as future-referring. All variables included in Tables 5–7 are also included in these regressions but not displayed. We present three alternative specifications: using borrower country FTR, (lead) lender country FTR, and a subsample where the borrower and lead lender are from the same country (i.e., domestic loans). Definitions of all variables are provided in the Appendix A. Standard errors (in brackets) are clustered by borrower. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

proficiency of a foreign language may alter the link between domestic language FTR and the renegotiation process. Greater long-term orientation or economic policy uncertainty can also influence the relationship between FTR and renegotiation. Finally, we also consider periods of greater overall uncertainty associated with crisis periods (the US subprime crisis and the EZ sovereign crisis) to investigate whether the link between FTR and the renegotiation process is altered during financial and economic crises.

We adopt the most complete specifications from Table 6 (Columns 11 and 12) and present the results in Table 8. In each specification, we interact our main explanatory variables with a particular variable (in bold). Panel A displays the interaction results for specific loan terms, while Panel B shows the interaction results for specific country variables as well as specific crisis periods.

Regarding loan-specific variables, we notice that every interaction term's coefficient is not significant, with the notable exception of the interaction term between *Very strong future* and *Acquisition*, which is significantly negative at 10%. The coefficients for our main explanatory variables, *Strong future* and *Very strong future*, remain significant and negative in every regression.

Regarding country- and time-specific variables, the coefficients for the interaction terms involving proxies for foreign language proficiency, long-term orientation, and economic policy uncertainty are not significant. The coefficients of *Strong future* and *Very strong future* remain significant and negative. The coefficient of the interaction term with *Foreign language* is significant and positive, but the coefficients of *Strong future* and *Very strong future* remain significant and negative. We also observe one significant and negative coefficient for *Foreign-born*, while the coefficients for *Very strong future* become insignificant. Finally, the interaction term between *Very strong future* and the period following the US and EZ crises is significant and negative while the coefficients for our main explanatory variables, *Strong future* and *Very strong future*, remain significant and negative.

These robustness checks dealing with the potential mitigating effects of specific loan or country effects do not alter our main results: languages with stronger future tense referencing have a significant and negative influence on loan renegotiation likelihood and dynamics.

Next, we test the robustness of our main results by using alternative measures of FTR: *Sentence and Verb ratios*. These alternative (online) measures are developed by Chen (2013) and are based on a word-frequency analysis of text retrieved from Internet websites. More specifically, after web scraping for full sentences of weather forecasts, the *Sentence ratio* measures the share of sentences on future weather containing a grammatical future

marker, while the *Verb ratio* measures the share of verbs about future weather that are marked as future-referring.²⁰ We recalculate all the regressions in Tables 5–7 using these two alternative measures instead of *Strong FTR* and *Very strong FTR*. The results are displayed in Table 9. All the results are very similar to the results obtained in Tables 5 and 7, with the notable exception of the results in Table 7A, in which only 2 out of the 12 coefficients are significant and negative. We conclude that most of our main findings are robust to alternative measures of future tense referencing.

We also check if our results are sensitive to the specifications employed and recalculate all the regressions displayed in Table 5 without all the control variables (i.e., loan type (term loan), loan purpose (acquisition, general corporate, LBO, project finance, debt refinancing, working capital), loan currency (EUR, GBP, USD), borrower industry sector, and year). The results are displayed in Table A4 in the appendix. They are very similar to those obtained in Table 5. We conclude that our main results are robust to alternative specifications without control variables.

Next, we adopt a more conservative approach regarding the clustering of the standard errors and proceed with recalculating all the regressions with standard errors clustered at the (borrower) country level. The results are displayed in Table A5 in the appendix. The results are very similar to those obtained in Tables 5–7. We conclude that our main results are robust to more conservative specifications with respect to the level of clustering of the standard errors.

Finally, we check whether our results hold on a subsample excluding France and the United Kingdom as these countries account for a large portion of our sample. The results are shown in Table A6. It can be seen that all results are very similar to the results obtained in Tables 5 and 7, with the notable exception of the results in Table 7A,B. We conclude that most of our main findings are robust to alternative sub-samples, excluding the two major countries.

These robustness checks confirm our main hypothesis that stronger FTR languages decrease the perceived value of loan renegotiation.

4 | CONCLUSION

We examine how future tense marking affects the loan renegotiation process. We test the hypothesis that a stronger FTR language is associated with lower renegotiation likelihood and fewer renegotiation rounds. This hypothesis is based on the idea that a stronger FTR language alters the importance of renegotiation risk, with a lower perceived value of renegotiation, because strong FTR

languages create a psychological distance between the present and the future, leading to a higher discount rate and diminishing the value of renegotiation (distance hypothesis) and providing a more precise assessment of future timing, mitigating renegotiation risk (precision hypothesis).

We provide empirical evidence supporting this hypothesis using a sample of 6500 loans issued to 4500 firms from 18 European countries between 1999 and 2017. The use of a stronger FTR language is significantly associated with lower renegotiation likelihood and fewer renegotiation rounds. Hence, stronger FTR languages have a negative influence on the renegotiation process because of the lower perceived value of renegotiation. Our findings remain robust using several FTR proxies, various specifications including loan, borrower, and country-level variables, and potential mitigation effects from specific loan, country, or time effects. Languages with stronger future tense referencing have a significant and negative influence on loan renegotiation likelihood and dynamics.

In terms of practical implications, borrowing firms and lending banks may benefit from considering the linguistic characteristics of their counterparties when negotiating and managing loan agreements. For example, firms that use stronger FTR languages may be less inclined to renegotiate their loans, which may increase their default risk or reduce their investment opportunities in the case of financial distress. Banks that use stronger FTR languages may be less willing to accommodate their borrowers' requests for renegotiation, which may affect their relationship quality and reputation.

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DATA AVAILABILITY STATEMENT

Research data are not shared.

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ENDNOTES

- ¹ Liang et al. (2018) find that firms in countries with weak FTR languages show a higher level of CSR while Mavisakalyan and Weber (2018) show that speakers of weak FTR languages are

more willing to address environmental problems than speakers of strong FTR languages.

- ² Usually contract amendments begin with the borrower contacting the lender. Often the motivations are a consequence of the restrictiveness of the initial contract. For example, a borrower may wish to increase their capital expenditures, undertake an acquisition, alter their financial policy, increase dividends, and so forth. These activities may be explicitly restricted by credit agreements.
- ³ Indeed, multiple renegotiation rounds can occur during the lifetime of the credit agreement (Roberts, 2015).
- ⁴ Table A1 in the appendix provides definitions of all variables.
- ⁵ Chen adopts the classification of the European Science Foundation's Typology of Languages in Europe (EUROTYP) project (for more details, see Chen, 2013, section III. Data and Methods, p. 698–699).
- ⁶ Languages in which verbs have distinct future forms are said to have an “inflectional” future.
- ⁷ We identify the lead lender in a syndicate by considering the lender's role (or title) “Agent” provided by Bloomberg. This procedure allows for a clear identification of one lead bank per syndicate but at the cost of losing observations for which such information is unavailable in Bloomberg (for instance, when multiple co-agents are involved). Lead banks are responsible for negotiating key loan terms with the borrower, due diligence, structuring the syndicate, appointing its members, and allocating the loan to them, and ex post monitoring. See Taylor and Sansone (2006) for a detailed presentation of syndicated loans.
- ⁸ We also perform robustness checks on a sub-sample with domestic loans only.
- ⁹ These loan terms are related to information asymmetry, uncertainty, adverse selection, and moral hazard (Berger et al., 2005; Besanko & Thakor, 1987; Bester, 1994; Garleanu & Zwiebel, 2009).
- ¹⁰ As is standard in the literature (e.g., Berg et al. (2017), Bharath et al. (2011), Bosch and Steffen (2011), Carey and Nini (2007), (Cortés et al., 2020), Dennis and Mullineaux (2000), Ivashina (2009), Lee and Mullineaux (2004), Lim et al. (2014), Prilmeier (2017), Sufi (2007)), in each regression we control for loan type (term loan), loan purpose (acquisition, general corporate, LBO, project finance, debt refinancing, working capital), and loan currency (EUR, GBP, USD), because these loan characteristics capture different risk characteristics that matter for the loan contract and for the renegotiation process.
- ¹¹ These variables are related to syndicated informational frictions, moral hazard, and reputational issues (e.g., Bushman & Wittenberg-Moerman, 2012; Mian, 2006; Sufi, 2007).
- ¹² All firm variables are symmetrically winsorized at 5% to minimize the influence of outliers.
- ¹³ <https://www.policyuncertainty.com/index.html>.
- ¹⁴ The correlation matrix for all variables can be found in Table A2.
- ¹⁵ The initial renegotiation rounds variable ranges from 1 to 12 for renegotiated loans. As the percentage of loans being renegotiated many times becomes very small, we aggregate all rounds above 4 into one category.
- ¹⁶ Additionally, 59% of the loans are term loans. The main loan purposes are debt refinancing (30%), general corporate (22%), LBO (16%), acquisition (14%), and project finance (7%). About

61% of the loans are denominated in EUR, 19% in GBP, and 14% in USD. The legal origins are French (44%), English (27%), German (17%), and Scandinavian (9%).

¹⁷ As the explained variables and most of the explanatory variables are measured at the loan level, the analysis is performed at the loan level, with standard errors clustered at the firm level. For each regression, the number of firms and loans in the sample are displayed at the bottom of the table.

¹⁸ Marginal effects of *Strong FTR* and *Very strong FTR* coefficients are provided in Table A3.

¹⁹ *Lender strong FTR* and *Rounds* and *Very strong FTR* and *Renegotiation* with the domestic loans subsample.

²⁰ For more details, see Chen (2013), p. 700. In our sample, the mean and standard deviation of the *Sentence ratio* are equal to 0.60 and 0.42 and the *Verb ratio* is equal to 0.57 and 0.41, respectively.

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APPENDIX A

TABLE A1 Variables definitions.

Variable	Description	Source
Renegotiation variables		
Renegotiation	= 1 if a loan is renegotiated	Bloomberg
Rounds	number of renegotiation rounds	Bloomberg
Language variables		
Strong FTR	=1 if the language of the borrower or lender country (Lender) has a strong future-time reference	Chen (2013)
Very strong FTR	=1 if the language of the borrower or lender country (Lender) has inflectional markers for the future time	Chen (2013)
Loan variables		
Amount	Size of the loan in millions of USD	Bloomberg
Maturity	Maturity of the loan in years	Bloomberg
Covenants	=1 if the loan includes financial covenants	Bloomberg
Secured	=1 if the loan is secured by collateral	Bloomberg
Previous issues	Number of loans previously issued by a firm	Bloomberg
Lender variables		
Number of Lenders	Number of lenders	Bloomberg
League	=1 if the lead lender is listed among the top 3 of the Bloomberg European league table	Bloomberg
Relationship	=1 if the lead lender issued a loan for the same borrower during the last 3 years	Bloomberg
Firm variables		
Rating	=1 if a firm has a rating (Moody's or S&P, Senior Unsecured Debt or LT Issuer Credit)	Bloomberg
Sales	Net sales or revenue of the firm in millions of USD	Bloomberg
Debt/Equity	Total debt to equity	Bloomberg
Current ratio	Current assets to current liabilities	Bloomberg
Operating margin	Operating income to net sales	Bloomberg
Country variables		
GDP growth	GDP growth (% annual)	World Bank
Private credit	Private credit by deposit money banks and other financial institutions to GDP.	World Bank
Stock market	Total value of all listed shares in a stock market as a percentage of GDP.	World Bank
Bank Z score	Z-score compares the buffer of a country's commercial banking system (capitalization and returns) with the volatility of those returns	World Bank – Global Financial Development Database
Creditor rights	Index aggregating legal rights of creditors against defaulting debtors (ranging from 0 to 4)	Djankov et al. (2007)
Rule of law	This indicator refers to “the extent to which agents have confidence in and abide by the rules of society.” (ranging from –2.5 to 2.5)	World Bank – World Governance Indicators
Foreign language	Percentage of adults knowing at least one foreign language (self-reported)	Eurostat
Proficient	Percentage of adults with a proficient level of the best-known foreign language (self-reported)	Eurostat
Christians	Percentage of Christians	Pew Research Center
Long term orientation	National culture index related to the long-term orientation of a society (based on the World Value Survey)	Hofstede Website
Foreign born	Percentage of people who have ever migrated from their country of birth to their current country of residence	OECD
Global EPU	Economic policy uncertainty index (country-yearly average)	Policy Uncertainty Website

TABLE A2 Correlation matrix.

	Amount (log)	Previous				Bank Rule				Creditor				Long term				Foreign				Global				Sales				Debt / Current				Operating			
		Maturity	Covenants	Secured	Issues	Rating	Lenders	League	Relationship	GDP	Private	Stock	Z	of	rights	Christians	orientation	Proficient	language	born	EPU	(log)	Sales	Debt	Equity	ratio	margin										
Amount (log)	1.00																																				
Maturity	-0.00	1.00																																			
Covenants	0.07	0.01	1.00																																		
Secured	-0.05	0.21	0.17	1.00																																	
Previous issues	0.18	0.17	0.03	0.14	1.00																																
Rating	0.25	-0.07	0.02	-0.07	0.08	1.00																															
Lenders	0.43	-0.03	0.19	0.00	0.08	0.22	1.00																														
League	0.03	0.04	0.00	-0.01	0.02	0.00	0.01	1.00																													
Relationship	0.15	-0.13	0.04	-0.08	0.01	0.13	0.15	0.05	1.00																												
GDP growth	0.15	0.08	-0.02	-0.05	0.05	-0.00	0.04	0.04	-0.04	1.00																											
Private credit	-0.07	-0.04	0.05	0.09	-0.06	-0.03	-0.03	-0.05	0.05	-0.23	1.00																										
Stock market	0.02	-0.03	0.05	-0.05	0.02	-0.06	-0.05	0.04	0.01	0.26	0.52	1.00																									
Bank Z score	0.03	0.04	-0.11	-0.13	0.00	0.01	0.06	0.05	0.02	0.04	-0.30	-0.15	1.00																								
Rule of law	0.12	-0.09	0.06	0.00	-0.15	0.01	0.03	0.01	0.07	0.05	0.42	0.42	-0.11	1.00																							
Creditor rights	-0.02	-0.07	0.03	0.03	-0.04	-0.02	-0.02	-0.06	-0.03	0.00	0.60	0.37	-0.27	0.29	1.00																						
Christians	-0.07	0.05	-0.04	-0.00	-0.03	-0.04	-0.03	-0.05	-0.04	-0.06	-0.09	-0.30	0.11	-0.24	-0.22	1.00																					
Long term orientation	0.08	-0.04	0.00	-0.02	0.06	0.08	0.08	0.07	0.03	-0.10	-0.39	-0.32	0.33	-0.09	0.01	-0.38	1.00																				
Proficient	0.12	-0.03	0.01	0.01	-0.05	0.05	0.02	-0.12	0.02	0.10	0.06	0.03	-0.07	0.53	-0.06	0.03	-0.15	1.00																			
Foreign language	0.06	0.07	-0.04	-0.01	0.04	0.04	0.06	0.00	-0.01	-0.03	-0.62	-0.69	0.43	-0.44	-0.53	0.26	0.48	1.00																			
Foreign born	0.10	-0.07	-0.03	0.03	-0.05	0.11	0.09	0.01	0.12	-0.04	0.32	0.05	0.11	0.45	0.04	-0.18	0.21	0.31	0.04	1.00																	
Global EPU	-0.03	-0.12	-0.13	-0.02	-0.09	0.11	0.00	-0.07	0.13	-0.19	0.07	-0.25	-0.02	-0.07	-0.03	0.00	0.03	0.04	0.04	0.28	1.00																
Sales (log)	0.29	-0.04	0.00	-0.13	0.07	0.20	0.16	0.01	0.11	0.03	-0.08	-0.04	0.04	0.02	-0.03	-0.06	0.10	0.04	0.05	0.02	1.00																
Debt / Equity	0.04	0.05	0.00	0.03	0.08	0.01	0.03	0.03	0.01	-0.00	-0.01	-0.01	0.05	-0.04	-0.03	0.01	0.02	-0.04	0.03	-0.01	-0.03	0.07	1.00														
Current ratio	-0.06	0.01	0.01	0.04	-0.03	-0.05	-0.01	-0.01	-0.04	-0.01	0.01	0.00	-0.02	0.03	0.01	0.01	-0.00	0.03	0.00	0.00	0.00	-0.24	0.07	1.00													
Operating margin	0.05	0.03	-0.00	-0.02	0.04	0.02	-0.04	0.02	0.02	0.01	-0.01	-0.01	0.01	-0.02	-0.00	-0.01	0.01	-0.00	0.00	0.01	0.00	0.29	0.03	-0.13	1.00												

TABLE A3 Marginal effects for *Strong FTR* and *Very strong FTR* coefficients in Tables 5–7.

	Borrower country FTR		Lender country FTR		Same country Borrower & Lender	
	Renegotiation	Rounds	Renegotiation	Rounds	Renegotiation	Rounds
Table 5 A						
Strong FTR	−0.0348	−0.0769	−0.0329	−0.0391	−0.0382	−0.0738
Very strong FTR	−0.0401	−0.1005	−0.0282	−0.0410	−0.0271	−0.0537
Table 5 B						
Strong FTR	−0.0375	−0.1014	−0.0611	−0.0853	−0.0496	−0.1212
Very strong FTR	−0.0128	−0.0512	−0.0274	−0.0539	−0.0041	−0.0656
Table 6 A						
Strong FTR	−0.0310	−0.1830	−0.1729	−0.1857	−0.1708	−0.1835
Very strong FTR	−0.0369	−0.1373	−0.1054	−0.1401	−0.1054	−0.1381
Table 6 B						
Strong FTR	−0.0718	−0.4170	−0.3771	−0.3758	−0.3743	−0.3713
Very strong FTR	−0.0946	−0.2665	−0.1884	−0.3134	−0.1856	−0.3079
Table 7 A						
Strong FTR	−0.0518	−0.0677	−0.0632	−0.0650	−0.0634	−0.0647
Very strong FTR	−0.0274	−0.0176	−0.0401	−0.0565	−0.0398	−0.0576
Table 7 B						
Strong FTR	−0.1268	−0.3312	−0.3311	−0.3180	−0.3309	−0.3154
Very strong FTR	−0.0786	−0.0534	−0.0221	−0.0407	−0.0234	−0.0357

Note: This table presents the marginal effects for *Strong FTR* and *Very strong FTR* coefficients from Probit and Poisson regressions examining the relationship between the future tense reference and renegotiation. The dependent variables are alternatively *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise) and *Rounds* (=0: no renegotiation to 4: four or more renegotiation rounds). The main explanatory variables are *Strong FTR* and *Very strong FTR*. All variables included in Tables 5–7 are included but their marginal effects are not displayed. We present three alternative specifications: using borrower country FTR, (lead) lender country FTR, and a subsample where the borrower and lead lender are from the same country (i.e. domestic loans). Definitions of all variables are provided in the Appendix. Standard errors (in brackets) are clustered by borrower.

TABLE A4 Loan renegotiation and future tense reference – main estimations (Table 5) without loan control variables.

Panel A	Borrower country FTR		Lender country FTR		Same country Borrower & Lender	
	Renegotiation	Rounds	Renegotiation	Rounds	Renegotiation	Rounds
Strong FTR	–0.243*** (0.058)	–0.347*** (0.099)	–0.189*** (0.060)	–0.258** (0.106)	–0.233*** (0.077)	–0.378*** (0.119)
Very strong FTR	–0.268*** (0.058)	–0.447*** (0.095)	–0.131** (0.062)	–0.174* (0.102)	–0.204*** (0.074)	–0.342*** (0.118)
pseudo- R^2	0.12	0.15	0.09	0.10	0.08	0.10
log-likelihood	–7981.69	–12357.83	–5986.07	–8457.97	–4170.27	–5620.93
				–8472.63	–4174.13	–5626.55
Panel B	Borrower country FTR		Lender country FTR		Same country Borrower & Lender	
	Renegotiation	Rounds	Renegotiation	Rounds	Renegotiation	Rounds
Strong FTR	–0.161* (0.061)	–0.329*** (0.123)	–0.188* (0.102)	–0.292** (0.146)	–0.158 (0.129)	–0.316* (0.185)
Very strong FTR	–0.076 (0.102)	–0.240* (0.140)	–0.061 (0.105)	–0.124 (0.145)	0.025 (0.138)	–0.081 (0.186)
pseudo- R^2	0.08	0.09	0.09	0.09	0.08	0.09
log-likelihood	–7449.00	–11068.32	–5883.81	–8499.06	–4412.93	–6152.68
				–8528.35	–4420.38	–6174.26

Note: This table presents the results of Probit and Poisson regressions examining the relationship between the future tense reference and renegotiation. The dependent variables are alternatively *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise) and *Rounds* (=0: no renegotiation to 4; four or more renegotiation rounds). The main explanatory variables are *Strong FTR* and *Very strong FTR*. The following variables are *not included*: loan type (term loan), loan purpose (acquisition, general corporate, LBO, project finance, debt refinancing, working capital), loan currency (EUR, GBP, USD), borrower industry sector, and year. All other variables included in Table 5 are also included in these regressions but not displayed. The number of firms and loans is the same as in Table 5. We present three alternative specifications: using borrower country FTR, (lead) lender country FTR, and a subsample where the borrower and lead lender are from the same country (i.e., domestic loans). Panel A provides the results without borrower variables while Panel B provides the results including borrower variables. Definitions of all variables are provided in the Appendix A. Standard errors (in brackets) are clustered by borrower *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

TABLE A5 Loan renegotiation and future tense reference – all estimations (Tables 5–7) with standard errors clustered at the (borrower) country level.

	Borrower country FTR		Lender country FTR		Same country Borrower & Lender	
	Renegotiation	Rounds	Renegotiation	Rounds	Renegotiation	Rounds
Table 5 A						
Strong FTR	–0.155*** (0.051)	–0.206*** (0.055)	–0.153*** (0.051)	–0.141*** (0.053)	–0.179*** (0.063)	–0.286*** (0.082)
Very strong FTR	–0.179*** (0.066)	–0.269*** (0.070)	–0.131*** (0.051)	–0.148*** (0.063)	–0.127* (0.074)	–0.208** (0.093)
pseudo- R^2	0.26	0.26	0.22	0.22	0.22	0.22
log-likelihood	–6438.78	–10328.31	–4898.21	–7145.70	–3389.30	–4697.19
Table 5 B						
Strong FTR	–0.149** (0.058)	–0.256*** (0.067)	–0.251*** (0.073)	–0.237*** (0.075)	–0.206*** (0.078)	–0.346*** (0.091)
Very strong FTR	–0.051 (0.062)	–0.129** (0.062)	–0.112 (0.089)	–0.150* (0.078)	–0.017 (0.083)	–0.187** (0.078)
pseudo- R^2	0.23	0.21	0.25	0.21	0.25	0.23
log-likelihood	–5898.92	–9187.08	–4628.09	–6955.62	–3389.92	–4911.82
Table 6 A						
Strong FTR	–0.132*** (0.045)	–0.768*** (0.177)	–0.727*** (0.128)	–0.780*** (0.164)	–0.719*** (0.125)	–0.771*** (0.163)
Very strong FTR	–0.157*** (0.030)	–0.576*** (0.196)	–0.443** (0.189)	–0.588** (0.239)	–0.443** (0.189)	–0.580** (0.238)
pseudo- R^2	0.26	0.26	0.26	0.26	0.26	0.26
log-likelihood	–7317.23	–7273.68	–7261.52	–7254.35	–7271.06	–7256.61
Table 6 B						
Strong FTR	–0.178*** (0.066)	–1.016*** (0.168)	–0.918*** (0.153)	–0.913*** (0.161)	–0.912*** (0.154)	–0.902*** (0.160)
Very strong FTR	–0.235*** (0.038)	–0.649*** (0.234)	–0.459** (0.218)	–0.762*** (0.273)	–0.452*** (0.218)	–0.748*** (0.272)
pseudo- R^2	0.26	0.26	0.25	0.25	0.25	0.26
log-likelihood	–11817.68	–11741.93	–11769.36	–11763.89	–11760.27	–11728.33

TABLE A5 (Continued)

	Borrower country FTR		Lender country FTR		Same country Borrower & Lender	
	Renegotiation	Rounds	Renegotiation	Rounds	Renegotiation	Rounds
Table 7 A						
Strong FTR	−0.195*** (0.060)	−0.254* (0.130)	−0.237 (0.150)	−0.243 (0.232)	−0.238 (0.151)	−0.241 (0.232)
Very strong FTR	−0.103* (0.058)	0.066 (0.232)	0.151 (0.275)	0.211 (0.301)	0.149 (0.275)	0.215 (0.302)
pseudo- R^2	0.22	0.22	0.22	0.22	0.22	0.22
log-likelihood	−7112.94	−7130.69	−7096.26	−7016.17	−7096.14	−7016.10
Table 7 B						
Strong FTR	−0.304*** (0.066)	−0.785*** (0.187)	−0.784*** (0.201)	−0.749** (0.293)	−0.784*** (0.202)	−0.743** (0.297)
Very strong FTR	−0.189*** (0.056)	−0.127 (0.321)	−0.052 (0.365)	−0.096 (0.387)	−0.055 (0.365)	−0.084 (0.393)
pseudo- R^2	0.19	0.18	0.18	0.18	0.18	0.18
log-likelihood	−11054.97	−11091.67	−11055.40	−11054.59	−11028.38	−10889.47
				−10905.29	−11052.61	−10904.60

Note: This table presents the results of Probit and Poisson regressions examining the relationship between the future tense reference and renegotiation. The dependent variables are alternatively *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise) and *Rounds* (=0: no renegotiation to 4: four or more renegotiation rounds). The main explanatory variables are *Strong FTR* and *Very strong FTR*. All variables included in Tables 5–7 are also included in these regressions but not displayed. The number of firms and loans is the same as in Tables 5–7 respectively. We present three alternative specifications: using borrower country FTR, (lead) lender country FTR, and a subsample where the borrower and lead lender are from the same country (i.e., domestic loans). Definitions of all variables are provided in the Appendix A. Standard errors (in brackets) are clustered by (borrower) country. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

TABLE A6 Loan renegotiation and future tense reference – all estimations (Tables 5–7) excluding UK and France.

	Borrower country FTR			Lender country FTR			Same country Borrower & Lender		
	Renegotiation	Rounds		Renegotiation	Rounds		Renegotiation	Rounds	
Table 5 A									
Strong FTR	−0.135* (0.076)	−0.251** (0.102)		−0.178** (0.079)	−0.166 (0.111)		−0.162 (0.112)	−0.346** (0.157)	
Very strong FTR	−0.227*** (0.087)	−0.401*** (0.120)		−0.168* (0.086)	−0.212* (0.117)		−0.071 (0.123)	−0.206 (0.179)	
Firms	2720	2732	2732	2345	2353	2353	1574	1593	
Loans	3971	3989	3989	3424	3435	3435	2298	2326	
pseudo-R ²	0.26	0.26	0.26	0.21	0.22	0.22	0.21	0.22	
log-likelihood	−4140.90	−4133.88	−6836.80	−3160.94	−4649.25	−4646.70	−1923.43	−2688.49	
Table 5 B									
Strong FTR	−0.242** (0.120)	−0.203 (0.154)		−0.383*** (0.129)	−0.234 (0.156)		−0.356** (0.172)	−0.309 (0.219)	
Very strong FTR	−0.204 (0.152)	−0.128 (0.213)		−0.381*** (0.147)	−0.287 (0.198)		−0.118 (0.203)	−0.048 (0.238)	
Firms	1160	1160	1163	999	1016	1016	667	688	
Loans	1694	1694	1698	1459	1483	1483	974	1004	
pseudo-R ²	0.28	0.28	0.26	0.26	0.26	0.26	0.30	0.30	
log-likelihood	−3035.91	−3044.22	−5117.93	−2334.22	−3741.59	−3739.21	−1369.54	−2183.55	
Table 6 A									
Strong FTR	−0.106 (0.076)	−0.686*** (0.258)		−0.830*** (0.281)	−1.059*** (0.385)		−0.825*** (0.284)	−1.062*** (0.386)	
Very strong FTR	−0.211*** (0.077)	−0.423* (0.230)		−0.431* (0.231)	−0.518* (0.290)		−0.438* (0.231)	−0.518* (0.290)	
Firms	2737	2737	2734	2734	2720	2720	2734	2720	
Loans	3996	3996	3992	3992	3971	3971	3992	3971	
pseudo-R ²	0.26	0.26	0.27	0.27	0.27	0.27	0.27	0.27	
log-likelihood	−4352.57	−4342.83	−4321.31	−4306.02	−4299.27	−4309.54	−4314.97	−4304.85	
Table 6 B									
Strong FTR	−0.158 (0.100)	−0.946*** (0.347)		−1.114*** (0.386)	−1.391*** (0.515)		−1.109*** (0.388)	−1.394*** (0.517)	

TABLE A6 (Continued)

	Borrower country FTR			Lender country FTR			Same country Borrower & Lender		
	Renegotiation	Rounds		Renegotiation	Rounds		Renegotiation	Rounds	
Very strong FTR	−0.329*** (0.104)	−0.331 (0.323)		−0.328 (0.322)	−0.598 (0.386)		−0.326 (0.323)	−0.594 (0.386)	
Firms	2748	2748	2734	2734	2720	2720	2734	2720	2720
Loans	4012	3992	3992	3992	3971	3971	3992	3971	3971
pseudo- R^2	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
log-likelihood	−7188.74	−7169.85	−7124.88	−7118.32	−7143.71	−7121.91	−7114.77	−7139.98	−7118.71
Table 7 A									
Strong FTR	−0.211* (0.117)	−0.486 (0.400)		−0.585 (0.445)	−0.939 (0.571)		−0.591 (0.444)	−0.938 (0.571)	
Very strong FTR	−0.165 (0.132)	0.030 (0.346)		0.026 (0.349)	0.054 (0.372)		0.021 (0.348)	0.060 (0.372)	
Firms	1173	1173	1173	1173	1156	1156	1173	1156	1156
Loans	1713	1713	1713	1713	1688	1688	1713	1688	1688
pseudo- R^2	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
log-likelihood	−3444.82	−3452.19	−3440.71	−3438.79	−3352.73	−3363.29	−3437.94	−3352.35	−3362.88
Table 7 B									
Strong FTR	−0.194 (0.157)	−0.915 (0.558)		−1.015* (0.611)	−1.234* (0.725)		−1.027* (0.607)	−1.235* (0.724)	
Very strong FTR	−0.142 (0.188)	−0.013 (0.383)		−0.015 (0.384)	0.063 (0.422)		−0.026 (0.382)	0.069 (0.423)	
Firms	1174	1173	1173	1173	1156	1156	1173	1156	1156
Loans	1714	1713	1713	1713	1688	1688	1713	1688	1688
pseudo- R^2	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
log-likelihood	−5657.00	−5662.93	−5640.70	−5639.42	−5657.02	−5503.62	−5637.63	−5490.45	−5503.15

Note: This table presents the results of Probit and Poisson regressions examining the relationship between the future tense reference and renegotiation using a sub-sample excluding loans to borrowers from UK and France. The dependent variables are alternatively *Renegotiation* (=1 if a loan is renegotiated, 0 otherwise) and *Rounds* (=0: no renegotiation to 4: four or more renegotiation rounds). The main explanatory variables are *Strong FTR* and *Very strong FTR*. All variables included in Tables 5–7 are also included in these regressions but not displayed. We present three alternative specifications: using borrower country FTR, (lead) lender country FTR, and a subsample where the borrower and lead lender are from the same country (i.e., domestic loans). Definitions of all variables are provided in the Appendix A. Standard errors (in brackets) are clustered by borrower. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.