

**Risk, Uncertainty and Autonomy:
Financial Market Constraints in Developing Nations**

Sarah M. Brooks
Department of Political Science
Ohio State University
2140 Derby Hall, 154 N. Oval mall
Columbus, OH 43210
brooks.317@osu.edu

Layna Mosley
Department of Political Science
University of North Carolina, Chapel Hill
361 Hamilton Hall, CB 3265
Chapel Hill, NC 27599-3265
mosley@unc.edu

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The resurgence of capital flows to the developing world in the 1990s provided important opportunities for capital-scarce nations to transcend the limits of their domestic savings, fueling growth and consumption. But financial openness also exposed developing economies to unprecedented levels of volatility, as well as contagion from crises in other emerging economies. These sudden stops and reversals of capital flows often reverberated heavily throughout these small and less-diversified economies, contributing to deep and prolonged recessions and exacerbating social and political frailties. For governments in these nations, then, international financial integration has been a double-edged sword. While financial globalization has expanded governments' access to credit, with which they can finance domestic social and economic development, the enhanced 'exit' option of capital also has raised questions about the possibilities for autonomous domestic policymaking (Bartolini and Drazen 1997; Grabel 1996).

In many instances, capital flight, credit rationing, and financial market volatility are linked with domestic political processes. Although democratization was expected to increase transparency, rule of law and economic stability in developing nations (e.g. Rosendorff and Vreeland 2006), and thus to bring greater constancy to global investment flows, elections instead have been associated with greater economic turbulence, as investors react negatively to the uncertainty generated by closely contested elections and post-election government formation (Block and Vaaler 2004; Vaaler et al. 2005: 63). Indeed, electoral periods have coincided with systematic increases in speculative behavior in foreign exchange markets (Bernhard and Leblang 2002; Eichengreen et al. 1995; Leblang 2002), declines in sovereign risk ratings (Reisen 2002; Reinhart 2002), rising interest rate spreads on sovereign debt (Block and Vaaler 2004; Vaaler et al. 2006; Martínez and Santiso 2003) and heightened stock market volatility (Jensen and Schmith 2005).

Scholarly research has attributed these negative market responses to election-induced uncertainty: changes in governments – or even increased political challenges to re-elected incumbents – heighten the risk of policy changes, some of which may reduce the long-term value and returns of

investments. When “political risk” is more salient, governments – especially in emerging markets – will find themselves more exposed to financial market pressures and volatility. In particular, research drawing upon business cycle theories (Hibbs 1977; Nordhaus 1975) finds that political risk is heightened when the outcome of the election cannot be foretold, and when a left-wing candidate is expected to replace a government of the right (Alesina and Sachs 1988; Bernhard and Leblang 2002:318; Leblang 2002: 74; Vaaler et al. 2006). In the former case, the confidence intervals around investors’ predictions of future policy widen: if they are less certain regarding who will be in office after they election, they also will be less certain regarding the direction of economic policies (e.g. Freeman et al 2000).¹ As investors’ capacity to predict future government policies diminishes, they are likely to either exit such countries’ markets, or to remain, but charge governments and firms higher risk premiums.

In the latter situation, left governments are said to present a greater risk to investment due to their stronger ideological incentives to default (and weaker ideological predispositions to honor contracts, especially with foreign parties), and their greater emphasis on redistribution and full employment rather than on monetary discipline. Yet another stream of research views elections in general as a source of incentives for opportunistic behavior regardless of the partisan stripe of the likely winner (Block and Vaaler 2004:919; Leblang 2002: 72; Martínez and Santiso 2003: 366). In this view, elections create incentives for politicians to temporarily expand the economy or delay reform; these actions, though, are sustainable only in the short-term. In the immediate post-election period, governments will find it necessary to enact reforms or impose fiscal and monetary restraint. Realizing this, investors sell assets prior to the election, in anticipation of a subsequent devaluation or recession.

Recent elections in Brazil raise a number of questions from the perspective of extant theories of political risk. Although the rise of left-wing candidate Luiz Inácio Lula da Silva (“Lula”) provoked a

¹ Freeman et al (2000) point out, though, that the effects of democratic processes on foreign exchange markets are likely mitigated by domestic institutions, including electoral systems and central banking arrangements.

strong and negative market response in advance of the 2002 election – and as both electoral uncertainty and partisan business cycle theories would predict -- bond markets greeted Lula's likely re-election quite positively in 2006. The spread between Brazil's benchmark bond yield and U.S. Treasury bonds rose above 2000 basis points for more than 35 days during the presidential campaign in 2002 (Martínez and Santiso 2003: 373), but averaged just 237 basis points in the ten months prior to the October 2006 election and closely tracked the EMBI+ composite index for developing nations in 2006 (see Figure 1).

That markets responded so differently to the same left-wing candidate in 2002 and 2006 is puzzling from the perspective of partisan theories of political risk. Did partisan signals matter in the first election, but not the second? If so, under what conditions do such partisan signals affect investors' risk assessments? *Prima facie* evidence suggests that improved economic fundamentals alone cannot account for this difference in market actors' responses. While the public sector debt in Brazil had risen to a decade-high 56 percent of GDP in 2002, this level was considered sustainable (Martínez and Santiso 2003). By October 2006, public sector debt had fallen, but remained significant, at 44.6 percent of GDP (IPEA 2007). Moreover, economic growth remained sluggish and the Lula government was mired in scandal, resulting in the departure of significant members of the cabinet, including the finance minister whose appointment in early 2003 had calmed market fears related to Lula's initial election in early 2006. Far from accounting for Brazil's decline in risk spreads, certain signals of political and economic risk appear to have been overlooked in market actors' pricing of Brazil's sovereign risk during the 2006 electoral cycle.

In seeking to explain this puzzle, we build upon previous research that identifies partisan signals and macroeconomic conditions as important determinants of sovereign risk assessments, as measured by interest rate spreads on secondary bond markets. In contrast to much of the extant work on this subject, we argue that risk assessments based on partisan signals and macroeconomic conditions are conditional rather than constant. Specifically, the importance to investors of partisan as well as economic signals is contingent on the availability of information with which market actors can assess a

particular government's risk type. Where investors have little other information – in particular, no track record related to a government's time in office – they will rely more heavily on partisan signals and macroeconomic indicators. This type of uncertainty regarding a government's attitude toward and propensity for default is likely to generate a partisan risk premium: investors will worry more about, and demand higher spreads from, left-oriented governments. Similarly, when political newcomers, rather than long-serving incumbents, hold office, macroeconomic conditions (specifically, accumulated government debt) will be more salient to investors' risk assessments. In sum, the importance of partisan and macroeconomic considerations to investors is greatest in low-information environments, such as the period surrounding a change in governments.

The importance of partisanship and macroeconomic conditions declines as investors become better able to assess the government's type via other information. As the government takes office and as cabinets are formed (and finance ministers and/or central bankers are appointed), markets can make more sophisticated judgments regarding political – and, specifically, default – risk (Bernhard and Leblang 2002:319). And, through its appointments as well as its policy actions, the new government is able to signal its policy priorities, to domestic constituents as well as to (domestic and international) investors. The result is that, as investors become more confident in their capacity to assess the risk type of the new government, their risk assessments will be less strongly influenced by partisan *and* macroeconomic risk indicators. Put simply, the longer a new government holds office without defaulting on its debt, the less it matters that the government is comprised of left parties, or that it inherited a macroeconomic situation characterized by a relatively high level of public indebtedness.

What we propose, therefore, is a conditional theory of political risk, where the contribution of political and macroeconomic variables to assessments of political risk is high when a political leader is relatively unknown, but diminishes over time as investors become confident of their ability to assess her risk type accurately. We look to the case of Brazil for preliminary evidence to evaluate these hypotheses. We then test our expectations statistically, using data on sovereign risk spreads for 30

emerging market nations from 1993 to 2004. Our results provide qualified support for our expectations. We find that macroeconomic factors and government default history weigh heavily in the determination of sovereign bond spreads, and that the effect of these indicators is mitigated by governments' time in office. While left governments are penalized with higher bond spreads when they are new to office, this premium diminishes with time. We also find that increasing debt-to-GDP ratios are associated with larger bond spreads for new governments, and that this effect is dampened as a government's time in office increases. Incumbency does not condition the importance of inflation performance on sovereign risk spreads, however.

I. Markets and Political Risk

A rich body of scholarly research has emerged in recent years to explain the relationship between investment behavior and politics. At the heart of this research is the concept of political risk. Political risk refers broadly to exposure to unfavorable changes in public policy or state action that affect general economic conditions, and thus the value of an investment (Bailey and Chung 1995: 542). Such actions may range from regulatory decisions and tax code changes to currency policy, default behavior and inflation. Political risks also may arise from events outside of state authority, including strike behavior and social unrest (Clark 1997). For investors, the task of evaluating political risk is exacerbated by the problems of incomplete and asymmetric information that inhere in overseas transactions (Sobel 2002: 727). Such uncertainty can generate widely varying expectations about the risk profile of an investment, and thus to greater investment volatility in times of political change (Bernhardt and Leblang 2002: 319).

These problems are particularly severe for developing countries (Cantor and Packer 1995: 4; Diamonte et al. 1996; Erb et al. 1996; Harvey 1995). As a result of the higher risks that developing country governments present, market actors scrutinize a much broader range of state actions than they do for advanced industrial nations (Mosley 2003a). There is also greater uncertainty associated with investment in developing countries due to the less reliable economic data (Block and Vaaler 2004) and

to problems of low transparency in politics (Sobel 2002). Indeed, for some market actors, politics in the developing world seem “Byzantine” by comparison to the advanced industrial nations (Martínez and Santiso 2003: 365). Moreover, in an era of global capital markets, professional investors often are active in multiple markets, increasing further their information needs (Calvo and Mendoza 2000).

The difficulty and costliness of gathering information regarding developing country politics leads many professional investors to rely on shortcuts or signals of political risk rather than on direct analysis of creditworthiness. While studies have demonstrated that sovereign risk ratings provide a principle source of these cues (Cantor and Packer 1996; Kaminsky and Schmukler 2002), investors also look to political information such as partisanship and cabinet composition to make judgments about the credibility (or, in terms of sovereign credit, the risk type) of a particular government (Leblang 2002). The inferences drawn from these signals, however, are highly subjective, since they have to do with more expansive concepts such as a government’s *willingness* to fulfill debt repayment obligations and protect property rights, as opposed to more tractable or objective concepts such as the ability to pay and debt sustainability. Indeed, scholars attribute the greater disparity in the determination of sovereign bond ratings below investment grade to the higher levels of subjectivity and uncertainty associated with political risk assessments in developing nations (Cantor and Packer 1995: 4; Sobel 2002). Political risks also have a more powerful influence on economic outcomes – including default risk -- in developing countries than in advanced industrial nations (Diamonte et al. 1996; Erb et al. 1996). This means that political risk matters more for the determination of risk premiums and investor behavior in developing nations than in the advanced industrial nations. Given the importance of political criteria in the determination of investment behavior in the developing world, and the essential subjectivity of these evaluations, it is reasonable that we re-examine how politics shape risk assessments in these nations.

Conditional Market Responses to Politics. Our argument is premised on the notion that investors desire some level of certainty regarding their risk assessments, and that the acquisition of the information needed to achieve such certainty is costly. Investment decisions thus involve efforts to

overcome this uncertainty at the least cost: investors seek either to locate their assets in countries for which they can be reasonably confident of the direction of future policy; or, when they purchase assets for which they have high levels of uncertainty regarding future policy, they impose a risk premium. Both behaviors represent elements of investors' risk-return calculations: at a given rate of return, investors want the lowest possible risk. And, at a given level of risk, investors demand compensation via higher returns.

With respect to efforts to diminish risk, the importance of a stable investment climate has been widely established in research on cross-border capital flows. For instance, investors have been shown to reward governments with policies and institutions that provide greater stability and predictability, such as fixed exchange rates and central bank independence (Cukierman 1992; McIntyre 2001; Maxfield 1997; Shambaugh 2004). In terms of responses to a given level of risk, investors can cope with known investment risks through hedging behavior (particularly with respect to more liquid assets), as well as through higher premiums. What is more difficult for investors are investment risks that are unknown or, more accurately, difficult to quantify. In this respect, uncertainty that emanates from politics presents a greater challenge for investors (Santiso 2003:25). Indeed, because political uncertainty can make it difficult for investors to predict (at a reasonable level of confidence) the economic value of investments, investors face strong incentives to guard against unfavorable political contingencies through capital flight (Alesina and Tabellini 1988).

In sovereign debt markets, investors' concerns about risk revolve closely around the questions of default, and the associated willingness and the ability of a government to pay its debt obligations (Cantor and Packer 1995; Eaton and Gersovitz 1981). Investors thus are concerned principally with indicators of the sustainability of debt, and with the government's 'type', or credibility (North and Weingast 1989). To resolve uncertainty about these factors, investors gather relevant information regarding ability and willingness to pay, and attach probabilities to the occurrence of repayment. While the economic components of default risk, namely the capacity to pay, may be assessed on the basis of

government solvency indicators (such as ratios of debt to GDP and exports), the *willingness* of a government to meet its future debt obligations is considerably murkier, and thus constitutes a significant source of uncertainty in assessments of political risk in debt markets.

Willingness to pay reflects a government's type: does it honor its debt obligations under all (or almost all) conditions; does it repay when times are good, but default when times are bad; or does it default in almost any circumstances (Tomz 2007)? In adjudicating among these different types, the behavior of political office-holders – principally the executive branch (North and Weingast 1989) – provides valuable information about the risk type of the government. Government behavior is assumed to be influenced by ideological, institutional and electoral factors (Leblang 2002: 72).

Market actors thus assess governments' default types by examining decisions by the executive that range from regulatory action and cabinet appointments, to fiscal policy, capital controls and reform decisions (Bartolini and Drazen 1997; Bernhard and Leblang 2002; Moser 2006; Rodrik 1989; Sobel 2002). Essentially, investors' assessments of type are retrospective: how a government has behaved thus far, particularly in the economic realm, provides a reasonable guide to expected future behavior.

Political newcomers, however, render the use of retrospective methods to gauge prospective behavior nearly impossible. Without a behavioral track record for a government, investors have much greater uncertainty regarding the risk type and, therefore, the sorts of premiums that ought to be charged to sovereign borrowers. How do investors assess risk in such situations? One possibility would be for them to carefully comb policy pronouncements and stump speeches, or consider evidence from candidates' previous political experience – if they have any. But acquiring such information is costly (particularly for international investors who lack "local knowledge" and, perhaps, local language skills). And, as Calvo and Mendoza have observed, such information "depreciates quickly" (2000:3). Accordingly, bond market investors with well-diversified portfolios are unlikely to employ such information-gathering. Investors are much more likely to make use of other information shortcuts, which allow them to predict – at acceptable levels of uncertainty – future government behavior on the

basis of political cues. These readily-available political cues allow investment professionals to assimilate new or unknown politicians into a group of similars about which they have some information relevant to risk expectations (Knight 1957:245-6).

One of the most important of these political cues is partisanship (Leblang 2002: 74). Where investors weigh partisan signals, they typically view governments of the center and right positively, while those of the left enjoy less confidence in the eyes of financial market actors (Bernhard and Leblang 2002: 318; Garrett 1998; Vaaler et al. 2006). This is because, in addition to being perceived as more friendly to the interests of the business sector, right-leaning parties tend not have a history of, or a doctrine that endorses debt repudiation or nationalization. Left governments, on the other hand, expected to prioritize employment and redistribution over inflation control; to have fewer qualms about public sector intervention in the economy; and to face stronger incentives to renegotiate debt and impose capital controls (Alesina and Sachs 1988; Alesina and Tabellini 1988; Hibbs 1977).

Of course, the accuracy of these partisan-based generalizations is questionable. Assessments of government type that are drawn from ideological labels are neither entirely accurate – particularly for governments of the left – nor stable over time. A common ideological label is bound to be less accurate for left governments, however, as recent years have witnessed increasing diversity of economic strategies among left-oriented governments. From the British ‘new left’ and ‘third way’ policies of Blair and Clinton in the advanced industrial world, to the pragmatic neoliberalism of governments such as Menem in Argentina and reformed socialist parties in Eastern Europe, the “left” as a signal of default risk or the propensity to enact heterodox economic policy has proved much less accurate in recent years. But the shift in left government and left party strategies has been uneven: not all such governments have moved toward more centrist ambitions and actions. Particularly in Latin America, leftist candidates that have emerged since 1990 have proved to be a rather heterogeneous group (Castañeda 2006). Whereas politicians such as Chávez, Kirschner, Humala and Morales have typified

the nationalistic and populist legacies to which the left has long been associated, others, such as Lula, Bachelet, Vázquez, and even Ortega have defied this partisan heritage.

Despite the recent diversity among left parties, though, most international investors' prior regarding left government – in the face of very little other information about such a government – is that its policies will be less market-friendly and more risky than that of a centrist or right government. To some extent, this may be a response by investors to rhetoric used in the campaign process, when left-leaning parties and candidates – even “new left” ones -- attempt to appeal to their core domestic constituencies. Once these “new left” candidates take office, however, they are perhaps less inclined to rhetoric and more able to reveal their “true” type via behavior. When a left candidate rises in the polls in developing countries, therefore, investors lacking behavioral information about her risk type may be expected to attach an overly-pessimistic risk premium to this partisan signal. Once left governments take office, this general effect should diminish, as investors become better able to distinguish between “bad left” (in their view) and “good left” governments.

Thus, we expect investors' uncertainty to lead to a higher bond spread for political newcomers on the left, all else being equal. At the same time, we expect conservative partisan signals to provide more accurate predictions on these dimensions, as governments of the right more consistently embrace policies of fiscal probity (the current Bush administration notwithstanding) while privileging low inflation over consumption and market over state governance of the economy. In sum, then, we expect investors to attach overly-pessimistic assessments of risk to partisan signals from political newcomers on the left when other information about default risk probabilities is lacking -- i.e., before a politician takes office and early in her tenure. Following the logic regarding the availability of behavioral information, we expect the salience of partisan cues to decline as governments' time in office increases, and as investors have more behavioral information on which to base their risk assessments.

Furthermore, we expect that the presence of political newcomers also may affect investors' interpretations of macroeconomic data. In particular, macroeconomic markers for default risk will be

interpreted more pessimistically for newcomers than for longstanding incumbents whose credibility (or lack thereof) has been established. Put differently, investors may worry more about the macroeconomic climate, as indicative of the ability to repay debt, early in new governments' terms. Since governments may repudiate debt either by inflating its value away or by outright defaulting on it, we expect close investor attention to government debt-to-GDP ratios (largely representing past governments' actions, rather than the new government's policies) and to inflation performance early in a government's tenure. Again, though, as a government's time in office increases, investors' new knowledge about willingness to pay may come to trump macroeconomic predictors of ability to pay. Once investors become confident in a government's risk type, bond yields should be less sensitive to changes in macroeconomic risk indicators. Certain risk indicators such as debt and inflation performance that earlier had contributed powerfully to risk assessments thus may be discounted, if not overlooked altogether, while partisan identification also comes to matter less for market actors' assessments of political risk.

This discounting of partisan and macroeconomic signals may or may not be warranted. In the case of Argentina in the 1990s, we can find a vivid illustration of the pitfalls of investment decisions that overlooked macroeconomic risk signals emanating from a putatively-credible government. After initial wariness of Peronist president Carlos Menem in the wake of his populist candidacy, market actors rallied behind the Argentine government following Menem's embrace of an array of credibility-seeking actions. These included the appointment of a market-friendly Economy Minister, Domingo Cavallo, and the embrace of the orthodox inflation-quelling Convertibility Plan, the cornerstone of which was strongly-fixed (currency board) exchange rate system. As the Menem government came to be seen as credible, a move that was endorsed by opinion-makers such as the IMF, risk indicators such as Argentina's rapidly-accumulating debt seem to have been overlooked by investors that continued to purchase new sovereign issues. Many investors thus were caught by surprise – perhaps having

overestimated the impact of willingness, versus ability, to repay -- when the government defaulted on \$141 billion in debt in 2002.

Investors' perceptions of sovereign risk in the advanced industrial nations, however, provide an antipodal example. In these nations, investors' perceptions of the credibility of government commitments to honor debt obligations may permit a more rational discounting of macroeconomic and partisan risk indicators. Indeed, among European countries we can observe debt-to-GDP ratios that would spark panic among emerging markets, but that coincide with the highest sovereign risk ratings. For instance, Standard and Poor's 2007 report classifies Norway's sovereign debt as AAA/Stable while its net government debt-to-GDP ratio is 132 percent. Liechtenstein similarly enjoys a AAA/Stable rating, despite its debt ratio of 95.6 percent of GDP; Germany and France likewise have debt-to-GDP ratios of 61 and 56.9 percent respectively, and AAA ratings (Standard and Poor's 2007: 72-73). While previous research has shown that a small number of variables associated with default history explain why sovereign ratings deteriorate more rapidly with debt accumulation in developing than developed countries (Reinhart et al. 2003), our expectation is that an incumbent's time in office should matter *net* of a country's default history. Investors, in other words, should differentiate governments' time in office -- which provides information about a specific executive's type -- from broader country reputation effects. In our empirical analysis, therefore, we control for the effect of a country's default history when assessing the importance of political incumbency.

Admittedly, there is ample theoretical precedent for the expectation that investor responses to political and economic signals are neither constant nor objective. Leblang and Bernhard (2002), for instance, find that currency markets react to partisanship differently over the course of the electoral cycle, while Bartolini and Drazen (1997) expect that international liquidity mediates the value of policy signals of a government's credibility. Our expectation differs from Leblang and Bernhard's in that we do not anticipate partisan signals to be mediated by the electoral cycle as much as by overall time in

office; a leftist incumbent thus should not induce negative market responses in the run-up to (or immediate wake of) an election in the way that a political newcomer on the left might.

In sum, we posit that investors operating in bond markets attempt to cope with problems of incomplete information, which are exacerbated by the rise of political newcomers, by relying heavily on easily-accessible risk signals. These signals include the partisan orientation of the executive (or front-running candidate for executive office) and various macroeconomic indicators associated with default and inflation risk. As politicians' behavior in office provides more information regarding the government's type, however, we expect investors to discount the partisan identification of governments – particularly those of the left – and to weigh debt and inflation indicators less heavily in the determination of bond prices. Essentially, time in office (and, by implication, time in office without default) facilitates a shift from considerations of broad information shortcuts (partisanship, accumulated indebtedness) toward considerations of government-specific behavior. As a result, governments may pay a high price for borrowing early in the term in office of a new government, but this price will decline as time in office grows. In the next section, we turn to the case of Brazil for evidence to explain the divergent market responses to the Lula candidacy in 2002 and 2006. We highlight the efforts that Lula made to establish his credibility in the eyes of market actors, and trace market responses to these actions, as well as to other putative risk indicators over the course of his first term in office and candidacy for re-election in 2006.

II. Brazil, Lula and Sovereign Risk

The 2002 election in Brazil has been used to illustrate the close links between portfolio capital markets and politics (government ideology as well as elections) in emerging markets (Hardie 2003, Jensen and Schmith 2005).² In 2006, though, such links were largely absent, despite political scandals,

² Hardie (2005), however, argues that investors in Brazil did not act in a unified fashion – many international bond market actors remained in Brazil throughout the 2002 election cycle, while some domestic investors opted to exit. This diversity – particularly in terms of local versus foreign investors' reactions to politics – is a very interesting subject for future research.

the narrowing of the contest late in the campaign, and the same leading left-wing candidate. What explains bond market actors' disparate responses to a leading left-wing candidate in 2002 versus 2006? We note that partisan identification was a considerably stronger influence on default risk assessments than economic fundamentals in 2002. In 2006 (and the years immediately prior), market actors revised their expectations in response to Lula's early confidence-seeking behavior in office. During Lula's first term, international investors came to offer enthusiastic support for the erstwhile 'devil incarnate',³ despite sluggish economic growth and repeated political scandals that resulted in considerable instability in Lula's cabinet. Although Brazil's experience does not provide a rigorous test of our claims, it establishes *prima facie* the plausibility of the expectations tested statistically in Section III.

On October 27, 2002, Brazil elected Luiz Inácio Lula da Silva ("Lula"), the candidate of the left-wing Workers' Party (*Partido dos Trabalhadores*, PT) as its president. Lula's landslide victory in the second round of voting followed months of financial market turmoil. The São Paulo stock market experienced high volatility during the electoral cycle, along with marked declines relative to global equity markets (Jensen and Schmith 2005). As Lula gained in popularity, the spread on Brazilian sovereign debt over U.S. Treasury bonds rose above 2,000 basis points (20 percent), while the *real* fell sharply against the dollar. Fears that Lula would repudiate or restructure Brazil's debt underwrote much of the turbulence in international bond markets (Martínez and Santiso 2003:369). Yet, as Martínez and Santiso observe, "The rollover of domestic debt was seen as large but manageable, and the capacity of the Brazilian government to meet its foreign obligations was regarded as stronger than indicated by foreign obligation spreads" (2003: 371).

Fundamentals, in other words, did not seem to fully justify the investor panic during 2002. Rather, there is considerable evidence that investors' default concerns were triggered by partisan fears, which led investors to take a more negative view of debt sustainability than had existed prior to Lula's

³ Hardie quotes a Wall Street analyst that described Lula as 'the devil incarnate' (Reuters, September 10, 2002), c.f. Hardie 2006:58.

rise in the polls. But in late 2002 and early 2003, after a series of confidence-generating moves on Lula's part, market concerns were largely quelled. As investors became confident in Lula's commitment to fiscal stringency and repayment of Brazil's debt, sovereign spreads fell dramatically. They remained low, despite sluggish growth and a series of domestic political scandals that rocked the government. As Lula stood for re-election again in 2006, concerns of sovereign default were practically nonexistent; Brazil's spreads remained well below those of other emerging market countries facing elections that year.

The 2002 Campaign. Lula's campaign for the presidency in 2002 was his fourth attempt to win Brazil's highest office. Lula first ran for president in 1989 on a platform that urged landless peasants to invade private property and advocated default on Brazil's foreign debt. In his three subsequent candidacies (1994, 1998 and 2002), Lula tempered this rhetoric considerably and traded his more casual trade unionist clothing for tailored suits and ties. But to international observers, changes of clothing and rhetoric did little to temper the perception of Lula as a firebrand leftwing activist who would be predisposed to default on the nation's mounting public debt.

Lula was among the founders of the Workers' Party in 1980. The PT is by far the most programmatic and institutionalized party in Brazil and, in its early decades, the party's platform rested heavily on socialist principles. Its political base was rooted firmly in the industrial working class, principally in the more affluent southern industrial states such as São Paulo. Lula and his party were strong critics of the structural reform and austerity policies enacted by his predecessor, Fernando Henrique Cardoso. Lula critiqued Cardoso's inflation-targeting regime and free trade agreements, and he railed against "globalization" and "neoliberalism" (Hunter and Power 2005: 128-129). By 2002, however, struggles between the radical and moderate factions of the PT for control of the party hierarchy had been resolved in favor of Lula's more moderate wing. These PT moderates engineered the party and candidate's move away from more radical left-wing policies ("Can Lula Finish the Job?" October, 2002).

In early 2002, Brazil's "sound economic track record" was broadly praised by market actors, who saw little risk of contagion from Argentina's deep economic crisis (Martínez and Santiso 2003: 369). At that time, however, the presidential field was wide open and investors anticipated a victory by former health and planning minister José Serra, the candidate from President Cardoso's centrist social democratic party (Partido da Social Democracia Brasileira, PSDB) and a favorite of financial markets. The other top three presidential candidates occupied moderate to leftist ideological positions. Ciro Gomes, of the moderate-left Popular Socialist Party (Partido Popular Socialista, PPS), also had advocated debt restructuring, but was backed by the conservative Liberal Front Party (Partido da Frente Liberal, PFL) and its powerful political king-maker, Antonio Carlos Magalães. Trailing Lula, Serra and Gomes was Anthony Garotinho, from the center-left Brazilian Socialist Party (Partido Socialista Brasileiro, PSB).

Investor surveys in early 2002 revealed strongly bullish sentiment, on expectations of a Serra victory in October. A Morgan Stanley investor poll in early April, for instance, found that 43 percent of bond market fund managers considered Brazil to be their preferred investment, with only 5 percent considering it their least favorite instrument (Hardie 2006: 60). Indeed, investors reported holding portfolios in which Brazilian debt was "overweight" relative to its share in market indices, meaning that they expected Brazil to out-perform the market. But, as Figure 1 shows, this sentiment shifted rapidly as opinion poll data began to show an advantage for Lula. Without a decline in fundamentals, Brazilian bond spreads rose precipitously, moving above 2,000 basis points in July; this was the highest level that the benchmark C-bond had reached since early 1999, when Brazil faced a serious financial crisis. As Lula's popularity continued to increase and the election neared, the Brazilian *real* dropped 20 percent in September 2002. By this stage, the price of the C-bond had fallen 40 percent from its April level and was trading at a face value of 49 cents to the dollar.

Insert Figure 1 here.

To what extent were these developments in financial markets the result of factors specific to Brazil? Without a doubt, regional contagion – specifically, fear inspired by Argentina’s earlier default – played into concerns regarding Brazilian default. Yet, empirical studies have found the impact of this contagion effect to be minimal compared to that of domestic politics (Miller et al. 2004). Goretti (2005) finds that only about 20 percent of Brazilian spreads could be accounted for by direct contagion from Argentina. General global capital market concerns also played into investors’ behavior; in the second half of 2002, emerging market spreads (EMBI+ without Brazil) rose to 1,000 basis points. But even once we account for the general trend, as in Figure 2, we see that Brazil was well above the composite, suggesting that factors other than a general dampening of risk appetites lay behind the sharp rise in Brazilian country risk.

Insert Figure 2 here.

Turning to these Brazil-specific factors, to what extent did the sharp decline in investor confidence reflect concerns regarding Brazil’s capacity to service its debt obligations, versus uncertainty regarding Lula’s willingness to repay Brazil’s debt? Capacity alone seems an unlikely explanation: Brazil’s sovereign debt burden had risen most sharply in the late 1990s (see Figure 3), but with little added concern for default before early 2002. Investors’ apprehension in 2002, however, revolved closely around the prospect that Lula would be *unwilling* for partisan reasons, rather than unable, to meet Brazil’s debt obligations. Some argue that investor concern about the willingness to repay was justified, given a 2001 Worker’s Party manifesto that advocated revocation of Brazil’s existing agreement with the IMF and renegotiation of the country’s external debt. Williamson concludes, for instance, that “it is hardly surprising that foreign investors should have taken fright at the prospect of a party with such a policy agenda coming to power” (2002: 12).

Insert Figure 3 here.

For example, in a newsletter to clients, Credit Suisse Private Banking advised clients to reduce their exposure to Brazilian bonds. It emphasized the risks posed by a Lula victory: “Bond investors are

clearly worried about the outcome of the presidential elections in October. Worker's Party (PT) candidate Lula continues to lead in opinion polls... The widespread perception among market participants seems to be that a Lula presidency would put Brazil on a path towards defaulting on its external debt." (CPSB, 2002, c.f. Vaaler et al. 2005:62). Economists and financial journalists produced competing forecasts of the odds of a default, which ranged from "no better than 50-50" ("Can Brazil be Saved?") to 70 percent (Williamson 2002).

For some, Lula's earlier populist rhetoric elicited comparisons with Hugo Chávez. As one Brazilian economist observed, "...the expectation was that Brazil would have a leftwing populist government that would pursue unorthodox policies, such as freezing prices, limiting interest rates, controlling foreign exchange, and finally, defaulting on internal and foreign public debt. In short, a government that would not uphold contracts and commitments to the market, like the Hugo Chávez Venezuelan presidential administration" ("Nine Awful Months of Expectations, 100 Good Days of Government"). U.S. economists painted a similar picture. In a debate over the prospects of default under Lula, Williamson argued that, "economically, Lula would be well advised to continue working with the IMF, and not default or restructure debt. However, he admitted that politically, this may be difficult for him. For example, if he gives way to what are probably his own instincts, and those of the left of his party, and institutes a substantial increase in the minimum wage, this will have a huge effect on public spending..." ("Analysis: Will Lula Default?").

As Lula rose in the polls, investors began to re-examine Brazil's debt sustainability (Martínez and Santiso 2003: 369). Investors' fears of default under a left-wing government seem to have been exacerbated by Lula's lack of a track record in office. As one J.P. Morgan strategist observed, "Lula is no longer the black sheep he was in previous elections... Yet there are still a lot of unknowns over policies, the economic team, or the influence of militants in the [PT] party." ("Lula has first-round Brazilian poll victory in sight" September 2002). Similar concerns were voiced in regard to Ciro Gomes, the other left-wing front-runner. As one August report observed, when Gomes led opinion

polls for the first time, "It is he [Gomes] who is most unsettling the market's nerves....It is not that Lula looks 'better' than Gomes....Yet what he [Gomes] would do in power is quite uncertain. He has said that Brazil's debt should be restructured..." The report concluded by lumping Lula and Gomes into a broad left-wing category, "What Gomes and, indeed, Lula might do in office is return to the old ways of doing things. They will pay the debt all right, with money that the central bank produces, in abundance, and to order. Inflation will soar. The *real* will plummet." ("Global View: Brazil at a turning point" August 2002).

Such fears were not universal, however. Analysts who looked beyond the partisan label noted that Lula's rhetoric fell quite afield of the populist archetype. A *Financial Times* analysis concluded, for instance, "investors have ... perhaps underestimated the extent of the change within the Workers' party, which has jettisoned much of its leftist ideological baggage in favor of more pragmatic policies. This week [early October] the party said it would seek to give more autonomy to the central bank and reaffirmed its commitment to fiscal austerity." ("Investors' pessimism on Brazil may be overdone," 2002). Local market actors also were more sanguine about default risk under Lula. For example, in an interview in one of Brazil's major newspapers, the *Folha da São Paulo*, the director of a local bank (Banco Itaú) observed that the "domestic market has concluded that the PT's macro-economic policy is very coherent. Only foreigners had it in their heads that the PT had not changed - and their fears had a lot to do with what had happened in Argentina." ("Lula decries market fears of Brazil debt default" October 2002).

In an attempt to assuage investors' fears, Lula pledged to honor Brazil's debt obligations and, along with the two other front-running candidates, agreed to the terms of an August 2002 International Monetary Fund agreement. That accord promised a total loan of \$30 billion, with \$6 billion earmarked for 2002, and the remaining funds to be disbursed in 2003, when the new government took office. The loan obligated the Brazilian government to maintain a primary fiscal surplus (before interest payments) of at least 3.75 percent of GDP. Markets rallied, at least temporarily, in the wake of the IMF accord, as

spreads fell by 500 basis points in early August and the *real* appreciated by five percent (Martínez and Santiso 2003: 374). Lula also issued a "Letter to the Brazilian People," describing his reform agenda and promising that if he were to be elected, he would maintain payments on Brazil's debt. And Lula allied with the small conservative Liberal Party (Partido Liberal, PL), asking its leader, textile magnate José Alencar, to be his vice-presidential running mate. These measures were largely successful. While sovereign spreads remained high through the October election (peaking at 1215 basis points above the composite EMBI index, in mid-October), Lula's second-round victory over PSDB candidate José Serra did not spark a new speculative attack on the *real*.

Lula in Office. Following his election, Lula took further steps to secure investor confidence. Among the first was the appointment of Henrique Meirelles, a former executive of BankBoston, to head the central bank. Lula also promised to maintain a primary fiscal surplus of at least 4.25 percent of GDP for 2003. Critically, this target was well above the goal (3.75 percent) stipulated in the 2002 IMF accord. Lula further signaled his commitment to fiscal probity with an announcement that he would cut spending by \$3.93 billion in 2003. One of the first measures the government announced to achieve this target was a constitutional amendment to reform the nation's costly and regressive pension system. Lula followed that measure quickly with a constitutional amendment to restructure the nation's tax system. Furthermore, although Lula had previously denounced the Cardoso government's tight monetary policy, Lula quickly adopted a conservative monetary policy. To combat rising inflation, the Lula government raised interest rates in early 2003. In February, the central bank raised rates for a second time, by 100 basis points, increasing the base rate to 26.5 percent.

Investors responded enthusiastically, paying particular attention to Lula's cabinet and central bank appointments, and to his pronouncements regarding his policy priorities. Indeed, the most outspoken critics of Lula's cabinet appointments were not investors, but militants from the radical wing of his party base and from allied parties to the ideological left of the PT. While Brazil's spread stood at approximately 600 basis points over the composite emerging markets index in early January, it had

fallen to 200 basis points by early May. Over the longer run, Brazilian bond yields closely tracked the market, with the difference between Brazil and the EMBI Composite Index declining sharply after 2003 (see Figure 2). As one fund manager observed, "The transition -- from policy announcements, to appointments, to implementation -- has been very good" (Quote by Mohamed A. El-Erian, managing director of PIMCO, in "Lula meant what he said," 2003). Similarly, in February, Goldman Sachs retracted its recommendation that its clients reduce their exposure to Brazil, noting, "Our vision was based on the traditional rhetoric of Lula and the PT... We were wrong." ("Lula meant what he said," 2003).

For some observers, the decline in Brazilian risk premiums owed more to a shift in market sentiment (subjective factors) than to changes in the domestic political scenario or Lula's early initiatives (objective causes). "It's not that the president has changed, so much as sentiment about him has. He's begun his term much the same way he ended his campaign, preaching parsimony and political compromise. But his repeated pledges to honor Brazilian debts, fight inflation and plump up the budget surplus, if necessary, finally seem to have made a mark." ("A 'Responsible' Start," January 2003). Indeed, market sentiment improved much more than did macroeconomic fundamentals. As Figure 4 illustrates, inflation performance bore little correspondence to Brazil's sovereign spreads. Whereas annual inflation stood at 7.5 percent (measured by Brazil's IPCA Consumer Price Index) in March 2002, by March of 2003 it had risen to 15 percent ("Nine Awful Months of Expectations, 100 Good Days of Government" April 7, 2003). Nevertheless, Brazil's sovereign debt spreads in the JP Morgan EMBI index, which had reached an all-time high of 2,443 basis points in 2002, had fallen by a factor of ten by mid-2003. This measure of sovereign risk remained low throughout Lula's term in office.

Insert Figure 4 here.

The 2006 Election. Lula enjoyed strong popular support throughout his first term. This popularity was somewhat striking, considering the sluggish growth – which averaged just over two percent per year during his term – and the string of corruption scandals that rocked his government. In

June 2005, PT leaders were accused of making monthly payments to allied deputies to secure their support on key legislative initiatives. This scandal, termed the “big monthly” (*mensalão*) was particularly threatening to the governing PT, which had long railed against major parties’ vote-buying practices and had positioned itself as the party of “clean government” (Hunter and Power 2007). The *mensalão* and other scandals ultimately forced the departure of two dozen of Lula’s top aides, including his chief of staff José Dirceu and the president of the PT, José Genoïno. More significantly, corruption charges in early 2006 forced the resignation of Finance Minister Antônio Palocci, who played a major role in building investor confidence early in the Lula administration. The resignation of such a central figure as the finance minister typically results in significant market responses, as well as shifts in perceptions of political risk (Moser 2006). Yet, investors hardly reacted to this move. As the *Financial Times* noted, “Mr. Palocci’s departure triggered a decline in the value of the *real*. But by the weekend it was as if nothing had happened.” (“Asset allocation: Market Analysis – South America – Tough Brazil not ready to crack” September 1, 2006). The report also concluded that fears of an opportunistic electoral cycle expansion “seemed lost” on the bullish market (*ibid.*);⁴ at the beginning of September, Brazil’s spread over the EMBI Composite Index was a mere 25 basis points.

One interpretation of market behavior during Lula’s first term is that investors had demonstrated their power: because Lula and his administration were afraid of continued capital flight and financial market volatility, they limited themselves to very market-friendly actions. Yet such a reading would be inconsistent with some of Lula’s behavior: most notably, he embraced an expansionary social policy program during his term in office (Hardie 2006). This move, which was consistent with Lula’s electoral promises and central to his ideological inclination, did not spark concerns of inflation or default among market actors. Rather, as Hardie notes, markets were permissive of this broad social agenda “provided investors were comfortable that fiscal discipline would be

⁴ Global market conditions may also have played a role, something we explore in the statistical analyses below. In 2006, capital markets were marked by excess liquidity, and by enthusiasm for lending generally (i.e. record leveraged private equity buyouts, subprime lending at low interest rates).

maintained” (2006: 55). This market response is consistent with the view that once investors updated their assessment of Lula’s type – and became more confident that he was of a “credible” stripe -- they became less vigilant regarding key risk indicators. With investor uncertainty regarding type, the announcement of a generous social program likely would have led to an increase in risk premiums.

The pattern of muted market responses to the PT scandals, as well as to Lula’s proposed social programs, persisted throughout the 2006 presidential campaign. Brazil’s spread over the EMBI index did increase in mid-2005, and this increase remained in place through the year; but the spread was just over 100 points, very small relative to spreads in 2002. The spread peaked in November 2005, then declined throughout the course of the next ten months, exceeding 30 points on only two days during September and October 2006. Global market liquidity likely played a role, as the global savings glut and the search for higher returns contributed to muted reactions to Brazil’s political scandals (interview with investment banker, London, March 2006). And Brazil’s stable fiscal performance likely served to quell investors’ concerns about default. Lula’s “decent handle on fiscal policy” allowed major investors to take a sanguine view in 2005 and 2006 (interview with hedge fund manager, London, March 2006).

As further evidence that market reactions (or lack thereof) in Brazil were not simply part of a broader regional or global trend, we can look to other Latin American nations with presidential elections in 2006. In Ecuador, leftist candidate Rafael Correa campaigned on pledges to prioritize social spending over debt repayment and openly aligned himself with Hugo Chávez. Ecuador’s sovereign spread rose sharply in advance of that country’s October election, in marked contrast to stable Brazilian spreads (see Figure 5). High liquidity and the attendant appetite for emerging market risk, in other words, do not seem to account fully for investors’ willingness to overlook Brazil’s domestic political scandals and cabinet instability.

Insert Figure 5 here.

Beyond global market conditions and macroeconomic fundamentals, Lula’s incumbency – which allowed him to demonstrate his “type” to investors *and* increased investors’ confidence in their

assessments of Lula's type – appeared to facilitate the emergence of much smaller spreads. As one professional investor noted in early 2006, market participants had finally realized that Lula had changed from his early trade unionist and PT days, and that “were Lula to spend money on poverty reduction, he'd need international markets to fund it, so he won't default” (interview with hedge fund manager, London, March 2006). Another professional investor made a similar point, noting that Lula had demonstrated that he was able to make compromises, that he was not an ideologue, and that he was “not like Chavez or Kirchner” (interview with institutional investor, London, March 2006). Given markets' experience with Lula during 2003-2005, his surge ahead of the PSDB candidate Geraldo Alckmin in early 2006 opinion polls produced no apparent concern on the part of bond market actors (see Figure 6).

Insert Figure 6 here.

III. Quantitative Analyses

In order to assess the relative importance of macroeconomic conditions, political variables and past default behavior, we examine the correlates of sovereign spreads in a set of emerging market economies. Our sample covers the years from 1993 to 2004. We employ 1993 as the starting date for a practical reason, as this is when the data series for our independent variable begin. The early 1990s also coincides with the completion of many post-debt crisis economic reforms. That time frame represents the beginning of the shift toward capital market openness, and toward portfolio market-based financing, in the developing world. In terms of country coverage, our sample includes countries that are part of the J.P. Morgan Emerging Markets Bond Index Global (EMBI-G). To be included, debt instruments must have a minimum outstanding face value no less than \$500 million; the EMBI-G requires less liquidity in secondary market trading than do some of the other J.P. Morgan indices (e.g. EMBI +). The index is weighted by the size of debt issued, so that countries with more debt instruments in circulation have a greater influence on the index value. The index presently includes thirty-three nations, all of which are issuers of dollar-denominated Brady Bonds, Eurobonds, trade

bonds or local market debt instruments; this set of middle-income developing nations draws from Latin America, Asia, the Middle East, central Europe and sub-Saharan Africa.

Dependent and Independent Variables

In order to capture emerging markets governments' cost of credit, we employ the sovereign spread, based on the deviation between an overall emerging markets bond index (EMBI-G) and the country-specific portion of the index. Sovereign risk spreads convey analysts' views about a country's economic and political risk variables (Sy 2002: 381). Countries with positive premiums pay higher borrowing costs, and can be considered to have a greater level of sovereign risk, than the emerging market mean. Negative premiums, on the other hand, imply a country-year characterized by less than average credit risk. Given that the EMBI-G includes only foreign currency-denominated instruments, changes in its value should mainly reflect considerations of default risk (rather than inflation or exchange rate risk). Where governments are perceived to have less willingness or ability to repay debt, country index values should be higher (e.g. Edwards 1984, 1986; Tomz 2007). The benefit of using premiums based on an index – rather than the interest rates on benchmark government bonds, commonly used in studies of developed-country sovereign debt (e.g. Mosley 2003a, Wibbels 2006) – is that the index aggregates instruments of varying maturities, repayment guarantees (i.e. Brady Bonds), and liquidities. While developed country governments each issue a comparable benchmark instrument – a domestic currency denominated bond with a ten year maturity – developing nations structure their debt in a variety of ways, often reflecting the challenges they face in accessing global credit markets. This diversity of foreign-currency denominated instruments renders straightforward comparisons across instruments (using interest rate differentials) quite difficult.

Moreover, because the dependent variable is the difference between the overall index and the country score, it should already account for global market (“push factor”) conditions such as broader risk aversion and herd effects (Martínez and Santiso 2003). For instance, if a crisis in one country or region leads to more general concerns about emerging market investments – as in 1997-1998, following

the Asian financial crisis and the Russian default – the entire EMBI-G index (a market benchmark) is likely to fall (relative to other assets, such as US Treasury bonds, or other benchmarks, such as the Salomon Smith Barney World Government Bond Index, comprised of developed economies). At the same time, particular countries within the index may fall more or less, as investors consider the extent to which their situations resemble those of nations facing financial crises. Our dependent variable will capture the latter – country-specific components of shifts in global (or regional) capital market sentiment. In this way, sovereign spreads also proxy for access to international capital markets.

The independent and dependent variables for this analysis are measured at annual intervals. While financial market data (such as the EMBI index) also are available on a monthly or daily basis, many of the key independent variables – such as current account balances, debt levels, government partisanship, and capital market openness – are available only at annual intervals. This is particularly true for developing nations, where issues of data quality and availability often loom large (Mosley 2003b, Schneider 2005). In the interest of maximizing the number of countries covered in our sample, then, we opt to focus on the country-year as unit of analysis. At the same time, however, we recognize the utility of employing daily or monthly financial market data, as this allows us to observe the shorter-term reactions of investors to political events (including elections, pre-election opinion polls, and cabinet formations), as well as to the release of economic data. For instance, Bernhard and Leblang (2006) consider the impact of politics and political uncertainty on daily market behavior (in bond as well as currency and equity markets) in several advanced democracies. Similarly, Freeman et al (2000) consider the linkages between short-term exchange rate behavior and political institutions, as do Moore and Mukherjee 2006. In the emerging market context, Jensen and Schmith's study assesses the linkage between political events in Brazil in 2002 (specifically, voter intentions for the presidential election) and the behavior of the Brazilian stock market.

Daily data, then, could provide a welcome complement to our study: it would allow us to assess how actual or expected changes in political institutions, public opinion and macroeconomic outcomes

affect financial markets – equities and exchange rates as well as sovereign credit – in the short term. At present, however, our main interest is the longer-term determinants of the cost of credit to emerging market borrowers (also see Ahlquist 2006, Mosley 2003a). This allows us to focus on the medium- to long-term (rather than on the short-term) impact of macroeconomic factors, past behavior and political variables on countries' costs of borrowing. Put differently, rather than explore the consequences of discrete political events—such as elections and cabinet formations—on capital markets, we examine the broader impact of public policy and institutions on capital market outcomes. Before turning to our statistical results, we summarize the main independent variables included in our analyses. Additionally, Table 1 provides summary statistics for these variables. The summary statistics apply only to country-years included in the analyses reported in Table 2; they do not include cases that are excluded due to missing data.

Insert Table 1 here.

Creditworthiness Indicators. As we argue above, country risk premiums reflect investors' assessments of governments' capacity to fulfill their debt repayment obligations. A key element of this capacity is the ability of governments (and, more generally, national economies) to generate foreign exchange revenue, which can then be applied to debt service. Previous studies of capital flows, sovereign ratings, and risk premiums (Biglaiser and DeRouen 2007; Cantor and Packer 1995; Cosset and Roy 1991) suggest that a country's current account balance, inflation rate and stock of existing debt often are important correlates of debt servicing capacity. To account for these factors, we include the ***current account balance*** (scaled to GDP); the annual rate of ***inflation*** (transformed as a natural logarithm); and the stock of outstanding ***government debt*** (also scaled to GDP) as independent variables.

Countries that have large current account deficits are likely to have difficulty generating foreign exchange, as they tend to consume more products from abroad (imports) than they sell abroad. Countries with current account deficits face adjustment pressures, either via exchange rate depreciation

or via capital inflows. The latter implies an increase in interest rates – and borrowing costs – to attract investment. We would expect, then, that country-years with a positive current account balance (a surplus) will display lower risk premiums, while country-years characterized by negative current account balances (deficits) will face higher borrowing costs, all else equal.

In the most straightforward sense, inflation may be less important to holders of foreign-currency denominated assets than to investors in domestic currency-denominated assets; the former – on which the EMBI-G is based – are repaid in dollars or euros, rendering them immune to inflation and exchange rate risk. Inflation, however, erodes the value of local currency relative to such foreign currencies; as such, inflation reduces the capacity of governments to convert local currency to foreign currency to meet their debt obligations. Moreover, inflation generally is taken as a signal of the overall credibility of macroeconomic policy (e.g. Maxfield 1997, Stone 2002), leading us to expect a positive association between inflation rates and sovereign spreads.

Additionally, sovereign debt should directly affect assessments of creditworthiness. Governments with greater debt burdens are required to devote a larger share of their resources to debt service. This not only diverts funds from other sorts of expenditures (such as education and infrastructure, as well as social security and welfare), it also raises the pressure on governments to generate revenue (and foreign currency stocks). These pressures are likely to be particularly pronounced when public debt is of shorter maturities, and when global capital markets are risk-averse. We use an overall measure of public debt because it is more widely available than the measure of short-term debt; and we expect a positive relationship between debt stocks and credit spreads. In the shorter run, we also might expect that government fiscal balances affect default risk: governments that must borrow to meet its expenditure needs are likely to be perceived as less creditworthy. In the analyses below, however, we opt against using the fiscal balance indicator; *fiscal balance*, which recently has been redefined by the IMF and World Bank in an effort to ensure cross-country comparability, is available for a much more limited set (114 for fiscal balance, versus 198 for public debt) of country-years.

Macroeconomic Controls. Extant studies of country risk premiums (Block and Vaaler 2004; Vaaler et al. 2005) also highlight the importance of additional macroeconomic controls. These include *country size*; *income per capita*; and the rate of *economic growth*. Larger economies may be less subject to exogenous shocks and have deeper domestic capital markets, rendering them better able to withstand economic downturns. Larger economies also may issue greater amounts of debt, in absolute terms, rendering such markets more liquid. Along these lines, Eichengreen and Hausmann (2005) find that developing countries with larger economies are less plagued by the problem of “original sin,” defined as the inability to borrow in one’s domestic currency and at relatively short maturities. Given this fact, we might expect larger economies to display small risk premiums, all else equal. Again, we use the natural logarithm of gross domestic product as our measure of country size.

Next, the level of economic development may affect investors’ risk assessments. Relative to developed nations, at least, emerging market economies tend to pay higher borrowing costs, even if they pursue similar policies. This stems from greater attention given to default risk and concerns about “original sin” (e.g. Armijo 1999, Santiso 2003, Wibbels 2006).⁵ To assess whether this effect persists within a sample of middle-income developing nations (since EMBI-G values are relative to the emerging market index as a whole), we include a measure of income per capita (again, using the natural log). Our final macroeconomic control is the rate of economic growth, measured according to the annual change in income per capita. We expect that, where growth is higher, investors are more optimistic in their assessments of sovereign risk. Countries that are experiencing higher rates of growth can be expected to generate higher levels of public sector revenue, as well as to (depending on exchange rate movements) be better able to generate export earnings. Moreover, equity and foreign direct investors are more likely to make investments in countries with higher levels of growth (Jensen 2006, Mosley and Singer 2007), thereby improving the general ability to attract foreign capital.

⁵ Interestingly, though, Eichengreen and Hausmann (2005) find no empirical support for the claim that countries with lower incomes per capita should be more prone to “original sin” effects.

Global Capital Market Conditions. Sovereign borrowers, and developing country borrowers in particular, are subject to shifts in risk aversion among global investors. When returns in advanced markets are low, investors often become more risk-tolerant, seeking out higher returns in developing country markets. On the other hand, when returns in developed markets are high, or when crises in emerging markets generate a swing toward risk aversion, developing countries have difficulty attracting capital, even at higher interest rates. This underlies the fact that, under many circumstances, emerging market sovereign borrowers are affected more by push (global market) than to pull (country-specific) factors.

Models of sovereign ratings and borrowing costs, then, should control for global market conditions. Of course, our dependent variable considers country risk premiums relative to a broader set of emerging market nations (those that constitute EMBI-G). Because of this, global market factors that affect all EMBI-G member countries similarly should not be significant predictors of country spreads. If, however, global market factors affect some countries more than others – for instance, if a crisis in Thailand leads investors to reassess all countries with fixed exchange rates, or all countries with large current account deficits – then these may still play a role in explaining variation in the dependent variable. We therefore control for the *global default rate* on foreign currency denominated bonds; when default is more prevalent globally, we expect country-specific spreads to increase. We also control for *capital market openness*, using the Chinn-Ito index, which measures the extent of legal restrictions on cross-border financial transactions. While capital market openness exposes sovereign borrowers to greater pressures from global markets (Obstfeld and Taylor 2004), it also allows them to access a larger pool of funds (Simmons 1999). We expect this latter effect to dominate, so that nations with greater values on capital market openness (indicating fewer restrictions) should have lower country spreads.

Political Factors. A large body of recent work in comparative and international political economy highlights the interplay between domestic political institutions and ideology, on the one hand,

and global capital markets, on the other. Domestic political institutions, including regime type; electoral laws; and the extent of political constraints, can affect government policies and economic outcomes. Most generally, countries with a greater respect for rule of law – typically associated with established democratic regimes – are argued to have lower levels of investment risk and to be more likely to keep their commitments (e.g. Schultz and Weingast 2003, Simmons 2000). Because of these effects, such institutions also can be salient for foreign investors. Jensen (2006), for instance, argues that nations with democratic regimes are better able to attract longer-term direct investment. Henisz (2000) posits that political systems that have greater institutional constraints – and less discretion for individual leaders – display higher rates of economic growth. At the same time, however, other scholars have questioned whether these institutional effects obtain in the case of sovereign borrowing. Saiegh (2005), for instance, finds little evidence that developing nations with democratic regimes pay lower borrowing costs than non-democracies. He also reports that democracies are more, rather than less, likely to reschedule their debt obligations. Indeed, once we account for the impact of macroeconomic conditions, past default behavior, and the global market environment, domestic political institutions may play little independent role. So, while we include measures of political institutions in some of our statistical analyses (see below), we do not have strong expectations regarding their impact on country spreads, nor do we find such effects.

We expect the ideological orientation of governments to have strong effects on sovereign spreads in developing nations. Because governments of the left are likely to be perceived as having an ideological affinity for generous public spending and higher rates of corporate taxation (and, the argument goes, large fiscal deficits and high rates of inflation), investors should demand higher interest rate premiums from left governments. In extreme cases, capital flight and credit rationing can force left-leaning governments to abandon their policies, thereby demonstrating the power of global capital markets (e.g. Garrett 1998, Kurzer 1993). In terms of our argument, ideology may serve as a signal to investors of governments' risk type, and thus their prospective sovereign repayment behavior. This

assumes, of course, that the signal is a reliable one – that left governments in emerging market countries actually *do* pursue policies that are different than those of centrist and right governments.

We classify government partisanship using information from the *Database of Political Institutions*. Given that most of the countries (all except five) included in our sample are characterized by presidential (rather than parliamentary) systems, we focus on the ideological orientation of the chief executive, rather than that of the largest legislative party or the governing legislative coalition. In many presidential systems, moreover, decisions regarding the protection of property rights and sovereign repayment behavior are executive, rather than legislative decisions (North and Weingast 1989). Analysis of the executive thus is most appropriate for this sample. We generate a dichotomous measure, differentiating between left versus all other (centrist, right-leaning) government types. We also expect that the effect of left partisanship will be most pronounced when investors have less retrospective information with which to form opinions regarding default risk. That is, we expect that the negative effect of left ideology on country spreads is most likely to obtain when a government is new to political office. To test this specific expectation, we include an interaction between ***left government*** and ***years in office*** (see below).

History and Experience. Part of investors' assessments of default risk involves using past behavior – a retrospective assessment – to predict future willingness and ability to pay. Tomz (2007) argues that sovereign borrowers' past behavior, along with the conditions (good or bad economic times) under which that behavior occurred, strongly influences risk premiums. To account for the impact of a country's past creditworthiness on its current spreads, we include a measure of the ***years since last default***. We expect a negative association between this variable and spreads: where repayment (non-default history) is longer, borrowing costs should be lower. Because of the low skewness of this variable, we do not employ a logarithmic transformation.

In addition to assessing *country* history, we expect that investors also will assess *government* history. That is, they are interested not only in whether Brazil has defaulted during the last century, but

also in how Brazil has treated its creditors since 2002, when Lula took office. The logic here is that, the longer a government is in office, the better able investors are to draw upon evidence from state action to assess its “type,” – whether it is a government that honors its obligations under all conditions, or a government that defaults under a wide array of circumstances. As a government’s time in office increases, investors’ uncertainty regarding the degree of default risk thus should diminish. As such, we expect a negative relationship between **years in office** and country premiums. In this case, our measure displays a high degree of skewness, which suggests that a standard (base-10) logarithmic transformation is most appropriate.

Our expectations regarding **years in office** also suggest that, when investors have little information about a government’s previous economic policies, they must look to other factors in generating assessments about the risk of sovereign default. On the other hand, when governments have been in office for many years, investors may put less stock in other factors, both macroeconomic and political. For instance, when a government is relatively new, investors may use ideology (partisanship) as an information shortcut, expecting left-leaning governments to be more default- (and inflation-) prone than others. As investors gain experience with and information about such a government, though, the impact of ideology as an information shortcut should diminish. Similarly, the impact of macroeconomic outcomes on risk premiums also may decline as governments’ time in office increases. In the case of a new government that inherits high debt levels or an inflationary environment, investors may worry about its temptation to default. Again, though, as time persists, investors may be better able to assess the government’s willingness – even in the face of challenging macroeconomic conditions – to repay its obligations.

We assess the interplay between time in office and political-economic factors by including several interaction terms in our analyses: **years in office * left government**; **years in office * inflation**; and **years in office * government debt**. In an alternative specification (see Table 2), we test

instead for the interaction between default history (*years since last default*) and government partisanship.

Statistical Results

We estimate the following model, using the annual country spread as the dependent variable, and including the independent variables described above:

$$\text{Country Spread (EMBIG)} = \beta_0 \text{ Spread (t-1)} + \beta_1 [\text{Creditworthiness Indicators}] + \beta_2 [\text{Global Market Controls}] + \beta_3 [\text{Macroeconomic Indicators}] + \beta_4 \text{ Left Government} + \beta_5 \text{ Years in Office} + \beta_6 \text{ Years since Last Default} + \beta_7 \text{ Years in Office} * \text{Left Government} + \beta_8 [\text{Years in Office} * \text{Creditworthiness Indicators}] + \text{error}$$

We employ OLS estimation with panel corrected standard errors, widely used for cross sectional time series data, particularly when the number of countries (N) exceeds the number of time periods (T) (see Beck and Katz 1995, 2004). To account for the influence of past economic policies and previous country spreads on current country risk premiums, we include a lagged dependent variable (LDV). Although the LDV can generate downwardly biased coefficient estimates on the explanatory variables (Achen 2000), it allows us to account for the persistence of some effects over time. Our models also assume first-order autocorrelation within panels (an AR1 process). In the reported models, we opt against using fixed effects, given the fact that fixed effects will be collinear with time-invariant, or largely time-invariant, regressors (Beck 2001).

Table 2 presents results from four cross-sectional time series models, all of which include the sets of factors discussed above. The countries included in these statistical models are listed in the Data Appendix. The models differ in their inclusion of various interactions among governments' time in office, macroeconomic indicators, and government ideology. Taken together, these results support our expectation that, while sovereign spreads are largely the result of macroeconomic factors and past government repayment behavior, the effects of these indicators may be mitigated by governments' time in office, as well as by the government's ideological leanings. In sum, while emerging market economies often are prone to treatment based on "original sin," the consequences of their structural position are

sometimes softened by experience in office, as market participants update their prior beliefs regarding default risk. Additionally, we find little evidence of a direct impact on spreads of other political factors, such as the degree of democracy, the extent of political constraints on the executive, the type of electoral institutions, and the existence of divided government. While these factors may matter indirectly, in that they can influence macroeconomic outcomes and past government actions on debt repayment, their direct effects are not apparent in our analyses.

The first model (1) reported in Table 2 suggests that, as we would expect, country-years marked by higher levels of public debt are associated with larger spreads. A one standard deviation increase in **government debt** would, all else equal (and, given the interaction, when a government was new to office; *see below*), be associated with a 391 point increase in the country spread – a little more than half of one standard deviation in the dependent variable. Similarly, countries with higher rates of growth are evaluated favorably, although the implied effect of **economic growth** on spreads is much less than that of public debt. It also is the case, as we suggest above, that country years displaying greater levels of **capital market openness** are marked by significantly smaller interest rate premiums. And global market sentiment does appear to matter for spreads: when the **global default rate** is greater, country spreads are higher, regardless of country-specific macroeconomic outcomes.

Insert Table 2 here

Other creditworthiness indicators are statistically insignificant; the **current account** balance is not a significant predictor of country spreads. Perhaps more interestingly, three of the economic control variables are signed in the opposite direction from what we would expect: higher rates of **inflation** are associated significantly with lower spreads. While it is reasonable that inflation would not necessarily generate higher spreads, given the EMBI-G is focused on foreign currency-denominated assets, it is curious that inflation's effect would be negative. Additionally, **country size** predicts significantly higher risk premiums. This might stem from the fact that countries with large economies are more likely to issue greater amounts of debt (in absolute terms), thereby raising the risk of default.

And nations with higher *income per capita* display larger sovereign spreads; at least within our sample of developing nations (as opposed to a sample that would include both middle- and high-income countries), then, countries at higher levels of development are characterized by higher spreads.

Turning to past country and government behavior, *years since last default* has the expected (negative) sign, but is statistically insignificant. *Years in office*, however, is significant, as is *left government* and the interaction between them. What does this set of results imply? When governments are near the beginning of their terms (*years in office* close to zero), the presence of a left executive is associated with higher country spreads. In such situations, a left-leaning executive pays a premium of approximately 230 points (about one third of a standard deviation in EMBI-G) over a center or right executive. At the same time, when centrist or right executives govern (*left government* is zero), longer-standing governments are characterized by *higher* sovereign spreads. To some extent, this may reflect the impact (and the weak creditworthiness) of a few countries with particularly long-serving executives – Egypt and Malaysia, for instance. The *years in office * left government* interaction, which is negatively signed and significant at a 90% level of confidence, provides initial support for our claim that the impact of government partisanship is contingent on whether investors have other sources of information regarding likely government behavior. The joint presence of left governments and longer stays in office implies smaller country spreads: investors may worry about the impact of new left governments on sovereign risk, but these concerns appear to diminish with time.

A similar effect may be in operation with respect to the second significant interaction term, *years in office * government debt*. Again, this interaction is significant and negative: while higher government debt generates higher EMBI-G spreads for new governments (and, conversely, more years in office imply higher spreads when coupled with low debt), higher debt combined with a longer time in office predicts lower spreads. The implication is that investors' tolerance for suboptimal macroeconomic policies increases as their experience with, and information about, a government grows. The final interaction, *years in office * inflation*, does not generate a statistically significant

coefficient estimate. If we exclude this final interaction from (1), the signs and significances remain very similar to those reported in Table 2, with two exceptions: **capital market openness** and **inflation** fall below the conventional thresholds for statistical significance.

The next model (2) is identical to (1), except that it employs an alternative measure of default history. Rather than including the total years since the most recent sovereign default, it includes **percentage of years in default (since 1980)**. Again, this measure assesses the impact of retrospective considerations – particularly, past default – on spreads, but (often) over a shorter time period. This variable is significant and positive: countries that have been in default more frequently since 1980 also experience higher spreads. This result holds whether we use the proportion of years in default since 1980, or the proportion of years in default since 1990. Substituting **percentage of years** does not markedly alter the signs or the significances of the other regressors.

The remaining models (3 and 4) shift the focus of the potential interaction effects from the government's time in office to the country's repayment history. In (3), the **years in office * left government** interaction is retained; to this, we add an interaction between **years since last default** and left government. Again, the idea is that, when investors are better able to assess a government's type – here, through repayment behavior – the direct impact of government ideology on spreads should be reduced. Indeed, while neither **years since last default** nor **left government** are statistically significant on their own, the interaction between them is: countries with left governments and better credit histories (more years since the last default) are, all else equal, characterized by lower spreads than left governments with more recent defaults. Again, then, partisanship seems to be an information shortcut only in the absence of other, perhaps more relevant, markers of default risk. When we omit the other interaction (**years in office * left government**) in (4), the results remain very similar.

In additional analyses (not reported), we assessed the impact of other independent variables on EMBI-G spreads. For instance, we substituted the **US interest rate** (on long-term Treasury securities) for the global default rate; again, this was intended as a measure of the global investment climate, and as

a proxy for world interest rates. In a variety of specifications, though, it was not statistically significant. As an alternative to *years in office*, we used the DPI measure **PRTYIN**, the number of years that the chief executive's party (as opposed to a specific executive) has held office. Neither this measure (which correlates with years in office at .39 for the country-years in our sample) nor interaction terms using this measure was significantly associated with EMBI-G spreads.

Perhaps most interestingly, we found little evidence of a relationship between various other political institutions and country risk premiums. In a range of analyses, we included (normally one at a time, given concerns about collinearity) measures of democracy; divided government (an ideological split between the executive and the legislative branches); election years (parliamentary, presidential, or both); and electoral institutions (majoritarian versus proportional). Our lack of significant results on these independent variables may stem from our relatively small sample as well as the relative crudeness of quantitative measures of political institutions. It is, however, consistent with the continuing debate regarding whether large-scale political institutions, such as democratic regimes, are causally related to economic outcomes. Despite Jensen's (2006) claims about democracy, for instance, others have argued that democracy has no impact, or even a negative impact, on flows of direct investment. And Saiegh's (2005) recent study of the linkages between democratic regimes and sovereign borrowing in developing nations maintains that democratic regimes are *more*, not less, likely to reschedule their debts. He also reports evidence that democracies do not pay significantly lower interest rates than non-democracies.

Contrary to some literature that posits the importance of political institutions – and implies constraints on institutional choice emanating from global capital markets – we find economic policy outcomes and macroeconomic characteristics to be more important predictors of relative risk outcomes. And we find some, albeit limited, evidence that government ideology can be important to market participants. This seems to be true, however, only when government ideology serves as a reliable signal of government macroeconomic policies. On the other hand, if government partisanship provides little information about economic policy outcomes – and if other factors, like time in office or

repayment history, provide better information, there is little reason to expect that left governments will pay significantly higher interest rates than right governments. Hence the large spikes in risk premia that were observed in Brazil during the 2002 election campaign were not repeated in 2005 and 2006, despite various political scandals and political uncertainties.

IV. Conclusion

Governments in emerging markets often face problems of confidence in international financial markets. In recent years many have made efforts – sometimes extreme – to gain the confidence of international creditors. But gaining confidence is easier for some emerging market governments than for others. Some governments have maintained access to global capital markets despite high public debt burdens or extensive state regulations on investment transactions. Others have been able to borrow internationally only after adopting strongly fixed (sometimes dollarized) exchange rate arrangements or delegating monetary policy authority to very independent central banks. This paper begins to address the determinants of the diversity in financial markets' assessments and treatment of emerging market sovereign borrowers: why are certain policies and institutional reforms necessary to win market confidence in some cases, but not in others? And why do similar actions provoke different degrees of market response?

In explaining the variance in market responses to politics, both over time and across nations, we offer two main hypotheses. The first suggests that bond market actors respond more negatively to new governments of the left than they do to new governments of the center and the right. This initial response, however, is moderated over time, as investors acquire information with which to more accurately price risk. Our second prediction is that, under conditions of high uncertainty, investors will rely heavily on macroeconomic indicators of sovereign risk, including debt and inflation. But, as governments provide additional information (via their behavior in office) about their willingness to pay, the importance of these "capacity to pay" signals will diminish.

Indeed, our quantitative analyses suggest that bond market actors do perceive a higher risk associated with governments of the left, and that this premium diminishes the longer the executive is in office. While investors perceive a higher risk associated with new heavily-indebted governments, debt-to-GDP ratios contribute less to sovereign risk spreads as an incumbent's political tenure increases. This broader pattern is largely consistent with Brazil's experience in the first half of this decade, in which the rise of a leftist candidate provoked strongly negative reactions in 2002, but the reelection campaign by a leftist incumbent generated very little, if any, change in market sentiment.

This study contributes to ongoing debates over the influence of politics on markets, while also raising important questions about the nature and breadth of market constraints on politics. Such constraints are central to understanding the possibilities for autonomous policy-making in financially-open economies. We also point to a number of productive avenues for future research, including the exploration of the nature and types of political information brought to bear on investment decisions, and the potential diversity in behavior – as a result of differences in informational endowments – among investors. While we treat professional investors as a largely unified group in this paper, we aim in future research to consider how different types of investors (even within the same subset of capital markets) may respond differently to similar political phenomena.

Table 1: Summary Data

Variable	Mean	Standard Deviation	Minimum	Maximum
EMBI Spread	591.84	695.68	30.57	4708.59
Capital Market Openness	0.02	1.35	-1.77	2.60
Country Size (ln)	25.15	1.25	23.02	28.29
Current Account	0.49	5.88	-13.20	23.37
Economic Growth	2.06	4.52	-11.77	15.81
Global Default Rate	1.83	0.52	1	2.8
Government Debt	34.12	21.24	4.60	118.13
Income per Capita (ln)	7.71	0.79	5.86	9.01
Inflation (ln)	1.83	1.41	-2.30	6.96
Left Government	0.32	0.47	0	1
Years in Office (Log)	1.24	0.85	0	3.64
Years since last default	25.94	46.40	0	166
Percentage of years in default (since 1980)	36.32	26.76	0	84
<i>Interactions:</i>				
Left Government*Years in Office (Log)	0.40	0.72	0	2.83
Inflation (ln) * Years in Office (Log)	2.00	2.24	-3.62	13.55
Government Debt * Years in Office (Log)	0.40	0.38	0	2.09

Table 2: Correlates of EMBI Spreads

	(1)	(2)	(3)	(4)
Spread (t-1)	0.553*** (0.128)	0.557*** (0.126)	0.550*** (0.137)	0.550*** (0.137)
Current account balance	-6.780 (7.932)	-7.923 (7.035)	-5.979 (8.035)	-5.988 (8.027)
Inflation	-73.797** (37.769)	-59.815 (37.407)	-22.903 (23.026)	-23.134 (23.447)
Government Debt	18.407*** (3.735)	16.876*** (3.264)	13.580*** (3.059)	13.585*** (3.069)
Global Default Rate	140.999* (73.491)	151.974** (73.38)	144.929* (82.232)	144.891* (82.248)
Capital Market Openness	-49.512* (27.971)	-56.268* (28.272)	-38.656 (25.911)	-38.842 (24.746)
Country Size	95.664** (39.916)	86.805** (37.963)	108.423*** (35.819)	108.643*** (34.989)
Income per Capita	89.349** (42.224)	80.810** (37.513)	80.746** (40.016)	80.845** (39.561)
Economic Growth	-30.803*** (7.878)	-29.774*** (8.109)	-27.494*** (8.401)	-27.510*** (8.412)
Left Government	230.924** (116.331)	200.850* (112.262)	133.038 (95.338)	137.626 (91.196)
Years in Office	188.369*** (60.823)	185.074*** (62.324)	12.474 (48.913)	13.507 (40.360)
Years since Last Default	-0.861 (0.729)		-0.446 (0.7643)	-0.451 (0.740)
Percentage of Years in Default (from 1980)		2.039* (1.147)		
Years in Office * Left Government	-140.361* (80.594)	-133.881* (77.712)	4.606 (70.705)	
Years in Office * Government Debt	-5.922*** (1.739)	-5.809*** (174.639)		
Years in Office* Inflation	43.087 (28.767)	40.783 (28.994)		
Years since Last Default * Left Gov't			-3.509** (1.491)	-3.460*** (1.262)
Constant	-3608.768*** (1242.414)	-3402.378*** (1171.445)	-3751.09*** (1136.61)	-3758.307*** (1103.565)
N. of country-years	198	198	198	198
N. of countries	30	30	30	30
R²	0.69	0.69	0.66	0.66
rho	.076	.068	.094	.094

Prais-Winsten regression coefficients; panel-corrected standard errors are in parentheses.

***p>.01; **p>.05, *p>.1

Figure 1: EMBI Spreads and Election Opinon Polls

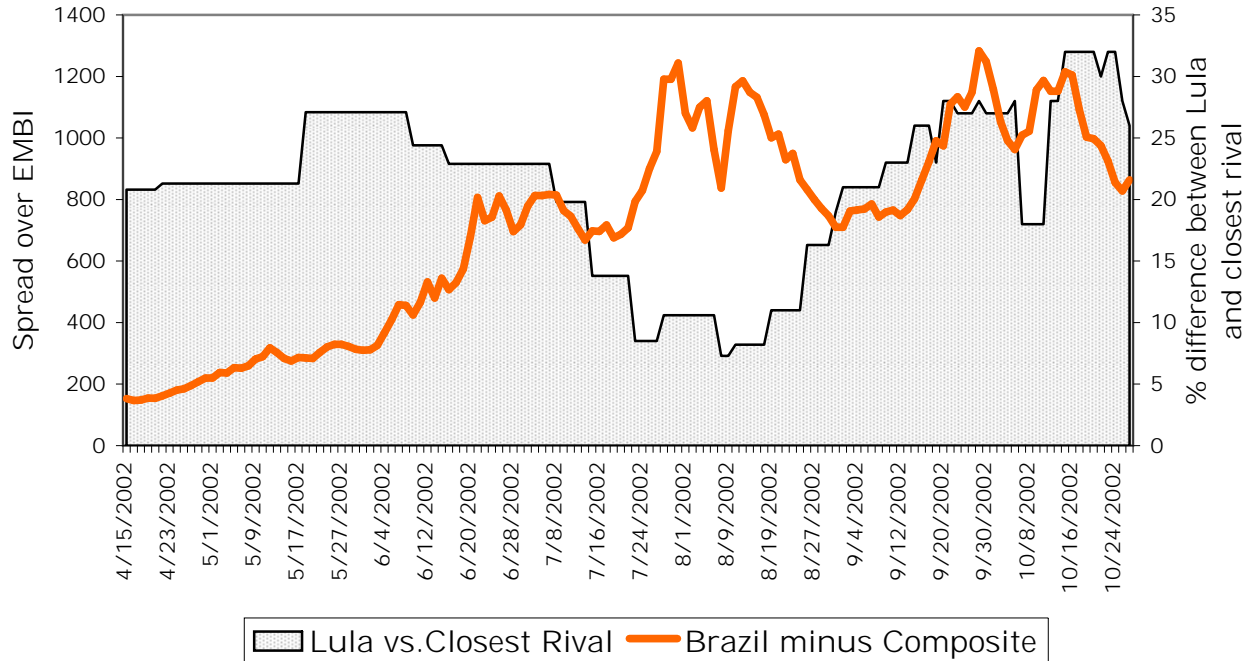


Figure 2: EMBI Spreads, 2001-2006

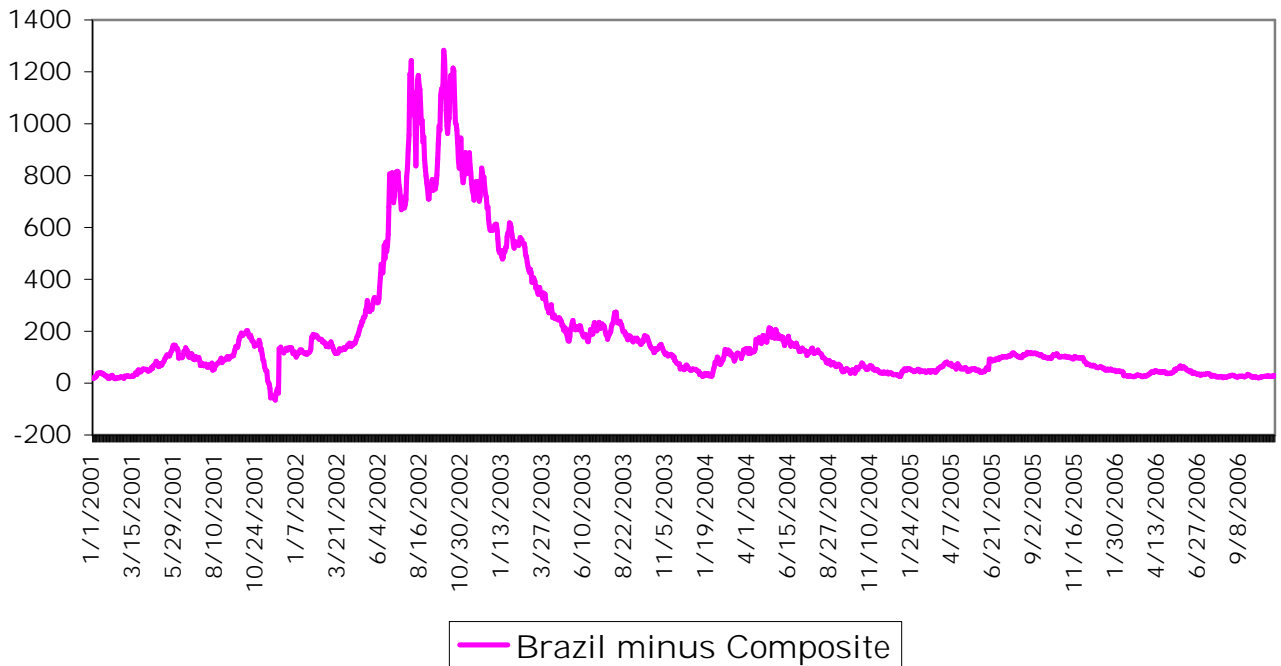


Figure 3:
Brazil: Net Federal Government Debt

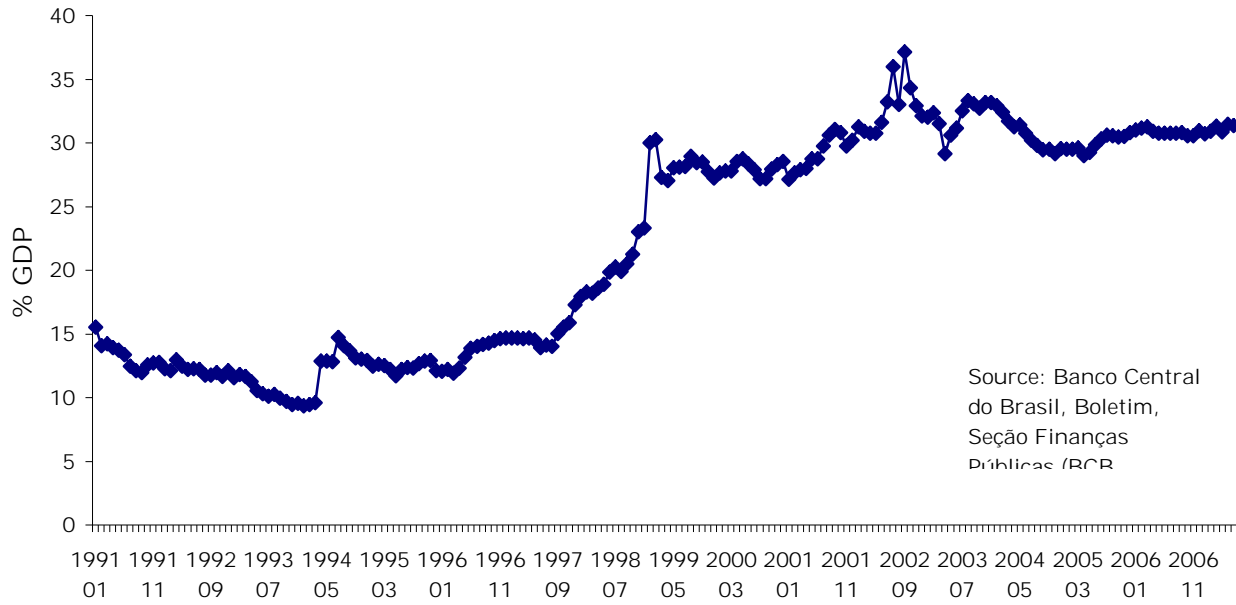


Figure 4: Brazil Spreads and Inflation

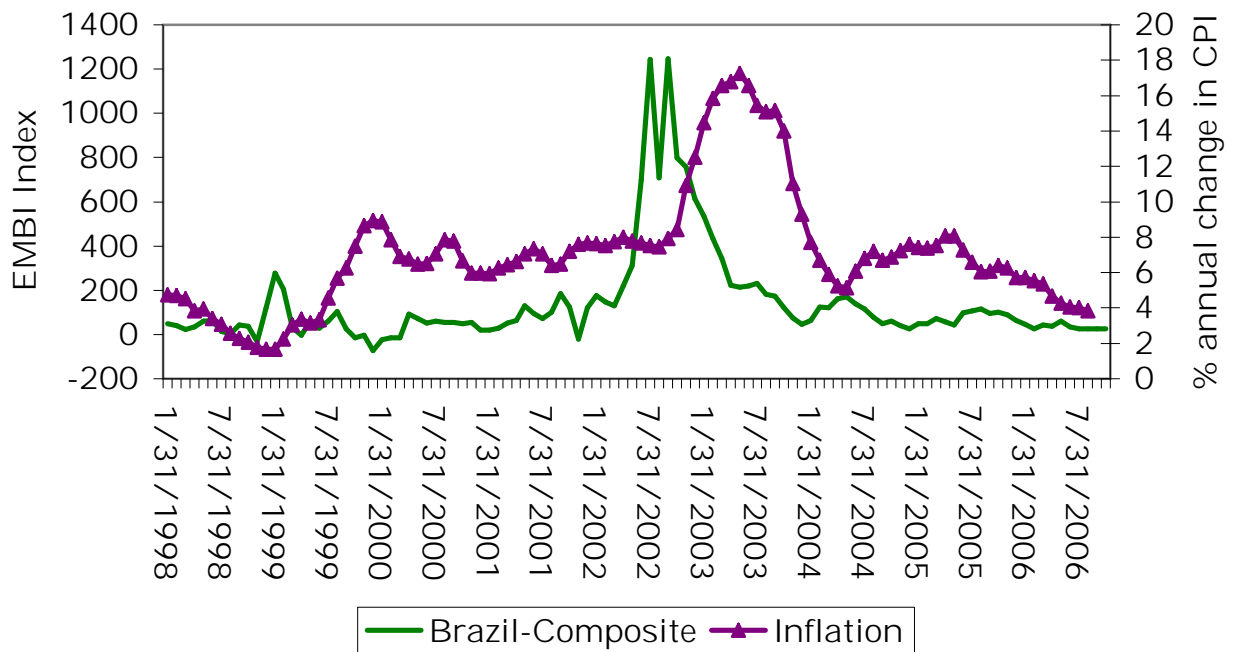


Figure 5: Brazil, Ecuador and EMBI Composite Index

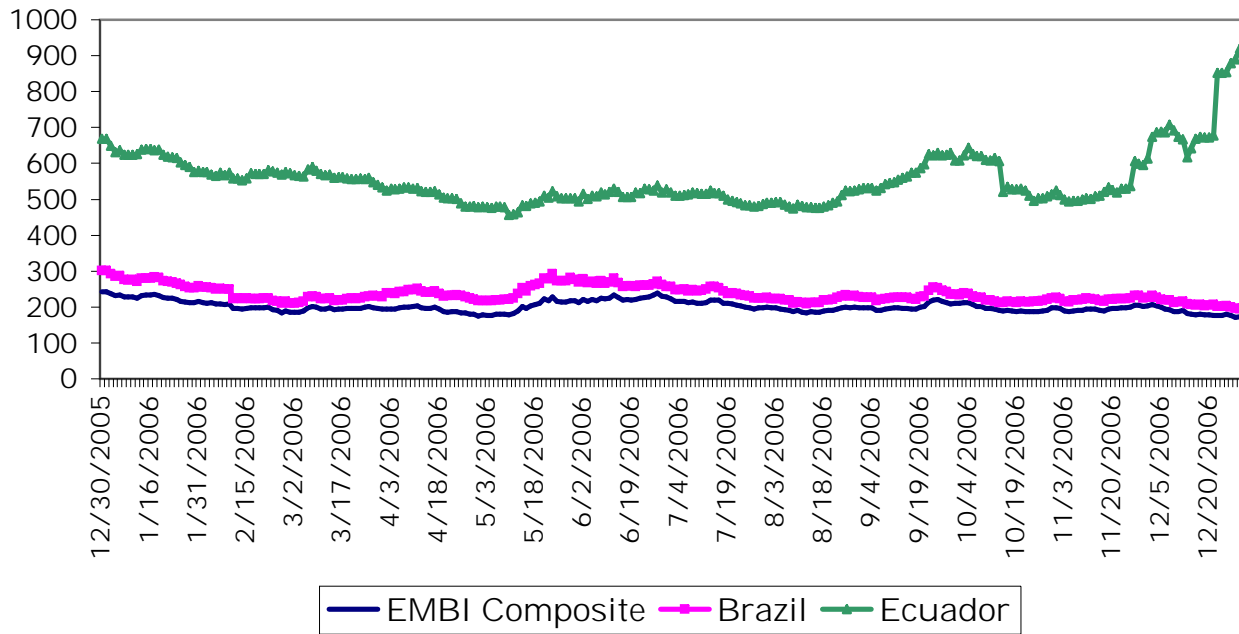
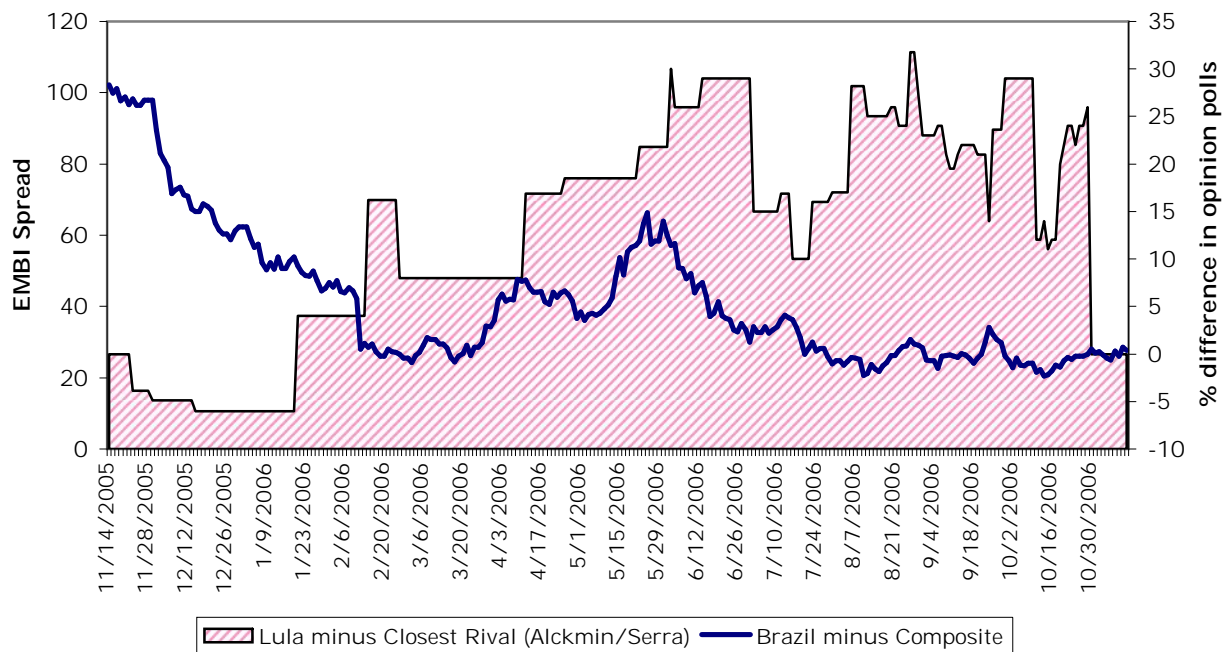


Figure 6: Public Opinion and Sovereign Spreads, 2005-2006



Data appendix

Unless otherwise noted, data are from the *World Development Indicators*

Capital Market Openness	Index of capital account openness compiled from the IMF's <i>Annual Reports on Capital Exchange Restrictions</i> . Lower scores represent more severe restrictions on the payment and receipt of capital. The index is calculated such that the series mean is zero. Source: Chinn and Ito 2007 http://www.ssc.wisc.edu/~mchinn/kaopen_2005.xls
Country Size	Size of the national economy: gross domestic product in constant US dollars. Transformed as a natural logarithm.
Current Account	Balance on current account (sum of net exports of goods, services, net income, and net current transfers) as percentage of gross domestic product.
Democracy	Polity score; twenty-one point scale of autocracy and democracy (ranges from -10 to 10). Source: Polity database, http://www.cidcm.umd.edu/inscr/polity/
Economic Growth	Annual rate of change in gross domestic product per capita.
EMBI Spread	Spread between the country's value and the composite index value; annual weighted average. The index is the JP Morgan Emerging Markets Bond Index (EMBI) Global. This index covers US dollar-denominated Brady Bonds, Eurobonds, trade bonds and local market debt instruments, issued by sovereign and quasi-sovereign entities. Some instruments have low liquidity (in contrast to the EMBI+ index, which has stricter criteria for inclusion). We use the blended spread (BSPRD), which includes both collateralized and uncollateralized elements of bond debt. The index presently covers 45 debt instruments from 33 nations. The index is weighted by size of debt issued, so that countries with more debt instruments in circulation have a greater influence on the index value. Source: Datastream.
Fiscal Balance	Cash surplus or deficit, as a percentage of GDP. Revenue (including grants) minus expense, minus net acquisition of non-financial assets. This measure is used in the most recent <i>World Development Indicators</i> and is closest to the older fiscal balance measure, "overall budget balance."
Global Default Rate	Annual global rate of default on foreign currency-denominated sovereign bonds, reported in Beers and Chambers (2007).
Government Debt	Public and publicly guaranteed debt, DOD, current US dollars (from World Bank, Global Development Finance). Includes long-term external obligations of public debtors, including the national government, political subdivisions (or an agency of either), and autonomous public bodies, and external obligations of private debtors that are guaranteed for repayment by a public entity. Scaled to gross domestic product, current US dollars (World Development Indicators).
Income per Capita	Gross domestic product per capita, transformed as natural logarithm.

Inflation	Annual rate of change in consumer prices; transformed as a natural logarithm.
Left Government	Ideology of the executive branch. Original coding (EXECRLC) has three categories, left, right and center. Variable is recoded as a dichotomous indicator of left government (left=1, center or right=0). Similarly, left legislative coding is based on the LGOVRLC, which codes the partisan orientation of the largest legislative party; again, this variable is recoded as a dichotomous indicator of left government (left=1, center or right=0). Source: the Database of Political Institutions (DPI 2004), http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:20649465~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html
Percentage of Years in Default	Percentage of years in default, where total years are the number of years since 1980 (or, alternatively, 1990), and the coding of default years is based on information provided in Beers and Chambers (2007).
US Interest Rate	Benchmark government bond interest rate for United States Treasury bonds. Source: Global Financial Data.
Years in Office	Number of years the chief executive has been in office (YRSOFFC variable, DPI 2004).
Years since Last Default	The count of years since the last default is based on dates of sovereign defaults reported in Tables 6 and 7 of Beers and Chambers (2006). These defaults include both bank debt and bond debts, denominated in foreign currencies(domestic denominated debt is not included). "Years since last default" takes a value of zero while a country is in default. When a country has never defaulted, years since last default has a value of 1824, the beginning of the S&P survey. Countries that are not listed in Tables 6 and 7 are assumed to have no default history from 1824.

Countries included in statistical analyses:

Argentina	Mexico	Uruguay
Brazil	Morocco	Venezuela
Bulgaria	Nigeria	
Chile	Pakistan	
China	Panama	
Colombia	Peru	
Cote d'Ivoire	Philippines	
Croatia	Poland	
Dominican Republic	Russia	
Ecuador	South Africa	
Egypt	Thailand	
El Salvador	Tunisia	
Hungary	Turkey	
Malaysia	Ukraine	

References

Achen, Christopher H. 2000. "Why Lagged Dependent Variables Can Suppress the Explanatory Power of Other Independent Variables." Paper presented at the Annual Meeting of the Political Methodology Section of the American Political Science Association, July 20-22, UCLA.

Ahlquist, John S. 2006. "Economic Policy, Institutions and Capital Flows: Portfolio and Direct Investment Flows in Developing Countries." *International Studies Quarterly* 50(3): 681-704.

Alesina, Alberto and Jeffrey Sachs. 1988. "Political Parties and the Business Cycle in the United States, 1948-1984." *Journal of Money, Credit and Banking*, 20 (1): 63-82.

Alesina, Alberto F. and Guido Tabellini. 1988. "External Debt, Capital Flight and Political Risk" NBER Working Paper Series, w2610. Cambridge, MA: National Bureau of Economic Research.

"Analysis: Will Lula Default?" By Martin Hutchinson, *United Press International*, October 2, 2002.

Armijo Leslie Ann. ed. 1999. *Financial Globalization and Democracy in Emerging Markets*. New York: St. Martin's Press.

"Asset Allocation: Market Analysis - South America - Tough Brazil not ready to crack" *Financial Times*, September 1, 2006.

Bailey, Warren and Y. Peter Chung. 1995. "Exchange Rate Fluctuations, Political Risk, and Stock Returns: Some Evidence from an Emerging Market." *The Journal of Financial and Quantitative Analysis*. 30(4):541-561.

Bartolini, Leonardo and Allan Drazen, 1997. "Capital-Account Liberalization as a Signal" *American Economic Review* 87 (1): 138-154.

Bernhard, William and David Leblang. 2002. "Democratic Processes, Political Risk, and Foreign Exchange Markets" *American Journal of Political Science*, 46 (2): 316-333.

Beck, Nathaniel. 2001. "Time-Series-Cross-Section Data: What Have We Learned in the Past Few Years?" *Annual Review of Political Science* 4: 271-293.

Beck, Nathaniel and Jonathan Katz. 2004. "Time series cross section issues: dynamics, 2004." Working Paper, New York University and California Institute of Technology.

_____. 1995. "What to do (and not to do) with time-series cross-section data." *American Political Science Review*, 89, 634-647.

Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh, 2001. "New tools in comparative political economy: The Database of Political Institutions." *World Bank Economic Review*. 15(1): 165-176

Beers, David T. and John Chambers. 2006. "Commentary: Sovereign Defaults at 26-Year Low, To Show Little Change in 2007." New York and London: Standard and Poor's (September 18). Available at treasury.worldbank.org/web/pdf/JohnChambers-Commentary.pdf

- Bernhard, William and David Leblang. 2006. *Democratic Processes and Asset Markets*. New York: Cambridge University Press.
- Biglaiser, Glen and Karl DeRouen, Jr. 2007. "Sovereign Bond Ratings and Neoliberalism in Latin America." *International Studies Quarterly* 51(1): 121-138.
- Block, Steven and Paul Vaaler. 2004. "The price of democracy: sovereign risk ratings, bond spreads and political business cycles in developing countries." *Journal of International Money & Finance*, 23(6), 917-946.
- Calvo, Guillermo A. and Enrique Mendoza. 2000. "Rational Contagion and the Globalization of Securities Markets." *Journal of International Economics* 51(1): 79-113.
- "Can Brazil be Saved?" August 14, 2002. *The Washington Post*, Robert J. Samuelson, p. A29.
- "Can Lula Finish the Job?" *The Economist*, October 5, 2002 U.S. Edition, Special Report.
- Cantor, Richard and Frank Packer. 1996. "Determinants and impacts of sovereign credit ratings," *Economic Policy Review*, Federal Reserve Bank of New York, 2 (2): 37-53.
- _____. 1995. "Sovereign Credit Ratings." *Current Issues in Economics and Finance*, 1 (3) June: 1-15.
- Castañeda, Jorge. 2006. "Latin America's Left Turn." *Foreign Affairs*, 85(3), 28.
- Chinn, Menzie and Hiro Ito. 2007. "A New Measure of Financial Openness" (Mimeo). Available at <http://www.ssc.wisc.edu/~mchinn/research.html>.
- Clark, Ephraim. 1997. "Valuing political risk". *Journal of International Money & Finance*, 16(3): 477-490.
- Cosset, Jean-Claude and Jean Roy. 1991. "The Determinants of Country Risk Ratings." *Journal of International Business Studies* 22(1): 135-142.
- Cukierman, Alex. 1992. *Central Bank Strategy, Credibility, and Independence: Theory and Evidence*. Cambridge, MA: MIT Press.
- Diamonte, Robin, John M. Liew and Ross J. Stevens, 1996. "Political Risk in Emerging and Developed Markets." *Financial Analysts Journal*, 52(3), 71-76.
- Eaton, Jonathan and Mark Gersovitz. 1981. "Debt with Potential Repudiation: Theoretical and Empirical Analysis." *The Review of Economic Studies*, 48(2): 289-309.
- Edwards, Sebastian. 1984. "LDCs' Foreign Borrowing and Default Risk: An Empirical Investigation, 1976-1980." *American Economic Review* 74(4): 726-734.
- _____. 1986. "The Pricing of Bonds and Bank Loans in International Markets." *European Economic Review* 30:565-589.

Eichengreen, Barry, and Ricardo Hausmann. 2005. The Mystery of Original Sin. In Barry Eichengreen and Ricardo Hausmann, eds., *Other People's Money: Debt Denomination and Financial Instability in Emerging Market Economies*. Chicago: University of Chicago Press.

Eichengreen, Barry, Andrew K. Rose, Charles Wyplosz, Bernard Dumas, and Axel Weber. 1995. "Exchange Market Mayhem: The Antecedents and Aftermath of Speculative Attacks" *Economic Policy*, 10 (21): 249-312.

Erb, Claude, Campbell Harvey and Tadas Viskanta. 1996. "Political risk, economic risk and financial risk". *Financial Analysts Journal*, 52(6), 29-46.

Freeman, John R., Jude C. Hays and Helmut Stix. 2000. "Democracy and Markets: The Case of Exchange Rates," *American Journal of Political Science* 44: 449-468.

Garrett, Geoffrey. 1998. *Partisan Politics in the Global Economy*. New York: Cambridge University Press.

"Global View: Brazil at a turning point" *United Press International*, August 5, 2002, By Ian Campbell.

Grabel, Ilene. 1996. "Marketing the Third World: The Contradictions of Portfolio Investment in the Global Economy" *World Development*, 24 (11): 1761-1776.

Goretti, Manuela. 2005. "The Brazilian Currency Turmoil of 2002: A Nonlinear Analysis." *International Journal of Finance*, 10(4), 289-306.

Hardie, Iain. 2005. "The power of the markets? The international bond markets and the 2002 elections in Brazil." *Review of International Political Economy* 13(1): 53-77.

Harvey, Campbell. 1995. "Predictable risk and returns in emerging markets" *The Review of Financial Studies*. 8 (3): 773-816.

Henisz, Witold. 2000. "The Institutional Environment for Economic Growth." *Economics and Politics* 12, 1:1-31.

Hibbs, Douglas. 1977. "Political Parties and Macroeconomic Policy." *The American Political Science Review* 71 (4):1467-1487.

Hunter, Wendy and Timothy Power. 2007. "Rewarding Lula: Executive Power, Social Policy, and the Brazilian Elections of 2006." *Latin American Politics & Society*, 49 (1): 1-30.

_____. 2005. "Lula's Brazil at Midterm." *Journal of Democracy*, 16(3): 127-139.

Instituto de Pesquisa Econômica Aplicada (IPEA). 2007. "Dívida total líquida do governo federal e Banco Central." Banco Central do Brasil, *Boletim: Seção Finanças Públicas*. Available at: <http://ipeadata.gov.br>.

"Investors' pessimism on Brazil may be overdone" *Financial Times*, By Raymond Colitt and Richard Lapper, October 24, 2002, p. 32

Jensen, Nathan. 2006. *Nation-States and the Multinational Corporation*. Princeton: Princeton University Press.

Jensen, Nathan and Scott Schmith. 2005. "Market Responses to Politics: The Rise of Lula and the Decline of the Brazilian Stock Market." *Comparative Political Studies* 38, 10: 1245-1270.

Kaminsky, Graciela and Sergio L Schmukler. 2002. "Emerging Market Instability: Do Sovereign Ratings Affect Country Risk and Stock Returns?" *The World Bank Economic Review*, 16(2), 171-195.

Knight, Frank.. 1957. *Risk, Uncertainty, and Profit*, New York: Kelley & Millman.

Leblang, David. 2002. "The Political Economy of Speculative Attacks in the Developing World." *International Studies Quarterly*, 46(1): 69-91.

"Lula decries market fears of Brazil debt default" *Financial Times*, By Raymond Colitt and Richard Lapper. October 1, 2002, Pg. 12.

"Lula has first-round Brazilian poll victory in sight" *Financial Times*. Raymond Colitt, September 19, 2002, p. 8.

"Lula Meant What He Said" *Newsweek*, By Jonathan Wheatley. March 3, 2003, p. 58.

MacIntyre, Andrew. 2001. "Institutions and Investors: The Politics of the Economic Crisis in Southeast Asia." *International Organization*, 55(1), 81-122.

Martinez, Juan and Javier Santiso. 2003. "Financial Markets and Politics: The Confidence Game in Latin American Emerging Economies." *International Political Science Review* 24 (3): 363-395.

Maxfield, Sylvia. 1997. *Gatekeepers of Growth*. Princeton: Princeton University Press.

Miller, Marcus, Kannika Thampanishvong and Lei Zhang. 2004. "Learning to Trust Lula: Contagion and Political Risk in Brazil." Paper presented at the Royal Economic Society's 2003 Annual Conference at the University of Warwick, revised version.

Moore, Will H. and Bumba Mukherjee. 2006. "Coalition Government Formation and Foreign Exchange Markets: Theory and Evidence from Europe." *International Studies Quarterly* 50 (1), 93-118.

Moser, Christoph. 2006. "The Impact of Political Risk on Sovereign Spreads: Evidence from Latin America" Unpublished manuscript, University of Mainz; Mainz, Germany.

Mosley, Layna. 2003a. *Global Capital and National Governments*. Cambridge: Cambridge University Press.

Mosley, Layna. 2003b. "Are Global Standards the Answer? National Governments, International Finance, and the IMF's Data Regime." *Review of International Political Economy* 10:2 (May), pp. 332-363.

Mosley, Layna and David Andrew Singer. 2007. "Taking Stock Seriously: Equity Market Performance, Government Policy, and Financial Globalization." Manuscript, University of North Carolina and MIT.

"Nine Awful Months of Expectations, 100 Good Days of Government" Carlos A. Sardenberg, *World News Connection*, April 7, 2003.

Nordhaus, William. 1975. "The Political Business Cycle" *Review of Economic Studies*, 42: 169-190.

North, Douglass and Barry Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *Journal of Economic History*, 49(4): 803-832.

Obstfeld, Maurice and Alan M. Taylor. 2004. *Global Capital Markets: Integration, Crisis, and Growth*. Cambridge: Cambridge University Press.

Reinhart, Carmen, Kenneth S. Rogoff and Miguel A. Savastano. (2003). "Debt Intolerance." *Brookings Papers on Economic Activity*, no. 1: 1-74.

"A 'Responsible' Start," *Newsweek*, by Mac Margolis, January 27, 2003, Atlantic Edition, p. 32.

Rodrik, Dani. 1989. "Promises, Promises: Credible Policy Reform via Signalling." *The Economic Journal*, 99(397), 756-772.

Rosendorff, B. Peter and James R. Vreeland. 2006. "Democracy and Data Dissemination: The Effect of Political Regime on Transparency." Paper presented at the 2006 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

Saiegh, Sebastian. 2005. "Do Countries Have a 'Democratic Advantage?' Political Institutions, Multilateral Agencies, and Sovereign Borrowing." *Comparative Political Studies* 38(4): 366-387.

Santiso, Javier. 2003. *The Political Economy of Emerging Markets: Actors, Institutions and Financial Crises in Latin America*. New York: Palgrave Macmillan.

Schneider, Benu, ed.. 2003. *The Road to International Financial Stability: Are Key Financial Standards the Answer?* London: Palgrave Macmillan/ Overseas Development Institute.

Schultz, Kenneth and Barry Weingast. 2003. "The Democratic Advantage." *International Organization* 57: 3-42.

Shambaugh, George. 2004. "The Power of Money: Global Capital and Policy Choices in Developing Countries," *American Journal of Political Science* 48(2): 281-295.

Simmons, Beth A. 1999. "The Internationalization of Capital." In *Continuity and Change in Contemporary Capitalism*, edited by Herbert Kitschelt, Peter Lange, Gary Marks, and John Stephens, pp. 36-69. Cambridge: Cambridge University Press.

_____. 2000. "International Law and State Behavior: Commitment and Compliance in International Monetary Affairs." *American Political Science Review* 94 (4): 819-835.

Sobel, Andrew. 2002. "State institutions, risk, and lending in global capital markets." *International Business Review*, 11(6), 725-752.

Standard & Poor's. 2007. Sovereign Ratings in Europe. (June). Standard & Poor's. Available at <http://www.standardandpoors.com>.

Stone, Randall. 2002. *Lending Credibility: The IMF and the Post-Communist Transition*. Princeton: Princeton University Press.

Sy, Amadou. 2002. "Emerging Market Bond Spreads and Sovereign Credit Ratings: Reconciling Market Views with Economic Fundamentals." *Emerging Markets Review*, 3(4), 380-408.

Tomz, Michael. 2007. *Reputation and International Cooperation: Sovereign Debt Across Three Centuries*. Princeton: Princeton University Press.

Vaaler, Paul M., Burkhard N. Schrage, Steven A. Block. 2006. "Elections, Opportunism, Partisanship and Sovereign Ratings in Developing Countries" *Review of Development Economics* 10 (1), 154–170.

_____. 2005. "Counting the investor vote: political business cycle effects on sovereign bond spreads in developing countries" *Journal of International Business Studies* 36, 62–88.

Wibbels, Erik. 2006. "Dependency Revisited: International Markets, Business Cycles, and Social Spending in the Developing World" *International Organization*. 60: 433-468.

Williamson, John, 2002. "Is Brazil Next?" *International Economics Policy Briefs* 02-7. Washington, D.C.: Institute for International Economics.