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POLITICAL INSTITUTIONS AND SOVEREIGN
CREDIT SPREADS

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Abstract

Using a large sample of 35 developing countries for the period 1993–2009, we provide strong robust evidence that political characteristics of the government and more generally the political institutions in place play a significant role in explaining sovereign spreads. In particular, we find that unconstrained presidential systems increase spreads, while political stability and higher competition for political contest decrease spreads. In addition, political cohesion (political fragmentation) depresses (increases) spreads. Instead, political orientation is insignificantly related to spreads although nationalist governments seem to increase them.

ملخص

باستخدام عينة كبيرة من 35 بلدا ناميا للفترة من 1993-2009 ، نقدم أدلة قوية على أن الخصائص السياسية للحكومة وبوجه أعم المؤسسات السياسية تلعب دورا هاما في تفسير وسائل نشر السيادة. و على وجه الخصوص ، نجد أن الأنظمة الرئاسية غير المقيدة تزيد الإنتشار في حين أن الاستقرار السياسي والتنافسية العالية على التباري السياسي تقلل من الإنتشار. بالإضافة إلى ذلك ، فإن التماسك السياسي (التشردم السياسي) يقلل (يزيد) الإنتشار. عوضا عن ذلك ، يرتبط التوجه السياسي معنويا بالإنتشار ، على الرغم من أنه يبدو أن الحكومات القومية تزيدها.

1. Introduction

The assessment of sovereign credit risk is typically reflected in sovereign spreads. Yield spreads represent the risk premium on sovereign debt required by international investors as a compensation for sovereign (or default) risk—the possibility that borrowing countries will be unable to meet their debt payments¹. These sovereign spreads are important indicators of financial fragility, and are used as a measure of the markets' perception of the risk that the country might default². In this context, changes in market spreads reflect changes in the underlying macro fundamentals, leading investors to reassess their evaluation of the country's creditworthiness.

Sovereign spreads are influenced by a large number of factors: in his seminal work, Edwards (1984) identifies external debt, debt service, current account balance, international reserves and the investment ratio as key determinants of sovereign spreads. Subsequent empirical studies portray sovereign default as driven by financial and economic fundamentals with little emphasis on political factors³. Notable recent contributions include Block and Vaaler (2004, 2006) who examine the political business cycle and its relevance to emerging countries, and find that rating agencies and market participants tend to penalize emerging countries during election years by downgrading their credit rating and increasing their sovereign bond spreads, respectively. A more recent study by Boubakri et al. (2009) also shows how the impact of privatization as a politically driven reform affects sovereign spreads⁴.

This paper extends this strand of literature by directly assessing the impact of political factors on sovereign spreads. Financial markets have always recognized the difficulties of assessing sovereign credit risk but never before has this been more acutely felt as recently with the subprime crisis that broke in 2007. Three top rating agencies (Fitch, Moody's and S&P) were among the first groups to take the blame (*The Economist*, March 4, 2010). From the subprime crisis, investor attention has progressively shifted to sovereign risk, as a wave of sovereign downgrades seemed to overturn the continuous upgrades observed every year between 1999 and 2007⁵.

Recognizing the importance of bringing insights into the determinants of sovereign credit risk, we undertake the task in this paper to examine the political economy of sovereign spreads. Few studies—cited above—have put forward the hypothesis that political risk affects sovereign risk or sovereign default (Block and Vaaler (2006), Haque et al. (1996), Citron and Nickelsburg (1987), among others), but their assessment of political risk rests on one isolated aspect of political institutions, either political stability (i.e., wars and conflicts...), or party orientation change (around elections)⁶.

¹ This premium is measured as the difference between the yield on an emerging market (EM here after) bond and the yield on a bond of similar characteristics, but considered to be virtually free of default risk (typically a US Treasury security).

² Interestingly, and unlike corporations, there is no international legal framework or insolvency legislation for countries. Hence, a country does not have to fear any legal consequences after a sovereign default. Only capital markets can 'punish' sovereigns, which defaulted earlier in their history, by demanding higher risk premium (e.g. yield spreads) when buying government bonds. This phenomenon has empirically been proven in recent literature showing that default history has reputational consequences and matters in explaining yield spreads.

³ Eichengreen and Mody (1998) analyze nearly 1,000 developing-country bonds issued between 1991 and 1996 and show that higher credit quality translates into a higher probability of bond issuance and a lower credit spread. Importantly, however, they find that observed changes in fundamentals explain only a fraction of the spread reduction in the period leading up to the crisis in emerging markets at that time. Few scholars have considered the explicit impact of political factors, in addition to financial and economic fundamentals, when studying sovereign risk.

⁴ Earlier empirical studies by Citron and Nickelsburg (1987), Balkan (1992), Rivoli and Brewer (1997) and Peter (2002) find evidence of the importance of political risk in studying sovereign debt and default issues. They find a significant relationship between the probability of default and the level of political instability, thus pointing out political risk as an important component of a country's creditworthiness.

⁵ Sovereign risk ratings published by the three top agencies play a critical role in conditioning the cost and availability of capital for lending and investment in developing countries. Agencies facilitate credit transactions for borrowers by publishing letter grade ratings, commonly relied on by capital market participants to assess both the specific capability and willingness of governments to honor their debts.

⁶ According to the Fitch website, "the key risk for sovereign borrowers is war or the imminence of war, as the defaults of Russia in 1917 or Japan in 1941 show. For most countries, war risks are thankfully negligible. Some sovereign borrowers recognize the existence of an

In this paper, we ground our approach in the political constraints and accountability of the government to derive our empirical strategy. We argue that sovereign risk depends on the political institutions that prevail in the country for several reasons: **First**, policy volatility and uncertainty (i.e., policy risk) create a high potential for policy reversals which are more likely to occur with political instability. The country's political institutions being related to political stability affect the constancy of the legal system, and the overall country's macroeconomic stability (Rajan and Zingales 2003; Roe and Siegel 2008), hence sovereign spreads. In addition, given existing evidence that the legal system affects sovereign spreads (Ciocchini et al. 2003; Butler and Fauver 2006), which is itself affected by political stability, one would expect a potential direct effect between this latter and sovereign spreads. **Second**, we conjecture that political orientation may affect sovereign spreads. Indeed, while right-wing politicians for instance are market-oriented and favor the interests of the business elites, thus working on securing property rights, left-wing governments are more socially oriented and promote the interests of the less favored groups such as labor union workers, etc... The reforms implemented by the former are thus more likely to engender more secure property rights, suggesting lower sovereign spreads for right-wing governments. **Third**, under a competitive political system with high political constraints, more electoral competitiveness, a higher number of veto players in the polity, and effective checks and balances, governments' accountability to their core constituencies is higher, and policies are more likely to promote market-oriented reforms, and more "investor-friendly" environments. A corollary is that sovereign spreads should be lower with more constraints and competitiveness in the political system. **Fourth**, political institutions also affect the probability of government expropriation or contract repudiation if checks and balances are not effective and political constraints are weak. Under these conditions, the extent of corruption as well as the likelihood of government expropriation and diversion of resources increase leading to higher sovereign spreads. **Finally**, as sovereign spreads incorporate an ex ante view of the risks and returns associated with the borrower, we argue that better political constraints reduce political uncertainty (which is related to business cycle fluctuations) and lead to lower spreads on sovereign bonds.

Using a large sample of 35 developing countries for the period 1993–2009, we provide strong robust evidence that political characteristics of the government, and more generally the political institutions in place play a significant role in explaining sovereign spreads. In particular we find that unconstrained presidential systems increase spreads, while political stability decrease spreads. Political cohesion (fragmentation) depresses (increases) spreads. Political orientation is insignificantly related to spreads although nationalist governments seem to increase them. Finally, investors require a lower spread when there is more competitiveness in elections.

Our results suggest that political institutions have a significant impact on spreads, even after controlling for macroeconomic variables, legal institutions, crises, and after considering the endogeneity of ratings. Improving political institutions in a country could thus contribute to improve the country's access to international bond markets at a lower cost of credit, and could ultimately contribute to the stability of international credit markets as policy risk is priced.

external threat by spending a substantial share of national income on defense. However sound the economic and liquidity ratios may be, war risk is enough on its own sharply to reduce a country's credit rating."

According to S&P, the key economic and political risks that Standard & Poor's considers when rating sovereign debt include: How political institutions and trends in the country, including public security and geopolitical concerns, affect the predictability and sustainability of government policies over time.

The rest of the paper is organized as follows. In section II we discuss our hypotheses. In section III we describe our methodology and variables. Section IV discusses the empirical results and section V concludes.

2. Hypotheses and Discussion

Emerging market economies (and more recently even developed countries such as Greece and Ireland in 2009 and 2010 respectively) have experienced several episodes of sovereign financial crises (e.g., Russia 1998, Ecuador 1999, Ukraine 2000, Argentina 2002). Higher sovereign interest rate spread levels and volatility are associated with higher political risk in these countries, suggesting that political factors can help understand the behavior of their sovereign credit risk spreads.

The earlier empirical literature provides evidence that there is a link between political variables and sovereign risk. For instance Citron and Nickelsburg (1987) find that political instability is an important determinant of the probability of default. However, they only consider one dimension of the political environment, political stability, which they measure by the number of changes of government over a five-year period. Brewer and Rivoli (1990) and Rivoli and Brewer (1997) later confirm these results by using regime instability, which they proxy by the changes in the heads of government. Using a political instability index, Balkan (1992) shows that it is a strong determinant of default probability. Although the author calls it a political instability index, it actually rests on social instability (riots, assassinations, strikes, demonstrations). Moser (2006) later finds that political instability is positively related to sovereign bond spreads. Assessing stability through the tenure of the executive, Van Rijckeghem and Weder (2004) document a negative relation between the probability of default and tenure. Recent studies by Block and Vaaler (2004, 2005, 2006) provide additional evidence by examining the impact of developing country electoral politics on sovereign ratings and spreads respectively, in a political business cycle framework⁷. In Block and Vaaler (2006), the authors hypothesize that as right-wing parties tend to adopt more “investor-friendly” policies than left-wing parties, electoral transitions to the right-wing will be accompanied by upgrades while likely transitions to the left-wing will be penalized by downgrades, that ratings are downgraded around elections provides support to the conjecture that political stability is an important determinant. They also find that the switch of government orientation from left wing to right wing leads to upgrades in sovereign ratings. Their results confirm this conjecture as rating agency assessments of sovereign risk are found to be more favorable with right-wing incumbents who favor lower inflation, and implement more investor-friendly policies, all of which decrease the likelihood of default. Assessments of sovereign risk are found instead to be less favorable with left-wing incumbents whose policy preferences including higher inflation tend to be less investor-friendly thus increasing the likelihood of default.

While these studies show the importance of political institutions to the probability of default by focusing primarily on political instability, we adopt a different more comprehensive approach based on a wider specter of political characteristics of the institutions in place, including the accountability and political constraints on the government. Precisely, and based on Beck et al. (2000) classification of political institutions, we posit that a more competitive electoral process will require more accountability from the government which will then favor public policies that are collectively beneficial to remain in office. Less policy uncertainty will result in such case leading in turn to less policy risk. Additionally, political mechanisms that increase political accountability, by punishing corrupt individuals or by increasing the

⁷ In doing so, they follow the original framework laid out by Nordhaus (1975) and Hibbs (1977) who model interactions between domestic political incumbents and voters.

competitiveness of the political process, will decrease policy risk related to expropriation and diversion of resources as corruption is decreased. Finally, partisan models developed by Persson et al. (2000) show that the ideological orientation of different governments condition economic policies and outcomes. For instance, as discussed in Alesina and Sachs (1988) among others, right-wing policies include controlling inflation, reducing the role of the state, decreasing government's expenditures on social services such as unemployment insurance, health, housing, favoring investor interests and property rights, and favoring lower taxes, while left-wing policies include higher employment, and favor labor unions and less favored worker interests, by striving to reduce unemployment. They are also more likely to increase the role of the state and regulation. As such, policy risk related to political uncertainty is likely to be higher under left-wing governments thus affecting sovereign creditworthiness.

In what follows, we develop our hypotheses by considering four aspects that characterize the political institutions in place, as in Beck et al. (2000), namely the political system, political orientation, political stability and political cohesion.

A. Political system

A political system is generally characterized by (a) the relationship between the executive and legislative branches and (b) the competitiveness of elections of the political actors who occupy them. The system is presidential when there is a single executive elected by popular vote. In such a system, the president enjoys a large degree of independence from the legislature, which allows him to structure (shape) the economic orientation of the country. Policy decisions that are likely to lead to a change in formal institutions are usually taken at both the legislative and executive levels.

A greater competitiveness in contests for political office will condition any policy choice. According to Beck et al. (2000, p. 6), when politicians are faced with the prospect of more competitive elections, "they might be more sensitive to redistributive concerns and less likely to reform. However, politicians who feel few competitive pressures to reform may be more likely to engage in policies that benefit them and their core supporters at the expense of the rest of society." *Based on the above, we expect a positive relationship between presidential system and sovereign spreads, and a negative association between electoral competitiveness and sovereign spreads.*

B. Political orientation

This categorization refers to preferences regarding greater or less state control of the economy: right-wing governments tend to support private entrepreneurship while left-wing governments, as discussed above, tend to stress the redistributive role of the government. Additionally, right-wing policies include controlling inflation, reducing the role of the state, decreasing government's expenditures for social services favoring investor interests and property rights, and favoring lower taxes, while left-wing policies include higher employment, and favor less favored constituencies, such as workers. They are also more likely to increase the role of the state and overall regulation. We thus draw the following hypothesis: *Right-wing (left-wing) ideology is expected to be negatively (positively) related to sovereign spreads.*

C. Political stability

Political stability and political tenure are important determinants of the decision making process since the policy horizons of government officials and decision makers are limited to their time in office: The shorter the horizon, the more likely they will take actions that yield short-run benefits but significant long-run costs.

Rivoli and Brewer (1997), as well as Balkan (1992) and more recently Moser (2006), find that political stability is related to sovereign spreads. We thus expect that: *Political stability should have a negative impact on Sovereign Spreads.*

D. Political cohesion

Veto players are the decision makers whose agreement is necessary before policies can be changed. Several authors indeed sustain that the existence of political veto-players restricts the full use of a government's discretionary power and forces consensus-building and reciprocal disciplining (Persson et al. 1997, North and Weingast 1989, Keefer and Knack 1997). Thus, the division of power often means policy gridlocks, making reforms less feasible (Cox and McCubbins 2001). However, one can also argue that the division of power may put more constraints on the government, thus increasing its credibility by subjecting it to the monitoring of both the decision makers and the veto players. We thus expect that: *Political cohesion (proxied with Allhouse and Majority, all described below) is negatively related to sovereign spreads.*

3. Variables, Data and Methodology

In this section, we describe our measures of key variables, the data sample, and the methodology used in our analysis.

A. Description of variables

A.1 Sovereign bond spreads

The dependent variable in our study is sovereign bond spreads. To measure sovereign spreads, we use the log of the secondary spreads on the J. P. Morgan Emerging Markets Bond Index Global (EMBIG). The EMBIG tracks total returns for traded external debt instruments issued by emerging market sovereign and quasi-sovereign entities, including U.S. dollar-denominated Brady bonds, loans, and Eurobonds, all with an outstanding face value of at least \$500 million.

The countries composing the index must be classified by the World Bank as low or middle per capita income countries during at least one of the last three years. Moreover, are included in the index all emerging countries that have restructured their debt over the past ten years, whatever their *World Bank*-defined income level.

The sovereign spread is equal to the log of the market-capitalization-weighted average of the spreads of all bonds issued by the emerging country. Sovereign spreads are available since 1993, covering 35 emerging countries in 2009.

A. 2 Sovereign ratings

To measure sovereign ratings, we use country credit ratings provided by the *Institutional Investor Review*. These ratings are published twice a year, in March and September, by the *Institutional Investor Review*, covering more than 177 countries, and available since 1979. We use the annual average of the March and September ratings.

Cantor and Packer (1996) and Baek et al. (2005) note that sovereign credit ratings are negatively related to sovereign spreads, and capture all the information embedded in the country's macroeconomic variables. Hence, we use sovereign credit ratings to capture the macroeconomic performance of emerging countries. The existing literature suggests an endogeneity of ratings in spreads. We tackle this issue later in our analysis.

A. 3 Political system

The country's political system is measured by two variables: (1) Presidential System: a dummy variable that is equal to 1 if the political system is presidential and 0 otherwise⁸; (2) Electoral Competitiveness: Executive (Legislative) index of electoral competitiveness. The higher the political pressures through higher competitiveness in contests for political office and the higher the likelihood of reforms that benefit the whole society. The index ranges from one (low competitiveness) to seven (high competitiveness) (DPI 2009).

Based on the above, we expect a positive relation between Presidential System and Sovereign Spreads, and a negative association between Electoral Competitiveness (executive or legislative) and Sovereign Spreads.

A.4 Political orientation

We measure the policy preferences and ideological leanings of decision-makers using two variables: (i) Right: a dummy variable that is equal to 1 if the executive is right-wing oriented and 0 otherwise; (ii) Nationalist: a dummy variable that is equal to 1 if the primary component of the party's platform is to defend or create an ethnic or national identity and 0 otherwise. These two variables are expected to be positively related to Sovereign Spreads.

A. 5 Political stability

We measure the political stability of a country with two variables: (1) Partyin: the number of years the party of the Chief Executive has been in office (2) Number of Years in Office: measures the number of years the chief executive has been in office. Partyin and Number of Years in Office are expected to have a negative impact on Sovereign Spreads.

A.6 Political cohesion

To measure the political cohesion of a country, we rely on the following variables: (1) Allhouse: a dummy variable equals to 1 if the party of the executive has an absolute majority in the houses that have law-making powers and 0 otherwise; (2) Majority: measures the fraction of seats held by the government. We expect All house and Majority to be negatively related to Sovereign Spreads.

A.7 Legal institutions

We use an index of Property Rights as our primary variable to measure a country's overall institutional environment. This index published by Heritage Foundation (2010) is an assessment of "the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state. It measures the degree to which a country's laws protect private property rights and the degree to which its government enforces those laws. It also assesses the likelihood that private property will be expropriated and analyzes the independence of the judiciary, the existence of corruption within the judiciary, and the ability of individuals and businesses to enforce contracts..." (Heritage Foundation 2010).

We expect a negative relation between our measure of legal institutions and emerging market sovereign bond spreads, since investors would require lower sovereign spreads on bonds issued by emerging countries that possess well developed institutional environments (Ciocchini et al. 2003; Butler and Fauver 2006).

A.8 Financial crisis

The financial crises⁹ that hit emerging countries in the last two decades were accompanied by major increases in emerging countries' bond spreads.

⁸ Versus parliamentary or assembly-elected president.

⁹ Notably the Mexican crisis of 1995, the Asian crisis of 1997, the Russian crisis of 1998, the Ecuadorian crisis of 1999, the Argentinian crisis of 2002, and the recent global financial crisis of 2008–2009.

We introduce a dummy variable (Crisis) that is equal to one in a period of crisis and zero otherwise to account for the effect of financial crises on emerging countries' bond spreads. We expect a positive relation between Crisis and Sovereign Spreads.

A.9 Liquidity and economic conditions

We control for global liquidity by using the logarithm of the 3-month yield on US Treasury bonds (R3). Low interest rates in the US should be associated with a high demand for emerging market sovereign bonds, and therefore lower sovereign bond spreads since investors are attracted by higher yields in emerging countries (Kamin and Kleist 1999; Sy 2002).

A.10 Global risk appetite

Sy (2002) notes that global risk appetite (GRA) of international investors may be a major determinant of emerging market sovereign bond spreads. To account for the potential effect of the global risk appetite on the spreads, we use the logarithm of the spreads of the Merrill Lynch index of U.S. high-yield bonds over U.S. Treasury securities. During periods of high risk appetite (i.e., lower spreads of U.S. high-yield bonds over U.S. Treasury securities), we expect a higher demand for high-risk debt securities and lower emerging market sovereign bond spreads.

B. Data sample

We compile bond spreads, political and institutional variables, as well as country macroeconomic indicators from a wide range of sources. The Secondary Spreads on the JP Morgan's EMBIG index and the Merrill Lynch index of US high yield bonds are collected from Bloomberg (2010). The majority of the political indicators used in our analysis are drawn from the Database of Political Institutions (DPI 2009). The Index of Property Rights is gathered from Heritage Foundation (2010). The Sovereign Credit Ratings are drawn from different issues of the *Institutional Investor Review*. The 3-month yields on US Treasury bonds are drawn from *DataStream*.

Our sample consists of 35 emerging countries over the period 1993 to 2009. We report in table 1 the definitions of the variables as well as their sources.

C. Methodology

To test our hypotheses on the impact of political and institutional variables on emerging market sovereign bond spreads, we estimate the following time-series cross-sectional equation:¹⁰

$$\text{Log}(\text{Spread}_{i,t}) = \alpha + \beta_1 \text{Predicted Ratings}_{i,t} + \beta_2 \text{Political Institutions}_{i,t} + \beta_3 \text{Legal Institutions}_{i,t} + \beta_4 \text{Crisis}_{i,t} + \beta_5 \text{GRA}_t + \beta_6 \text{R3}_t + \beta_7 (\text{Political Institutions}_{i,t} * \text{Legal Institutions}_{i,t}) + \mu_i + \varepsilon_{i,t} \quad (1)$$

where i is the country ($i=1, \dots, N$); t is the time indicator that is equal to the number of years ($t=1, \dots, T$); $\text{log}(\text{Spread}_{i,t})$ is the logarithm of the sovereign bond spread of country i at time t ; $\text{Predicted Ratings}_{i,t}$ represent predicted sovereign ratings whose prediction is based on macroeconomic indicators identified in the literature (e.g., Cantor and Packer 1996; Eichengreen and Mody 2000) (i.e., (1) Gross Domestic Product (GDP) per capita, (2) Reserves/GDP, (3) Inflation, and (4) External Debt/Exports); $\text{Political Institutions}_{i,t}$ represent one of the political indicators described above; $\text{Legal Institutions}_{i,t}$ are measured by the index of Property Rights; $\text{Crisis}_{i,t}$ is a dummy variable that is equal to one in period of crisis and zero otherwise; GRA_t is our measure of Global Risk Appetite; R3_t is the logarithm

¹⁰ This model follows the conventional model of country risk premia developed by Edwards (1984).

of the yield on 3-month US Treasury bonds; μ_i are unobserved individual effects; and $\varepsilon_{i,t}$ is a term of error.

Two features of the series of emerging market sovereign bond spreads are worth noting. First, we suspect the presence of cross-country contagion effect indicating that a country's higher sovereign bond spread following a financial crisis would lead to an increase in sovereign bond spreads of other emerging countries (Kaminsky and Schmukler 2002). Second, the higher volatility of emerging market bond spreads during crisis period is likely to cause a problem of heteroskedasticity (Boubakri et al. 2009).

To resolve these econometric issues, we estimate our model (1) using the Prais-Winston estimation technique which produces panel corrected standard error (PCSE) estimates for linear panel data models. When computing the standard errors and the variance-covariance estimates, the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels.

4. Empirical Results

In this section we analyze the results of the panel regressions estimated with the Prais-Winston procedure using an unbalanced panel data set consisting of 35 developing countries between 1993 and 2009. The list of countries along with the main control variables appear in table 2. Table 3 reports the descriptive statistics of the main dependent and independent variables used in the analysis¹¹.

Turning to our main hypotheses, we first test, in table 4, the impact of the political system on sovereign spreads. The control variables display significant coefficients with the predictive signs. More importantly for our purposes, we find that presidential systems are positively and significantly related to spreads. The other characteristic of the political system, competitiveness (as a proxy for political constraints and measured by EIEC) is negatively and significantly related to spreads, at the 1% level in two models (and 5% in model 4), as expected. These results suggest that investors require a higher spread when the system is presidential (lower constraints) and lower spreads when there is more competitiveness in elections. We also control for a potential non linear relation between competitiveness and spreads as too much competition may ultimately lead to gridlocks in decision making, which may lead investors to add a risk premium, thus increasing spreads. The coefficient of $EIEC^2$ being positive and significant suggests that this is indeed the case.

The results that appear in table 5 show that the coefficient of political orientation measured by Right is positive which runs against our hypothesis. However, it is not significant. When we measure political orientation by the nationalist orientation of the government, we find the coefficient to be positive and significant, suggesting that nationalist governments that generally are more inward and socially oriented exhibit higher spreads. The coefficient is significant at the 1% level. The remaining control variables display the expected signs although only predicted ratings and the crisis dummy are significant, suggesting that in periods of crisis, spreads are higher. Therefore, we partially confirm our hypothesis H2 that states that right-wing governments should display lower spreads reflecting lower policy risk compared to left-wing oriented governments.

Table 6 examines the impact of political stability on spreads, using two different proxies. The $partyin$ is negatively and significantly related to spreads (at the 1% level in models 2 and 3,

¹¹ In all our regressions, we control for the endogeneity of ratings by including in each model predicted ratings obtained from a first stage estimation. Specifically, and following previous studies (e.g., Boubakri et al. 2009), we regress the sovereign ratings on GDP per capita, the amount of reserves over GDP, the ratio of external debt to exports, inflation and current account deficit. We find the latter three variables to be negatively and significantly related to the sovereign ratings, while reserves to GDP and GDP per capita affect these ratings positively and significantly. Significance is at the 5% and 1% levels.

and at the 5% in model 1) suggesting that the stability of the party of the chief executive in power helps build credibility and decreases the likelihood of policy reversals, thus decreasing spreads. The number of years in office, our other proxy for the tenure of the executive, also confirms this result.

The crisis dummy and the global risk appetite variable are positively related to spreads and significant at the 1% level in all regressions.

Table 7 evaluates the impact of political cohesion (which helps the decision making process and the implementation of policies without gridlocks) on spreads. We find that political cohesion (either measured by Allhouse or Majority) is negatively and significantly related to spreads, thus confirming our conjecture. The crisis dummy and the predicted ratings are significant in all models.

A. Robustness checks

In this section, we present several robustness tests. Specifically, we use alternative measures for our dependent variables. We also consider another measure for legal institutions. Finally, we control for the endogeneity of sovereign ratings using the system GMM procedure of Blundell and Bond (1998).

In table 8, we report the regression that includes three aspects of the political institutions in place (system, cohesion, and stability) using alternative proxies. We keep our standard control variables (crisis, global appetite for risk, interest rates) and include predicted ratings. Using Assembly (equal to one if the president is elected by the parliament) as a proxy for the political system, leads to a negative and significant relation at the 1% level (see model 1), as expected. Also, using another measure for electoral competitiveness from DPI (2009), namely LEIC (legislative index of competitiveness in elections) confirms our previous findings using EIEC. In models 3 and 4, we introduce two alternative proxies for political stability using respectively Partyage, and political cohesion (Numopp), which is the number of seats held by opposition parties. Confirming our previous findings, Partyage loads negative and significant at the 1% level, while Numopp loads positive and significant at the 1% as well. In all regressions, predicted ratings are negatively and significantly related to spreads as expected, suggesting that higher ratings are associated to lower sovereign spreads.

As the literature remains mixed about the impact of legal institutions compared to political institutions (Glaeser and Shleifer 2002; Qi et al. 2010) we include in table 9 an equally weighted index (LEGAL) of different aspects of the legal environment, namely Law and Order, Corruption and Bureaucratic Quality. Along with LEGAL, we control for the political institutions individually. We find that LEGAL is weakly significant in three models out of eight, and insignificant in the remaining five models. However, the variables that proxy for political system and competitiveness, as well as political stability/tenure and cohesion keep their expected sign and level of significance (except for political orientation which still loads insignificant). This result suggests that political institutions seem to be substitutes to the legal environment institutions in determining sovereign spreads. Even after controlling for the endogeneity of sovereign ratings in our regressions and using the system GMM estimation procedure of Blundell and Bond (1998) (table 10), we still document a significant impact of political institutions on spreads, while the property rights index loads significantly only twice (once at the 1% level in model 2 and once at the 10% in model 7).

All in all, the evidence we report suggests that political constraints and institutions, except for political orientation, are key determinants of spreads. Our results also seem to point to a possible substitution effect between political and legal institutions.

5. Conclusion

Emerging market economies, and of late even developed countries such as Greece, have experienced several episodes of sovereign default (e.g. Russia 1998, Ecuador 1999, Ukraine 2000, Argentina 2002). Higher sovereign interest rate spread levels are associated with higher political risk in these countries, suggesting that political factors can help understand the dynamics of sovereign credit risk spreads.

In this paper, we examine this issue using an unbalanced panel dataset consisting of 35 developing countries between 1993 and 2009. Specifically, we consider the impact of the political system, political orientation, political stability and political cohesion on sovereign spreads. After controlling for the impact of crisis, global risk appetite, interest rates, and after including predicted ratings, we find support for our main hypotheses. Specifically, presidential systems with lower constraints and nationalist regimes contribute to increasing policy uncertainty and thus increase sovereign spreads. Higher political cohesion and less fragmentation decrease spreads. Political stability and higher competition for political contest decrease spreads. We also find that our results on the importance of political institutions are robust to the introduction of legal institutions in the model.

These results show that adopting credible political institutions can help sovereign borrowers to access international markets, at a lower cost of financing.

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Table 1: Definitions, Proxies and Data Sources

Variable	Proxy	Label	Exp. Sign	Source
Sovereign Spread	Secondary spreads on the EMBIG index (JP Morgan)	Spread		<i>Bloomberg (2010)</i>
Sovereign Ratings	Annual average of sovereign credit ratings by Institutional Investor	Ratings	-	<i>Institutional Investor</i>
Political System	Presidential System: dummy variable that is equal to 1 if presidential system and 0 otherwise	Presd	+	<i>Database of Political Institutions (DPI 2009)</i>
Political Orientation	EIEC: Executive Index of Electoral Competitiveness (1= low competitiveness; 7=high competitiveness)	Eiec	-	<i>DPI 2009</i>
	Right Wing: dummy variable that is equal to 1 if right wing government and 0 otherwise	Right	-	
Political Stability/Tenure	Nationalist: dummy variable that is equal to 1 if nationalist government and 0 otherwise	Nat	+	<i>DPI 2009</i>
	Partyin: number of years the party of the chief executive has been in office Number of Years in Office: number of years the chief executive has been in office	Partyin	-	
Political Cohesion	Allhouse: dummy variable that is equal to 1 party of executive control all relevant houses and 0 otherwise	Yrsoffc Allhouse	- -	<i>DPI 2009</i>
	Majority: the fraction of seats held by the government	Maj	-	
Legal Institutions Crisis	Property Rights Index Dummy variable that is equal to 1 in period of crisis and 0 otherwise	Proprights Crisis	- +	<i>Heritage Foundation Authors' calculations</i>
Interest Rates	Log of the 3-month yield on US Treasury bonds	R3	+	<i>Datastream</i>
Global Risk Appetite	Log of the spreads of the Merrill Lynch Index of US high yield bonds over US Treasury securities	GRA	+	<i>Bloomberg (2010)</i>

Table 2: Descriptive statistics by country

Country	Spreads	Ratings	Presd	Eiec	Right	Nat	Partyin	Yrsoffc	Allhouse	Maj	Proprights
Algeria	684.40	35.16	1.00	6.12	0.00	0.59	5.50	4.29	1.00	0.83	38.57
Argentina	1685.76	34.22	1.00	7.00	0.53	0.65	5.18	4.18	0.59	0.54	50.00
Brazil	678.54	43.21	1.00	7.00	0.12	0.00	4.27	3.94	0.00	0.56	50.00
Bulgaria	635.70	38.15	0.00	7.00	1.00	0.00	2.71	3.24	0.76	0.60	42.86
Chile	147.65	65.39	1.00	7.00	1.00	0.00	8.24	3.29	0.47	0.56	90.00
China	108.07	62.52	0.00	3.00	0.00	0.00	52.00	7.06	1.00	1.00	28.57
Colombia	420.34	45.81	1.00	7.00	0.40	0.00	6.70	3.24	0.00	0.51	40.71
Cote d'Ivoire	2165.87	18.60	1.00	6.53	0.00	0.00	18.56	5.88	0.47	0.90	
Croatia	251.45	41.31	0.47	7.00	0.82	0.82	4.65	3.71	1.00	0.57	31.54
Dom. Rep.	596.58	30.02	1.00	6.88	0.24	0.00	4.00	4.06	0.00	0.44	
Ecuador	1341.19	25.34	1.00	7.00	0.00	0.00	2.29	2.29	0.00	0.27	38.57
Egypt	195.81	42.63	0.24	6.00		0.00	23.00	20.00	1.00	0.77	47.14
El Salvador	308.56	36.36	1.00	7.00	1.00	0.00	12.00	3.18	0.00	0.43	
Greece	88.81	65.46	0.00	7.00	0.35	0.00	4.94	3.53	1.00	0.54	60.00
Hungary	108.63	57.67	0.00	7.00	0.12	0.00	3.24	2.65	0.00	0.59	70.00
Indonesia	324.12	40.63	0.29	4.65		0.00	14.59	11.53	0.41	0.55	38.57
Korea, Rep	154.50	68.84	1.00	7.00	0.29	0.00	4.76	2.82	0.29	0.47	81.43
Lebanon	423.47	28.19	0.00	4.00	1.00	0.41	5.71	5.59	0.00	0.66	39.23
Malaysia	183.30	64.49	0.00	7.00		0.00	27.00	12.24	1.00	0.80	58.57
Mexico	387.43	54.73	1.00	7.00	0.53	0.00	34.41	4.18	0.47	0.46	51.43
Morocco	381.62	45.33	1.00	2.00		0.00		17.65	1.00	0.53	44.64
Nigeria	1037.32	22.43	1.00	4.94	1.00	0.00	5.50	4.12	1.00	0.64	37.14
Pakistan	654.07	27.05	0.53	4.35	0.20	0.00	2.00	2.94	0.00	0.44	
Panama	345.77	41.54	1.00	7.00	1.00	0.00	3.06	3.18	0.00	0.49	40.00
Peru	413.46	38.53	1.00	7.00	0.53	0.00	4.94	4.71	0.47	0.55	42.86
Philippines	391.65	42.65	1.00	7.00	0.00	0.00	4.06	4.06	0.35	0.70	
Poland	221.11	55.79	1.00	7.00	0.29	0.00	4.64	4.53	0.41	0.54	61.43
Russia	876.63	38.37	1.00	7.00	0.00	0.00	1.00	4.76	1.00	0.44	40.00
South Africa	234.28	52.07	0.00	7.00	0.12	0.12	10.41	3.06	1.00	0.76	50.00
Thailand	146.57	57.79	0.00	6.65	1.00	0.00	2.38	2.75	0.00	0.61	67.14
Tunisia	179.96	51.26	1.00	3.00	0.00	0.00	13.00	14.00	1.00	0.85	50.00
Turkey	448.49	42.19	0.00	7.00	0.70	0.00	3.12	2.29	0.41	0.58	60.00
Ukraine	790.52	27.34	1.00	7.00	0.00	0.00	3.90	4.53	0.12	0.34	31.43
Uruguay	489.37	42.00	1.00	7.00	0.71	0.00	4.65	3.18	0.29	0.68	67.14
Venezuela	879.43	36.36	1.00	7.00	1.00	0.00	5.35	5.06	0.65	0.56	37.14
Total	525.16	43.41	0.67	6.26	0.45	0.07	9.17	5.48	0.49	0.59	49.54

This table reports the means by country for the political and institutional variables used in our main regression models. The sample period is 1993-2009.

Table 3: Descriptive statistics of regression variables

Variables	N	Mean	Median	Standard Deviation	Min	Max
Spreads	421	556.02	335.17	696.12	8.79	5846.52
Ratings	595	43.41	43.60	16.04	13.65	80.65
Presd	595	0.67	1.00	0.47	0.00	1.00
Eiec	595	6.26	7.00	1.59	2.00	7.00
Right	389	0.42	0.00	0.49	0.00	1.00
Nat	587	0.07	0.00	0.26	0.00	1.00
Partyin	504	9.93	5.00	13.60	1.00	71.00
Yrsoffc	594	5.48	4.00	6.11	1.00	38.00
Allhouse	561	0.47	0.00	0.50	0.00	1.00
Maj	570	0.59	0.56	0.21	0.09	1.00
Proprights	418	49.61	50.00	17.36	10.00	90.00

This table shows the summary statistics for the variables used in our main regression models. The sample period is 1993-2009. The definitions of our variables appear in table 1.

Table 4: Impact of political system on spreads

Explanatory Variables	Exp. Sign	(1)	(2)	(3)	(4)	(5)	(6)
Constant	+	6.509*** (0.006)	0.926 (0.710)	0.172 (0.947)	9.040*** (0.000)	5.502*** (0.000)	4.356*** (0.000)
Predicted Ratings	-	-0.082*** (0.000)	-0.077*** (0.000)	-0.076*** (0.001)	-0.094*** (0.000)	-0.088*** (0.000)	-0.086*** (0.000)
Presd	+	0.420*** (0.005)	0.523*** (0.000)	1.229*** (0.001)			
Eiec	-				-1.306** (0.012)	-2.192*** (0.000)	-1.991*** (0.000)
Eiec^2	+				0.158*** (0.005)	0.252*** (0.000)	0.241*** (0.000)
Crisis	+	0.334*** (0.000)	0.361*** (0.000)	0.365*** (0.000)	0.323*** (0.000)	0.341*** (0.000)	0.363*** (0.000)
GRA	+	0.215*** (0.000)	0.701*** (0.001)	0.716*** (0.001)	0.200*** (0.000)	0.665*** (0.000)	0.679*** (0.000)
R3	+	0.171*** (0.000)	0.415*** (0.001)	0.429*** (0.001)	0.165*** (0.000)	0.388*** (0.000)	0.410*** (0.000)
Property Rights	-		-0.005* (0.094)	0.005 (0.405)		-0.008*** (0.001)	0.021** (0.018)
Presd * Property Rights	+/-			-0.013** (0.034)			
Eiec * Property Rights	+/-						-0.004*** (0.004)
N		232	190	190	232	190	190
R2		0.885	0.908	0.906	0.898	0.918	0.906
Wald Chi2		0.000	0.000	0.000	0.000	0.000	0.000

This table shows the results of the regressions estimated with the Prais-Winstone procedure for our sample of 35 emerging markets for the period 1993-2009. The dependent variable is the logarithm of sovereign bond spreads (logSpread). The measures of political system are Presd and Eiec. The definitions of our variables appear in table 1. The Prais-Winstone technique produces panel corrected standard error (PCSE) estimates for linear panel data models. When computing the standard errors and the variance-covariance estimates, the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels. The p-values appear in parentheses below the estimated coefficients. ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

Table 5: Impact of political orientation on spreads

Explanatory Variables	Exp. Sign	(1)	(2)	(3)	(4)	(5)	(6)
Constant	+	6.904*** (0.000)	1.226 (0.304)	0.879 (0.445)	6.533*** (0.002)	0.181 (0.939)	-0.561 (0.808)
Predicted Ratings	-	-0.082*** (0.000)	-0.077*** (0.000)	-0.074*** (0.000)	-0.084*** (0.000)	-0.072*** (0.000)	-0.071*** (0.000)
Right	-	0.007 (0.887)	0.603 (0.402)	0.179 (0.261)			
Nat	+				0.450*** (0.000)	0.537*** (0.009)	2.377*** (0.000)
Crisis	+	0.325*** (0.000)	0.348*** (0.000)	0.345*** (0.000)	0.338*** (0.000)	0.352*** (0.000)	0.351*** (0.000)
GRA	+	0.216*** (0.000)	0.705*** (0.000)	0.726*** (0.000)	0.256 (0.162)	0.781*** (0.000)	0.833*** (0.000)
R3	+	0.156*** (0.000)	0.402*** (0.001)	0.416*** (0.000)	0.163 (0.203)	0.445*** (0.000)	0.469*** (0.000)
Property Rights	-		-0.004** (0.024)	-0.004** (0.043)		-0.005* (0.079)	-0.003 (0.238)
Right * Property Rights	+/-			-0.003 (0.417)			
Nat* Property Rights	+/-						-0.027*** (0.000)
N		232	190	190	230	188	188
R2		0.961	0.969	0.966	0.963	0.963	0.977
Wald Chi2		0.000	0.000	0.000	0.000	0.000	0.000

This table shows the results of the regressions estimated with the Prais-Winston procedure for our sample of 35 emerging markets for the period 1993-2009. The dependent variable is the logarithm of sovereign bond spreads (logSpread). The measures of political orientation are Right and Nat. The definitions of our variables appear in table 1. The Prais-Winston technique produces panel corrected standard error (PCSE) estimates for linear panel data models. When computing the standard errors and the variance-covariance estimates, the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels. The p-values appear in parentheses below the estimated coefficients. ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

Table 6: Impact of political stability on spreads

Explanatory Variables	Exp. Sign	(1)	(2)	(3)	(4)	(5)	(6)
Constant	+	7.962*** (0.000)	1.531 (0.544)	1.693 (0.512)	7.356*** (0.000)	2.062 (0.130)	1.889* (0.079)
Predicted Ratings	-	-0.091*** (0.000)	-0.079*** (0.000)	-0.077*** (0.000)	-0.085*** (0.000)	-0.083*** (0.000)	-0.084*** (0.000)
Partyin	-	-0.006** (0.038)	-0.009*** (0.010)	-0.077*** (0.000)			
Years in Office	-				-0.012*** (0.001)	-0.087** (0.032)	-0.031* (0.098)
Crisis	+	0.299*** (0.000)	0.351*** (0.000)	0.339*** (0.000)	0.332*** (0.000)	0.348*** (0.000)	0.351*** (0.000)
GRA	+	0.157 (0.412)	0.696*** (0.001)	0.710*** (0.001)	0.193*** (0.000)	0.657*** (0.000)	0.693*** (0.000)
R3	+	0.150 (0.261)	0.432*** (0.001)	0.445*** (0.000)	0.151*** (0.000)	0.380*** (0.000)	0.412*** (0.000)
Property Rights	-		-0.005* (0.096)	-0.013*** (0.000)		-0.004* (0.077)	-0.008*** (0.000)
Partyin * Property Rights Years in Office* Property Rights	+/- +/-			0.000*** (0.001)			0.000 (0.211)
N		197	164	164	232	190	190
R2		0.892	0.897	0.898	0.968	0.973	0.976
Wald Chi2		0.000	0.000	0.000	0.000	0.000	0.000

This table shows the results of the regressions estimated with the Prais-Winston procedure for our sample of 35 emerging markets for the period 1993-2009. The dependent variable is the logarithm of sovereign bond spreads (logSpread). The measures of political stability are Partyin and Number of Years in Office. The definitions of our variables appear in table 1. The Prais-Winston technique produces panel corrected standard error (PCSE) estimates for linear panel data models. When computing the standard errors and the variance-covariance estimates, the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels. The p-values appear in parentheses below the estimated coefficients. ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

Table 7: Impact of political cohesion on spreads

Explanatory Variables	Exp. Sign	(1)	(2)	(3)	(4)	(5)	(6)
Constant	+	6.334*** (0.002)	0.747 (0.729)	0.796 (0.722)	5.888*** (0.000)	1.511* (0.089)	2.510* (0.090)
Predicted Ratings	-	-0.075*** (0.000)	-0.072*** (0.000)	-0.072*** (0.000)	-0.075*** (0.000)	-0.073*** (0.000)	-0.072*** (0.000)
Allhouse	-	-0.186*** (0.002)	-0.166*** (0.001)	-0.600*** (0.000)			
Maj	-				-0.608*** (0.000)	-0.941*** (0.000)	-2.816*** (0.000)
Crisis	+	0.312*** (0.000)	0.331*** (0.000)	0.328*** (0.000)	0.340*** (0.000)	0.353*** (0.000)	0.340*** (0.000)
GRA	+	0.246 (0.167)	0.739*** (0.000)	0.755*** (0.000)	0.310*** (0.000)	0.711*** (0.000)	0.696*** (0.000)
R3	+	0.164 (0.182)	0.416*** (0.000)	0.424*** (0.000)	0.214*** (0.000)	0.423*** (0.000)	0.417*** (0.000)
Property Rights	-		-0.006** (0.023)	-0.008** (0.024)		-0.003 (0.0137)	-0.023*** (0.003)
Allhouse * Property Rights	+/-			0.007*** (0.004)			
Maj * Property Rights	+/-						0.039*** (0.003)
N		215	175	175	220	183	183
R2		0.969	0.980	0.981	0.974	0.980	0.974
Wald Chi2		0.000	0.000	0.000	0.000	0.000	0.000

This table shows the results of the regressions estimated with the Prais-Winstone procedure for our sample of 35 emerging markets for the period 1993-2009. The dependent variable is the logarithm of sovereign bond spreads (logSpread). The measures of political cohesion are Allhouse and Maj. The definitions of our variables appear in table 1. The Prais-Winstone technique produces panel corrected standard error (PCSE) estimates for linear panel data models. When computing the standard errors and the variance-covariance estimates, the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels. The p-values appear in parentheses below the estimated coefficients. ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

Table 8: Robustness check: Alternative measures for political system, political stability and political cohesion

Explanatory Variables	Expected Sign	(1)	(2)	(3)	(4)
Constant	+	0.671 (0.396)	1.369 (0.112)	1.531 (0.255)	0.448 (0.651)
Predicted Ratings	-	-0.078*** (0.000)	-0.079*** (0.000)	-0.077*** (0.000)	-0.073*** (0.000)
Assem	-	-0.684*** (0.000)			
Liec	-		-1.206*** (0.000)		
Liec^2	+		0.158*** (0.000)		
Partyage	-			-0.003*** (0.007)	
Numopp	+				0.001*** (0.000)
Crisis	+	0.344*** (0.000)	0.352*** (0.000)	0.340*** (0.000)	0.347*** (0.000)
	GRA	0.782*** (0.000)	0.786*** (0.000)	0.700*** (0.000)	0.750*** (0.000)
R3	+	0.456*** (0.000)	0.479*** (0.000)	0.401*** (0.001)	0.428*** (0.000)
Property Rights	-	-0.007*** (0.002)	-0.008*** (0.001)	-0.006** (0.011)	-0.006*** (0.002)
N		190	190	185	190
R2		0.979	0.981	0.969	0.966
Wald Chi2		0.000	0.000	0.000	0.000

This table shows the results of the regressions estimated with the Prais-Winston procedure for our sample of 35 emerging markets for the period 1993-2009. The dependent variable is the logarithm of sovereign bond spreads (logSpread). The variables Assem, Liec, Partyage, and Numopp are used as alternative measures of Political System, Political Stability and Political Cohesion respectively. The definitions of our variables appear in table 1. The Prais-Winston technique produces panel corrected standard error (PCSE) estimates for linear panel data models. When computing the standard errors and the variance-covariance estimates, the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels. The p-values appear in parentheses below the estimated coefficients. ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

Table 9: Robustness check: an alternative measure of legal institutions

Indep. Var.	Exp.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Sign								
Constant	+	5.643*** (0.000)	9.443*** (0.000)	6.247*** (0.000)	5.596*** (0.006)	6.349*** (0.003)	6.905*** (0.000)	5.820*** (0.003)	5.559*** (0.000)
Predicted Ratings	-	-0.075*** (0.000)	-0.085*** (0.000)	-0.080*** (0.000)	-0.081*** (0.000)	-0.078*** (0.000)	-0.085*** (0.018)	-0.077*** (0.000)	- 0.076*** (0.002)
Presd	+	0.358** (0.038)							
Eiec	-		-1.619*** (0.000)						
Eiec^2	+		0.189*** (0.000)						
Right	-			0.082 (0.117)					
Nat	+				0.508*** (0.003)				
Partyin	-					-0.000 (0.790)			
Years in Office	-						-0.010*** (0.006)		
Allhouse	-							-0.170*** (0.005)	
Maj	-								- 0.540*** (0.000)
Crisis	+	0.338*** (0.000)	0.334*** (0.000)	0.337*** (0.000)	0.347*** (0.000)	0.309*** (0.000)	0.336*** (0.000)	0.314*** (0.000)	0.358*** (0.000)
GRA	+	0.299*** (0.000)	0.214*** (0.000)	0.285*** (0.000)	0.346** (0.047)	0.272 (0.121)	0.242*** (0.000)	0.301*** (0.000)	0.352*** (0.000)
R3	+	0.219*** (0.000)	0.174*** (0.000)	0.210*** (0.000)	0.229* (0.059)	0.198 (0.105)	0.185*** (0.000)	0.203* (0.085)	0.257*** (0.000)
LEGAL	-	-0.108* (0.050)	-0.084** (0.045)	-0.089* (0.092)	-0.085 (0.164)	-0.095 (0.249)	-0.051 (0.350)	-0.040 (0.585)	-0.075 (0.360)
N		220	220	220	218	185	220	203	208
R2		0.975	0.976	0.974	0.972	0.963	0.972	0.968	0.978
Wald Chi2		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

This table shows the results of the regressions estimated with the Prais-Winston procedure for our sample of 35 emerging markets for the period 1993-2009. The dependent variable is the logarithm of sovereign bond spreads (logSpread). Legal Institutions are measured by an equally weighted index of Law and Order, Corruption and Bureaucratic Quality (LEGAL). The definitions of our variables appear in table 1. The Prais-Winston technique produces panel corrected standard error (PCSE) estimates for linear panel data models. When computing the standard errors and the variance-covariance estimates, the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels. The p-values appear in parentheses below the estimated coefficients. ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

Table 10: Robustness check: Control of endogeneity of the ratings

Indep. Var.	Exp. Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Constant	+	0.872 (0.732)	5.614** (0.036)	1.821 (0.501)	0.388 (0.917)	1.383 (0.792)	7.076 (0.253)	-2.079 (0.545)	1.101 (0.682)
Predicted Ratings	-	-0.097*** (0.000)	-0.111*** (0.000)	-0.106*** (0.001)	-0.096*** (0.002)	-0.098*** (0.002)	-0.134** (0.018)	-0.070** (0.041)	-0.079*** (0.002)
Presd	+	0.455** (0.038)							
Eiec	-		-1.851** (0.028)						
Eiec^2	+		0.214** (0.020)						
Right	-			0.185 (0.448)					
Nat	+				0.675*** (0.000)				
Partyin	-					-0.038*** (0.004)			
Years in Office	-						-0.073** (0.038)		
Allhouse	-							-0.560** (0.020)	
Maj	-								-1.657** (0.021)
Crisis	+	0.371*** (0.000)	0.319*** (0.000)	0.355*** (0.000)	0.408*** (0.000)	0.342*** (0.002)	0.240 (0.177)	0.390*** (0.000)	0.473*** (0.000)
GRA	+	0.774*** (0.000)	0.686*** (0.000)	0.758*** (0.000)	0.842*** (0.001)	0.781** (0.013)	0.447 (0.145)	1.037*** (0.000)	0.473*** (0.000)
R3	+	0.453*** (0.000)	0.393*** (0.000)	0.490*** (0.000)	0.498*** (0.000)	0.480** (0.036)	0.260 (0.214)	0.691*** (0.000)	0.798*** (0.000)
Property Rights	-	-0.004 (0.329)	-0.008*** (0.003)	-0.013 (0.401)	-0.005 (0.461)	-0.002 (0.870)	-0.003 (0.891)	-0.018* (0.060)	-0.004 (0.682)
Hansen j Test		0.729	0.600	0.569	0.374	0.510	0.289	0.354	0.255
M2 Test		0.102	0.071*	0.172	0.064*	0.213	0.232	0.287	0.151
N		190	190	190	188	164	190	165	173

This table shows the results of the regressions estimated with the System GMM procedure of Blundell and Bond (1998) for our sample of 35 emerging markets for the period 1993-2009. The dependent variable is the logarithm of sovereign bond spreads (logSpread). The Hansen (1982) j-statistic tests the validity of our instruments, while m2 is the Arellano and Bond (1991) test of the absence of second order autocorrelation in the differenced residuals. ***, **, * refer to the 1, 5 and 10% levels of significance respectively. The definitions of our variables appear in table 1. Two-step system GMM estimator is used. Windmeijer (2005) finite-sample correction to the two-step covariance matrix is performed. Robust standard errors consistent in the presence of heteroskedasticity, and autocorrelation within the panel are reported. Predicted Ratings is assumed an endogenous variable, while the remaining explanatory variables are assumed exogenous.