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Abstract

What is the influence of syndicate organization on the duration of a loan syndication process? We answer this question using the survival analysis methodology on a sample of loans to borrowers from 59 countries. We find that syndicate size, concentration, experience, reputation, and national diversity clearly matters for the duration of a syndication process and therefore for borrower satisfaction regarding the speed of obtaining the necessary funding. A syndicate organization adapted to specific agency problems of syndication, with numerous, reputable, and experienced arrangers retaining a larger portion of the loan reduces the duration. The latter is also shorter when more lenders come from the same country as the borrower. These effects are more pronounced when the borrower has a low reputation on the syndicated lending market and when his opacity is stronger.

Keywords : Syndicated loan, syndication process, syndicate organization, agency costs, experience, reputation, nationality, survival analysis.

JEL Classification : F30, G15, G21, G32, C41.

1 Introduction

This article investigates the influence of the organizational characteristics of a bank's syndicate, such as size, concentration, and reputation, on the duration of a loan syndication process, i.e. the time between the launching of the syndication until the completion date, when the deal becomes active. This duration is considered as the critical stage of the transaction cycle for a syndicated loan (Rhodes, 2004). Therefore, it is an important criteria of choice for the borrowers to apply for a syndicated loan¹, as the speed of obtaining the necessary funding is considered to be a significant advantage of syndicated lending compared to bonds or a series of bilateral loans².

However, syndicated lending has also its drawbacks because it implies specific agency problems due to informational frictions between the members of the syndicate. Following the theoretical work of Pichler and Wilhelm (2001), recent empirical evidence shows that an adapted organizational structure of the syndicate is a crucial feature to mitigate syndication agency costs (Lee and Mullineaux, 2004; Jones et al., 2005; Sufi, 2007). Indeed, a small and concentrated syndicate, with arrangers retaining a large portion of the loan, allows for a better monitoring of an opaque borrower and can signal its quality. Such organization mitigates also free-riding and hold-up within the syndicate, while the presence of experienced and reputable arrangers enhances screening and monitoring of the borrower and acts as a certification device of his quality.

Therefore, syndicate organization has an important influence on the pricing of syndicated loans (Harjoto et al., 2006; Ivashina, 2008; Focarelli et al., 2008), borrower's wealth (Preece and Mullineaux, 1996), and liquidity risk management (Gatev and Strahan, 2008). Furthermore, the presence of established and reputable lenders provides substantial advantages to the borrowers

¹A syndicated loan is a loan defined by a single agreement in which several banks participate.

²Other advantages of syndicated lending for lenders and borrowers are portfolio and sources of income diversification and more competitive pricing and more flexible funding structure respectively. These benefits can explain the impressive development of the syndicated lending, as the funds raised on this market represent more than one third of the funds raised on the worldwide financial markets (Altunbas et al., 2005).

(Gopalan et al., 2007; Ross, 2007; Panyagometh and Roberts, 2008). Overall, the organization of a syndicate matters for the borrower, as it influences loan terms and wealth.

However, the influence of syndicate organization on the duration of the syndication process seems neglected in existing academic literature³. This is surprising for two reasons. First, informational problems that raise syndication specific agency problems can interfere with efficient and fast decision making (Kocher and Sutter, 2006; Schulte and Gruner, 2007). Second, empirical evidence shows that the organizational structure of teams have a significant impact on the speed of decision making (Eisenhardt, 1989; Taulauicar et al., 2005). Hence, a syndicate organization which is supposed to be adapted to syndicate specific agency problems should also play an important role in the syndication process duration.

This duration is of particular interest for the borrower for evident reasons related to the speed of obtaining the funds. For that reason, one of the main arguments driving the choice of a bank that will arrange the syndication is his speed of action. The arranger is the key figure of a syndication because he is the privileged agent in the relationship between the borrower and the syndicate. Thus, he is responsible for a crucial feature of an efficient and successful loan syndication: the syndicate organization.

The aim of this article is to investigate the influence of syndicate organization on the duration of a syndication process. Indeed, it is particularly relevant to empirically document if syndicate organization influences this duration, and which characteristics are the most important to guarantee the shortest syndication process. Such evidence is valuable for borrowers, because their satisfaction is increasing with fast and efficient syndication, as well as lenders, because their reputation is contingent on the duration of the syndication process. Finally, empirical evidence on the relationship between syndicate organization and duration of syndication process adds to the growing literature on syndicated lending.

To test the influence of syndicate organization on the duration of the

³Godlewski (2008) provides a broad empirical investigation of factors driving the duration of a syndication process.

syndication process, we employ accelerated failure time models on a sample of more than 4,800 syndicated loans for borrowers from 59 countries during the 1992 – 2006 period. We use various measures of syndicate organization, such as size, concentration, experience and reputation, and composition.

We find that syndicate organization clearly matters for syndication process duration. The latter can be significantly reduced provided a larger number of arrangers, who retain larger shares of the loan, and are more reputable and experienced players on the syndicated lending market. These characteristics become even more critical when the borrower has a low reputation on the syndicated lending market or when he is more opaque. Furthermore, the duration is shorter when an important share of lenders in the syndicate are from the same country as the borrower, as well as when a large percentage of lenders within the syndicate are themselves from the same country. However, when the loan is syndicated to a borrower from an emerging market, the presence of reputable international arrangers matters more for a quick syndication process.

The rest of the article is organized as follows. Section 2 presents the loan syndication process and discusses the arguments linking syndication specific agency problems and syndicate organization to the syndication process duration. Section 3 is devoted to the discussion of various measures of syndicate organization. Section 4 presents the data and the accelerated failure time model methodology. Results are displayed and discussed in section 5. Section 6 provides our conclusions.

2 Loan syndication process and syndicate organization

This section is devoted to the description of a typical loan syndication process which duration is the central issue of this article. We also discuss arguments linking agency problems and syndicate organization to the syndication process duration.

2.1 Loan syndication process

Bank loan syndication can be considered as a sequential process, which can be separated into three main stages⁴: the *pre-mandated stage* during which the details of the proposed transaction are discussed and finalized, the *post-mandated stage* during which the syndication itself takes place and facility agreements are negotiated, and the operational *post-signing stage*.

More precisely, during the pre-mandated stage, after soliciting competitive offers to arrange and manage the syndication with one or more banks (usually its main banks)⁵, the borrower chooses one or more arrangers that are mandated to form a syndicate and negotiates a preliminary loan agreement. The syndication can be sole or joint mandated, the latter involving the participation of more than one lead bank⁶. The arranger is responsible for the negotiation of key loan terms with the borrower, the appointment of participants⁷ and the structuring of the syndicate. His compensation is mainly composed of various fees (agency, arrangement, commitment, ...).

The post-mandated stage involves the placement of the loan. This stage is considered as crucial for the transaction cycle of a syndication. Indeed, both the borrower and the arrangers have committed themselves to raise funds and are therefore at risk. During this stage, the arranger prepares a documentation package for the potential syndicate members, called an *information memorandum*. It usually contains information about borrower creditworthiness and loan terms. The initial set of targeted participants is strongly determined by the arranger. Their previous experience with the borrower, the industry sector or the geographic area are strong drivers for being

⁴See Esty (2001); Rhodes (2004); Taylor and Sansone (2007) for a detailed presentation of the syndicated lending process.

⁵Principal milestones before the submission of a bid by banks are the identification and articulation of the borrower's need from the syndicated credit market, the decision on a bidding configuration and strategy by the banks, and the internal approval of the credit by the potential arrangers.

⁶Such syndications are usually chosen by the borrower in order to maximize the likelihood of a successful syndication, in terms of loan characteristics, subscription and duration of the syndication process.

⁷Participants lend a portion of the loan and receive a compensation essentially composed of a spread.

chosen by the arranger to join the syndicate. A *roadshow* is then organized to present and discuss the content of the information memorandum, as well as to announce closing fees and establish a timetable for commitments and closing. The participants can make comments and suggestions in order to influence the structure and the pricing of the loan. After the roadshow, the arranger makes formal invitations to potential participants and determines the allocation given to each participant.

The post-signing stage takes place after the *completion date* when the deal becomes active and the loan is operational, binding the borrower and the syndicate members by the debt contract⁸.

2.2 Agency problems, syndicate organization, and syndication process duration

Loan syndication involves several actors - the arrangers, the participants and the borrower - and is a complex process involving specific agency costs. The latter are the consequence of informational frictions within the syndicate which can harm efficient and fast decision making (Kocher and Sutter, 2006; Schulte and Gruner, 2007), and thus can interfere with the benefits of syndicated loan, both for the borrower and the lenders, mitigating the intrinsic advantages of this source of funds for firms. However, these costs can be reduced through an adapted organization of the syndicate, which can ultimately influence the duration of the syndication process. Indeed, as shown by Eisenhardt (1989); Talaulicar et al. (2005), team organization has a significant influence on the speed of decision making.

Syndication-specific agency problems are of two types. First, the arranger possesses more information about the borrower either because of the private information collected through a previous lending relationship or through due diligence. This private information creates an adverse selection problem as the arranger may be inclined to syndicate loans to bad borrowers. Second,

⁸The contract sets out the terms and conditions of the loan: the amount, the purpose, the period, the rate of interest plus any fees, the periodicity and the design of repayments and the presence of any security.

the participant banks may delegate some monitoring tasks to the arranger. This may result in a moral hazard problem as the efforts of the lead bank are unobservable for participant banks. These agency problems can be mitigated by an adequate organization of the syndicate.

Indeed, the presence of numerous arrangers can reduce adverse selection problems related to private information (Lee and Mullineaux, 2004; Jones et al., 2005; Sufi, 2007). It is likely that some of the arrangers will act as specialized agents during the syndication, thus resulting in a better handling of the process, with increased cost efficiency and reduced informational asymmetry (François and Missionier-Piera, 2007). Greater concentration of the portions of the loan retained by the arrangers is more suited to cope with free-riding and moral hazard problems, as well as with hold-up problems in case of borrower's distress and subsequent reorganization and renegotiation (Esty and Megginson, 2003). Furthermore, arrangers' retained share of the loan provides a signal of their commitment to efficiently monitor the borrower and can also be considered as a device to align lenders' incentives within the syndicate and to signal borrower's quality (Lee and Mullineaux, 2004; Sufi, 2007). As syndicates with numerous arrangers retaining significant portions of the loan mitigate agency costs of syndication, we expect such syndicate structures to have a negative influence on the syndication process duration.

As the arrangers are responsible for due diligence, allocation of the loan to other syndicate members, and *ex post* monitoring, banks in the syndicate will often rely on the leaders reputation in making lending decisions (Ross, 2007). Therefore, reputation is an important aspect for syndicated lending (Gopalan et al., 2007). Indeed, reputable and experienced leaders can enhance monitoring and ability to attract participants, signal borrower and deal quality, and reduce agency costs (Ross, 2007; Gatti et al., 2008; Panyagometh and Roberts, 2008). Furthermore, certification by experienced, reputable, and prestigious arrangers creates economic value by reducing overall costs of syndicated loans. Hence, we expect that the presence of experienced and reputable arrangers in the syndicate should reduce the syndication process duration.

Finally, recent evidence by Carey et al. (1998) and Hao (2004) shows

that lenders identity matters for bank lending. Furthermore, Tykvova and Schertler (2008) show that physical distance between borrowers and lenders influences information-related transaction costs, which are important drivers of successful syndication. Moreover, previous experience in the geographic area is an important driver for choosing syndicate members by the arranger, in order to mitigate informational frictions regarding the borrower as well as between the lenders of the syndicate (Champagne and Kryzanowski, 2007; Sufi, 2007). Therefore, we expect the syndicate composition in terms of lenders' nationality to have an impact on the duration of the syndication process. However, the sign of this effect remains a matter of empirical tests. A syndicate with more lenders from the same country as the borrower should enhance better knowledge of the latter thus reducing informational frictions within the syndicate and the duration of the syndication process. Better trust and understanding can also be achieved when more lenders within the syndicate are from the same country, but such a syndication composition can also generate collusion risk, exacerbate agency costs, and thus increase the syndication process duration.

To summarize, as syndicate organization can be considered as a response to specific agency problems of loan syndication, it should also influence the duration of the syndication process which is sensitive to agency costs.

3 Empirical design

In this section we describe the syndicate organization variables and their expected influence on the syndication process duration. We also present loan and country control variables used in the regressions. Table 1 provides the definitions of all variables used in this article.

3.1 Syndicate organization variables

The key figures of a syndicate are the number of arrangers and the concentration of the shares of the loan retained by the arrangers. The concentration is measured by the normalized Herfindhal-Hirschman Index of the shares of

the loan retained by the arrangers (*Concentration of arrangers*)⁹. The size of the syndicate corresponds to the number of arrangers in the syndicate (*Number of arrangers*). We expect both of these measures to have a negative influence on the syndication process duration. A larger syndicate “core” with greater retained portions of the loan implies better handling of agency problems related to monitoring of the borrower as several delegated monitors are present. Furthermore, greater concentration can signal a borrower with better quality.

We also consider experience and reputation measures in the syndicate, which bring a certification device regarding the quality of the borrower and of the loan. *Top 10 arrangers (presence)* and *Top 10 arrangers (market)* are variables based on the percentage of the arrangers in the syndicate who are in the top 10-th percentile distribution of the most frequent arrangers and of the arrangers having the greatest market shares of the syndicated lending market respectively¹⁰. *League table arrangers* is based on the percentage of the arrangers in the syndicate who are listed on the Loan Pricing Corporation (Reuters) Global League Table¹¹. The distinction between presence and market share provides a more detailed insight into the importance of being on the market versus having greater shares of the market (the “dominant bank effect”, Ross, 2007). Experience, skills and reputation can be acquired through more intense participation in deals but also through less participation but greater stakes of syndicated loans. Being listed on a League Table is a strong signal of arranger’s quality and market reputation. For all these reasons, we expect a negative impact of these measures on the syndication process duration.

⁹An alternative variable is the share of the loan retained by the arranger (or the mean share if there are several arrangers) but we experience convergence problems when estimating the model with this alternative variable. Nevertheless, the latter is strongly correlated with the *Concentration of arrangers* variable in our sample.

¹⁰Details regarding the computation of these measures can be found in table 1. The median value of arrangers participation in loan syndications equals 4, while the top 10-th percentile equals 55. The median value of arrangers market share in the syndicated lending market equals 0.00016, while the top 10-th percentile equals 0.00107. There are 78 top 10 arrangers who are the most present and 61 top 10 arrangers who have the greatest market share.

¹¹The list of arrangers from the Global League Table is provided in table 1.

We also use several measures of the composition of the syndicate with a particular focus on the nationality of the lenders. We compute the percentage of lenders in the syndicate that are from the same country as the borrower, differentiating lenders regarding their titles (and thus their ranks), and classifying them into three categories¹²: top (i.e. leaders of the syndicate), mid (i.e. managers of the syndicate), and low (i.e. participants of the syndicate) lenders. We also measure the percentage of lenders classified as low and top, as well as low and mid, who are from the same country. Here, we focus on the titles of the lenders and we consider them as signals of their importance in the hierarchy of the syndicate¹³.

This leads to four additional variables labeled *Same country top lenders*, *Same country mid lenders*, *Same country mid-low lenders*, and *Same country top-low lenders*¹⁴. The sign and magnitude of these measures are relatively unclear. On the one hand, greater percentage of lenders from the same country as the borrower, whatever their position in the syndicate hierarchy, should reduce the duration. Indeed, information sharing can be more efficient if the lenders come from the same country. This helps to overcome important informational frictions within the syndicate, regarding both the members and the borrower. Furthermore, comparative advantages in terms of financing and information sharing are expected to grow with such syndicate composition, i.e. where lenders are from the same country.

On the other hand, a greater proximity between top lenders and the borrower may exacerbate adverse selection problems, if the informational gain of the top lenders is not shared with other lenders. It is plausible that a greater percentage of top and low lenders from the same country might exacerbate potential informational problems from the “syndicate managers” perspective and thus increase agency costs of syndication, and in consequence slow down the duration of the syndication process. It might also exacerbate potential

¹²Classification of lenders is described in table 1.

¹³The aggregation of the titles into three categories is based on Rhodes (2004) and Taylor and Sansone (2007).

¹⁴We do not use other measures such as the percentage of low lenders in the syndicate who are from the same country as the borrower because such percentage is usually very close to 100 percent. For the same reasons, we do not use the percentage of low and mid lenders who are from the same country within the syndicate.

collusive behavior of these type of lenders and enhance the expropriation risk of other lenders. In case of borrower’s distress, such composition can leave the other lenders with unsatisfactory solutions. Hence, we can observe a positive influence of these variables on the syndication process duration.

3.2 Loan and country control variables

Following Dennis and Mullineaux (2000); Esty and Megginson (2003); Lee and Mullineaux (2004); Sufi (2007); Godlewski and Weill (2008), we take main loan characteristics such as the logarithm of loan size (*Loan size*), lenders’ compensation (*Spread* and *Fee*), loan maturity (*Maturity*), presence of a guarantor (*Guarantors*), covenants (*Covenants*), and debt seniority (*Senior debt*) into account. To control for the impact of publicly available information, we include a dummy variable *S&P Rating* equal to one if a Standard and Poor’s senior debt rating is available. We also control for the type and purpose of the loan, benchmark rate, facility issue year, geographical area, and industry. In order to take legal risk into account, we include the protection of creditor rights (*Creditor Rights*) and law enforcement (*Rule of Law*) indexes provided by Djankov et al. (2007) and LaPorta et al. (1998).

4 Data and methodology

We first present the sample and descriptive statistics. Then, the econometric methodology employed to investigate the determinants of the syndication process duration is exposed.

4.1 Data and descriptive statistics

Information on the duration of syndication process, syndicate organization, and loan characteristics come from the Dealscan database, provided by the Loan Pricing Corporation (Reuters). Data concerning country characteristics come from LaPorta et al. (1998), and Djankov et al. (2007).

The sample size is determined by information availability on the endogenous and exogenous variables used in the regressions. The endogenous vari-

able is the syndication process duration, measured in days since the launching date until the completion date, when the deal becomes active. We use only completed syndicated loans and eliminate the outliers for the endogenous variable : deals with duration greater than the 99-percentile, equal to 243 days (above 8 months). Therefore, we obtain a sample of 4,807 syndicated loans from 59 countries for the period between 1992 and 2006.

Descriptive statistics can be found in table 1, while the distribution of the number of loans, and lenders-tranches and mean syndication process duration by country are displayed in table 2.

We observe that the mean of a syndication process duration equals 55.14 days (almost 8 weeks) with a standard deviation of 37.02 days. We also remark that emerging market borrowers have the largest durations, sometimes above 100 days in the Czech Republic, Oman and Venezuela. Borrowers from these countries represent a significant part of our sample, while banks from Western Europe and North America represent a majority of the lenders. On these markets, the presence of experienced arrangers is the most important, as *Top 10 arrangers (presence)* and *Top 10 arrangers (market)* equal to 70% and 7% respectively. The maximum average for league table arrangers can also be found in North America (26%). On the contrary, the average values of these syndicate organization measures are the lowest in emerging markets, for instance less than 50% and 1% respectively for *Top 10 arrangers (presence)* and *Top 10 arrangers (market)* in Eastern Europe. The minimum average for *League table arrangers* is for Latin America (12%). A similar frontier between industrialized and emerging markets exist for the measures of syndicate composition in terms of lenders' nationality. For instance, the average value of *Same country top lenders* equals 30% in Western Europe and 22% in Latin America.

4.2 Econometric specification

Since the dependent variable is the duration of a syndication process, the appropriate methodology is *survival analysis* which is used to analyze data in which the time until the event is of interest, called an *event time*.

Survival data are generally described and modeled in terms of two related functions¹⁵, namely the *survival* and *hazard* functions respectively. Let T represent the duration of time that passes before the occurrence of a certain random event. Here T is the syndication process duration and $S(t)$ the survival probability that the syndication process lasts from the time origin (launching date) to a future time t , and is defined as

$$S(t) = \text{Prob}(T \geq t) = 1 - F(t), \quad (1)$$

where $F(t)$ is the cumulative distribution function for T .

The hazard is usually denoted by $h(t)$ (also called *instantaneous event rate*) and is the rate of transition of the syndicated process duration to completion, given it has not been completed before. The hazard function is defined formally by

$$h(t) = \lim_{\Delta t \rightarrow 0} \frac{\text{Prob}(t \leq T < t + \Delta t | T \geq t)}{\Delta t} = \frac{f(t)}{S(t)}, \quad (2)$$

where $f(t)$ is the probability density function of T evaluated at t . Since $\frac{\delta S(t)}{\delta t} = -f(t)$, the hazard function can be expressed as

$$h(t) = -\frac{\delta \log S(t)}{\delta t}, \quad (3)$$

the negative of the slope of the log of the survival function.

When estimating hazard functions, we need to assume a hazard function specification. The latter can use parametric survival models known as *accelerated failure time* (AFT) models¹⁶. An AFT model specifies that the predictors act multiplicatively on the event time or additively on the log of event time. The effect of a predictor is to alter the rate at which the syndication process proceeds along time axis.

¹⁵See Kiefer (1988) and Harrell (2001) for a detailed description of survival analysis.

¹⁶Another possibility is to use the *proportional hazards* (PH) model, where $h(t) = h_0(t) \exp(X'\beta)$, given the predictors X and the baseline hazard rate $h_0(t)$. The latter can be left unspecified and estimated using the Cox's semiparametric partial likelihood (Cox, 1972, 1975) or take a specific parametric form such as Weibull or exponential distributions. Within this approach, the hazards are supposed to be proportional over time. This assumption is strongly rejected in our case.

In this framework, the logarithm of the survival time $\log(t)$ is expressed as a linear function of the covariates X :

$$\log(t) = \alpha + X'\beta + \epsilon, \quad (4)$$

where α is the intercept and ϵ is the error term with density $f(t)$. The distributional form of the error term determines the regression model¹⁷. The hazard function in an AFT model takes the form

$$h(t) = h_0 \exp(\alpha + X'\beta)(\exp(\alpha + X'\beta)t), \quad (5)$$

where h_0 is the baseline hazard rate. The hazard function is estimated using maximum likelihood methods.

5 Results and discussion

In this section, we present and discuss the estimations results and provide some robustness checks. First, we provide estimate results for specifications with syndicate size, concentration, experience, and reputation measures only. Second, we discuss the results obtained with syndicate composition measures only. Third, we provide results including both type of measures in the regressions. Fourth, we discuss results regarding the effect of borrower reputation and opacity on the relationship between syndication organization and syndication process duration. Fifth, we focus on emerging markets borrower effects on the syndicate organization and syndication process duration. Finally, we present several robustness checks.

¹⁷With normal, logistic, extreme-value and three-parameter gamma density functions, we obtain respectively log-normal, log-logistic, Weibull and generalized gamma regressions.

5.1 Influence of syndicate size, concentration, experience, and reputation on syndication process duration

As the proportional hazard assumption is strongly rejected by Schoenfeld residuals tests, we estimate an AFT model assuming a generalized gamma distribution, as the latter provides the lowest log likelihood, as well as Akaike and Schwarz information criteria. Results are displayed in table 3.

First of all, most of the variables of interest exhibit statistically significant coefficients, suggesting that syndicate organization has an economic impact on syndication process duration.

As expected, a greater number of arrangers and their concentration significantly reduces the syndication process duration. We remark that the coefficient for *Concentration of arrangers* is much greater than for *Number of arrangers*, suggesting that the former organizational characteristic of a syndicate matters more for quicker syndication process. A greater percentage of experienced and reputable arrangers also significantly reduces the syndication process. Greater percentage of experienced arrangers having important market shares matters more for quick syndication process as the coefficient for *Top 10 arrangers (market)* is the greatest among the measures of experience and reputation.

What seems to really matter for a quick and thus efficient loan syndication process is the presence of experienced arrangers on the syndicated lending market and the concentration of arrangers rather than the presence of frequent or reputable players on the syndicated lending market. Indeed, arrangers retaining significant shares of the loan or having acquired significant experience through the arrangement of large syndicated deals provides an important signal regarding the quality of the borrower and of the deal, as well as of the arranger, and thus allows to provide funds more quickly.

5.2 Influence of syndicate composition on syndication process duration

We now turn to the discussion of the results obtained with syndicate composition measures only, displayed in table 4. Most of the variables exhibit statistically significant coefficients, suggesting that syndicate composition has an economic impact on loan syndication process duration¹⁸.

The arguments on potential collusion problems seem to be validated as *Same country top lenders* exhibit positive coefficients, while *Same country mid lenders* has a negative influence on the duration. Within syndicate composition also has a significant impact on duration, as *Same country mid-low lenders* bears a negative coefficient sign.

As top lenders are usually borrower relationship banks or established institutions on the syndicated lending market, they usually have access to privileged information, that might be used against other members of the syndicate. This can exacerbate agency costs and thus make the syndication process last longer. This adverse effect of *Same country top lenders* is somehow mitigated when taking *Same country mid lenders* into account, but still remains. A greater percentage of syndicate “managers” from the same country reduces the duration as the coefficient exhibit a significantly negative sign. Finally, a greater percentage of close mid and low lenders in terms of nationality significantly reduces the duration due to better information sharing between “managers” and participants. The greatest coefficient and thus the most important economic effect is for the *Same country top lenders* variable, although it makes the duration of the syndication process last longer.

5.3 Influence of syndicate size, experience, reputation, and composition on syndication process duration

Now we include all types of syndicate organization measures in the regressions to get a deeper insight into the main syndicate design features that drives

¹⁸Due to the correlation structure, *Same country mid-low lenders* and *Same country top-low lenders* cannot be included in the same regression.

the syndication process duration. Results are displayed in table 5¹⁹.

Results remain robust, as all coefficients for the syndicate organization variables remain significant and with the same signs as in tables 3 and 4. Syndicate size, experience, and reputation are always significantly negative with similar magnitude of coefficients, while syndicate composition variables exhibit same coefficients as in table 4, but their values are affected. This is particularly the case in the regression with *Number of arrangers*, where the coefficients of *Same country top lenders* and *Same country mid lenders* gain between 0.07 and 0.09, while *Same country mid-low lenders* and *Same country top-low lenders* gain more than 0.20. This suggests that syndicate composition effect on syndication process duration is reinforced when taking syndicate size into account. Indeed, syndicate composition should play a greater role when the syndicate size is larger. This effect is far less pronounced when looking at the coefficients for *Top 10 arrangers* and syndication composition. In that case, the latter have even lower magnitude when compared to those in table 4.

Overall, conclusions drawn from the results obtained in tables 3 and 4 remain. Syndicate organization matters for syndication process duration, which can be significantly reduced provided arrangers retaining larger shares of the loan, and having more experience on the syndicated lending market. Furthermore, a greater geographic closeness in terms of nationality between the “managers” of the syndicate and the borrower is also beneficial for quick syndication process. This is also achieved when “managers” and participants come from the same country.

5.4 Borrower reputation and opacity effects

We investigate more deeply the effect of borrower reputation and opacity on the relationship between syndication process duration and syndicate organization. Indeed, previous results, i.e. the importance of concentration,

¹⁹We do not display results with the *Concentration of arrangers* variable because of convergence problems when estimating the model with this variable and syndicate composition measures. Although not displayed due to lack of space, coefficients for loan and country control variables remain overall unchanged compared to results in tables 3 and 4.

experience and geographical closeness of the members of the syndicate, should be even more pronounced if the borrower has acquired less reputation on the syndicated loan market or when he is more opaque. Indeed, lending to such borrowers is more exposed to informational problems and to agency problems within the syndicate.

Borrower reputation is computed using the number of different arrangers that have arranged a deal for a particular borrower in our sample. Indeed, a borrower who has been funded with syndicated loans arranged by various arrangers acquires valuable reputation on the syndicated lending market, as more arrangers have a better knowledge regarding his business and risk profile, as well as his financing needs. More precisely, for each borrower we compute the number of interactions (or links) that he had with a different arranger for a deal in the sample²⁰. Then, we use the median of that measure, equal to 8, to classify the borrowers as having low reputation if their number of interactions is lower than 8. We consider as opaque a borrower who is not listed on a stock exchange. Public firms are usually considered as being more transparent compared to private ones.

Results are displayed in tables 6 and 7²¹ for the borrower reputation and opacity influences respectively. When comparing to our base results in tables 3 and 4, we remark several important modifications of the coefficients. The most striking ones concern the increase of the coefficient for *Concentration of arrangers* in table 6, which gains 0.13, and the lack of significance for *Top 10 arrangers (market)*. Apparently, lack of borrower reputation reinforces the role of arrangers retained shares concentration which serves as a signal of efficient screening and monitoring of the borrower as well as his quality. Arrangers experience plays no significant role in that case. Regarding the syndicate composition measures, we also observe significant changes. First, the presence of “managers” geographically close to the borrower vanishes away

²⁰The mean of the number of interactions (or links) equals 11.08 with a standard deviation of 12.69. This means that an average borrower had 11 interactions with different arrangers in the sample.

²¹We experienced convergence problems for the regressions with *Number of arrangers* and *Concentration of arrangers* and we cannot provide estimation results for these two specifications for opaque borrowers.

the effect of *Same country top lenders*, while potential collusive effects are now present on the top-low lenders level, as the latter coefficient is significant and positive.

In table 7, the effect of arrangers experience is strongly reinforced as the coefficient of *Top 10 arrangers (market)* gains 0.38 compared to table 3 and appears as being crucial for opaque borrowers getting syndicated loans quickly. Thus, borrower opacity seems to have a different effect compared to his reputation. Furthermore, the collusive effect of top lenders being from the same country as the borrower is stronger, as the coefficients gain between 0.08 and 0.10. It seems that borrower opacity leaves more room for potential collusive behavior within the syndicate.

Overall, borrower characteristics such as reputation and opacity matters for syndication process duration, as syndicate organization features such as arrangers retained shares concentration or experience become much more critical when the borrower has a low reputation or is more opaque.

5.5 Emerging markets borrower effect

As a significant part of the loans in our sample are provided to borrowers from emerging markets, we investigate if this feature has an impact on our results. Indeed, as shown by Nini (2004), the presence of a domestic participant in a syndicated loan to borrowers in developing economies has a significant and negative impact on the cost of funds, because the presence of a local lender from these markets, considered as more opaque than industrialized economies, reduces informational problems within the syndicate. However, domestic lenders usually lack of necessary competence, expertise, know-how, knowledge, experience and reputation regarding syndicated lending (Tykvova and Schertler, 2008). This might explain the presence of several arrangers, with domestic ones reducing informational and relational problems, and the international ones bringing their experience and reputation. Thus, it is possible that syndicates lending to emerging markets borrowers have specific features adapted to such problems and might influence differently the syndication process duration.

In our sample, the average number of arrangers is greater for deals arranged for emerging markets borrowers (7.8) as compared to non emerging markets deals (4.67). Furthermore, the average percentage of top lenders from the same country as the borrower is lower for emerging market borrowers than for industrialized ones (21.08% versus 37.05%)²². These significantly different syndicate structures translate in a difference of 8 days only regarding the average syndication process duration for emerging versus industrialized market borrowers²³.

When regressing the syndication process duration on the presence of league table arrangers and of same country top lenders for a sub-sample of deals syndicated for emerging market borrowers, we find no significant coefficient for the latter variable, while the former is significant and negative. *League table arrangers* coefficient gains 0.18 in that case as compared to the coefficient in specification (1.5a) in table 5. Hence, even if the syndicates lending to borrowers from emerging markets are different in terms of organization, we do not find any empirical evidence on the added value of local lenders presence regarding informational problems with respect to the syndication process duration. What matters for quick syndication process duration is the presence of reputable international arrangers with the necessary expertise and knowledge in arranging the deals.

5.6 Robustness checks

We have performed several robustness checks regarding the use of alternative variables, bounding the endogenous variable, and applying other estimation methods and procedures.

When performing the regressions on a reduced sample with elimination of syndication process durations over 100 and 200 days respectively does not alter the results. Coefficients remain significant with the same signs, although their magnitude is reduced. Using more restrictive definitions to compute the

²²We also observe a similar difference regarding league table arrangers (17.65% in emerging markets vs 23.94% in industrialized markets).

²³The average durations for emerging and non emerging market borrowers equal 50.73 and 42.21 days respectively.

Top arrangers measures as well as *Same country top lenders* gives very similar results²⁴. Furthermore, when considering the frequency of the borrower’s presence on the syndicate lending market as an alternative measure of his reputation ²⁵ gives virtually similar results, although the magnitude of the coefficients are reduced.

For all the estimations obtained with a gamma model, the magnitude and the significance of the covariates are similar to those obtained with Weibull, log-logistic and log-normal models. We have also followed a two-step procedure in order to address the potential endogeneity issue between the duration and the syndicate organization²⁶. In the first step, using OLS we regress the various syndicate organization measures on the loan characteristics already used in the estimations. In the second step, using an AFT model with gamma distribution we regress the syndication process duration on the fitted syndicate organization measures from step one. Results from step two are similar to those already obtained regarding the coefficients significance and sign.

Overall, results regarding the influence of syndicate organization on syndication process duration hold after surviving several robustness checks.

6 Conclusion

Informational problems that raise syndication specific agency problems can interfere with efficient and fast decision making (Kocher and Sutter, 2006; Schulte and Gruner, 2007). Following Pichler and Wilhelm (2001), empirical evidence supports the argument that an adapted organizational structure of the syndicate is a crucial feature to mitigate these agency problems (Lee and Mullineaux, 2004; Jones et al., 2005; Sufi, 2007). This organizational structure of the banking team may have a significant impact on the speed

²⁴Alternative definitions implied considering agent, arranger, bookrunner, lead arranger, lead bank, mandated arranger, and senior arranger titles only, or agent, arranger, bookrunner, mandated arranger titles only.

²⁵In that case, we simply count the number of times a particular borrower is funded by a syndicated loan in the sample to compute his frequency of presence on the market.

²⁶In order to not overload the paper we do not provide these results but they are available upon request.

of decision making (Eisenhardt, 1989; Talaulicar et al., 2005). Therefore, a syndicate organization which is supposed to be adapted to syndicate specific agency problems, should also have an important influence on the syndication process duration.

Using a sample of more than 4,800 syndicated loans to borrowers from 59 countries for the 1992 – 2006 period, we have employed accelerated failure time models to test the influence of the syndicate organization on the loan syndication process duration, measured in days since the syndication launching date until the completion date when the loan contract is signed. This stage of a transaction cycle for a syndicated loan is considered as the most critical because both the borrower and the arrangers are at risk (Rhodes, 2004). We measure syndicate organization with various characteristics related to syndicate size, concentration, experience, reputation and composition.

Empirical results show that syndicate organization clearly matters for syndication process duration. In particular, arrangers' retained loan shares concentration and experience are crucial inputs allowing to significantly speed up the syndication process and thus providing the borrower with necessary funds in a shorter amount of time. Indeed, these two main features provide an efficient signal regarding the handling of the syndication process, of the agency problems, and of the borrower quality. They become even more critical when the borrower has a low reputation on the syndicated lending market or when he is more opaque.

Furthermore, the duration is shorter when an important share of “managers” in the syndicate are from the same country as the borrower, as well as when a large percentage of participants and “managers” come from the same country. This result receives an interpretation related to the reduction of informational frictions within the syndicate when such composition is at work. However, the presence of local arrangers has no significant impact on the duration when the loan is syndicated to a borrower from an emerging market. In that case, what really matters for quick syndication process is the presence of reputable international arrangers.

Overall, the syndication process duration can be significantly reduced

provided a larger number of arrangers, who retain larger shares of the loan, and are more reputable and experienced players on the syndicated lending market. These are the most important features to be taken into account by the borrower if his main interest is for short syndication process duration in order to access the necessary funds quickly. Thus, the syndicate organization is an important input for corporate finance decisions and should be carefully analyzed by the borrower but also by the lenders. Finally, these results contribute to the existing literature on the importance of syndicate organization for successful and value enhancing loan syndication.

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Table 1: Variables definition and descriptive statistics

The table provides a brief description and descriptive statistics for variables used in the regressions, with a distinction of loan, syndicate organization, and country characteristics, as well as control variables. Loan, syndicate organization and control variables come from Dealscan (LPC, Reuters). Country characteristics come from LaPorta et al. (1998); Djankov et al. (2007).

Variable	Description	N	Mean	Std. dev.
Loan characteristics				
Syndication process duration	Duration of the loan syndication process since the launching date until the completion date, measured in days.	4807	55.1367	37.0186
Loan size	Logarithm of the size of the loan (in million USD).	4807	18.5816	1.3801
Spread	Spread over the benchmark rate (in bps).	4807	110.6984	79.8330
Fee	Up front fee (in bps).	4807	52.6986	43.6978
Maturity	Maturity of the loan (in months).	4807	53.8417	36.0990
Guarantors	= 1 if there is at least one guarantor.	4807	0.0957	0.2942
Covenants	= 1 if the loan agreement includes financial covenants.	4807	0.1157	0.3199
Senior debt	= 1 if the debt is senior.	4807	0.2528	0.4346
S&P rating	= 1 if the borrower has a senior debt rating by Standard & Poor's.	4807	0.0616	0.2404
Term loan	= 1 if the loan is a term loan.	4807	0.5891	0.4920
Corporate purposes	= 1 if the loan purpose is general corporate purposes funding.	4807	0.1059	0.3077
Debt repayment	= 1 if the loan purpose is debt repayment funding.	4807	0.1949	0.3962
Working capital	= 1 if the loan purpose is working capital funding.	4807	0.0786	0.2692
Project finance	= 1 if the loan purpose is project finance funding.	4807	0.1009	0.3012
Libor	= 1 if the benchmark rate is the Libor.	4807	0.2592	0.4382
Euribor	= 1 if the benchmark rate is the Euribor.	4807	0.0811	0.2731
Syndicate organization characteristics				
Number of arrangers	Number of arrangers in the syndicate.	4807	3.6004	3.6992
Concentration of arrangers	Normalized Herfindhal-Hirschman Index of the loan shares retained by arrangers.	4530	0.2443	0.2409

Table 1: (continued)

Variable	Description	N	Mean	Std. dev.
Top 10 arrangers (presence) ¹	Percentage of the syndicate arrangers in the top 10-th centile of the most frequent arrangers in the sample.	4530	0.6925	0.2085
Top 10 arrangers (market) ²	Percentage of the syndicate arrangers in the top 10-th centile regarding market share of syndicated loans in the sample.	4530	0.0684	0.1391
League table arrangers ³	Percentage of the syndicate arrangers in the Loan Pricing Corporate (Reuters) Global League Table in the sample.	4530	0.2146	0.1676
Same country top lenders	Percentage of the syndicate 'top lenders' ⁴ from the same country as the borrower.	4530	0.3078	0.2295
Same country mid lenders	Percentage of the syndicate 'mid lenders' ⁵ from the same country as the borrower.	4530	0.9199	0.1288
Same country mid-low lenders	Percentage of the syndicate 'mid' and 'low' ⁶ lenders from the same country.	4530	0.8554	0.1748
Same country top-low lenders	Percentage of the syndicate 'top' and 'low' lenders from the same country.	4530	0.0917	0.1365
Country characteristics				
Creditor rights	An index aggregating four aspects of creditor rights. The index ranges from zero (weak creditor rights) to four (strong creditor rights)	3782	2.7343	0.9635
Rule of law	An index indicating the law enforcement. The index ranges from zero (weak enforcement) to ten (strong enforcement)	4245	6.9136	2.0854

¹: We count the number of times a particular arranger participates in a syndicated loan in the sample and we use the 90-th percentile of its distribution to distinguish top arrangers for participation intensity. Then we compute the percentage of such top arrangers in a syndicate for every deal.

²: We compute for each arranger the sum of all syndicated loans shares funded per year and we divide this number by the sum of syndicated loans per year in the sample. We use the 90-th percentile of the distribution of this variable to distinguish top arrangers for market shares. Then we compute the percentage of these arrangers in a syndicate for every deal.

³: LPC (Reuters) Global League Table arrangers are: Bank of America, Barclays, BNP Paribas, Calyon, Citigroup, ING, JP Morgan, Mitsubishi Financial, Royal Bank of Scotland, Sumitomo Mitsui Banking.

⁴: Lenders are classified as 'top' if they bear the following titles in the syndicate: administrative agent, agent, arranger, bookrunner, lead arranger, mandated arranger, senior arranger, underwriter, lead bank, joint arranger, managing agent, senior managing agent, syndication agent, co-agent, co-arranger, senior co-arranger, sub-underwriter, co-lead arranger, co-syndication agent, co-underwriter.

⁵: Lenders are classified as 'mid' if they bear the following titles in the syndicate: lead manager, senior lead manager, co-lead manager, expanded lead manager, senior co-lead manager, manager, co-manager, senior manager.

⁶: Lenders are classified as 'low' if they bear the following titles in the syndicate: participant, lender, senior lender.

Table 2: Distribution of the number of loans and lenders-tranches, and mean syndication process duration by country

The table provides the number of loans and lenders-tranches, as well as respective in sample frequency, by country, as well as mean values of the endogenous variable *Syndication process duration* by borrower country.

Country	Number of loans	Freq.	Syndication process duration	Number of lenders-tranches	Freq.
Argentina	-	-	-	10	0.03
Australia	172	3.58	63.61	158	0.55
Austria	3	0.06	51.33	924	3.21
Bahrain	11	0.23	37.81	297	1.03
Belgium	21	0.44	49.52	744	2.59
Bermuda	2	0.04	56.00	-	-
Bulgaria	2	0.04	43.00	-	-
Canada	-	-	-	543	1.89
Cayman Islands	10	0.21	48.00	-	-
China	350	7.28	59.99	101	0.35
Croatia	10	0.21	46.20	16	0.06
Cyprus	-	-	-	16	0.06
Czech Republic	2	0.04	125.00	56	0.19
Denmark	10	0.21	54.3	325	1.13
Egypt	7	0.15	53.00	86	0.30
Finland	14	0.29	39.28	167	0.58
France	167	3.47	52.31	3894	13.54
Germany	117	2.43	53.06	4819	16.76
Ghana	3	0.06	45.33	-	-
Greece	7	0.15	63.00	168	0.58
Hong Kong	759	15.79	51.38	409	1.42
Hungary	21	0.44	50.57	154	0.54
Iceland	4	0.08	41.25	19	0.07
India	190	3.95	56.45	48	0.17
Indonesia	525	10.92	61.49	30	0.10
Iran	-	-	-	35	0.12
Ireland	5	0.10	45.00	319	1.11
Israel	-	-	-	74	0.26
Italy	47	0.98	51.95	1593	5.54
Japan	57	1.19	47.26	1906	6.63
Jordan	-	-	-	119	0.41
Kazakhstan	5	0.10	32.00	-	-
Korea (South)	616	12.81	32.74	44	0.15
Kuwait	2	0.04	64.00	182	0.63
Latvia	-	-	-	22	0.08

Table 2: (continued)

Country	Number of loans	Freq.	Syndication process duration	Number of lenders-tranches	Freq.
Luxembourg	14	0.29	68.85	334	1.16
Malaysia	151	3.14	70.10	22	0.08
Malta	-	-	-	15	0.05
Morocco	-	-	-	16	0.06
Netherlands	61	1.27	57.57	2034	7.07
New Zealand	28	0.58	57.07	-	-
Norway	20	0.42	42.10	303	1.05
Oman	5	0.10	116.80	90	0.31
Pakistan	19	0.40	38.47	14	0.05
Papua New Guinea	5	0.10	93.60	-	-
Philippines	115	2.39	69.23	-	-
Poland	17	0.35	65.82	111	0.39
Portugal	15	0.31	40.53	288	1.00
Qatar	6	0.12	80.83	107	0.37
Romania	8	0.17	47.15	21	0.07
Russian Federation	31	0.64	50.48	44	0.15
Saudi Arabia	4	0.08	18.50	187	0.65
Singapore	155	3.22	54.66	72	0.25
Slovakia	2	0.04	50.50	37	0.13
Slovenia	9	0.19	43.33	13	0.05
South Africa	21	0.44	47.95	74	0.26
Spain	30	0.62	46.76	489	1.70
Sri Lanka	3	0.06	38.33	-	-
Sweden	26	0.54	47.65	327	1.14
Switzerland	14	0.29	43.57	396	1.38
Taiwan	293	6.10	86.01	200	0.70
Thailand	395	8.22	56.29	-	-
Tunisia	3	0.06	48.00	36	0.13
Turkey	21	0.44	31.71	65	0.23
United Arab Emirates	6	0.12	56.66	296	1.03
United Kingdom	165	3.43	51.57	2701	9.39
United States of America	-	-	-	3047	10.60
Venezuela	3	0.06	113.66	-	-
Vietnam	14	0.29	77.92	-	-

Table 3: Estimation results with syndicate size, experience, concentration, and reputation measures only

The table provides estimation results of the accelerated failure time model with a gamma distribution for different specifications (1.1 to 1.5) in terms of syndicate organization measures. The dependent variable is *Syndication process duration*. Definition of variables appear in table 1. Robust standard errors in parentheses. ***, **, * correspond to coefficients significantly different from 0 at 1%, 5% and 10% level. Loan type, loan purpose, benchmark rate, facility active year, industry and geographical areas dummies included but not reported.

Specifications	(1.1)	(1.2)	(1.3)	(1.4)	(1.5)
Number of arrangers	-0.0185*** (0.0022)				
Concentration of arrangers		-0.2899*** (0.0768)			
Top 10 arrangers (presence)			-0.1556*** (0.026)		
Top 10 arrangers (market)				-0.3731** (0.1502)	
League table arrangers					-0.1164*** (0.0269)
Loan size	0.0193** (0.0098)	-0.0291*** (0.009)	-0.0246*** (0.007)	-0.0265*** (0.0067)	-0.0238*** (0.0067)
Spread	0.0006** (0.0003)	0.0005 (0.0003)	-0.0004** (0.0002)	-0.0005*** (0.0002)	-0.0005*** (0.0002)
Fee	-0.0007 (0.0005)	-0.0024*** (0.0006)	0.0012*** (0.0003)	0.0014*** (0.0004)	0.0014*** (0.0004)
Maturity	0.0022*** (0.0006)	0.0014*** (0.0003)	0.0004** (0.0002)	0.0002 (0.0002)	0.0004** (0.0002)
Guarantors	0.0911*** (0.0221)	0.0088 (0.0287)	0.0291* (0.0167)	0.0421** (0.0191)	0.0349** (0.0168)
Covenants	0.1126*** (0.0213)	0.077*** (0.0205)	0.0677*** (0.0127)	0.0656*** (0.013)	0.0767*** (0.013)
Senior debt	0.1199 (0.0821)	1.0468*** (0.0796)	-0.1251 (0.0794)	-0.2349*** (0.0657)	-0.1375 (0.0858)
S&P rating	0.2562 (0.471)	-0.5874*** (0.0442)	0.0176 (0.04)	0.016 (0.0387)	0.0376 (0.0363)
Creditor rights	0.0998*** (0.0094)	0.0109 (0.0214)	0.0366*** (0.0091)	0.0359*** (0.0092)	0.0305*** (0.0093)
Rule of law	-0.1539*** (0.0152)	0.1661*** (0.0324)	0.0052 (0.0134)	-0.0016 (0.0136)	-0.0085 (0.0136)
Intercept	-32.2318*** (11.3297)	-8.3350 (8.5718)	-37.9221*** (7.2874)	-27.4776*** (7.2863)	-27.8578*** (6.8453)
N	3274	2596	3274	3274	3274
Chi ²	2171.887	6713.32	8350.456	4377.684	6959.042

Table 4: Estimation results with syndicate composition measures only

The table provides estimation results of the accelerated failure time model with a gamma distribution for different specifications (2.1 to 2.4) in terms of syndicate organization measures. The dependent variable is *Syndication process duration*. Definition of variables appear in table 1. Robust standard errors in parentheses. ***, **, * correspond to coefficients significantly different from 0 at 1%, 5% and 10% level. Loan type, loan purpose, benchmark rate, facility active year, industry and geographical areas dummies included but not reported.

Specifications	(2.1)	(2.2)	(2.3)	(2.4)
Same country top lenders	0.1388*** (0.0275)	0.1075*** (0.0274)		
Same country mid lenders		-0.1055*** (0.0386)		
Same country mid-low lenders			-0.0505** (0.0242)	
Same country top-low lenders				0.0466 (0.0356)
Loan size	-0.0232*** (0.006)	-0.0248*** (0.006)	-0.0264*** (0.0065)	-0.0276*** (0.0064)
Spread	-0.0004*** (0.0002)	-0.0004*** (0.0002)	-0.0005*** (0.0002)	-0.0005*** (0.0002)
Fee	0.0014*** (0.0003)	0.0014*** (0.0003)	0.0014*** (0.0003)	0.0014*** (0.0003)
Maturity	0.0005*** (0.0002)	0.0004*** (0.0002)	0.0004*** (0.0002)	0.0004*** (0.0002)
Guarantors	0.04** (0.016)	0.0455*** (0.0159)	0.0317* (0.0167)	0.0295* (0.0163)
Covenants	0.0548*** (0.0133)	0.053*** (0.0133)	0.0623*** (0.013)	0.0647*** (0.0131)
Senior debt	-0.1403** (0.0713)	-0.1504** (0.0724)	-0.1319* (0.0773)	-0.1401* (0.0801)
S&P rating	0.0141 (0.035)	0.0187 (0.0351)	0.0235 (0.0371)	0.026 (0.0372)
Creditor rights	0.0418*** (0.0087)	0.0418*** (0.0083)	0.0373*** (0.0089)	0.0383*** (0.009)
Rule of law	0.0153 (0.0137)	0.0075 (0.0136)	-0.0040 (0.0134)	-0.0054 (0.0133)
Intercept	-27.6439*** (6.6182)	-32.5827*** (6.9538)	-28.1710*** (6.9599)	-28.2415*** (7.1009)
N	3274	3274	3274	3274
Chi ²	7349.766	7970.226	7857.641	8143.089

Table 5: Estimation results with syndicate size, experience, reputation, and composition measures

The table provides estimation results of the accelerated failure time model with a gamma distribution for different specifications in terms of syndicate organization measures. The dependent variable is *Syndication process duration*. Definition of variables appear in table 1. Robust standard errors in parentheses. ***, **, * correspond to coefficients significantly different from 0 at 1%, 5% and 10% level. Loan and country characteristics, as well as loan type, loan purpose, benchmark rate, facility active year, industry and geographical areas dummies included but not reported.

Specifications	(1.1a)	(1.1b)	(1.1c)	(1.1d)
Number of arrangers	-0.0162*** (0.0021)	-0.0161*** (0.0021)	-0.0170*** (0.0023)	-0.0182*** (0.0023)
Same country top lenders	0.2139*** (0.0397)	0.1757*** (0.0406)		
Same country mid lenders		-0.1955*** (0.0647)		
Same country mid-low			-0.2875*** (0.0425)	
Same country top-low				0.2843*** (0.0556)
N	3274	3274	3274	3274
Chi ²	2360.716	2473.53	2183.467	2419.181
Specifications	(1.3a)	(1.3b)	(1.3c)	(1.3d)
Top 10 arrangers (presence)	-0.1218*** (0.0281)	-0.1147*** (0.0293)	-0.1560*** (0.0283)	-0.1537*** (0.0279)
Same country top lenders	0.1109*** (0.0309)	0.0864*** (0.0295)		
Same country mid lenders		-0.0877** (0.0403)		
Same country mid-low lenders			0.0011 (0.0267)	
Same country top-low lenders				0.011 (0.0376)
N	3274	3274	3274	3274
Chi ²	7885.444	8439.457	8408.059	8414.194

Table 5: (continued)

Specifications	(1.4a)	(1.4b)	(1.4c)	(1.4d)
Top 10 arrangers (market)	-0.3595** (0.1626)	-0.3714** (0.1718)	-0.3707** (0.152)	-0.3807** (0.1539)
Same country top lenders	0.1294*** (0.0298)	0.0955*** (0.031)		
Same country mid lenders		-0.1101*** (0.0376)		
Same country mid-low lenders			-0.0455 (0.0444)	
Same country top-low lenders				0.0528 (0.033)
N	3274	3274	3274	3274
Chi ²	4279.283	4509.396	4436.914	4403.339
Specifications	(1.5a)	(1.5b)	(1.5c)	(1.5d)
League table arrangers	-0.1024*** (0.0275)	-0.0968*** (0.0278)	-0.1116*** (0.0272)	-0.1138*** (0.027)
Same country top lenders	0.1298*** (0.0278)	0.1026*** (0.0276)		
Same country mid lenders		-0.0931** (0.0385)		
Same country mid-low lenders			-0.0338 (0.024)	
Same country top-low lenders				0.0339 (0.0349)
N	3274	3274	3274	3274
Chi ²	6727.139	7299.141	6997.724	7127.783

Table 6: Estimation results with syndicate size, concentration, experience, reputation, and composition measures for borrowers with low reputation

The table provides estimation results of the accelerated failure time model with a gamma distribution for different specifications in terms of syndicate organization measures. The dependent variable is *Syndication process duration*. Definition of variables appear in table 1. A borrower is considered as having low reputation when he has dealt with less than 8 different arrangers. Robust standard errors in parentheses. ***, **, * correspond to coefficients significantly different from 0 at 1%, 5% and 10% level. Loan and country characteristics, as well as loan type, loan purpose, benchmark rate, facility active year, industry and geographical areas dummies included but not reported.

Specifications	(i)	(ii)	(iii)	(iv)	(v)
Number of arrangers	-0.0117*** (0.0027)				
Concentration of arrangers		-0.4246** (0.1847)			
Top 10 arrangers (presence)			-0.1329*** (0.0289)		
Top 10 arrangers (market)				0.1154 (0.085)	
League table arrangers					-0.0605** (0.0296)
N	1815	1424	2016	2016	2016
Chi ²	975.2344	7455.112	4265.071	4226.595	3915.856
Specifications	(vi)	(vii)	(viii)	(ix)	
Same country top lenders	0.0869*** (0.0262)	0.0332 (0.0287)			
Same country mid lenders		-0.1936*** (0.0412)			
Same country mid-low lenders			-0.0199 (0.0277)		
Same country top-low lenders				0.0878** (0.0356)	
N	2016	2016	2016	2016	
Chi ²	3681.651	3915.94	3885.31	3985.052	

Table 7: Estimation results with syndicate size, concentration, experience, reputation, and composition measures for opaque borrowers

The table provides estimation results of the accelerated failure time model with a gamma distribution for different specifications in terms of syndicate organization measures. The dependent variable is *Syndication process duration*. Definition of variables appear in table 1. A borrower is considered as opaque when he is not listed on a stock exchange. Robust standard errors in parentheses. ***, **, * correspond to coefficients significantly different from 0 at 1%, 5% and 10% level. Loan and country characteristics, as well as loan type, loan purpose, benchmark rate, facility active year, industry and geographical areas dummies included but not reported.

Specifications	(x)	(xi)	(xii)	
Top 10 arrangers (presence)	-0.1874*** (0.0348)			
Top 10 arrangers (market)		-0.7555*** (0.2544)		
League table arrangers			-0.1478*** (0.0401)	
N	2003	2003	2003	
Chi ²	6627.354	4292.728	6179.461	
Specifications	(xiii)	(xiv)	(xv)	(xvi)
Same country top lenders	0.2264*** (0.0327)	0.2095*** (0.0321)		
Same country mid lenders		-0.0590 (0.0596)		
Same country mid-low lenders			-0.0696* (0.0403)	
Same country top-low lenders				0.0226 (0.0557)
N	2003	2003	2003	2003
Chi ²	6157.238	6308.005	6199.639	6218.004

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