The effect of Borrower Country Financial System and Corporate Governance System Types on the spread of syndicated loans.

Nuno Moutinho[a], Carlos Alves[b] and Francisco Martins[c]

[a] *Corresponding author: Instituto Politécnico de Bragança; Campus de Santa Apolónia, 5300-253 Bragança, email: nmoutinho@ipb.pt Portugal;*

[b] *Universidade do Porto, Faculdade de Economia, CEF.UP, email: calves@fep.up.pt; Porto, Portugal;*

[c] *Universidade do Porto, Faculdade de Economia, email: vmartins@fep.up.pt; Porto, Portugal*

Abstract

Purpose – This study aims to analyse the effect of borrower's country on loan spreads, bringing countries together into homogenous groups relatively to institutional factors, namely financial system and corporate governance system types.

Design/methodology/approach – This research offers an empirical investigation into a unique sample of more than 85.000 syndicated loans from 122 countries, which have great variability between the spreads in different countries. This study uses a regression analysis to test whether financial system and corporate governance system types affect loans spreads.

Findings - Borrowers from countries with bank-based financial systems pay lower interest rate spreads than those from countries with a market-based financial system. There is also evidence that borrowers from countries with more developed financial systems pay lower spreads. Our results evidence that borrowers from countries with an Anglo-Saxon governance system pay higher spreads than borrowers from countries with a continental governance system.

Originality - The work offers empirical evidence to understand how institutional factors influence loan cost. There are no empirical studies that aggregate the countries according to these two distinguishing country's characteristics: the type of financial system and the type of government system.

Research limitations/implications – This study does not consider "promiscuous" relationships on the ownership structure and governance bodies between banks and borrowers that may affect loan spreads.

Practical implications – This study suggests that loans are cheaper in Continental European countries, which suggests that the borrower's location is an important factor in the financial intermediation process.

Keywords: Financial System; Financial Development; Governance System; Cost of Debt; Bank Loans

Paper type: Research paper

1. Introduction

Although there are evidence of the institutional environment of the borrower's country in the companies' capital structure (Rajan and Zingales, 1998; Giannetti, 2003; De Jong *et al.*, 2008; Alves and Ferreira, 2011), the literature is less abundant and conclusive with regard to the effects on the financing conditions, namely with regard to the costs of the loan. Carey and Nini (2007) conclude that, regardless of nationality of the borrower or the lender, loans are cheaper when issued in Europe than in the USA. Houston *et al.* (2012) equally verify that loan spreads depend on the nationality of the borrower, and that syndicated loans granted to European companies are cheaper than those granted to North-American companies. Both studies evidence that companies prefer banks in their domestic market, which (eventually due to a lower information asymmetry) is reflected in lower spreads. Also, Giannetti and Laeven (2012) states that domestic banks have informational advantages on companies from their country of origin, allowing them to better know the factors that affect borrowers, better understand the country's political and economic risks, as well as have a greater familiarity with the borrower as a result of physical proximity and cultural affinity.

This research provide evidence toward the assumption that the borrower country's characteristics may be relevant in determining the cost of syndicated bank financing. The purpose of this study is to analyse if, *ceteris paribus*, the characteristics of the borrower's country influence the loan's spread. In particular, we analyse the influence of two distinctive characteristics of countries: the type of financial system and the type of governance system.

Since companies in countries with a bank-based financial system have a closer relationship with the financing institutions and the information asymmetry tends to be lower, it is to be expected that borrowers from these countries get loans with lower spreads. Conversely, since financial institutions in countries with bank-based financial systems have access to private information on the borrowers and are, therefore, able to adequately monitor the company and promotes a more efficient capital allocation (Levine, 2002), it is expected that financing costs are lower in market-based financial systems.

About the governance type that best fits the borrower's country, there are two main systems: Anglo-Saxon or continental governance system. The first is characterized by market-orientation, disperse ownership, the existence of institutional investors that are controlling shareholders and a large and liquid capital market. The continental governance system is supported by bank financing, companies' ownership is concentrated in government, families, bank or other companies and the capital market is small and illiquid. The management Anglo-Saxon system is in the hands of the board of directors and its compensation tends to be variable, while in the continental system, management is shared between the company's executive and the supervisory committee, with a fixed compensation scheme. Bank financing is very important in financing companies with a continental governance system, and much less relevant in financing companies with an Anglo-Saxon governance system (Schmidt and Tyrrel, 1997; Cuervo, 2002; Cernat, 2004; Alves and Vicente, 2013). In this way, it is expected that borrowers from Anglo-Saxon countries pay higher spreads that borroewrs from continental countries.

This paper focuses on the costs of syndicated bank loans and study its relation with the classification of countries that share some characteristics. We seek to analyse the relationship between the type of financial system (bank-based or market-based) and the companies' cost of financing, as well as the way the country's level of financial development affects that relationship. We also analyse the relevance of type of governance system (Anglo-Saxon or Continental) for financing spreads. This research collect data from Dealscan database about 85,220 loan tranches from 25,511 non-financial borrowers from 122 countries.

The results allow us to validate the assumption that borrowers from countries with a bank-based financial system get loans with a lower interest rate than borrowers from countries with a market-based financial system, as do those of countries with a more developed financial system. We also find that borrowers from countries with Anglo-Saxon governance systems pay higher spreads than those from countries with continental governance systems.

This study presents several contributions. First, the literature is scarce and little conclusive as to the influence of these institutional factors in the negotiated financing conditions, particularly in the loan cost. This study intends to contribute to bridge this gap. Second, this study verify empirically whether the spread supported by the borrower is affected by two distinguishing country's characteristics: the type of financial system and the type of government system. As far as we know, there are no empirical studies that aggregate the countries according to these characteristics, so the results presented are the first to show how those characteristics affect the costs of financing. Until now there is no evidence about this effect. This study also add evidence to the relationship lending literature, since each type of system have impact on information available, risk perception and creditor protection.

The paper proceeds as follows. The next section presents a literature review on both types of systems. The following section describes the databases and the methodology used, and also a brief characterization of the data. Then, the empirical results are presented and discussed. At the end is the conclusion.

2. Literature review

2.1. Type of Financial System and Financial Development Level

Financial systems may be classified as market-based or bank-based. In the first, financing is mainly public, through issue and placement of shares and bonds, while in bank-based financial systems financing is mostly private, through bilateral bank loans (Boot and Thakor, 2000; Dennis and Moullineaux, 2000). There is important differences between both systems as we can see below.

2.1.1. Relationship lending

In countries with a bank-based financial system there is, typically, a close, long-term relationship between borrowing companies and lending banks. This relationship allows the lending bank to obtain, over time and in the context of a day-to-day contact, qualitative information on the borrower (*soft information*). On the contrary, when loans are placed through capital market deals – like in the market-based financial systems – they are essentially based on quantifiable and easily transmissible information (*hard information*) (Stein, 2002; Berger *et al.*, 2005). The market-based financial system is, therefore, in the words of Rajan and Zingales (2001), essentially "*arm's lenght*" (that is, lenders act independently and with no other relationship with the borrower) and the bank-based financial system is, mainly, "relationship lending" because lenders have the ability to gather information from borrower, which is known

as inside debt (Rajan, 1992; Fama, 1985). Therefore, "*relationship lending*" banks become qualitatively informed lenders, whereas capital market investors provide *arm's length* financing (Rajan, 1992).

Despite the potential benefits which arise from banking relationship, it is not certain that they are materialised in effective and equal benefits for both parties, because the *hold-up problem*,(Boot, 2000). When a close banking relationship allows the bank to use privileged information, which gives it a competitive advantage over its competitors, banks charge high interest rates later on, out of line with the company's risk profile (Rajan, 1992). Therefore, the acquisition of privileged information on the companies by banks may lead to extraction rent (Weinstein and Yafeh, 1998).

There is evidence that strong banking relationships are empirically associated with lower interest rates (Petersen and Rajan, 1994; Berger and Udell, 1995). However, there are also studies that show no effects on interest rates (Elsas and Krahnen, 1998; Harhoff and Korting, 1998) or that document their increase (Degryse and Cayseele, 2000). Existing literature is not, therefore, conclusive on the effects of banking relationship in debt financing costs. It seems clear that although there are positive effects of banking relationship, there is also some literature that questions the idea that such effects are necessarily materialized in lower costs of debt.

2.1.2. Other Relevant Factors

In addition to banking relationship, Levine (2002) considers that the market-based financial system has intrinsic advantages in capital allocation, supplying risk management tools and minimising the problems associated to excessively powerful banks. In the same line, capital market (predominantly in countries with market-based financial systems) have a positive role in providing information signals and allows the transmission of that information to investors, which has a positive impact in the companies' financing cost (Allen and Gale, 1999). On the other hand, the capital market also affects the transmission of useful information to lenders. Grossman and Stiglitz (1980) support the idea that the prices in the capital market reveal, at least partially, information that the most informed investors possess.

In turn, Chakraborty and Ray (2006) states that banks are more involved in selecting projects, monitoring companies and identifying entrepreneurs with a future, while market investors are too dispersed to effectively control the borrower's activities. Since monitoring has costs, this implies that bank financing is more expensive than market financing.

2.1.3. The Importance of Financial Development

Since there are countries with a bank-based financial system that simultaneously present banking industry development indicators below average and, on the other hand, countries with a market-based financial system with below-average levels of financial market development (Demirgüç-Kunt and Levine, 2001), it becomes important to analyse whether the country's level of financial development influences financing costs. Chakraborty and Ray (2006) states that more developed financial systems are better at solving agency problems, allowing companies to borrow at lower interest rates and invest more. Rajan and Zingales (1998) present as effects of financial development the reduction of transaction costs, allowing the decrease of the costs of capital in the economy and helping companies overcome moral hazard and adverse selection issues. Alves and Ferreira (2011, p. 124) state that "*in less developed capital markets there is less available information about firms for several reasons that may include a weaker regulation, lower corporate governance standards, and limited investor protection rights*". In this sense, financial development should induce lower external financing costs. In addition, the higher the country's level of financial development, the greater the range of services allowing risk diversification and the better the access to financial services (Reuttner and Glass, 2012),

which could have an impact in financing costs. In this sense, we would expect that borrowers from more financially developed countries have better loan agreements, particularly lower spreads.

To sum up, there is no empirical evidence that allows us to conclude whether the type of financial system determines the companies' financing costs, or how the country's level of financial development interferes with those costs. To our knowledge, this theme has not yet been directly investigated and is only the object of indirect research, particularly at the level of the effects of relationship lending. There are reasons to believe that, *ceteris paribus*, borrowers from countries with bank-based financial systems may benefit from different financing costs relative to those with market-based financial systems, and that the level of countries´ financial development also encourage different level of financial costs. Although the literature on this last subject indicates that such a relationship reduces information asymmetry and creates the conditions for banks to demand lower interest rates from their clients, there is also the possibility that banks take advantage of those informational advantages and impose higher interest rates. Therefore, even though we might expect that, especially for borrowers with more information asymmetry (vg, unrated borrowers), the positive effect of relationship is stronger than its costs and results in issuers from bank-based financial systems bearing lower spreads, there is no guarantee this will, indeed, happen. This study will seek to verify empirically which effect is stronger and how generalized these effects are, considering the level of rating.

2.2. Type of Governance System

2.2.1. Financing and Corporate Governance

Besause of opportunistic behaviors and agency problems, lenders this last may feel the need to control the decisions of companies as a way to ensure the loans' repayment. However, there are no complete contracts, and the functioning of the courts does not allow a full and efficient safeguard of lenders. So, companies' financing depends on their ability to ensure investors have appropriate return on their investment, which, according to Shleifer and Vishny (1997), is the ultimate goal of corporate governance. Therefore, apart from contractual and legal investor protection, the way the corporate governance is structured is of great importance.

The existence of good practices in corporate governance is more important when the level of protection for capital market investors is lower. The type of corporate governance varies not only according to the company, but also according to the country. Hence, Doidge *et al.* (2007) suggest that the country's governance system affects the corporate governance decisions and that a better governance reduces financing costs, because investors expect the company to be well governed after the financing is granted.

2.2.2. Governance System

The companies' governance mechanisms are usually divided in two main systems: continental and Anglo-Saxon. Among others, Schmidt and Tyrrel (1997), Cuervo (2002), Cernat (2004) Alves (2005) and Alves and Vicente (2013) present the main characteristic of both governance models.

The Anglo-Saxon system is a market-based system, also known as *outsider control system*, where the market for corporate control (*takeover market*) is essential. There is typically a large number of listed companies with dispersed ownership, where only institutional investors have a strong equity stake, the capital market is broad, deep and liquid. Companies are subject to

great demands to disclose information to investors and financing through equity issues is common in companies from those countries. Some institutional investors also play an important role in corporate governance, but banks' shareholdings and their influence on corporate governance appears to be low. The management is characterised by one governing body (the board of directors), and this is composed of executive and non-executive members. The compensation is largely variable and dependent on the company's (stock market) performance.

The continental system is a bank-based system, more relationship oriented, also known as *insider control system*. The monitoring of companies is frequently performed by controlling shareholders with a high equity stake. The ownership is concentrated in families, banks and/or related companies (clients and suppliers), so that the capital market in narrow and illiquid. There are, frequently, many shareholder structures and cross-shareholdings between companies and there is the possibility to restrict voting rights, limiting shareholders' votes to a certain percentage. Note also that banks play a very important role in granting credit, holding equity shares and participating in the boards of directors of companies in continental countries. Berglöf and Perotti (1994), Dittmann *et al.* (2010), and Ferreira and Matos (2012) show this bank's active role in German and Japanese companies. The management mainly have fixed compensation and have typically two governing bodies: executive management and supervision (includes people connected to the shareholders and the banks) of the company.

2.2.3. Governance System and Financial Costs

Notwithstanding the scarcity of literature on this subject, it is to be expected that different governance systems may result in different financing costs. Thus, for example, considering that continental countries tend to have a large number of banks which are represented in their borrowers' board of directors, and supposing the informational effect prevails over the rent extraction effect, borrowers from continental countries are expected to pay lower spreads than those from anglo-saxon countries. Conversely, if the rent extraction effect prevails, continental borrowers are expected to pay higher spreads. In terms of equity ownership, since more banks have equity stakes in continental countries, borrowers from these countries are expected to pay lower spreads.

Furthermore, the greater proximity of bank lenders allows them to obtain privileged information on the quality of borrowers and to monitor management, so that borrowers from countries with continental governance systems are expected to bear lower financing costs of debt, and pay lower spreads. However, if lenders are expected to use their informational advantage to extract rents, borrowers from countries with continental governance systems are expected to pay higher interest rate spreads than those from anglo-saxon countries.

In addition, Sufi (2007) evidence that in borrowers with higher information asymmetry the lender is forced not only to retain a larger percentage of the loan and to form more concentrated syndicates, but also to maintain a closer relationship with the borrower. In this case, given the proximity, it is expected to demand lower spreads from borrowers with a continental governance system. However, Ivashina (2009) states that this increase in financing by a lower number of lenders can also increase the bank's exposure to credit risk (diversification effect), so that banks tend to demand higher spreads from borrowers with continental governance systems. Ivashina (2009) concludes that the information asymmetry prevails. Therefore, if the informational effect prevails over the diversification effect, borrowers from countries with a continental governance system are expected to get loans with lower spreads than those from countries with anglo-saxon governance systems. If, on the contrary, the diversification effect prevails, borrowers from continental countries are expected to pay higher spreads.

To sum up, we found no studies that specifically analyse the relevance of the governance system in the costs of debt for non-financial companies. However, given the characteristics of both types of system, it is possible that the greater involvement of banks in companies' governance typical of the continental system causes one of two effects. On the other hand, they may obtain more information and, in that way, be in a condition to supply financing at costs which do not include premia due to information asymmetry. On the other hand, they may use the power which comes with that role to supply credit to those companies at a higher cost than the market would. Assuming the information effect is more important than the expropriation effect, we expect companies from countries with continental systems to pay a lower interest rate spread than borrowers from the Anglo-Saxon governance system. However, if the relative positions of those effects are reversed, the opposite will result. Therefore, there are also reasons to believe that, borrowers from countries with different governance systems may bear different levels of costs of debt financing.

3. Database and Variables

3.1. Database

The data source for syndicated loans is Loan Pricing Corporation's Dealscan. We study loans between 2000 and 2012, when regulators intervened in the liquidity market trough July 2012 Mário Draghi speech known as "whatever it takes" in Europe and the 2013 "taper tantrum" in USA. The sample only covers non-financial companies with loan tranches qualified as "completed" or "closed". The final sample have 85.220 tranches, corresponding to 50.658 financing programs, of 25.511 borrowers from 122 countries.

We also use World Development Indicators from World Bank, Thomson Reuters Datastream and World Bank Financial Development and Structure Dataset (WBFDSD) to build countries' financial development and structure indicators. Beck *et al.* (2010) describe this last database in detail.

3.2. Summary of Loan Conditions per Country

Table I supplies a description of loan conditions in each of the 48 countries with the greater number of loans, which represent 98.8% of the total number of loans and 99.0% of the total loan amounts. Note that about 61% of loan tranches are of borrowers from the USA, which represent 55% of the total sample loan amount. Note, there are 40 countries with at least one hundred loans, which means the sample includes a wide range of countries with an important number of loans.

Insert Table I

This table allows us to see that the average costs of financing vary between a maximum of 361 basis points and a minimum 84 basis points. There is, therefore, a significant range between the average financing costs in different countries of sample, confirmed by the standard deviation. Therefore, Table I shows the great variability between the average characteristics of the financing conditions for different countries, which makes the sample particularly adequate to the purpose of this study.

3.3. Groups of Countries and Summary of Conditions per Group of Countries

3.3.1. Classification of Countries

The classification of countries according to the type of financial system follows the methodology used by Demirgüç-Kunt and Levine (2001), Beck and Levine (2002) and Levine (2002). The higher the value of the Structure-aggregate indicator, the closer we are to the prototypical market-based financial system. Regarding the type of governance system, countries were divided into Anglo-Saxon governance systems, continental governance systems, or other type of predominant governance system, based in Schmidt and Tyrrel (1997), Ash (2006) and Sapir (2006). In total, 6 countries (USA, Canada, UK, Australia, Ireland, New Zealand), representing 70.8% of loans, are considered as having an Anglo-Saxon governance system, 19 countries (Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Italy, Japan, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland), representing 14.7% of loans, were considered as having a continental governance system, and the remaining countries, representing 14.5% of loans, were included in the residual category "others".

3.3.2. Summary of Conditions According to Countries' Classifications

Panel A of Table II shows that, on average, borrowers from countries with a bank-based financial system negotiate loans with lower spreads, higher average amounts and longer maturities, bear less covenants and issue comparatively less senior debt. On the other hand, they frequently need to put up collateral. They are, furthermore, borrowers that present, on average, a lower level of risk than borrowers from market-based financial systems. This is mostly due to the fact that market-based countries have a much higher proportion of junk grade loans than other countries. Therefore, the more favourable interest rate spread conditions may result from a higher average level of rating. This preliminary analysis indicates that there are differences in financing conditions for borrowers from bank-based financial systems, when compared to borrowers from market-based financial systems.

About the governance system, we observe from Panel B of Table II that borrowers from countries with a continental governance system borrow with better conditions relatively to borrowers from countries with Anglo-Saxon governance systems. In effect, these borrowers pay higher spreads, get loans with shorter maturities, lower amounts and bear more restrictive covenants.

Insert Table II

We also investigate whether rating is enough to eliminate the effects of the type of financial and governance systems. In an unreported table we find that, for any of the rating categories (*investment grade, junk grade* and *unrated*), borrowers from countries with a market-based financial system pay a higher spread than those from countries with a bank-based financial system and that borrowers from countries with an Anglo-Saxon governance system bear higher spreads than those from countries with continental governance systems. In summary, borrower financing conditions do not depend only on the level of risk as reflected in ratings, but also differs according to the borrower's country.

4. The Impact of the Countries' Classification on the Spread

To assess the impact of financial and governance system in loan costs we build a model which relies on the specification of Carey and Nini (2007), where the dependent variable is the loan

cost (*Spread*)[1], and we control for the variables related to the characteristics of the loan, borrower (especially those relating to risk), banks and macroeconmic factors. We use OLS method corrected for heteroscedasticity using White test. Bharath *et al.* (2011), Lin *et al.* (2011) and Ferreira and Matos (2012) also used this estimation method. Variables are described in Appendix I.

4.1. Type of Financial System

We investigate whether there is a difference between financing costs for borrowers from countries with market-based financial systems and the ones from countries with bank-based financial systems. The regressions in Panel A of Table III show that the full sample, and using only a part of it depending on the loan's rating (i.e. calculating separate regressions for loans rated *Investment Grade*, *Junk Grade* and *Unrated*), it is clear that the closer to market-based the financial system of the country, the higher the spreads paid by borrowers on debt financing. In Panel B, instead of the Structure-Aggregate indicator we use the «Market» dummy variable and conclude that borrowers from countries with market-based financial systems pay more for syndicated bank loans than those from bank-based financial systems.

This result is consistent with the literature that refers that, in a bank-based financial system lenders obtain more information about borrowers and their investment projects and can better evaluate the loans they request, meaning they are more efficient in monitoring them. In this context, in case the financial system is more bank-based, spreads paid by borrowers are lower, due to banks' informational advantages comparatively to market agents in monitoring borrowers which come with *relationship lending* (Petersen and Rajan, 1994; and Berger and Udell, 1995).

Once control variables tend to present the expected signs and will, from now on, not be the object of particular attention, since the focus of this paper lies in the variables related to the types of financial system and corporate governance.

However, Demirgüç-Kunt and Levine (2001) identify countries that, although they were classified as having bank-based financial systems, still present banking industry development indicators that fall below the average, as well as some countries that, despite being considered as having a market-based financial system, show levels of financial market development below average. This suggests the importance of analysing and controlling for the influence of country's level of financial development in financing costs. This task is performed next using the methodology proposed by Levine (2002) and Beck and Levine (2002).

To that effect, in Panel C of Table III we confirm the positive relationship between Structure-aggregate and spread and find that the countries' financial development (measured by the «Orthogonal Development» variable) has a negative impact on loan spreads.

Insert Table III

It seems evident that, regardless of whether a country's financial system is market- or bank-based, the most financially developed countries provide access to loans at more favourable rates. Only for *Junk Grade* borrowers the level of development of the financial system does not seem to be relevant in determining the spread.

Additionally, Panel D allow us to corroborate the previous findings. Hence, controlling for the effect of the type of financial system, the higher the level of the country's financial

development, the lower the spread, except for the highest risk borrowers from whom lenders demand higher spreads in countries with higher values for the variable Development.

In summary, these results make it clear that borrowers from countries with market-based financial systems are called to bear higher spreads than borrowers from countries with bank-based financial systems. This difference is partially mitigated in the case of countries with more developed financial systems, except in the case of junk grade borrowers, which suffer additional penalties in these countries.

4.2. Type of Corporate Governance System

Bearing in mind the positive informational effect, the extract rents hypothesis and the diversification effect, we analyse the differences between financing prices for borrowers in Anglo-Saxon governance countries and in Continental governance countries.

Panel A in Table IV shows that borrowers from countries with an Anglo-Saxon governance system bear higher spreads than those in the remaining countries. Panel B confirms that borrowers from countries with a Continental governance system bear lower spreads than the others. These results are valid for the full sample and for each rating-based sample. Given that Continental governance countries are mainly Western Europe countries and the main Anglo-Saxon country is the USA, the results seem to confirm those of Carey and Nini (2007) and Houston *et al.* (2012), that financing is cheaper in Europe than in USA.

Insert Table IV

Panel C.1 shows that even controlling for the type of financial system variables the coefficients signals of «Anglo-Saxon» and «Continental» variables are the same for all regressions, except for the «Continental» variable in *Junk Grade* subsample. However, the results in Panel C.2 allows to conclude the borrowers from continental governance system bear lower *spreads* than others, even when borrowers exhibit higher risk.

In fact, controlling for the type of financial system, borrowers from countries with an «Anglo-Saxon» governance system bear higher financing costs than all others. These results also corroborate the results of Table III, that market-based financial systems and their level of development are, respectively, positively and negatively related to spreads.

In Panel D.1 we add a dynamic analysis of the financial system with the governance system. On the one hand, in countries with an Anglo-Saxon governance system, the closer to market-based the financial system is, the higher the spreads paid by borrowers. On the other hand, in countries with a continental governance system, the closer to market-based the financial system is, the lower the spreads paid by borrowers. These effects remain in the Unrated subsample. In the remaining subsamples, when the type of governance system is continental, the type of financial system does not have a statistically significant effect on loan spreads, but the positive effect of the financial system remains when the governance system is anglo-saxon. In Panel C.2 and Panel D.2 there is also evidence that the coefficients for the anglo-saxon governance system are statistically higher than the coefficients for the continental governance system.

In summary, the results provide evidence that, ceteris paribus, borrowers from countries with an Anglo-saxon governance system pay higher spreads than those from countries with a Continental governance system.

4.3. The Inclusion of Loan Protection Clauses

Syndicated loans contracts also include clauses to ensure the loan's repayment to lenders. We analyse whether the spread is also affected by the inclusion of agreements which protect lenders, like collateral, covenants, guarantors and seniority. Therefore, if lenders are more protected, it is expected that they will be willing to lend with lower spreads. However, they are also aware that the opaquest borrowers, with higher information asymmetries, are probably those more willing to accept such clauses.

Because loan conditions are negotiated simultaneously (Dennis *et al.*, 2000; Santos and Winton, 2008), we face a problem of endogeneity between spread and non-price loan conditions (Dennis *et al.*, 2000; Hasan *et al.*, 2012). To deal with this we employ the two-stage least squares estimation method with the use of instrumental variables, as in Bharath *et al.* (2011) and Ferreira and Matos (2012).

Panel A of Table V allows to confirm the previous results about the financial and governance system. We also find that the higher the level of protection included in a loan contract (measured by «Protection» variable), the borrowers will be penalized with higher spreads. As such, protection appears to be complementary to spread, since both allow the perception of the risk associated to the loan and the borrower. However, for *Junk Grade* borrowers, lenders seem not to find relevant the number of guarantees they may obtain, namely because these guarantees may have a low value relatively to the credit and not allow a true protection. Panel A.3 evidence that the validity of endogeneity and the validity of instruments are verified.

Insert Table V

Among others, Sufi (2009) explains the importance of *rating* issued by international agencies on syndicated loans. The loan's rating has specific information on the loan's conditions which are not made available any other way. This seems to indicate that the level of rating and the characteristics of loans that are aimed at ensuring its repayment are substitutes. In this sense, in Panel B.1 we present the results without the rating variables. The previous results for the financial and governance system persist.

Summarizing, even controlling for lender protection contractual clauses, the type of financial system and the type of governance seems to be relevant in determining the spread.

4.4. Borrower's Financial Characteristics

For a loan contract it is ever important to consider the borrower´s financial characteristics. We use a subsample that includes near 10% of the initial sample, which focus on issuers that disclose financial information to the market and are, therefore, less opaque than the remaining borrowers.

Panel C of Table V shows that larger companies pay lower spreads, consistent with the results of Santos and Winton (2008) and Houston *et al.* (2012), probably as a reflection of their diversification capacity, access to capital market, greater ability to negotiate and economies of scale. Furthermore, in accordance to the idea that companies with less debt present lower risk levels, the results reveal that borrowers with higher debt levels pay higher spreads (in agreement with the theory represented by Dennis *et al.*, 2000). As for subsamples, this effect is only robust for unrated borrowers, in which the borrowers are directly monitored by lenders, with no intervention from rating agencies.

The higher the company's value (as measured by the market-to-book ratio), the lower the cost of financing, confirming the results of Santos and Winton (2008), since the value of the

company is positively associated with its ability to repay its debts. This variable is particularly relevant in companies with lower rating levels. The high operational return on assets is also associated with lower spreads. Companies with higher profits are able to demonstrate their ability to manage their commercial activity and, therefore, generate enough funds to repay the loan. Note that the results indicate that owning tangible collateralizable assets is not relevant to the determination of the spread, with the exception of borrowers with lower risk (*Investment Grade*) which are called to pay higher spreads.

As for the subsamples, for Investment Grade borrowers it is shown that those from countries with a market-based financial system pay higher spreads, while in the Junk Grade sample the type of financial system and development are irrelevant in explaining spreads. For unrated borrowers, the financial system basis is not relevant, but borrowers from more financially developed countries are able to negotiate lower spreads. Lenders seem to feel the need for a more careful analysis of the unrated borrower's financial status, as shown by the statistical significance of four of the five borrower financial variables. Hence the apparent result of a replacement effect between the level of rating and the financial characteristics of the borrowers, as indicated by Sufi (2009). The existing literature refers that these borrowers, given their opacity and lower access to the capital market, engage in closer relationships and permanent interaction with the lenders to minimise the information asymmetry problems, so we naturally find evidence that continental borrowers pay lower spreads.

In summary, focusing in the global sample with all the financial variables, it is noted that more than the market or bank-based system, the borrowers from more developed financial systems get loans with lower spreads. The results for the type of governance system confirm previous conclusions that borrowers from anglo-saxon countries pay higher spreads than borrowers from continental countries.

5. Conclusion

This research investigates whether borrowers from different countries (or, rather, countries with different characteristics) are, *ceteris paribus*, able to negotiate loans with different spreads. Based on the idea that spreads may be related not only to intrinsic borrower factors, but also with institutional factors associated to the borrower's country, the effect of the latter on the spread is analyzed by gathering the countries into homogenous groups relatively to certain institutional factors, namely the type of financial systems (and its level of development) and the type of governance system. We use a sample of 85,220 international syndicated loans granted to borrowers from 122 countries.

With this study we evidence, for the financial system, that borrowers from countries with bank-based financial systems pay lower interest rate spreads than those from countries with a market-based financial system. These results are consistent the idea that the bank-based system presents informational advantages, allowing the financial intermediaries to minimize problems related to information asymmetry. These results are also consistent with the notion that lenders are more efficient in monitoring borrowers from countries with bank-based financial systems, which help to limit discretionary management behaviour.

We also find support for the hypothesis that borrowers from countries with more developed financial systems pay lower spreads. This effect is consistent with the idea that more developed financial systems are better at solving agency problems and allow the decrease of transaction costs, as well as providing a greater range of financial services which, in turn, allow the use of debt capital at lower costs.

Regarding the governance system, we show that borrowers from countries with an anglo-saxon governance system pay higher spreads than those from countries with a continental governance

system. These results are also consistent with the theory that the greater proximity and long-term relationship between lenders and borrowers in continental governance countries minimize the information asymmetry problems and allow a more efficient monitoring by lenders. The results are also consistent with the literature that states that banks, in continental governance systems, obtain informational advantages through their equity stakes in the borrowers or through the appointment of a trusted member of the board, an advantage which results in lower financing costs.

The above evidence about financial and governance system remain equally relevant in determining spreads when analyzed together with protection clauses. We show that borrowers which offer a higher level of protection are also those which have to pay higher spreads, which may simply indicate that only borrowers with higher credit risk are willing to accept these clauses. This conclusion seems to indicate a complementary rather than a replacement effect between protection and spread.

In summary, our results are consistent with Carey and Nini (2007), Giannetti and Laeven (2012) and Houston *et al.* (2012), which show that loans are cheaper in Continental European countries, which suggests that the borrower's location is an important factor in the financial intermediation process. In reality, we show that the borrower's country's characteristics, namely the type of financial system, level of financial development and type of governance system, are relevant in determining financing costs.

The empirical study presents some limitations, like the lack of information on the ownership structure and governance bodies, which would allow to test the hypothesis that lower spreads result from "promiscuous" relationships between banks and borrowers. It seems important to analyze these privileged relationships between borrowers and lenders. In addition, it would be important to understand if borrowers from different type of systems borrow with similar spreads during this crisis periods.

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[1] To limit the influence of outliers, we winsorize the variable spread at 1% on the right and 5% on the left, as in Carey and Nini (2007) and Bharath *et al.* (2011).

Appendix I: Description of the variables

Variable	Description	Sources
Dependent Variable		
Spread	All-in-spread drawn.	Dealscan
Variables related to the type of financial system and governance system		
Structure-Aggregate	Country's financial structure indicator, which is the first principal component that results from the aggregation of three indicators: Structure-activity, Structure-size and Structure-efficiency.	WBFDSD, Author Calculations.
Market	Dummy =1 to identify borrowers from countries considered as having a market-based financial system.	WBFDSD, Author Calculations.
Orthogonal Development	Country's financial development.	WBFDSD, Author Calculations.
Development	Dummy =1 to identify borrowers from countries more financially developed.	WBFDSD, Author Calculations.
Anglo-Saxon	Dummy =1 for countries with an Anglo-Saxon type of corporate governance system.	Schmidt e Tyrrel (1997); Ash (2006); Sapir (2006).
Continental	Dummy =1 for countries with a continental type of corporate governance system.	Schmidt e Tyrrel (1997); Ash (2006); Sapir (2006).
Control variables		
Rating"XX"	Dummy =1 if the tranche's rating is "XX", which consequently vary between 01 (the highest rating) and 14 (the lowest rating).	Dealscan. Author Calculations.
No Rating	Dummy =1 if the tranche wasn't rated by any of the international rating agencies.	Dealscan. Author Calculations.
Investment Grade	Dummy =1 if the hierarchy used in variables RATINGXX is between 01 and 07 .	Dealscan. Author Calculations.
Junk Grade	Dummy =1 if the tranche has a credit rating lower the variables RATINGXX is between 08 and 14.	Dealscan. Author Calculations.
Year 20XX	Dummy =1 if the tranche was issued in year 20XX.	Dealscan.
Amount	Logarithm of the dollars' amount of each tranche.	Dealscan.
Maturity	Maturity of the tranche, in months.	Dealscan.
Sponsors	Dummy =1 if the tranche benefits from the support of a sponsor.	Dealscan.
Same currency country	Dummy =1 if the loan's currency is the same as the one in the borrower's country.	Dealscan. Author Calculations.
Number members syndicate	Total number of members of the bank syndicate.	Dealscan. Author Calculations.
Leader in country	Number of leaders from the same country as the borrower divided by the total number of leaders in the syndicate.	Dealscan. Author Calculations.
Banks same country	Number of members from the same country as the borrower over total number of members in the syndicate.	Dealscan. Author Calculations.
Previous Loans	Dummy =1 if the borrower has at least one previous loan relationship with the lender(s) during the three years prior current tranche.	Dealscan. Author Calculations.
Libor	Dummy =1 if the reference rate is LIBOR.	Dealscan.
Type "XX"	Dummy =1 if the tranche is type XX, which are classified into 7 types.	Dealscan.
Objective "XX"	Dummy =1 if the tranche's objective is XX, which are classified into 12 objectives.	Dealscan.
Segment "XX"	Dummy =1 if the tranche's market segment is XX, which are classified into 8 segments.	Dealscan.
Fees	Dummy =1 if it is known that the available spread for the dummy includes fees.	Dealscan.

Variable	Description	Sources
Government owned	Dummy =1 if the tranche is granted to a borrower fully owned by the State. Dealscan.	Dealscan.
Industry	Dummy =1 if the borrower is in industry X, which are classified into 28 industries. ***Source***: Dealscan.	Dealscan.
GDP	Logarithm of the borrower's country Gross Domestic Product.	World Development Indicators, World Bank.
***Rating* Country**	Credit rating of the borrower's country, on the closest date previous loan.	*Rating agencies*.

Table I: Loan conditions per country

Countries	N	*Spread*	Amount	Matu-rity	Colla-teral	Cove-nant	Senior	*Rating*	*Investment Grade*	*Junk Grade*	*No Rating*	Lenders	Leader Lenders
United States	52 404	267,9	240,2	48,1	0,4	0,4	1,00	BB-	11%	27%	62%	6,7	2,8
United Kingdom	3 984	253,6	376,0	78,6	0,4	0,1	0,93	BB	9%	10%	80%	10,5	5,6
Taiwan	3 746	103,4	76,6	60,5	0,5	0,4	1,00	BBB-	0%	0%	99%	14,9	4,1
France	2 813	218,9	376,3	76,7	0,5	0,0	0,95	BBB-	11%	5%	84%	12,6	6,6
Canada	2 088	248,9	344,3	44,7	0,5	0,2	0,99	BB	17%	29%	54%	7,8	3,3
Germany	1 974	253,4	585,7	74,2	0,5	0,0	0,94	BB	10%	16%	74%	13,4	7,6
Spain	1 934	186,4	324,4	87,6	0,4	0,0	0,97	BBB-	6%	3%	91%	13,8	7,2
Australia	1 508	148,0	266,2	76,5	0,2	0,1	0,98	BBB+	19%	1%	80%	12,7	5,3
Japan	1 355	97,6	209,1	38,9	0,1	0,0	0,99	BBB+	30%	6%	64%	7,8	2,0
Hong Kong	1 211	109,7	229,0	50,9	0,2	0,3	0,99	BBB	6%	1%	92%	17,4	7,8
Netherlands	1 169	248,2	406,7	71,3	0,4	0,1	0,94	BB-	7%	17%	76%	12,0	6,5
South Korea	1 128	134,1	118,9	63,6	0,2	0,0	0,98	BBB	4%	2%	95%	8,4	3,3
Italy	988	207,5	496,4	77,9	0,5	0,0	0,96	BB	8%	7%	85%	12,9	6,7
Singapore	669	134,9	218,6	54,8	0,3	0,2	0,99	BBB-	2%	3%	94%	12,9	5,9
India	617	360,9	227,3	89,2	0,2	0,1	0,99	BB	4%	5%	91%	13,6	5,0
China	524	155,0	155,2	59,5	0,3	0,2	0,99	BB-	0%	2%	98%	10,9	4,6
Mexico	446	189,2	326,2	54,2	0,1	0,1	1,00	BB+	18%	20%	62%	10,9	6,3
Russia	431	261,7	543,4	44,9	0,6	0,0	1,00	BB-	8%	38%	54%	14,3	8,0
Sweden	431	226,1	353,0	75,0	0,4	0,0	0,93	BBB-	16%	9%	74%	11,3	6,4
Switzerland	409	197,0	818,5	60,9	0,3	0,1	0,97	BB+	21%	10%	69%	17,8	10,2
Brazil	335	232,9	299,3	56,0	0,1	0,0	1,00	BB	11%	19%	70%	10,6	6,1
Belgium	273	231,2	589,1	71,4	0,4	0,0	0,96	BBB-	10%	8%	82%	13,0	8,0
Indonesia	244	348,1	139,3	59,5	0,2	0,1	0,98	BB-	0%	5%	95%	11,7	5,6
Malaysia	231	130,9	187,0	69,4	0,3	0,1	1,00	BB+	3%	1%	96%	10,3	5,1
Norway	228	203,3	281,7	76,1	0,5	0,0	0,95	BB	8%	7%	84%	9,4	5,0
Thailand	223	84,4	81,8	78,4	0,2	0,1	1,00	BBB	2%	0%	98%	8,0	3,6
Greece	207	161,1	192,0	75,3	0,4	0,1	0,97	BB	7%	13%	81%	7,3	3,7
United Arab Emirates	193	157,9	678,4	84,9	0,3	0,0	0,99	A	18%	3%	79%	14,0	8,5
Philippines	191	194,7	109,6	66,4	0,2	0,1	1,00	BB-	0%	8%	92%	12,1	5,4
Finland	186	176,2	445,4	67,3	0,3	0,0	0,96	BBB-	17%	7%	76%	11,8	7,9
Ireland	185	220,2	339,7	103,8	0,5	0,2	0,96	B+	5%	34%	61%	11,3	5,7
Luxembourg	180	268,3	526,7	64,9	0,4	0,1	0,96	BB	18%	30%	52%	13,7	8,3
Chile	160	127,5	238,0	68,1	0,1	0,0	1,00	BBB-	33%	8%	59%	9,9	6,1
New Zealand	152	142,2	259,1	50,5	0,2	0,1	1,00	BBB-	11%	7%	82%	7,9	3,0
Portugal	151	182,2	286,0	157,5	0,7	0,0	0,93	BBB+	13%	1%	87%	9,5	6,9
Denmark	147	246,1	521,9	71,4	0,4	0,0	0,90	BB-	12%	29%	59%	12,4	6,5
Bermudas	132	195,0	353,9	57,2	0,6	0,3	1,00	B+	9%	27%	64%	10,8	5,9
Poland	125	160,9	295,7	78,6	0,4	0,0	0,02	BBB-	15%	10%	74%	5,2	5,1
Turquey	114	248,3	283,2	65,9	0,4	0,0	0,97	BB-	5%	10%	85%	13,0	7,7
Argentina	106	327,1	172,4	44,9	0,2	0,1	1,00	B+	13%	34%	53%	9,6	5,7
South Africa	99	203,8	417,6	59,0	0,3	0,1	0,97	BB+	13%	1%	86%	14,7	10,3
Cayman Islands	90	160,6	459,7	53,6	0,2	0,4	0,97	BBB-	16%	7%	78%	13,3	4,9
Saudi Arabia	90	137,4	711,2	101,2	0,4	0,0	1,00	BBB	3%	2%	94%	15,9	10,0
Hungary	84	193,7	276,0	92,9	0,4	0,0	0,98	BB-	2%	12%	86%	12,6	7,5
Czech Republic	78	182,3	105,4	65,9	0,2	0,0	0,99	A-	6%	1%	92%	8,1	5,4
Qatar	72	103,7	718,1	140,7	0,4	0,0	0,99	A	21%	0%	79%	20,8	14,1
Virgin Islands	60	161,8	170,1	39,6	0,2	0,4	1,00	No rating	0%	0%	100%	14,7	5,3
Austria	59	213,2	437,3	78,4	0,3	0,1	0,93	BBB	15%	7%	78%	14,4	8,6
Others	996	253,8	183,9	66,5	0,4	0,0	1,0	BB+	0,0	0,1	0,9	9,5	4,5
Average	85 220	243,8	273,1	55,9	0,4	0,3	0,98	BBB	10,7%	20,0%	69,3%	8,8	3,9
Standard deviation	85 220	174,9	707,1	36,7	0,5	0,4	0,12		0,31	0,40	0,46	8,6	4,6

Table II: Conditions of loans per group of countries

Panel A - Types of Financial System

Panel A.1 - Levine Classification - Median (Classification Type I)

Countries	N	*Spread*	Amount	Matu-rity	Colla-teral	Cove-nant	Senior	*Rating*		*Investment Grade*	*Junk Grade*	*No Rating*	Lenders	Leader Lenders
Bank based	7 915	217,1	357,2	81,1	0,42	0,03	0,96	BB+		0,09	0,06	0,85	12,6	6,6
Market based	71 299	248,3	259,5	52,7	0,39	0,30	0,99	BB-		0,11	0,23	0,66	8,0	3,4
t test		***	***	***	***	***	***		***				***	***
Wilcoxon/Mann-Whitney		***	***	***	***	***	***		***				***	***

Panel A.2 - Actual Levine Classification - Median (Classification Type II)

Countries	N	*Spread*	Amount	Matu-rity	Colla-teral	Cove-nant	Senior	*Rating*		*Investment Grade*	*Junk Grade*	*No Rating*	Lenders	Leader Lenders
Bank based	4 706	228,9	466,1	76,9	0,43	0,04	0,95	BB		0,09	0,13	0,78	12,3	6,7
Market based	74 508	246,2	256,9	54,2	0,39	0,29	0,99	BB-		0,11	0,21	0,67	8,3	3,5
t test		***	***	***	***	***	***		***				***	***
Wilcoxon/Mann-Whitney		***	***	***	***	***	***		***				***	***

Panel A.3 - Authors Classification - Median (Classification Type III)

Countries	N	*Spread*	Amount	Matu-rity	Colla-teral	Cove-nant	Senior	*Rating*		*Investment Grade*	*Junk Grade*	*No Rating*	Lenders	Leader Lenders
Bank based	6 338	219,6	419,6	75,1	0,41	0,05	0,94	BB		0,08	0,12	0,80	12,0	6,5
Market based	78 392	241,6	256,4	54,4	0,39	0,28	0,99	BB-		0,11	0,21	0,68	8,5	3,7
t test		***	***	***	***	***	***		***				***	***
Wilcoxon/Mann-Whitney		***	***	***	***	***	***		***				***	***

Panel B - Types of Governance System

Countries	N	*Spread*	Amount	Matu-rity	Colla-teral	Cove-nant	Senior	*Rating*		*Investment Grade*	*Junk Grade*	*No Rating*	Lenders	Leader Lenders
Anglo-saxon	60 321	262,9	253,8	50,9	0,39	0,32	0,99	BB-		0,12	0,25	0,63	7,2	3,1
Continental	12 561	206,5	412,2	73,4	0,40	0,03	0,96	BB+		0,12	0,09	0,79	12,3	6,5
Others	12 338	160,7	195,7	63,0	0,34	0,19	0,98	BB+		0,05	0,05	0,90	13,0	5,4
Anova F-test		***	***	***	***	***	***		***				***	***
Kruskal–Wallis test		***	***	***	***	***	***		***				***	***
Anglo-saxon vs continental														
t test		***	***	***		***	***		***				***	***
Wilcoxon/Mann-Whitney		***	***	***		***	***		***				***	***

This table presents the average values for each of the variables relative to the main financing conditions per group of countries. Panel A classified countries according financial system types. Panel B classified countries grouped according to governance system. ***, ** and * indicate statistical significance at the 1%, 5% and 10% level, respectively, for bilateral tests.

Table III: The importance of the type and the level of financial system in financing costs

	Panel A				**Panel B**				**Panel C**				**Panel D**			
	All	***Investment Grade***	***Junk Grade***	***No Rating***	**All**	***Investment Grade***	***Junk Grade***	***No Rating***	**All**	***Investment Grade***	***Junk Grade***	***No Rating***	**All**	***Investment Grade***	***Junk Grade***	***No Rating***
C	-34,2 *	213,9 ***	358,9 ***	-2,8	-61,7 ***	167,6 ***	372,8 ***	-46,8 **	-116,0 ***	130,4 ***	343,5 ***	-84,6 ***	-133,2 ***	188,2 ***	426,5 ***	-100,6 ***
Structure-Aggregate	13,2 ***	12,3 ***	18,1 **	18,0 ***					20,8 ***	14,2 ***	18,0 **	27,9 ***	25,5 ***	15,0 ***	15,1 **	31,3 ***
Market					44,5 ***	30,9 ***	49,6 ***	47,9 ***								
Orthogonal development									-82,5 ***	-38,5 ***	-9,8	-89,0 ***				
Development													-87,6 ***	-14,1 **	29,7 *	-96,5 ***
Sponsors	25,6 ***	13,0	2,8	33,4 ***	26,4 ***	8,5	3,5	34,3 ***	25,4 ***	11,3	2,8	33,0 ***	25,9 ***	13,4	2,8	33,8 ***
Government owned	-23,1 ***	6,9	-31,1 **	-26,2 ***	-19,1 ***	11,6 **	-44,9 ***	-21,6 ***	-40,0 ***	-0,4	-33,7 **	-39,7 ***	-42,8 ***	4,0	-24,0	-45,7 ***
Amount	-8,6 ***	-4,9 ***	-12,6 ***	-6,0 ***	-8,5 ***	-4,5 ***	-12,2 ***	-6,2 ***	-8,8 ***	-5,4 ***	-12,6 ***	-6,3 ***	-8,8 ***	-4,9 ***	-12,6 ***	-6,4 ***
Maturity	0,1 ***	0,0	-0,1	0,1 ***	0,1 ***	0,0	-0,1	0,1 ***	0,1 ***	0,0	-0,1	0,1 ***	0,1 ***	0,0	-0,1	0,1 ***
Same currency country	-12,0 ***	0,3	-0,4	-12,8 ***	-12,2 ***	0,9	4,5	-14,7 ***	-5,2 **	3,0	0,1	-5,2 **	-7,4 ***	0,9	-1,3	-7,3 ***
Fees included	26,8 ***	-2,1 *	31,0 ***	20,8 ***	26,6 ***	-2,8 **	30,9 ***	21,2 ***	26,5 ***	-2,0 *	31,1 ***	20,0 ***	26,3 ***	-2,1 *	31,1 ***	19,7 ***
Previous Loans	0,1	-7,9 ***	-6,1 ***	3,8 ***	-0,1	-7,7 ***	-6,4 ***	3,4 ***	0,9	-7,5 ***	-6,0 ***	4,4 ***	0,6	-7,8 ***	-6,1 ***	4,3 ***
Number members syndicate	-1,0 ***	-0,1 ***	-0,9 ***	-1,5 ***	-0,9 ***	-0,1 **	-0,9 ***	-1,3 ***	-1,0 ***	-0,2 ***	-0,9 ***	-1,5 ***	-1,0 ***	-0,2 ***	-0,9 ***	-1,5 ***
Leader in country	-1,8	0,5	2,7	-2,7	-4,8 **	-3,7	1,8	-6,0 **	-2,8	-0,7	2,8	-3,9	-3,2	0,4	2,7	-4,9 *
Banks same country	-10,2 ***	-6,3	-19,5 ***	-5,9 **	-5,0 **	-2,0	-19,1 ***	0,8	-9,6 ***	-5,3	-19,4 ***	-5,7 *	-10,4 ***	-6,2	-19,6 ***	-6,4 **
Libor	-1,3	12,7 ***	-31,9 ***	-3,6 *	-12,1 ***	4,9	-45,3 ***	-14,5 ***	-3,5 **	12,4 ***	-32,0 ***	-6,0 ***	-5,8 ***	12,2 ***	-31,0 ***	-8,5 ***
Rating country	-4,2 ***	-1,2 *	6,1 ***	-6,7 ***	-5,6 ***	-2,9 ***	4,2 ***	-8,0 ***	3,4 ***	2,5 ***	7,2 ***	1,2 **	1,6 ***	-0,3	3,8 **	-0,5
GDP	9,3 ***	-4,6 ***	-7,7 **	10,9 ***	11,1 ***	-1,8 *	-7,0 **	13,2 ***	6,1 ***	-4,7 ***	-8,0 **	7,4 ***	10,9 ***	-4,1 ***	-9,1 ***	12,5 ***
Loan Rating	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tranche Type	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tranche Objective	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Segment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0,56	0,64	0,55	0,51	0,57	0,64	0,55	0,52	0,57	0,64	0,55	0,52	0,57	0,64	0,55	0,52
Adjusted R-squared	0,56	0,63	0,55	0,51	0,57	0,64	0,55	0,52	0,57	0,64	0,55	0,52	0,57	0,63	0,55	0,52
N - Observations	80 729	9 063	16 955	54 711	80 734	9 063	16 955	54 716	80 729	9 063	16 955	54 711	80 729	9 063	16 955	54 711

This table presents OLS regressions. The explained variable is the loan's spread. ***, ** and * indicate, respectively, 1%, 5% and 10% statistical significance.

Table IV: The importance of the governance system in financing costs

	Panel A				Panel B				Panel C.1				Panel D.1			
	All	***Investment Grade***	***Junk Grade***	***No Rating***	**All**	***Investment Grade***	***Junk Grade***	***No Rating***	**All**	***Investment Grade***	***Junk Grade***	***No Rating***	**All**	***Investment Grade***	***Junk Grade***	***No Rating***
C	147,9 ***	232,9 ***	386,6 ***	179,0 ***	-52,5 ***	102,6 ***	156,8 ***	-23,5	144,7 ***	179,6 ***	661,6 ***	152,5 ***	209,6 ***	207,5 ***	781,9 ***	209,3 ***
Structure-Aggregate									19,7 ***	7,2 **	20,4 ***	25,1 ***	16,8 ***	0,7	6,5	21,5 ***
Orthogonal development									-79,5 ***	-33,4 ***	-54,4 ***	-83,9 ***	-72,6 ***	-30,1 ***	-36,2 ***	-77,4 ***
Anglo-Saxon	69,6 ***	38,8 ***	84,3 ***	71,2 ***					58,1 ***	18,5 ***	137,4 ***	49,7 ***	32,6 ***	-0,8	79,6 ***	27,1 ***
Continental					-45,4 ***	-36,2 ***	-64,5 ***	-47,4 ***	-16,6 ***	-22,7 ***	50,4 ***	-26,9 ***	-3,6	-27,9 ***	53,5 ***	-17,4 ***
Anglo-Saxon * Structure-Aggregate													29,8 ***	22,2 **	66,6 ***	26,0 ***
Continental * Structure-Aggregate													-14,7 ***	7,7	-11,3	-10,1 *
Sponsors	26,4 ***	7,0	3,2	34,2 ***	26,3 ***	7,1	3,2	34,2 ***	26,0 ***	5,6	3,0	33,6 ***	25,9 ***	5,1	3,2	33,5 ***
Government owned	-26,2 ***	9,9 *	-16,4	-38,0 ***	-31,0 ***	6,7	-29,3 *	-40,7 ***	-34,2 ***	3,4	-24,9 *	-38,1 ***	-34,5 ***	3,2	-19,2	-39,9 ***
Amount	-8,4 ***	-4,6 ***	-11,9 ***	-6,0 ***	-8,3 ***	-4,4 ***	-12,0 ***	-5,8 ***	-8,7 ***	-5,0 ***	-12,0 ***	-6,4 ***	-8,7 ***	-5,0 ***	-11,8 ***	-6,3 ***
Maturity	0,0 **	0,0	-0,1	0,1 ***	0,1 ***	0,0	-0,1	0,1 ***	0,1 ***	0,0	-0,1	0,1 ***	0,1 ***	0,0	-0,1	0,1 ***
Same currency country	-15,5 ***	-3,0	2,9	-18,2 ***	-11,1 ***	-0,7	5,9	-12,6 ***	-9,8 ***	0,1	2,9	-11,4 ***	-11,4 ***	0,2	2,0	-12,8 ***
Fees included	26,2 ***	-2,9 **	29,8 ***	20,2 ***	26,0 ***	-3,3 ***	31,1 ***	20,8 ***	26,1 ***	-3,0 **	29,5 ***	19,3 ***	25,8 ***	-3,0 **	28,8 ***	19,3 ***
Previous Loans	0,3	-7,1 ***	-6,8 ***	3,8 ***	0,2	-7,3 ***	-6,5 ***	3,7 ***	0,9	-6,7 ***	-6,5 ***	4,2 ***	1,0	-6,7 ***	-6,3 ***	4,2 ***
Number members syndicate	-0,8 ***	0,0	-0,8 ***	-1,2 ***	-0,9 ***	-0,1	-0,8 ***	-1,3 ***	-0,8 ***	0,0	-0,8 ***	-1,2 ***	-0,8 ***	0,0	-0,8 ***	-1,1 ***
Leader in country	-8,4 ***	-6,1 *	0,9	-9,9 ***	-5,2 **	-4,8	1,9	-6,4 **	-9,4 ***	-6,7 **	0,3	-10,8 ***	-9,5 ***	-6,6 **	0,1	-10,9 ***
Banks same country	-5,3 **	-0,7	-19,1 ***	-0,4	-4,9 *	-0,8	-18,8 ***	0,5	-6,1 **	0,3	-19,3 ***	-1,5	-6,1 **	0,1	-19,6 ***	-1,5
Rating country	-7,2 ***	-3,6 ***	1,1	-9,3 ***	-2,7 ***	-0,4	7,2 ***	-4,9 ***	-1,9 ***	0,2	1,5	-3,5 ***	-2,3 ***	0,0	0,4	-3,8 ***
GDP	4,8 ***	-3,3 ***	-5,3 **	6,2 ***	9,9 ***	-0,3	0,3	11,4 ***	0,6	-4,1 ***	-17,8 ***	2,6 ***	-1,4	-4,9 ***	-20,8 ***	0,8
Libor	-20,9 ***	1,9	-54,4 ***	-23,1 ***	-13,9 ***	0,5	-49,3 ***	-15,8 ***	-22,7 ***	1,3	-55,9 ***	-25,6 ***	-24,8 ***	0,3	-60,4 ***	-27,4 ***
Rating	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tranche Type	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tranche Objective	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Segment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0,57	0,65	0,56	0,52	0,56	0,65	0,55	0,52	0,58	0,65	0,56	0,53	0,58	0,65	0,56	0,53
Adjusted R-squared	0,57	0,64	0,56	0,52	0,56	0,64	0,55	0,52	0,57	0,65	0,56	0,53	0,58	0,65	0,56	0,53
N - Observations	81 033	9 077	17 012	54 944	81 033	9 077	17 012	54 944	80 729	9 063	16 955	54 711	80 729	9 063	16 955	54 711
									Panel C.2				**Panel D.2**			
Anglo-Saxon vs Continental									35,9 ***	14,6 ***	11,7 ***	31,6 ***	7,3 ***	3,8 ***	1,9 *	7,6 ***
Anglo-Saxon * Structure-Aggregate vs Continental * Structure-Aggregate													8,4 ***	1,9 *	4,8 ***	5,8 ***

This table presents OLS regressions. The explained variable is the loan's spread. Panel C.2 and D.2 show Wald test to verify if the coefficients are statistically different from each other. ***, ** and * indicate, respectively, 1%, 5% and 10% statistical significance.

Table V: Loan Protection and financial characteristics

	Panel A.1				**Panel B.1**			**Panel C.1**			
	All	***Investment Grade***	***Junk Grade***	***No Rating***	**All**	***Investment Grade***	***Junk Grade***	**All**	***Investment Grade***	***Junk Grade***	***No Rating***
C	128,4 ***	183,4 ***	585,3 ***	119,2 ***	183,6 ***	233,4 ***	710,9 ***	130,1 **	301,8 ***	240,0	-44,7
Structure-Aggregate	22,6 ***	10,4 ***	21,7 ***	28,2 ***	24,6 ***	14,8 ***	29,4 ***	1,7	17,9 ***	-16,1	1,3
Orthogonal development	-79,0 ***	-32,1 ***	-61,0 ***	-83,2 ***	-81,4 ***	-41,8 ***	-71,9 ***	-37,0 ***	-32,8 ***	9,3	-84,6 ***
Anglo-Saxon	56,5 ***	23,2 ***	121,2 ***	48,2 ***	55,1 ***	25,8 ***	151,6 ***	16,7 *	30,9 **	55,7 ***	-22,4
Continental	-16,2 ***	-18,4 ***	31,4 *	-24,4 ***	-18,9 ***	-19,6 ***	54,1 ***	-37,6 ***	-4,8	1,9	-92,9 ***
Protection	5,5 ***	5,7 ***	-1,3	13,6 ***	8,9 ***	12,4 ***	0,5				
Sales								-5,9 ***	-1,5 **	-3,1 *	-6,9 ***
Leverage								30,5 ***	-6,2	-1,3	50,7 ***
Tangibility								-1,0	16,8 ***	-12,2	-6,8
Market-to-book								-0,0 ***	-0,0	-0,0 ***	-0,2 *
Profitability								-98,2 ***	-34,6 ***	-108,0 ***	-81,8 ***
Loan variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Borrower variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lenders variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Loan Rating	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tranche Type	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tranche Objective	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Market Segment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0,58	0,66	0,56	0,53	0,57	0,62	0,54	0,69	0,72	0,61	0,67
Adjusted R-squared	0,58	0,65	0,56	0,53	0,57	0,62	0,54	0,68	0,71	0,59	0,65
N - Observations	76 516	8 961	16 544	51 011	76 516	8 961	16 544	8 356	3 593	2 328	2 435
	Panel A.2				**Panel B.2**			**Panel C.2**			
Anglo-Saxon vs Continental	34,4 ***	14,9 ***	11,8 ***	29,4 ***	34,6 ***	15,7 ***	12,4 ***	54,3 ***	35,7 ***	53,7 ***	70,5 ***
	Panel A.3				**Panel B.3**						
Endogeneity test											
- Durbin-Wu-Hausman test	132,24	4,05	0,55	261,51	175,09	25,41	0,04				
- p-value	0,00	0,04	0,46	0,00	0,00	0,00	0,84				
Sargan test of overidentifying restrictions											
- LM est	241,19	42,50	31,15	181,73	259,30	41,37	29,49				
- p-value	0,00	0,00	0,00	0,00	0,00	0,00	0,00				
Hansen. J statistic	240,89	42,08	30,99	181,43	259,02	40,99	29,34				
- p-value	***	***	***	***	***	***	***				

This table presents regressions for the explained variable loan's spread. The results for the 2SLS estimation with instrumental variables are presented in Panel A.1 and B.1. OLS estimation results are in Panel C.1. Panel A.2, B.2 and C2 show Wald test to verify if the coefficients are statistically different. Panel A.3 and B.3 present the endogeneity and validation tests of the instruments. ***, ** and * indicate, respectively, 1%, 5% and 10% statistical significance.