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**LaRGE Research Center**

# Working Paper

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**Language and Private Debt Renegotiation**

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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 6.500 loans issued to European firms between 1999 and 2017. We find that the use of a stronger FTR language decreases renegotiation likelihood 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.

**JEL Codes:** D83, G20, G41, Z13.

**Keywords:** language, future tense marking, future time reference, bank loan, renegotiation.

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# 1. Introduction

Formal institutions, such as legal and institutional environment, have a significant influence on financial contracting, in particular credit agreements (e.g. Qian and Strahan, 2007; Bae and Goyal, 2009; Haselmann, Pistor, and Vig, 2010). Informal institutions, such as social capital, trust, or culture, appear to have an important role with respect to the design of private debt contracts as well (e.g. Giannetti and Yafeh, 2012; Hasan et al., 2017; Álvarez-Botas and González, 2021; Papadimitri, Pasiouras, and Tasiou, 2021; Pappas and Xu, 2021). Language is a crucial feature of culture and its potential impact on economic or financial decisions and outcomes has recently attracted academic interest (e.g. Chen, 2013; Chen et al., 2017; Chi et al., 2020; Guan et al., 2021; Kong et al., 2021). However, our empirical understanding of the influence of language on the design of credit agreements remains limited, while such design is crucial for corporate policies and performances and for financial intermediation efficiency. Therefore, our aim is to shed some light on the impact of language structure on the design of private debt contracts through the process of bank loan renegotiation.

In recent years, emerging literature has shown that language structure has an effect on cognition and behavior, ultimately influencing economic decision making (Mavisakalyan and Weber, 2018).<sup>1</sup> In particular, future tense marking is one of the

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<sup>1</sup> According to the linguistic relativity principle or Sapir-Whorf hypothesis (Kay and Kempton, 1984), people who speak different languages think differently.



linguistic feature that has received considerable attention in economics, following the seminal paper by [Chen \(2013\)](#). Following the linguistics literature that languages differ in the way they encode time, Chen separates languages into two types: strong vs weak future - time reference (FTR hereafter) languages.<sup>2</sup> A strong FTR language requires speakers to explicitly encode 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 differentiate weak FTR and strong FTR, and compared to strong FTR languages, weak FTR languages have more ambiguous reference to 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 behavior. Individuals speaking weak FTR languages exhibit more long-term oriented behavior, such as saving more for retirement and making more health-conscious decisions. [Fuchs-Schündeln, Masella, and Paule-Paludkiewicz \(2020\)](#) confirm the linguistic-savings hypothesis.<sup>3</sup> Beyond individual decisions, linguistic future tense marking also affect various corporate decisions. [Chen](#)

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<sup>2</sup> This classification refers to how explicitly a language marks future timing. Strong FTR languages, such as English or French, require speakers to 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, such as German, do not.

<sup>3</sup> [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.

et al. (2017) find that weak-FTR language firms have higher precautionary cash holdings. Kim, Kim, and Zhou (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, while Guan et al. (2021) find that firms in weak-FTR language countries exhibit a greater propensity for and frequency of issuing more long-horizon management forecasts. 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. (2021) 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 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 marking take more risk.

Following this growing literature, our paper aims at empirically investigating 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 and Kahn, 2000; Smith and Warner, 1979; Zinbarg, 1975). The renegotiation of credit agreements allows revising the terms of a loan in case of contingencies and serves as an ex-post

remedy to the initial contractual incompleteness, improving contract efficiency<sup>4</sup> (Hart and Moore, 1999; Aghion and Bolton, 1992; Hart and Moore, 1988; Grossman and Hart, 1982). If doing so results in Pareto improvements from modifying the original contract with mutually beneficial revisions, then when the counterparties to the initial loan contract agree on a renegotiation it means that such outcome is the most preferable solution and the benefits of renegotiation outweigh its costs. In other words, 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 and/or project situation.

Renegotiation also facilitates the monitoring process for the lender, which in turn may relax financial constraints and facilitated access to credit (via lower interest rates or collateral requirements). It allows, for instance, for an increased facility amount, an extended maturity, or looser covenants, which translate into greater investment capacities. Lenders can also discover private information during the renegotiation process and use of control rights (through covenants) in order to incentivize the borrower and alleviate moral hazard and agency problems issues. However, loan renegotiation also bears several costs, such as transaction costs (e.g. amendment and/or

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<sup>4</sup> 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, etc. These activities may be explicitly restricted by credit agreements.

prepayment fees), coordination costs (in case of multiple lenders), legal costs, time, and effort, etc. It also allows creditors to interfere with managerial actions or borrower's investments.

According to recent evidence, the initial conditions, such as the initial loan terms or legal and institutional environments, are important drivers of loan renegotiation (Godlewski, 2020; Nikolaev, 2018; Saavedra, 2018; Paligorova and Santos, 2016). The language structure and future tense marking belong to such initial conditions. We build our hypothesis on the link between FTR languages and bank loan renegotiation in the following way. Strong-FTR languages are associated with less future-oriented behaviors (Chen, 2013; Chi et al., 2020; Kong et al., 2021) making the future feel more distant from the present. A strong FTR language speaker is required to grammatically mark future time, while a weak FTR language speaker does not need to. Therefore, a strong FTR language contributes to making future events feel more blurred and distant, increasing the speaker's discount rate and decreasing present value. Furthermore, a strong FTR speaker has a more precise or less ambiguous perception about future timing, perceiving a narrower distribution of future outcomes, and resulting in more short-term behaviors. As a consequence, a strong FTR language alters the importance of the risks associated with the loan contract, such as renegotiation risk (Godlewski and Weill, 2021). We hypothesize that in countries with

strong FTR languages, the perceived value of renegotiation should be lower, and we expect a negative effect of strong FTR on the renegotiation process.

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 main features of renegotiation: the renegotiation decision and the renegotiation dynamic.<sup>5</sup> We use the classification of languages based on the data from [Chen \(2013\)](#): strong vs 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 the 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 6.500 loans issued to almost 4.500 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 8.216 deals, of which Europe accounts for 22% of the proceeds and 15% of the deals respectively, according to [Refinitiv \(2020\)](#)). We focus on the European credit

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<sup>5</sup> Indeed, multiple renegotiation rounds can occur during the life time of the credit agreement [Roberts \(2015\)](#).

market for two main reasons. First, it provides a diverse linguistic area, where 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 strong-FTR languages family. All Germanic languages other than English (e.g., German, Swedish) and Finnish belong to the weak-FTR languages family. 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, Oosterloo, and Schoemaker, 2012; Gomes and Phillips, 2012). Furthermore, the European legal environment is less protective of creditors<sup>6</sup>, 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 and Reisel, 2012).

We find that stronger FTR languages have a negative influence on the loan renegotiation process and validate our hypothesis that a strong FTR language alters the importance of renegotiation risk, with 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 including borrower variables or various country level variables, specifically related to the knowledge of foreign languages and proficiency, the proportion of foreign-born population, long-term orientation, and economic policy uncertainty. Our findings are

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<sup>6</sup> 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.

robust to potential specific mitigation effects that could alter the perception of future events, such as loans with long maturity, term loans, or specific purposes such as acquisitions, LBOs, or debt refinancing. This is also true for country level factors such as better knowledge of a foreign language, higher proficiency, larger foreign-born population, greater long-term orientation, or economic policy uncertainty, as well as periods of financial crises.

Our paper contributes to several debates in the literature. We contribute to the growing literature 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; Kim, Kim, and Zhou, 2017; Godlewski and Weill, 2021; Guan et al., 2021; Kong et al., 2021; Osei-Tutu and Weill, 2021). We also extend the growing literature on financial contracting in the direction of culture, of which language is a crucial component (Giannetti and Yafeh, 2012; Hasan et al., 2017; Álvarez-Botas and González, 2021; Papadimitri, Pasiouras, and Tasiou, 2021; Pappas and Xu, 2021). Finally, we contribute to the literature on private debt renegotiation (Roberts and Sufi, 2009; Roberts, 2015; Nikolaev, 2018; Godlewski, 2020).

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.<sup>7</sup> First, we use the classification of languages based on the data from [Chen \(2013\)](#). We consider strong-FTR languages that require the use of a dedicated marking of the future and weak-FTR languages that do not have such a requirement. Our first key independent variable is *Strong FTR*, equal to one if the language of the borrower (lender) is a strong-FTR language and zero 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 or periphrastic markers such as the English auxiliary “will”). Our second key independent variable is *Very Strong FTR*, equal to one if the language of the borrower (lender) has inflectional markers for the future time.

We consider both borrower and (lead) lender<sup>8</sup> languages in our analysis. Indeed, a bank loan agreement involves a borrower and at least one lender, and both contracting parties can be from different countries. However, we mainly focus on the influence of the language of the borrower, following notably [Godlewski and Weill \(2021\)](#).<sup>9</sup> Furthermore, we exclude three European multilingual countries: Belgium,

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<sup>7</sup> Table A.1 in the appendix provides definitions of all variables.

<sup>8</sup> We identify the lead lender in a syndicate by considering the lender’s role (or title) “Agent” provided by Bloomberg. 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.

<sup>9</sup> We mainly focus on the 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



Luxembourg, and Switzerland in order to restrict the sample to European countries with one dominant language to ensure proper identification of the borrower language.

Second, we use Bloomberg Professional Terminal Service (Bloomberg) as the main source for loan renegotiation, loan origination, lender pool, and borrower information. We extract all loan amendments in Europe with effective dates between January 1999 and December 2017.<sup>10</sup> Then we extract all loans issued to European borrowers (excluding Financial and Government entities) with effective dates between January 1999 and December 2017<sup>11</sup>. We merge both datasets (loan amendments and loan agreements at origination with lenders' information) using unique loan identifiers.<sup>12</sup> Next, we use the borrower identifiers to gather firms' characteristics, including descriptive information (name, industry sector, country, identifiers...) and financial variables.<sup>13</sup>

We consider two main variables to describe a renegotiation process:

renegotiation decision i.e. likelihood (*Renegotiation* equals 1 if a loan is renegotiated, 0

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the determinants of loan characteristics (Qian and Strahan, 2007; Bae and Goyal, 2009). Furthermore, it is usually the borrower who initiates the renegotiation process. This issue only has importance for the cross-country loans in our sample, which represents 38% of the observations.

<sup>10</sup> This data set contains information on loan renegotiation date and the number of renegotiation rounds if a loan is amended several times over time.

<sup>11</sup> This data set contains various information on loans such as facility amount, maturity, covenants, collateral, type (revolver, term...), purpose (corporate, refinance, acquisition...), currency, etc. It also provides information on lenders, such as the number of lenders, the nationalities (country of incorporation), the roles (or titles), and the identity (names).

<sup>12</sup> At this stage, the sample size is affected mostly by missing information on lenders, especially on their roles (or titles).

<sup>13</sup> This step reduces drastically the size of the sample with financial information on the borrowing companies.

otherwise) and renegotiation dynamics i.e. rounds (*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 multiple times over time.

Third, we gather (borrower) country level variables using data from different sources: World Bank, [Djankov et al. \(2007\)](#), Eurostat, Pew Research Center, Hofstede Website, OECD, and Policy Uncertainty Website. We are able to obtain various control variables related to economic growth, credit and stock markets development, banking system risk, creditors' rights and rule of law, foreign language knowledge and 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 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 main loan terms such as amount, maturity, collateral, and covenants<sup>14</sup> and the number of previously issued loans as well as loan origination year, type, purpose, and currency. We also include

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<sup>14</sup> These main loan terms are related to information asymmetry, uncertainty, adverse selection, and moral hazard issues ([Berger et al., 2005](#); [Besanko and Thakor, 1987](#); [Bester, 1994](#); [Garleanu and Zwiebel, 2009](#)).

main characteristics of the banking pool such as the number of lenders, the presence of league table lead lenders, and previous lead bank-borrower relationships.<sup>15</sup> We include borrower rating to 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.<sup>16</sup> We consider the economic (GDP annual growth), credit (private credit to GDP) and stock markets (value of listed shares to GDP) development, and banking sector riskiness (bank z-score) of the borrower's country because it affects information asymmetry and outside options for refinancing (Levine, Loayza, and Beck, 2000; Rajan and Zingales, 1998). We include the legal origin, creditors protection and rule of law indices, following notably Bae and Goyal (2009) and Qian and Strahan (2007), and economic policy uncertainty (EPU index) as they directly influence the renegotiation process (Godlewski, 2020).<sup>17</sup> We also control for culture variables such as religion (% of Christians) and long term orientation of society (Hofstede) (Kong et al., 2021; Chen et al., 2017). Finally, we also include proxies for foreign language knowledge (% of adults knowing at least one foreign language), proficiency (% of adults with proficient level of the best-known foreign language), and the percentage of foreign-born people.

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<sup>15</sup> These variables are related to syndicated informational frictions, moral hazard, and reputational issues (e.g. Sufi, 2007; Bushman and Wittenberg-Moerman, 2012; Mian, 2006).

<sup>16</sup> All firm variables are symmetrically winsorized at 5% to minimize the influence of outliers. We also include industry sector dummies.

<sup>17</sup> <https://www.policyuncertainty.com/index.html>.

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 descriptive statistics for all variables. Figure 1 shows the evolution of the number of loans and firms by year, as well as the average proportion of renegotiated loans.

We observe a cyclical evolution of the credit market, with an increasing renegotiation trend. Firms and loans in France, UK, Germany, Spain, Netherlands, and Italy represent the majority of the sample. We observe an important between country heterogeneity in renegotiation, ranging from 2.7% in Portugal to 45.6% in Ireland (the sample average equals 25.3%). *Strong FTR* and *Very strong FTR* represent two third and one third of the sample respectively, whatever the country of reference (borrower or lender). Including non-renegotiated loans, the average number of rounds equals 0.32, while it equals 1.5 (std. dev. 0.87).<sup>18</sup>

Additionally, the average loan is large (1.7 billion USD) with a maturity above 6 years, rarely bears covenants but is secured in 40% of the cases. An average firm has previously issued almost 4 loans. The average syndicate has almost 9 members, while more than one out of ten lead banks belong to a league table and in almost one out of five cases the lead bank already had a relationship with a firm. Borrowers have a rating

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<sup>18</sup> 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.

in 13% of the cases, are large firms (5.4 billion USD of sales), with a financial leverage close to 2, with a 7% operating margin and a current ratio at 2%. Finally, let's note that 10% of the population in a given country 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.<sup>19</sup>

To analyze the influence of language FTR and the renegotiation process, we adopt the following specification:

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

*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. *FTR* is alternatively 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. *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, country respectively.

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<sup>19</sup> Additionally, 59% of the loans are term loans. The main loan purposes are debt refinancing (30%), general corporate (22%), LBO (16%), acquisition (14%), project finance (7%). 61% of the loans are denominated in EUR, 19% in GBP, and 14% in USD. The main legal origins are French (44%), English (27%), German (17%), and Scandinavian (9%).

### 3. Results

We investigate whether future tense marking influences loan renegotiation process. First, we provide univariate statistics with t-tests 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.

We remark that most of the t-statistics are significant. Loan renegotiation is associated with weaker FTR languages. This first univariate results confirms our hypothesis that due to a lower perceived value of renegotiation, stronger FTR languages should have a negative effect on the renegotiation process. We also remark that renegotiated loans are larger, with longer maturities, bearing covenants and being secured more often. Loan renegotiation involves more often larger syndicates and relationship lending. Renegotiating firms are more often rated and are larger. Renegotiation occurs more often in environments with lower GDP growth and stock market development, and larger credit markets and less risky banking sectors. Renegotiation is also associated with greater economic policy uncertainty and linked to greater rule of law and stronger creditor rights. Additionally, in strong or very strong FTR environments, loans are smaller, with longer maturities, fewer covenants and less often secured. They are funded by smaller syndicates with more reputable lead lenders. Borrowers are less rated, smaller, with larger financial leverage.

Next, we perform regressions explaining loan renegotiation likelihood and loan renegotiation rounds. The estimations are reported in Tables 5 to 7.

Table 5 presents our main estimations examining the relation between renegotiation likelihood and rounds and *Strong FTR* and *Very strong FTR*. The first two columns provide results using the 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 is the same. Panel A doesn't include borrower variables while Panel B shows results including borrower variables. In all regressions we control for main 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.<sup>20</sup> The level of significance is the highest when considering the borrower country FTR. This first series of results confirm 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

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<sup>20</sup> *Lender strong FTR* and *Rounds* and *Very strong FTR* and *Renegotiation* with the domestic loans subsample.

borrower FTR, the (lead) lender FTR, and when both FTR are the same (i.e. for domestic loans).

Regarding control variables, we remark that most of the loan and syndicate variables are significant and positive, while country level variables are not significant (with the exception of GDP growth, with a positive influence on renegotiation). As expected, secured loans are more prone to renegotiation (Bester, 1994) while amending restrictive covenants allows to rebalance the allocation of contractual control rights (Dessein, 2005; Garleanu and 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 and Mullineaux, 2004; Preece and Mullineaux, 1996; Sufi, 2007) while debt dispersion protects creditors from opportunistic expropriation (Hege and Mella-Barral, 2005), thus favoring the renegotiation process. Lender reputation mitigates adverse selection and helps signaling the quality of the deal (Bushman and Wittenberg-Moerman, 2012; Ross, 2010), easing the prospect for renegotiation.

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. 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) doesn't affect our main findings regarding the negative influence of *Strong future* on the renegotiation process. We also notice that all borrower variables are not significant across specifications.

Following our main estimations, Tables 6 and 7 present the results using borrower FTR only and includes 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 aim here at testing the sensitivity of our main findings by including the percentage of adults knowing at least one foreign language and 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 creditors' rights protection. We additionally control for religion and long-term orientation, as well as for uncertainty related to economic policies.<sup>21</sup>

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,

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<sup>21</sup> We also include legal origin fixed effects in our estimations.

our main finding remains robust to the inclusion of additional country level variables, notably foreign languages knowledge. We remark that formal institutions have a significant and negative influence on the renegotiation process. 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.

We now turn to more specific robustness checks by focusing on the potential mitigating effects of specific variables on the negative relationship between strong future reference marking and the renegotiation process. To do so, we include various interaction terms with proxy variables for loan terms and country variables that can influence the perception of future events.<sup>22</sup>

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 the uncertainty of the operation's success. LBO loans bear greater business and financial risks. Debt refinancing loans are associated with greater risks related to the financial structure of the borrower.

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<sup>22</sup> 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), global EPU (91.83). Post US and EZ crises periods cover loans originated after 15/09/2008 and 01/12/2009 respectively.

We also consider country level knowledge of a foreign language, its level of proficiency, and the foreign-born population. For instance, greater knowledge and 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 (US subprime crisis and EZ sovereign crisis) to investigate if the link between FTR and renegotiation process is altered during financial and economic crises.

We adopt the most complete specifications from table 6 (columns (11) and (12)) and provide the results in table 8. Each time, we interact our main explanatory variables and 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 time periods.

Regarding loan specific variables, we remark that every interaction term's coefficient is not significant, with the notable exception of the interaction term between *Very strong future* and *Acquisition*, 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 all 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 not significant. Finally, the interaction term between *Very strong future* and the period following 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.

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

#### **4. Conclusion**

We examine how future tense marking affects 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 lower perceived value of renegotiation, because strong FTR languages make the future feel more distant, resulting in more short-term behaviors.

We provide empirical evidence supporting this hypothesis using a sample of 6.500 loans issued to 4.500 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. 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.

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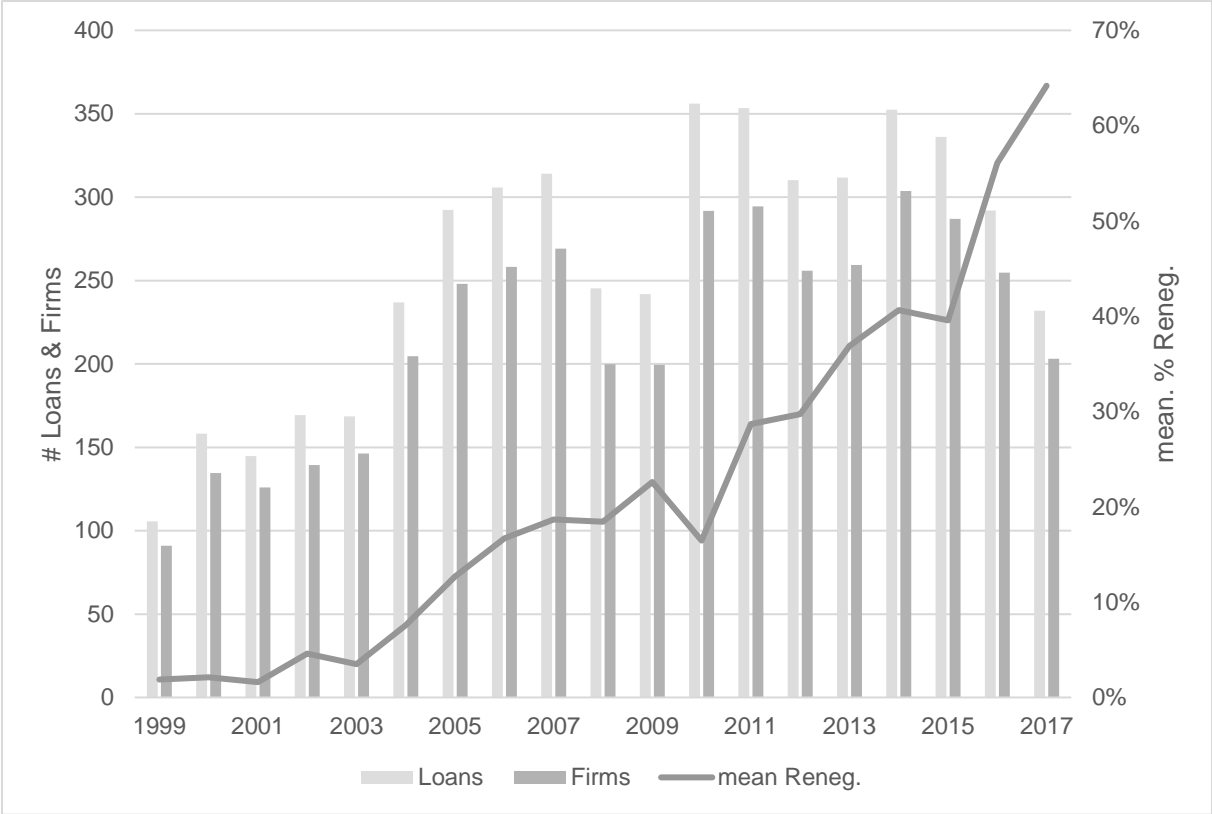


Figure 1 Evolution of loans, firms, and mean % of renegotiated loans by year

**Table 1 Descriptive statistics by country**

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.

<b>Country</b>	<b>Loans</b>	<b>Firms</b>	<b>mean Reneg.</b>	<b>Strong FTR</b>	<b>Very strong FTR</b>
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 2 Descriptive statistics for all variables**

This table provides main descriptive statistics for all variables.

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
Renegotiation	0.25	0.43	0.00	0.00	0.00
Renegotiation rounds	0.32	0.61	0.00	0.00	0.00
Strong future	0.66	0.47	0.00	1.00	1.00
Very strong future	0.34	0.47	0.00	0.00	1.00
Strong future (Lender)	0.66	0.47	0.00	1.00	1.00
Very strong future (Lender)	0.38	0.49	0.00	0.00	1.00
Amount	1,672.16	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	5,393.33	12,542.67	222.46	964.04	4,013.39
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

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

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.

	No renegotiation	Renegotiation	T-test
Strong future	0.6825	0.6115	(12.38)***
Very strong future	0.3620	0.2866	(13.09)***
Strong future (Lender)	0.6694	0.6310	(4.98)***
Very strong future (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)

**Table 4 Univariate statistics and T-tests for loan, lender, and firm variables by Strong FTR and Very Strong FTR**

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.

	No Strong FTR	Strong FTR	T-test	No Very Strong FTR	Very Strong FTR	T-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)

**Table 5 Loan renegotiation and future tense reference – main estimations**

This table presents the results of Probit and Poisson regressions examining the relation 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 future* and *Very strong future*. We present three alternative specifications: using borrower country FTR, (lead) lender country FTR, and a subsample where 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. 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, or USD), borrower industry sector, and year. Standard errors (in brackets) are clustered by borrower. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5% and 1% level, respectively.

**Panel A**

**Panel A**

	<i>Borrower country FTR</i>				<i>Lender country FTR</i>				<i>Same country Borrower &amp; Lender</i>			
	<i>Renegotiation</i>		<i>Rounds</i>		<i>Renegotiation</i>		<i>Rounds</i>		<i>Renegotiation</i>		<i>Rounds</i>	
<b>Strong future</b>	<b>-0.155**</b>		<b>-0.205***</b>		<b>-0.152**</b>		<b>-0.141</b>		<b>-0.179**</b>		<b>-0.286***</b>	
	(0.063)		(0.078)		(0.065)		(0.090)		(0.082)		(0.107)	
<b>Very strong future</b>	<b>-0.178***</b>		<b>-0.268***</b>		<b>-0.130*</b>		<b>-0.147*</b>		<b>-0.127</b>		<b>-0.208*</b>	
	(0.064)		(0.081)		(0.067)		(0.089)		(0.084)		(0.112)	
Amount (log)	0.150***	0.150***	0.236***	0.236***	0.143***	0.142***	0.230***	0.228***	0.149***	0.151***	0.185***	0.188***
	(0.027)	(0.028)	(0.034)	(0.034)	(0.031)	(0.031)	(0.041)	(0.041)	(0.033)	(0.033)	(0.044)	(0.044)
Maturity	0.051***	0.051***	0.077***	0.077***	0.043***	0.042***	0.077***	0.076***	0.044***	0.043***	0.062***	0.061***
	(0.008)	(0.008)	(0.011)	(0.011)	(0.009)	(0.009)	(0.015)	(0.015)	(0.010)	(0.010)	(0.014)	(0.014)
Covenants	0.735***	0.733***	0.837***	0.832***	0.780***	0.780***	1.076***	1.083***	0.761***	0.758***	1.146***	1.148***
	(0.086)	(0.086)	(0.090)	(0.091)	(0.105)	(0.105)	(0.138)	(0.139)	(0.123)	(0.123)	(0.157)	(0.158)
Secured	0.346***	0.349***	0.445***	0.455***	0.348***	0.351***	0.529***	0.536***	0.360***	0.362***	0.559***	0.565***
	(0.058)	(0.058)	(0.074)	(0.075)	(0.064)	(0.064)	(0.090)	(0.091)	(0.076)	(0.076)	(0.095)	(0.097)
Previous issues	0.009	0.008	0.009	0.008	0.027*	0.026*	0.011	0.011	0.036**	0.035*	0.036*	0.035*
	(0.012)	(0.012)	(0.013)	(0.014)	(0.014)	(0.014)	(0.018)	(0.018)	(0.018)	(0.018)	(0.021)	(0.021)
Rating	0.273***	0.275***	0.292***	0.287***	0.261***	0.261***	0.410***	0.410***	0.360***	0.359***	0.484***	0.479***

	(0.072)	(0.073)	(0.080)	(0.080)	(0.083)	(0.083)	(0.101)	(0.100)	(0.094)	(0.094)	(0.104)	(0.104)
Lenders	0.019***	0.019***	0.012***	0.012***	0.017***	0.017***	0.017***	0.017***	0.017**	0.017**	0.023***	0.023***
	(0.005)	(0.005)	(0.003)	(0.003)	(0.006)	(0.006)	(0.005)	(0.004)	(0.007)	(0.007)	(0.008)	(0.008)
League	0.147**	0.144**	0.229***	0.220***	0.138*	0.115	0.269***	0.247**	0.189**	0.181**	0.346***	0.338***
	(0.069)	(0.069)	(0.082)	(0.082)	(0.077)	(0.076)	(0.099)	(0.098)	(0.091)	(0.091)	(0.115)	(0.115)
Relationship	-0.079	-0.080	-0.077	-0.078	-0.091	-0.093	-0.069	-0.069	-0.180**	-0.181**	-0.164	-0.167
	(0.067)	(0.067)	(0.075)	(0.075)	(0.071)	(0.071)	(0.091)	(0.091)	(0.083)	(0.083)	(0.110)	(0.110)
GDP growth	0.046**	0.041*	0.059*	0.049	0.069***	0.067***	0.103***	0.100***	0.073**	0.073**	0.117***	0.117***
	(0.023)	(0.022)	(0.030)	(0.030)	(0.024)	(0.024)	(0.034)	(0.034)	(0.029)	(0.029)	(0.041)	(0.041)
Private credit	-0.001	-0.002	-0.001	-0.001	-0.001	-0.001	-0.000	-0.000	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Stock market	0.002	0.002	0.001	0.002	0.002	0.002	0.001	0.001	0.002	0.001	0.003	0.003
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Bank Z score	-0.007	-0.002	-0.011	-0.004	-0.009	-0.007	-0.020**	-0.018**	-0.002	-0.000	-0.014	-0.011
	(0.006)	(0.006)	(0.008)	(0.008)	(0.007)	(0.007)	(0.009)	(0.009)	(0.008)	(0.008)	(0.010)	(0.010)
Firms	4166	4166	4166	4166	3596	3596	3612	3612	2706	2706	2721	2721
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26	0.22	0.22	0.22	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	-7145.03	-3389.02	-3393.43	-4696.96	-4704.86

Table 5 (cont.)

## Panel B

	<i>Borrower country FTR</i>				<i>Lender country FTR</i>				<i>Same country Borrower &amp; Lender</i>			
	<i>Renegotiation</i>		<i>Rounds</i>		<i>Renegotiation</i>		<i>Rounds</i>		<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	<b>-0.146**</b>		<b>-0.258**</b>		<b>-0.241**</b>		<b>-0.230**</b>		<b>-0.202**</b>		<b>-0.347**</b>	
	(0.064)		(0.114)		(0.103)		(0.113)		(0.096)		(0.139)	
Very strong future		<b>-0.050</b>		<b>-0.132</b>		<b>-0.108</b>		<b>-0.146</b>		<b>-0.014</b>		<b>-0.191</b>
		(0.107)		(0.127)		(0.109)		(0.125)		(0.143)		(0.155)
Amount (log)	0.044	0.047	0.072*	0.073*	0.040	0.043	0.077	0.076	0.024	0.030	0.039	0.042
	(0.038)	(0.038)	(0.040)	(0.040)	(0.042)	(0.042)	(0.050)	(0.050)	(0.049)	(0.048)	(0.055)	(0.055)
Maturity	0.063***	0.063***	0.074***	0.075***	0.054***	0.051***	0.070***	0.068***	0.069***	0.065***	0.080***	0.074***
	(0.015)	(0.015)	(0.017)	(0.018)	(0.016)	(0.016)	(0.019)	(0.019)	(0.021)	(0.021)	(0.021)	(0.022)
Covenants	0.894***	0.888***	1.151***	1.156***	0.991***	0.996***	1.262***	1.284***	0.953***	0.951***	1.190***	1.205***
	(0.131)	(0.131)	(0.135)	(0.135)	(0.151)	(0.152)	(0.162)	(0.164)	(0.181)	(0.181)	(0.193)	(0.197)
Secured	0.360***	0.369***	0.460***	0.477***	0.429***	0.437***	0.587***	0.605***	0.457***	0.465***	0.700***	0.718***
	(0.100)	(0.101)	(0.115)	(0.116)	(0.112)	(0.112)	(0.120)	(0.123)	(0.134)	(0.135)	(0.135)	(0.138)
Previous issues	0.010	0.008	0.021	0.017	-0.011	-0.012	-0.009	-0.010	-0.007	-0.008	0.009	0.010
	(0.018)	(0.018)	(0.020)	(0.020)	(0.023)	(0.023)	(0.028)	(0.028)	(0.029)	(0.029)	(0.035)	(0.034)
Rating	0.418***	0.420***	0.448***	0.455***	0.424***	0.424***	0.459***	0.461***	0.460***	0.451***	0.414***	0.401***
	(0.107)	(0.107)	(0.108)	(0.110)	(0.121)	(0.120)	(0.122)	(0.121)	(0.142)	(0.142)	(0.127)	(0.128)
Lenders	0.017**	0.017**	0.013***	0.013***	0.025***	0.024***	0.017***	0.017***	0.031***	0.031***	0.039***	0.039***
	(0.007)	(0.007)	(0.004)	(0.004)	(0.009)	(0.008)	(0.006)	(0.006)	(0.009)	(0.009)	(0.009)	(0.009)
League	0.157	0.148	0.278**	0.265**	0.116	0.083	0.241*	0.216*	0.133	0.125	0.295*	0.295*
	(0.110)	(0.110)	(0.118)	(0.119)	(0.122)	(0.120)	(0.129)	(0.128)	(0.149)	(0.147)	(0.160)	(0.158)
Relationship	-0.140	-0.138	-0.090	-0.083	-0.146	-0.140	-0.053	-0.050	-0.296**	-0.295**	-0.287**	-0.287**
	(0.094)	(0.094)	(0.097)	(0.098)	(0.106)	(0.106)	(0.112)	(0.112)	(0.127)	(0.127)	(0.138)	(0.136)
GDP growth	0.077**	0.079**	0.088**	0.086**	0.079**	0.086**	0.102**	0.105**	0.109**	0.130**	0.066	0.086
	(0.034)	(0.034)	(0.042)	(0.041)	(0.039)	(0.039)	(0.046)	(0.046)	(0.051)	(0.052)	(0.056)	(0.056)
Private credit	0.001	0.001	-0.000	0.000	0.002	0.002	0.001	0.001	0.001	0.001	0.000	0.000



	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Stock market	0.001	0.001	0.001	0.000	0.001	0.001	-0.001	-0.001	0.004	0.002	0.003	0.002
	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)
Bank Z score	-0.017	-0.015	-0.032***	-0.028**	-0.020	-0.019	-0.038***	-0.038***	-0.009	-0.012	-0.034*	-0.035*
	(0.011)	(0.012)	(0.012)	(0.013)	(0.012)	(0.012)	(0.014)	(0.014)	(0.014)	(0.016)	(0.018)	(0.018)
Sales (log)	0.003	0.004	0.023	0.024	0.003	0.005	0.024	0.025	0.025	0.028	0.033*	0.037*
	(0.014)	(0.014)	(0.015)	(0.015)	(0.016)	(0.016)	(0.017)	(0.017)	(0.017)	(0.017)	(0.019)	(0.019)
Debt / Equity	0.002	0.002	-0.005	-0.006	0.002	0.001	-0.014	-0.013	0.003	0.003	-0.007	-0.008
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.010)	(0.009)	(0.009)	(0.009)	(0.011)	(0.012)
Current ratio	-0.554	-0.425	-0.642	-0.412	0.388	0.235	-0.143	-0.236	3.246	3.422	1.260	1.305
	(2.002)	(1.999)	(2.162)	(2.166)	(2.030)	(2.029)	(2.260)	(2.263)	(2.509)	(2.520)	(2.793)	(2.801)
Operating margin	0.058	0.051	0.103	0.088	0.006	-0.004	0.064	0.049	-0.049	-0.054	0.020	0.002
	(0.087)	(0.086)	(0.092)	(0.092)	(0.093)	(0.093)	(0.104)	(0.103)	(0.095)	(0.095)	(0.104)	(0.105)
Firms	1905	1905	1912	1912	1677	1677	1684	1684	1280	1280	1285	1285
pseudo-R <sup>2</sup>	0.24	0.23	0.21	0.21	0.25	0.25	0.22	0.21	0.26	0.26	0.23	0.23
log-likelihood	-5800.73	-5810.31	-9049.52	-9074.79	-4552.40	-4570.38	-6844.50	-6856.33	-3331.20	-3339.91	-4831.05	-4847.83

**Table 6 Loan renegotiation and borrower future tense reference – additional estimations**

This table presents the results of regressions examining the relation 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. 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, or USD), borrower industry sector, and year. Standard errors (in brackets) are clustered by borrower. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5% and 1% level, respectively.

**Panel A**

	<i>Renegotiation</i>											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>Strong future</b>	<b>-0.132**</b> (0.060)		<b>-0.768***</b> (0.231)		<b>-0.727***</b> (0.223)		<b>-0.780***</b> (0.262)		<b>-0.719***</b> (0.224)		<b>-0.771***</b> (0.262)	
<b>Very strong future</b>		<b>-0.157**</b> (0.062)		<b>-0.576***</b> (0.191)		<b>-0.443**</b> (0.199)		<b>-0.588**</b> (0.254)		<b>-0.443**</b> (0.198)		<b>-0.580**</b> (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***	0.018***	0.019***	0.018***	0.018***	0.018***	0.018***	0.018***	0.018***	0.018***	0.018***	0.018***

	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
League	0.150**	0.148**	0.136**	0.142**	0.152**	0.151**	0.156**	0.154**	0.152**	0.152**	0.157**	0.154**
	(0.065)	(0.065)	(0.065)	(0.065)	(0.065)	(0.065)	(0.066)	(0.066)	(0.065)	(0.065)	(0.066)	(0.066)
Relationship	-0.050	-0.048	-0.054	-0.051	-0.051	-0.050	-0.048	-0.048	-0.052	-0.051	-0.050	-0.049
	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)
Bank Z score	-0.011	-0.008	-0.002	0.006	-0.002	0.001	-0.003	-0.001				
	(0.007)	(0.007)	(0.008)	(0.009)	(0.007)	(0.009)	(0.008)	(0.010)				
Foreign language	-0.003	-0.002	-0.013**	-0.007	-0.019***	-0.011*	-0.016**	-0.015**	-0.019***	-0.012**	-0.016**	-0.015**
	(0.004)	(0.004)	(0.006)	(0.006)	(0.006)	(0.006)	(0.008)	(0.008)	(0.006)	(0.006)	(0.008)	(0.008)
Proficient					0.013**	0.009*	0.009	0.008	0.013**	0.009*	0.009	0.008
					(0.005)	(0.005)	(0.007)	(0.008)	(0.005)	(0.005)	(0.007)	(0.008)
Rule of law			-0.418***	-0.179	-0.567***	-0.250**	-0.502**	-0.220	-0.558***	-0.246**	-0.493**	-0.213
			(0.155)	(0.110)	(0.173)	(0.120)	(0.230)	(0.183)	(0.174)	(0.120)	(0.230)	(0.183)
Creditor rights			-0.183***	-0.118***	-0.212***	-0.126***	-0.203***	-0.142***	-0.212***	-0.128***	-0.204***	-0.143***
			(0.056)	(0.042)	(0.057)	(0.042)	(0.058)	(0.048)	(0.057)	(0.042)	(0.058)	(0.048)
Christians							0.001	0.010			0.000	0.010
							(0.007)	(0.006)			(0.007)	(0.007)
Long term orientation							-0.004	0.006			-0.004	0.006
							(0.007)	(0.006)			(0.007)	(0.006)
Foreign born							0.003	0.011			0.002	0.011
							(0.013)	(0.016)			(0.013)	(0.016)
Global EPU									-0.002*	-0.002**	-0.002*	-0.002*
									(0.001)	(0.001)	(0.001)	(0.001)
Legal origin f.e.	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
pseudo-R <sup>2</sup>	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

Table 6 (cont.)

## Panel B

	<i>Rounds</i>											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Strong future	<b>-0.178**</b> (0.074)		<b>-1.015***</b> (0.260)		<b>-0.918***</b> (0.253)		<b>-0.913***</b> (0.323)		<b>-0.911***</b> (0.253)		<b>-0.902***</b> (0.322)	
Very strong future		<b>-0.234***</b> (0.077)		<b>-0.649***</b> (0.249)		<b>-0.459*</b> (0.274)		<b>-0.762**</b> (0.349)		<b>-0.452*</b> (0.273)		<b>-0.749**</b> (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)
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	-0.000	-0.016**	-0.009	-0.022***	-0.013**	-0.023***	-0.021***	-0.021***	-0.013**	-0.023***	-0.021**

	(0.005)	(0.005)	(0.007)	(0.006)	(0.007)	(0.006)	(0.008)	(0.008)	(0.007)	(0.006)	(0.008)	(0.008)
Proficient					0.010*	0.010	0.006	0.004	0.011*	0.010	0.006	0.004
					(0.006)	(0.007)	(0.008)	(0.010)	(0.006)	(0.007)	(0.008)	(0.010)
Rule of law			-0.503***	-0.134	-0.590***	-0.182	-0.529*	-0.180	-0.581***	-0.175	-0.514*	-0.169
			(0.174)	(0.132)	(0.185)	(0.136)	(0.303)	(0.227)	(0.185)	(0.137)	(0.304)	(0.228)
Creditor rights			-0.240***	-0.146***	-0.248***	-0.144***	-0.224***	-0.165***	-0.249***	-0.146***	-0.224***	-0.166***
			(0.060)	(0.051)	(0.058)	(0.050)	(0.068)	(0.057)	(0.058)	(0.050)	(0.068)	(0.057)
Christians							0.004	0.017**			0.004	0.017**
							(0.009)	(0.008)			(0.009)	(0.008)
Long term orientation							-0.001	0.011			-0.001	0.011
							(0.008)	(0.008)			(0.008)	(0.008)
Foreign born							0.021	0.032			0.021	0.031
							(0.019)	(0.022)			(0.019)	(0.022)
Global EPU									-0.002	-0.002	-0.001	-0.001
									(0.001)	(0.001)	(0.001)	(0.001)
Legal origin f.e.	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
pseudo-R <sup>2</sup>	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

**Table 7 Loan renegotiation and borrower future tense reference – additional estimations (including borrower variables)**

This table presents the results of regressions examining the relation 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. 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, or USD), borrower industry sector, and year. Standard errors (in brackets) are clustered by borrower. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5% and 1% level, respectively.

**Panel A**

	<i>Renegotiation</i>											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<b>Strong future</b>	<b>-0.193**</b>		<b>-0.289**</b>		<b>-0.272**</b>		<b>-0.461**</b>		<b>-0.269**</b>		<b>-0.460**</b>	
	(0.093)		(0.134)		(0.124)		(0.226)		(0.125)		(0.216)	
<b>Very strong future</b>		<b>-0.101</b>		<b>-0.042</b>		<b>-0.123</b>		<b>-0.171</b>		<b>-0.121</b>		<b>-0.171</b>
		(0.106)		(0.277)		(0.286)		(0.348)		(0.285)		(0.348)
Amount (log)	0.050	0.052	0.048	0.048	0.049	0.050	0.048	0.049	0.048	0.049	0.048	0.049
	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)
Maturity	0.070***	0.069***	0.069***	0.069***	0.069***	0.069***	0.069***	0.069***	0.069***	0.068***	0.069***	0.068***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Covenants	0.903***	0.897***	0.896***	0.898***	0.897***	0.898***	0.885***	0.887***	0.896***	0.898***	0.885***	0.887***
	(0.131)	(0.131)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)	(0.130)
Secured	0.353***	0.361***	0.361***	0.360***	0.362***	0.362***	0.360***	0.361***	0.362***	0.362***	0.360***	0.361***
	(0.097)	(0.097)	(0.096)	(0.096)	(0.097)	(0.097)	(0.096)	(0.096)	(0.097)	(0.097)	(0.096)	(0.096)
Previous issues	0.019	0.018	0.021	0.020	0.021	0.019	0.021	0.020	0.021	0.019	0.021	0.020
	(0.020)	(0.019)	(0.020)	(0.019)	(0.020)	(0.019)	(0.020)	(0.019)	(0.020)	(0.019)	(0.020)	(0.019)
Rating	0.447***	0.452***	0.445***	0.442***	0.445***	0.441***	0.446***	0.443***	0.446***	0.442***	0.446***	0.444***
	(0.100)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)
Lenders	0.018**	0.017**	0.018**	0.018**	0.018**	0.017**	0.017**	0.017**	0.017**	0.017**	0.017**	0.017**
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)

League	0.193*	0.180*	0.179*	0.173*	0.181*	0.177*	0.191*	0.186*	0.182*	0.178*	0.192*	0.186*
	(0.101)	(0.101)	(0.102)	(0.103)	(0.103)	(0.103)	(0.104)	(0.104)	(0.103)	(0.103)	(0.104)	(0.104)
Relationship	-0.073	-0.066	-0.087	-0.087	-0.086	-0.085	-0.077	-0.078	-0.085	-0.084	-0.077	-0.078
	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)	(0.086)	(0.087)	(0.087)	(0.086)	(0.086)
Bank Z score	-0.015	-0.012	-0.014	-0.020	-0.014	-0.022	-0.017	-0.021	-0.014	-0.022	-0.017	-0.020
	(0.012)	(0.012)	(0.012)	(0.016)	(0.012)	(0.016)	(0.014)	(0.017)	(0.013)	(0.016)	(0.014)	(0.017)
Foreign language	-0.007	-0.006	-0.006	-0.003	-0.008	-0.006	-0.008	-0.007	-0.007	-0.006	-0.008	-0.007
	(0.006)	(0.006)	(0.009)	(0.009)	(0.010)	(0.009)	(0.012)	(0.012)	(0.010)	(0.009)	(0.012)	(0.012)
Proficient					0.002	0.005	-0.008	-0.006	0.002	0.005	-0.008	-0.006
					(0.008)	(0.009)	(0.011)	(0.012)	(0.008)	(0.009)	(0.011)	(0.012)
Rule of law			0.120	0.328*	0.097	0.288	-0.007	0.229	0.100	0.290	-0.006	0.230
			(0.242)	(0.168)	(0.273)	(0.192)	(0.350)	(0.292)	(0.273)	(0.192)	(0.350)	(0.293)
Creditor rights			-0.066	-0.007	-0.070	-0.009	-0.060	-0.010	-0.068	-0.009	-0.060	-0.010
			(0.083)	(0.061)	(0.085)	(0.062)	(0.088)	(0.073)	(0.085)	(0.062)	(0.088)	(0.073)
Christians							-0.002	0.003			-0.002	0.003
							(0.010)	(0.009)			(0.010)	(0.009)
Long term orientation							-0.008	-0.002			-0.008	-0.002
							(0.011)	(0.010)			(0.011)	(0.010)
Foreign born							0.033*	0.033			0.033*	0.033
							(0.019)	(0.023)			(0.019)	(0.023)
Global EPU									-0.001	-0.001	-0.000	-0.000
									(0.002)	(0.002)	(0.002)	(0.002)
Sales (log)	0.002	0.004	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Debt / Equity	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Current ratio	-0.777	-0.654	-0.831	-0.832	-0.802	-0.794	-0.677	-0.733	-0.812	-0.804	-0.682	-0.739
	(1.979)	(1.981)	(1.985)	(1.978)	(1.974)	(1.972)	(1.955)	(1.952)	(1.971)	(1.969)	(1.953)	(1.949)
Operating margin	0.032	0.023	0.048	0.047	0.047	0.047	0.050	0.049	0.047	0.047	0.050	0.049
	(0.080)	(0.080)	(0.079)	(0.079)	(0.079)	(0.078)	(0.078)	(0.078)	(0.079)	(0.078)	(0.078)	(0.078)
Legal origin f.e.	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

pseudo-R <sup>2</sup>	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

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Table 7 (cont.)

## Panel B

	<i>Rounds</i>											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Strong future	<b>-0.305***</b> (0.109)		<b>-0.806**</b> (0.401)		<b>-0.807**</b> (0.405)		<b>-1.013**</b> (0.445)		<b>-0.812**</b> (0.405)		<b>-1.022**</b> (0.445)	
Very strong future		<b>-0.188</b> (0.119)		<b>-0.141</b> (0.322)		<b>-0.072</b> (0.344)		<b>-0.598</b> (0.446)		<b>-0.066</b> (0.344)		<b>-0.601</b> (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	-0.002	-0.011	-0.004	-0.010	-0.006	-0.015	-0.013	-0.011	-0.006	-0.015	-0.014

	(0.008)	(0.008)	(0.010)	(0.010)	(0.010)	(0.010)	(0.012)	(0.012)	(0.010)	(0.010)	(0.012)	(0.012)
Proficient					-0.000	0.004	-0.013	-0.012	0.000	0.004	-0.013	-0.012
					(0.009)	(0.010)	(0.013)	(0.015)	(0.009)	(0.010)	(0.013)	(0.015)
Rule of law			-0.203	0.266	-0.202	0.241	-0.379	0.097	-0.214	0.234	-0.393	0.088
			(0.297)	(0.194)	(0.308)	(0.207)	(0.398)	(0.311)	(0.308)	(0.207)	(0.398)	(0.311)
Creditor rights			-0.138	-0.008	-0.137	-0.007	-0.126	-0.035	-0.141	-0.009	-0.129	-0.037
			(0.095)	(0.075)	(0.095)	(0.075)	(0.094)	(0.078)	(0.095)	(0.075)	(0.093)	(0.077)
Christians							-0.004	0.010			-0.003	0.010
							(0.013)	(0.013)			(0.013)	(0.013)
Long term orientation							-0.009	0.004			-0.009	0.004
							(0.013)	(0.012)			(0.013)	(0.012)
Foreign born							0.051**	0.057*			0.053**	0.058*
							(0.025)	(0.030)			(0.025)	(0.030)
Global EPU									0.002	0.002	0.002	0.002
									(0.002)	(0.002)	(0.002)	(0.002)
Sales (log)	0.022	0.024*	0.021	0.022	0.021	0.022	0.020	0.021	0.021	0.022	0.020	0.022
	(0.013)	(0.014)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Debt / Equity	-0.006	-0.007	-0.007	-0.006	-0.007	-0.006	-0.007	-0.006	-0.006	-0.005	-0.006	-0.006
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Current ratio	-1.280	-1.088	-1.327	-1.219	-1.328	-1.188	-1.308	-1.298	-1.303	-1.169	-1.279	-1.270
	(2.164)	(2.190)	(2.161)	(2.142)	(2.151)	(2.136)	(2.121)	(2.111)	(2.144)	(2.129)	(2.114)	(2.104)
Operating margin	0.016	-0.000	0.025	0.022	0.025	0.023	0.021	0.018	0.027	0.025	0.024	0.021
	(0.085)	(0.084)	(0.085)	(0.084)	(0.085)	(0.084)	(0.084)	(0.083)	(0.085)	(0.083)	(0.083)	(0.082)
Legal origin f.e.	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
pseudo-R <sup>2</sup>	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

**Table 8 Loan renegotiation and borrower future tense reference – interaction terms**

This table presents the results of Probit and Poisson regressions examining the relation 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, 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 15/09/2008 and 01/12/2009 respectively. For each regression, the sample contains 4,417 firms. Definitions of all variables are provided in the Appendix. 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.

**Panel A**

<b>Long maturity</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.778***		-0.872***	
	(0.267)		(0.333)	
Strong future x Variable	0.012		-0.057	
	(0.072)		(0.089)	
Very strong future		-0.581**		-0.693*
		(0.259)		(0.361)
Very strong future x Variable		0.003		-0.111
		(0.087)		(0.117)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7247.64	-7256.61	-11718.45	-11726.16
<b>Term loan</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.741***		-0.875***	
	(0.265)		(0.329)	
Strong future x Variable	-0.058		-0.053	
	(0.075)		(0.091)	
Very strong future		-0.532**		-0.664*
		(0.255)		(0.357)
Very strong future x Variable		-0.084		-0.159
		(0.076)		(0.104)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7247.01	-7255.31	-11718.90	-11724.52
<b>Acquisition</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.772***		-0.910***	
	(0.263)		(0.322)	
Strong future x Variable	0.006		0.054	

	(0.127)		(0.129)	
Very strong future		-0.550**		-0.726**
		(0.253)		(0.349)
Very strong future x Variable		-0.210*		-0.128
		(0.124)		(0.138)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7247.69	-7251.91	-11719.11	-11726.78
<b>LBO</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.747***		-0.891***	
	(0.263)		(0.323)	
Strong future x Variable	-0.171		-0.115	
	(0.154)		(0.194)	
Very strong future		-0.582**		-0.740**
		(0.256)		(0.353)
Very strong future x Variable		0.022		-0.091
		(0.151)		(0.189)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7244.72	-7256.57	-11718.40	-11727.79
<b>Debt refinancing</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.789***		-0.918***	
	(0.265)		(0.326)	
Strong future x Variable	0.042		0.029	
	(0.087)		(0.097)	
Very strong future		-0.588**		-0.820**
		(0.257)		(0.345)
Very strong future x Variable		0.020		0.136
		(0.091)		(0.110)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7247.35	-7256.54	-11719.31	-11725.49

Table 8 (cont.)

Panel B

Foreign language	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-1.174***		-1.564***	
	(0.372)		(0.458)	
Strong future x Variable	0.515		0.881**	
	(0.321)		(0.449)	
Very strong future		-1.831***		-2.652***
		(0.380)		(0.680)
Very strong future x Variable		1.287***		1.956***
		(0.327)		(0.645)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7243.39	-7249.47	-11710.71	-11720.55
Proficient	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.993***		-1.004**	
	(0.328)		(0.392)	
Strong future x Variable	0.206		0.105	
	(0.213)		(0.299)	
Very strong future		-0.798***		-1.079***
		(0.279)		(0.381)
Very strong future x Variable		0.257		0.383
		(0.209)		(0.289)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7246.39	-7254.22	-11719.25	-11724.57
Long term orientation	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.779***		-0.871***	
	(0.268)		(0.334)	
Strong future x Variable	0.042		-0.153	
	(0.205)		(0.260)	
Very strong future		-0.571**		-0.732**
		(0.260)		(0.356)
Very strong future x Variable		-0.079		-0.182
		(0.225)		(0.301)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7247.61	-7256.41	-11718.61	-11727.53
Foreign born	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.705**		-0.951**	
	(0.292)		(0.370)	
Strong future x Variable	-0.070		0.049	
	(0.103)		(0.139)	
Very strong future		-0.247		-0.510

		(0.295)		(0.442)
Very strong future x Variable		-0.299**		-0.194
		(0.125)		(0.193)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7246.54	-7243.48	-11719.04	-11724.38
<b>Global EPU</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.760***		-0.945***	
	(0.266)		(0.329)	
Strong future x Variable	-0.024		0.077	
	(0.078)		(0.090)	
Very strong future		-0.509*		-0.694*
		(0.260)		(0.356)
Very strong future x Variable		-0.143		-0.109
		(0.093)		(0.122)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7247.51	-7252.16	-11717.79	-11726.30
<b>post US crisis</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.705***		-0.924***	
	(0.270)		(0.342)	
Strong future x Variable	-0.136		0.039	
	(0.108)		(0.158)	
Very strong future		-0.468*		-0.682*
		(0.267)		(0.373)
Very strong future x Variable		-0.237**		-0.113
		(0.111)		(0.172)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7244.17	-7247.02	-11719.25	-11726.78
<b>post EZ crisis</b>	(1)	(2)	(3)	(4)
	<i>Renegotiation</i>		<i>Rounds</i>	
Strong future	-0.725***		-0.972***	
	(0.268)		(0.338)	
Strong future x Variable	-0.105		0.137	
	(0.108)		(0.153)	
Very strong future		-0.484*		-0.732*
		(0.268)		(0.374)
Very strong future x Variable		-0.191*		-0.027
		(0.108)		(0.164)
pseudo-R <sup>2</sup>	0.26	0.26	0.26	0.26
log-likelihood	-7245.59	-7250.23	-11716.51	-11728.24

**Table A.1 Variables definitions**

<b>Variable</b>	<b>Description</b>	<b>Source</b>
<b>Renegotiation variables</b>		
Renegotiation	= 1 if a loan is renegotiated	Bloomberg
Rounds	number of renegotiation rounds	Bloomberg
<b>Language variables</b>		
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)
<b>Loan variables</b>		
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
<b>Lender variables</b>		
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
<b>Firm variables</b>		
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
<b>Country variables</b>		
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 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

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**Table A.2 Correlation matrix**

	Amount (log)	Maturity	Covenants	Secured	Previous issues	Rating	Lenders	League	Relationship	GDP growth	Private credit	Stock market	Bank Z score	Rule of law	Creditor rights	Christians	Long term orientation	Proficient	Foreign language	Foreign born	Global EPU	Sales (log)	Debt / Equity	Current ratio	Operating 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	0.11	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	0.04	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