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## **Political Institutions, Credible Commitment, and Sovereign Debt in Advanced Economies**

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## Political Institutions, Credible Commitment, and Sovereign Debt in Advanced Economies

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*This article tests systematically the effect of political structures on the credibility of sovereign debtors in advanced economies. It argues that power sharing and party system polarisation have important effects on long-term interest rates. Where collective responsibility is high and polarisation is low the market perceives a more credible commitment on the part of sovereign debtors. These arguments derived from the theory of credible commitments perform much better than alternative accounts of the politics of sovereign debt, namely a market preference for right-wing governments and more flexible polities. The principal data consists of a panel of twenty three rich countries between 1970 and 2009. There are tests for robustness to a wider sample and a variety of different measurements.*

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In August 2011, the ratings agency Standard and Poor's downgraded the long-term credit rating of the United States from "AAA" to "A+", even though the US has a default-free record of over two hundred years. In July 2011, another leading ratings agency, Moody's downgraded Ireland, recently an "AAA" country to "Ba1", also known as "junk status". These and other dramatic developments are a reminder that sovereign debt is a political choice. Sovereigns decide whether or not to borrow and they decide whether or not to pay their debts. Sovereign debt, both in absolute terms and relative to GDP, is concentrated in the developed world. However, the literature on the politics of sovereign debt in advanced economies is sparse. Rather, the majority of studies focus emerging economies, which face very different challenges when borrowing on international markets.

By reconsidering the political determinants of sovereign debt in the advanced economies this article fills a major gap in the international political economy literature and directly addresses the current economic and political crisis. We do so by employing one of the most powerful concepts in political economy: credible commitment.<sup>1</sup> In recent decades, this concept has been central to the increasingly successful engagement between international relations, comparative politics and economics. We test a series of hypotheses about political structures and sovereign debt. These hypotheses are derived from the theory of credible commitment, as well as research on the impact of political ideology and flexible policy-making. We argue that power-sharing institutions and party system polarisation have important effects on long-term interest rates. Where polarisation is low and collective responsibility is high the market perceives a more credible commitment on the part of sovereign

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<sup>1</sup> Kydland and Prescott 1977.

debtors. This credibility argument outperforms alternative accounts of the politics of sovereign debt, namely a market preference for right-wing governments and more flexible polities. The data consists of a panel of twenty three rich countries between 1970 and 2009. Our dependent variable is long-term government bond yield and we control for a vector of conventional economic variables.

The article proceeds as follows. First, we review the literature on sovereign debt. Second, we argue that studies of sovereign debt in developed economies should be anchored within the wider political economy literature that emphasises institutions, political competition, and credible commitments. The third section applies these ideas to the problem of sovereign debt and derives hypotheses. Fourth, we test the hypotheses on a panel dataset. Fifth, we conduct a range of robustness tests. The sixth and final section is the conclusion.

## **The Sovereign Debt Literature**

Politics plays a central role in rating agencies' assessments of sovereign debt. Standard and Poor's emphasises how sovereign debt differs from other types of debt:

'Willingness to pay is a qualitative issue that distinguishes sovereigns from most other types of issuers. Partly because creditors have only limited legal redress, a government can (and sometimes does) default selectively on its obligations even when it possesses the financial capacity for timely debt service'.<sup>2</sup>

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<sup>2</sup> Standard and Poor's 2008, 2.

In keeping with this emphasis, political risk is the first of the nine sets of criteria used to decide on ratings. This category “encompasses institutions as well as systems and processes”. Most of the criteria in this category are very general and relate to levels of democracy, the rule of law and risk of war. Some of the language is very redolent of the credible commitments paradigm, which we use to study the impact of political institutions on sovereign debt: “The stability, predictability, and transparency of a country’s political institutions are important considerations”. Many scholars also emphasise the political nature of sovereign debt.<sup>3</sup> Nonetheless, there is considerable variation in the extent to which the literature takes politics seriously.

It is possible to very roughly rank sovereign-debt studies from least to most political. Reinhart and Rogoff’s seminal contribution aspires to a general explanation, but analyses sovereign default in terms of undifferentiated, unified state actors.<sup>4</sup> This approach is common in theoretical models<sup>5</sup> and in empirical research. Politics are often reduced to the history of default.<sup>6</sup> Tomz cleverly combines economic context and default history to show how the market can infer the preferences of a state.<sup>7</sup> He suggests that history is the most importance source of information on credit risk,<sup>8</sup> but most of the contemporary literature prefers a forward-looking perspective. For most of the three centuries Tomz considers, even the broadest political intelligence would have been very hard to gather. Perhaps in the past, a sovereign’s history was weighted

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<sup>3</sup> Tomz 2007, 15.

<sup>4</sup> Reinhart and Rogoff 2009, 52-53.

<sup>5</sup> Qian 2010, 4.

<sup>6</sup> Cantor and Packer 1996; Sturzenegger and Zettelmeyer 2007, 686.

<sup>7</sup> Tomz 2007, 17-19.

<sup>8</sup> *Ibid.*, 30.

more strongly than it is in the age of newswires, business television stations and the internet.

Many papers include survey-based measures of political risk. They control for politics, but cannot explain them.<sup>9</sup> An emphasis on political instability is more satisfying and identifies some events that may increase uncertainty for investors: for example, elections,<sup>10</sup> popular protests, and executive turnover.<sup>11</sup> Even more appealing is the growing literature on regime type and sovereign debt,<sup>12</sup> which focuses on the essence of a political system to explain variations in risk in the market for sovereign debt. This is, of course, part of a much larger debate about the existence, extent, and nature of a “democratic advantage” across a range of social, economic,<sup>13</sup> and political outcomes. However, the evidence on a democratic advantage in selling sovereign debt is mixed. Saiegh finds no evidence of a democratic advantage in a group of eighty developing countries from 1971-1997.<sup>14</sup> Archer, Biglaiser and DeRouen also find no evidence that regime type or political institutions matter for sovereign credit ratings.<sup>15</sup> By contrast, Biglaiser, Hicks, and Huggins have found some evidence of a democratic advantage, particularly for the poorest countries.<sup>16</sup> Furthermore, Beaulieu, Cox, and Saiegh found that autocracies are much less likely to try to obtain a credit

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<sup>9</sup> Baldacci and Kumar, 2010; Diamonte, Liew, and Stevens, 1996.

<sup>10</sup> Block and Vaaler, 2004.

<sup>11</sup> Cosset and Roy 1991.

<sup>12</sup> Archer, Biglaiser, and DeRouen 2007.

<sup>13</sup> Przeworski et al. 2000; Schultz and Weingast 2003.

<sup>14</sup> Saiegh 2005.

<sup>15</sup> Archer, Biglaiser, and DeRouen 2007.

<sup>16</sup> Biglaiser, Hicks, and Huggins 2008.

rating in the first place, suggesting that the democratic advantage comes in the form of credit-rationing.<sup>17</sup> This is hardly surprising, as there is also a dissensus on democracy and foreign direct investment.<sup>18</sup> Another line of research codes specific institutional configurations. Stasavage looked at constitutional checks on rulers in European states from 1274-1785 and Dincecco examined the centralisation and limitation of power in Europe between 1750 and 1913.<sup>19</sup> Kohlscheen studied the effect of parliamentary regimes and checks and balances on debt rescheduling from 1976 to 1999.<sup>20</sup> Institutions have also been the focus of case studies such as North and Weingast<sup>21</sup> on Britain after the Glorious Revolution of 1688, Stasavage on Britain and France from 1688 to 1789,<sup>22</sup> Vizcarra<sup>23</sup> on nineteenth-century Peru, and Saiegh on Argentina.<sup>24</sup> Stasavage is particularly interesting in the context of this article. Like us, he interacts domestic political competition and political institutions, although he thinks of both rather differently than we do. Moreover, Stasavage's work relates to pre-democratic Europe, not contemporary wealthy countries.

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<sup>17</sup> See Beaulieu, Cox, and Saiegh 2011. Furthermore, a recent study on sovereign borrowing by Oatley, 2010, also found that regime type matters: among developing countries, autocratic governments accumulate significantly more foreign debt than democratic governments.

<sup>18</sup> Büthe and Milner 2008; Jensen 2006; Jensen 2003; Li 2009; Li 2006; Li and Resnick 2003.

<sup>19</sup> Dincecco 2009; Stasavage 2007.

<sup>20</sup> Kohlscheen 2010.

<sup>21</sup> North and Weingast 1989.

<sup>22</sup> Stasavage 2003.

<sup>23</sup> Vizcarra 2009.

<sup>24</sup> Saiegh 2007.

Most existing work has focused on developing countries, or historical studies of early developers in Europe. There is very little research on the politics of sovereign debt among developed economies. One reason for this has been the quiescence of the bond market in rich countries, compared with the debt crises that spread across emerging economies in the eighties and nineties. These dramatic events obscured significant variations in interest rates charged to rich sovereign debtors. Another reason has been the approach to politics taken in much of the literature. A developed economy has not defaulted since the Second World War; all have been democracies since the mid nineteen seventies; and political risk surveys do little to separate developed economies from each other. However, it is obvious that there are very important differences in the political arrangements of developed economies. Thus, an emphasis on political institutions seems to be the only approach in relation to which there is sufficient variation on the independent variable in developed economies. Also, formal institutions matter more in politically stable, highly institutionalised contexts.<sup>25</sup> Fortunately, as the next section will show, this is also an approach that fits into a flourishing research programme on political economy more generally, and one that can avail of a powerful theory, that of credible commitment.

## **Political Economy and Credible Commitments**

The political origins of economic performance has been one of the fastest growing areas of social science research in recent decades. Papers in this tradition have tackled fiscal deficits,<sup>26</sup> economic growth,<sup>27</sup> corruption,<sup>28</sup> forms of innovation,<sup>29</sup> stock market

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<sup>25</sup> Clague et al. 1996, 253; Keefer 2005, 14.

<sup>26</sup> Author 2008; Roubini and Sachs 1989.

<sup>27</sup> Przeworski et al. 2000, 142-213.



performance<sup>30</sup> and a plethora of other economic outcomes. However, this research school has yet to systematically address the question of sovereign debt in advanced economies. Credibility is a key word used by politicians and commentators in the current international debt crisis. However, the credibility of governments' commitments is important and questionable in a range of other areas too.

Governments make promises all the time. The content of their promises matters, but so does the credibility of those promises. Variation in the credibility of political commitments is now recognised as a vital explanation for a range of important economic outcomes. The commitment problem has two closely related variants:<sup>31</sup> time inconsistency and political instability.<sup>32</sup> A famous example of time inconsistency relates to the management of aggregate demand.<sup>33</sup> Policymakers announce a policy of low inflation. This results in lower inflationary expectations and small wage increases. Then, the policymakers opt for a more inflationary policy in an attempt to reduce unemployment. However, "current decisions of economic agents depend upon future expected policy".<sup>34</sup> This undermines the credibility of the low inflation pledge, as workers know that policymakers will opt for expansion if inflation falls. Therefore, they will continue to expect inflation and demand wage increases too large to allow a

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<sup>28</sup> Treisman 2008.

<sup>29</sup> Hall and Soskice 2000; Soskice 1999.

<sup>30</sup> Bechtel 2009; Sattler 2010.

<sup>31</sup> Author 2009, 47-51.

<sup>32</sup> Kydland and Prescott 1977; Rogoff 1985.

<sup>33</sup> *Ibid.*, 377-480.

<sup>34</sup> *Ibid.*, 487.

fall in unemployment. The inconsistency between the policymakers' incentives at different times undermines the credibility of their policy commitments.

The political instability argument is simpler. Since the distribution of political authority can change, policymakers cannot credibly commit the state to a policy. For example, two parties may disagree on the level of public spending. Ironically, a party that wants to restrain public spending in the future may increase the budget deficit in power in order to constrain a successor that prefers higher levels of spending.<sup>35</sup>

Institutions can alleviate credible commitment problems. The dominant prescription is constraint. There are two fundamentally different types of restraint. One is to share power amongst actors, making policy change slow and difficult. Lijphart calls this "joint-power".<sup>36</sup> North and Weingast argue that joint-power between the King and Parliament enabled a credible commitment to the protection of property rights after the Glorious Revolution of 1688 in Britain. They quote constitutional authority Erskin May, "The Crown demands, the Commons grants and the Lords assent to the grant".<sup>37</sup> Joint power between all three actors credibly committed the state and underpinned an increase in investment and economic growth.

The other type of restraint is delegation to an actor, which is insulated from political instability and/or has time-consistent incentives. In Lijphart's terms this is

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<sup>35</sup> Persson and Svensson 1989.

<sup>36</sup> Lijphart 1999, 5.

<sup>37</sup> North and Weingast 1989, 818.

“divided power”.<sup>38</sup> The classic example is an independent central bank with an inflation target. Unlike the policymakers in the Kydland and Prescott analysis, such a bank should never be tempted to inflate the economy to reduce unemployment. It is politically insulated from politicians concerned with unemployment and other economic outcomes. Moreover, it is insulated from changes in the preferences of elected politicians. The grant of independence to many central banks in the 1990s is often at least partly attributed to the rise of theories of credible commitment and time inconsistency in economics.<sup>39</sup> A similar rationale frequently underpins a range of other non-majoritarian institutions.<sup>40</sup>

Of course, most institutions have not been designed according to the theory of credible commitment and its role in contemporary economics, and indeed many institutions have evolved and were never designed. Nonetheless, the idea of credible commitment to protecting particular political interests, rather than a general economic interest, may lie behind the restraining institutions of many countries. Dividing power, through federalism and judicial independence, credibly committed central governments not to infringe the rights of minority groups. Joint power, especially in religiously or ethnically divided societies, credibly committed polities to compromise and consensus. These political settlements may have had positive externalities in economics, as they also credibly committed regimes to stable policies that facilitated

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<sup>38</sup> Lijphart 1999, 5.

<sup>39</sup> Cukierman, Miller, and Neyapti 2002; Keefer and Stasavage 2003, 407-08.

<sup>40</sup> Author 2005; Gilardi 2002; Majone 2001; Stasavage and Guillaume 2002; Thatcher and Stone Sweet 2002.

long-term investments. A polity's capacity for credible commitment is much more likely to be a result of historical accident rather than economic policy.

In contrast to the literature on constraint, some emphasise the need for the flexibility that a concentration of power provides. For example, there is a tradition of arguments about the importance of state strength and autonomy to economic development.<sup>41</sup> MacIntyre argues that constraint leads to damaging rigidity and concentration to damaging volatility. Instead, investors should have greater confidence in a political system that combines flexibility and credibility.<sup>42</sup> MacIntyre's argument is mostly presented as a "golden mean", but he also hints that credibility and flexibility may be particularly appropriate to different policy areas. Alternatively, the appropriateness of the two types of institutional configurations could depend on time horizons. In the short-term, concentrated political systems may have the flexibility to deal with emergencies and changing circumstances. In the longer term, concentration of power represents too great a policy risk for economic agents who would prefer credible commitment to a policy structure. In democracies, this policy risk is often crystallised in an election and a possible change of government.

#### *Credible Commitments and Sovereign Debt*

Both variants of the credible commitment argument apply to sovereign debt. The incentives of a debtor government are time-inconsistent. For example, at time point one, a government can promise to reduce the budget deficit. At time point two, its

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<sup>41</sup> Evans 1995.

<sup>42</sup> MacIntyre 2001, 86.

creditors recalculate the probability of getting their money back; demand for the debt increases; and the interest rate comes down. At time point three, the government reneges on its commitment, using the reduced interest rate to fund increased public spending, instead of a further reduction in public debt. Of course, economic agents are aware of this inconsistency and can predict that the government will renege on its promise. Since the government is not credibly committed, lenders demand a higher interest rate.

Political instability also affects the credibility of sovereign debtors. At time point one, a government can promise to reduce the budget deficit. At time point two, creditors again reduce interest rates. At time point three, the government is replaced by a new government that does not feel bound by its predecessor's commitment to control public debt and instead chooses to spend the proceeds of the lower interest rate. Again, economic agents are aware that an election might bring about a change in policy and price this into the interest rates they charge on sovereign debt. The commitment lacks credibility not because of time inconsistency but because a government at time point one cannot guarantee the policies of a government at time point three.

Political institutions can change the credibility of sovereign debtors in both types of commitment problem. In each case, institutions should affect both the preferences of government and their potential for policy change. Firstly, let us consider time inconsistency. The greater the concentration of power the greater is the incentive to renege on a commitment to control public debt. If power is concentrated in a narrow group, it can target spending at a particular group and will be less concerned about the

costs a higher interest rate will impose on society as a whole. If power is shared it will be more difficult to target spending to satisfy the government's constituents and the greater will be those constituents share in the overall cost of higher interest rates.<sup>43</sup> Also, if power is shared it will be more difficult to agree on any decision, including renegeing on a commitment to control public debt. Secondly, there is political instability. The more concentrated is power the more likely it is that an election will produce a new government unconnected to the original promise to control debt. Moreover, the more concentrated is government the easier and quicker it is to decide to renege on the previous government's commitment. Under joint power, a government would have to manage bargaining amongst coalition partners, other parties and committees in the legislature and amongst representatives of civil society.

There are other ways to think about institutions and economics. Some research on political economics employs particular institutions as their independent variables. For example, Persson and Tabellini centre their analysis on contrasts between majoritarian and proportional electoral systems and presidential and parliamentary forms of government.<sup>44</sup> By contrast, a focus on the dispersion of power uses a simple concept to capture a complex reality. We choose Lijphart's notion of joint power to capture the credibility of sovereign debtors. Similar ideas are very common in comparative politics.<sup>45</sup> Lijphart's alternative, more concrete name for joint power is the "executives-parties" dimension. We seek to identify the central tendency of the set of

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<sup>43</sup> Bueno de Mesquita et al. 2003, 87; Olson 2000, 3-6; Olson 1982.

<sup>44</sup> Persson and Tabellini 2005.

<sup>45</sup> Armingeon, 2002; Powell 2000; Tsebelis 1995; Tsebelis 2002.

institutions responsible for managing a sovereign's finances by looking at the extent to which power is shared amongst these actors.

Theories of credible commitment tend to theorise domestic economies. In these models, economic actors collect information about one polity. However, participants in the international market for sovereign debt need information about many political systems. The more political systems an investor has to analyse the less information she is likely to collect on each individual country. Presumably, this is the main reason why ratings agencies play such an important role in sovereign debt. Time- and information-poor international investors will tend to focus on the central tendency of a political system.

#### *Ideology, Political Institutions and Sovereign Debt*

The most obvious political alternative to institutions is the ideology of political competitors. The ideology of governments is one of the most popular variables in political economy research.<sup>46</sup> We are sceptical about the potential of government ideology to explain the credibility of sovereign debtors. To be sure, right-wing governments grant more legitimacy to markets, including international markets. Also, they are less worried about cutbacks to social programmes. For these reasons, it is imaginable that their promises would be more credible. However, such arguments tend towards identity rather than incentives. Regardless of ideology, all governments should be subject to time inconsistency. After a commitment to fiscal control, and ensuing lower rates on sovereign debt, right-wing governments may also be tempted to renege, perhaps by cutting taxes instead of increasing spending. Even more clearly,

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<sup>46</sup> Mosley 2003, 8.

right-wing governments also have to face the electorate, and political instability undermines the credibility of their commitments.

The diversity, rather than the ideology, of political preferences fits much better into a credibility approach. It is another staple variable of international political economy.<sup>47</sup> The more diverse are political preferences, the greater the policy risk from political instability. Moreover, the diversity of preferences interacts with political institutions. The more power is shared, the greater the range of interests involved in making decisions. Control of a joint power political system is spread across the ideological spectrum and elections do not tend to bring about major changes in the distribution of power. A concentrated political system awards power to one party and the distribution of power can change radically with an election. Therefore, diversity of preferences creates a much greater policy risk in a concentrated political system. Government ideology could interact with institutions in the same way. Differences between right and left-wing governments are likely to be much larger in concentrated than in joint-power political systems.

We will test three types of hypotheses about the influence of political institutions on sovereign debt: credible commitment hypotheses, alternative political hypotheses, and combinations of credible commitment and other political perspectives. The first three hypotheses derive from the theory of credible commitment.

*H1. The more decision-making is shared, the more credible is a sovereign debtor.*

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<sup>47</sup> Leblang and Bernhard 2000; Leblang and Mukherjee 2005.



*H1a. The more decision-making is shared, the more credible is a sovereign debtor's commitment to fiscal retrenchment.*

*H2. The greater the ideological polarization, the less credible is a sovereign debtor.*

*H2a. The greater the ideological polarization, the less credible is a sovereign debtor's commitment to fiscal retrenchment.*

*H3. The effect of the overall ideological polarisation of the system is greater where power is concentrated.*

*H3a. The effect of the overall ideological polarisation of the system on the credibility of a commitment to fiscal retrenchment is greater where power is concentrated*

The next two hypotheses express different views of the politics of sovereign debt, but we also express both in terms closer to credible commitment.

*H4. Moderately dispersed systems are charged less interest than highly dispersed or highly concentrated systems.*

*H4a. Concentrated systems are charged lower short-term interest, while dispersed systems are charged lower long-term interest.*

*H5. Right-wing governments are charged less interest than left-wing governments.*

*H5a. The effect of government ideology is greater where power is concentrated.*

## **Data and Operationalization**

We use a fixed effects model to test our hypotheses on a sample of 23 countries from 1970-2009.<sup>48</sup> The countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Israel, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Our dependent variable is the *long-term government bond yield*. This is the best measure of sovereign risk for the advanced economies because it is a market-driven measure of their cost of borrowing.<sup>49</sup> Moreover, it has been used in several previous studies on sovereign debt in the advanced economies.<sup>50</sup>

The first variable to operationalize is the concentration power in the political system. The last two decades have seen an explosion of institutional studies in social science, including international relations, politics and economics. One approach is to select particular institutions, such as presidentialism and parliamentarism, or

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<sup>48</sup> Our models include country effects to control for the unobservable characteristics of the sample countries. We do not report year effects because our dependent variable is not driven by factors that exhibit fundamental change over the long-term. The augmented Dickey-Fuller test for unit root issues found that all of the variables are stationary. We also replicated all of our models with an alternative statistical approach: linear regression with panel-corrected standard errors (PCSE). Each of the alternative specifications was repeated with the AR1 correction and with (out) country-fixed effects. The results are available on request and are little changed from our original specification.

<sup>49</sup> Sovereign credit ratings tend to lag significantly behind market driven indicators among the advanced economies. The current crisis illustrates this well, as ratings did not react until it was well underway. Flandreau, Gaillard, and Packer 2011, show that this is also true historically among the advanced economies, as the ratings' agencies were similarly tardy during the interwar foreign debt crisis.

<sup>50</sup> Baldacci and Kumar 2010; Mosley 2003.

majoritarian and proportional electoral systems.<sup>51</sup> However, political systems are constituted by complex interactions of institutions, rather than defined by a single institutional rule. We need to find the overall tendency of a polity in relation to the concentration of power. In doing so, we draw on Lijphart's first dimension. His concept of joint power matches our emphasis on the number of actors involved in making a commitment to repay debt. Moreover, his indicators of joint power target the executive, legislative and partisan actors that have the greatest influence over fiscal policy. Our measure of concentration is a weighted index of the effective number of parliamentary parties, concentration versus power-sharing in the cabinet, executive-legislative relations, electoral disproportionality and interest group pluralism.<sup>52</sup> <sup>53</sup> In order to efficiently leverage variation, we use principal components analysis to summarise the measures.<sup>54</sup>

Our second variable is the polarization of the political system. We measure this using left-right scores from the Comparative Manifesto Project (CMP). The scores are calculated by subtracting the percentage of the manifesto coded as right-wing in

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<sup>51</sup> Cheibub 2007; Persson and Tabellini 2005, 73-112.

<sup>52</sup> Lijphart 1999.

<sup>53</sup> To construct this variable, we draw on several data sources, including the Comparative Manifesto Project, Lijphart 1999, and the authors' own calculations. We could not use Lijphart's original measure of executive-legislative relations due to data limitations. Instead, we constructed an index that measures the degree to which cabinet government is fractionalized along party lines, capturing most of the original index, namely the relationship between the executive and the legislature, as cabinets that are not fractionalized tend to dominate the legislature.

<sup>54</sup> An unweighted mean, as used by Lijphart 1999, 247, produces similar results to those reported below.

emphasis from the percentage coded as left-wing and are measured at each election.<sup>55</sup>

<sup>56</sup> Party system polarization is the difference between the two largest parties in a given country at a given time.<sup>57</sup>

Thirdly, to test hypotheses on the importance of ideology, we again use the CMP data and employ the following standard formula for government ideology<sup>58</sup>

$$\text{Government Ideology} = \sum \{ (Left - Right) * (\# Posts / Total) \}$$

where *Left - Right* is a measure of government ideology, *Posts* is the number of cabinet posts controlled by party and *Total* is the number of posts in the cabinet.

To model the economic determinants of interest rates we use the following control variables: *general government balance as a percentage of GDP*, *general government gross debt as a percentage of GDP*, *consumer price inflation*, and *output growth*. The impact of most of these variables on sovereign risk should be self-explanatory. However, it is likely that the level of government debt does not have a linear effect on sovereign bond yields, so we also include the squared term. Our approach to modelling the economic determinants of interest rates is similar to a recent study by Baldacci and Kumar and also echoes that of Mosley's analysis, which argues that financial markets focus on just a few key policy indicators and are not interested in

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<sup>55</sup> Budge et al. 2001, 21.

<sup>56</sup> Another way of assigning left-right positions to political parties is by expert survey. Unfortunately, such surveys have only been conducted at a handful of time points and are therefore less suitable for panel analysis.

<sup>57</sup> Pontusson and Rueda 2008, 328-29.

<sup>58</sup> Kim and Fording 2001, 166.

the wider spectrum of government policy, whereas markets seek more information on risk in developing and emerging markets.<sup>59</sup>

We test not only a polity's overall credibility, but also the credibility of a specific commitment. Fiscal retrenchment is a stern test for any democracy. It is difficult to embark on in the first place, but, due to time-inconsistency and political instability, it is especially difficult to continue fiscal retrenchment in the medium or long-term. Of course, the ability to correct large budget deficits is vital to a state's commitment to repay its debts. A reduction in the fiscal deficit might reflect any combination of cyclical, accidental, or purposeful changes in government policy. The variable we use – *consolidation* – isolates only the purposeful reductions. Accordingly, we are able to test both a general argument on whether the ability to credibility commit matters, and a more nuanced argument the ability to commit specifically to deficit reduction. The variable comes from Devries et al.'s new dataset of action-based fiscal consolidation and is derived from an historical and qualitative analysis of government policy.<sup>60</sup> Although it is the most comprehensive measure of fiscal policy to date, it is only available for a smaller panel of seventeen countries from 1980-2009.<sup>61</sup>

## **Findings and Discussion**

### *Credible Commitments and Sovereign Debt*

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<sup>59</sup> Baldacci and Kumar 2010; Mosley 2003.

<sup>60</sup> Devries et al. 2011.

<sup>61</sup> This panel includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Portugal, Spain, Sweden, the United Kingdom, and the United States

Our findings are presented in Table 1, the first column of which is the base specification. The next six columns present estimates which test H1-H3 and their variants on fiscal retrenchment, H1a-H3a. Accordingly, column two adds our measure of the degree to which power is concentrated in the political system and column three adds the action-based fiscal consolidation variable, and an interaction term. Column four presents estimates of the effect of ideological polarization on credibility and column five introduces the fiscal consolidation variable and an interaction with the level of ideological polarization. Column six introduces the concentration of power and ideological polarization into the same specification, and interacts both variables in order to test the hypothesis that the effect of ideological polarization should be greater where power is concentrated. Column seven includes all of the aforementioned variables and interactions in order to test the hypothesis that the effect of ideological polarization on the credibility of a commitment to fiscal retrenchment should be much greater where power is concentrated.

[TABLE 1 HERE]

Unsurprisingly, the findings confirm that the level of inflation and the fiscal balance as a percentage of GDP are robust predictors of the yield on sovereign debt. Thus, the baseline model is a plausible basis on which to test our hypotheses. The models provide very strong support for our argument and confirm all credible commitment hypotheses. The degree to which power is concentrated in the political system is a strong predictor of the yield on government debt, as is the polarization of the political system. Moreover, we find that the effect of ideological polarization is greater where power is concentrated, as the interaction of polarization and the concentration of power is statistically significant. In all of the models where we have added the new action-based measure of fiscal consolidation, it predicts substantial

variation in the interest rate on government bonds. Most impressively, three out of four political coefficients double in magnitude when we control for fiscal consolidation, while the fourth is almost unaffected. The political sources of credible commitment explain variations in long-term interest rates across four decades, in twenty four countries, and are robust to standard economic and financial covariates, as well as fiscal policy. The last we consider a particularly severe test of our theory.

[FIGURE 1. HERE]

Not only are the political variables statistically significant, they have substantively large effects on interest rates. A move from the most concentrated system to the most dispersed would cost society an additional 3.31 percent charge on government debt. A one standard deviation increase, on the other hand, leads to an additional 0.7 percent yearly charge on government debt. While at first glance this might not seem like much, a small effect like this can cost the taxpayer a fortune in the long-term. A country starting with this higher rate in 1970 would end up paying nearly three additional years of interest payments by the 2009. And this is not even considering the opportunity cost: how the money lost to the government's creditors might have otherwise been used productively. The level of ideological polarization has a similar effect. Our model predicts that a move from the lowest level of polarization to the highest results in an additional charge of 2.95 percent and a standard deviation change predicts an increase of 0.65 percent.<sup>62</sup> Figure 1 illustrates the effect of polarization on the interest rate at different levels of power concentration. It shows that a move from a dispersed system that is not ideologically polarised, to a concentrated system that is

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<sup>62</sup> The substantive effects for the concentration of power are taken from model two and the effect for ideological polarization are taken from model three (the estimates from of which are presented in Table 1). The substantive effects from these models are very similar to our full model (model seven).

very polarized pushes up the yield on sovereign debt. The substantive effect is dramatic: a move from the most polarized and concentrated system to one that is the least polarised and where power is most dispersed would save 7.26 percent. If a sovereign debtor were to continue to rollover a *dollar* at this higher rate for ten years, it would have to pay an *additional dollar* for the privilege. Such a move would probably disqualify a sovereign from borrowing altogether. Figure 2 illustrates a similar effect: it shows that ideology matters the more power is concentrated in the political system. And furthermore, it shows that the confidence intervals narrow significantly at higher levels of power concentration, meaning that estimates at higher levels of concentration are more reliable.

#### *Ideology, Political Institutions and Sovereign Debt*

Table 2 presents estimates which test H4 and H5, and their variants, H4a and H5a. H4 tests whether the flexibility of institutions can reduce interest rates, while H5 examines whether the ideology of governments makes a difference. In the first column, we find no support for the hypothesis that the concentration of power has a non-linear effect on market perceptions of risk. The variable representing this concept is statistically significant but incorrectly signed. In other words, we reject MacIntyre's argument that the markets do not trust excessively concentrated or dispersed power, but prefer a golden mean. The second column presents estimates on an alternative dependent variable: the short-term interest rate on government bonds. Our purpose here is to test the argument that concentrated systems should be charged lower short-term interest rates, while dispersed systems should be charged lower long-term rates.<sup>63</sup> The supposed decisiveness of concentrated systems may be more credible in

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<sup>63</sup> MacIntyre 2001.



the short term, even if it is less credible in the long term. The data rejects this hypothesis. The coefficient on power concentration is even larger and runs in the same direction as in the models where the long-term rate is the dependent variable.

[TABLE 2 HERE]

The estimates in column three reject the argument that government ideology affects interest rates. Ideology is not statistically significant at conventional levels but it is correctly signed, showing that a move to the right is associated with a reduction in the interest rate. Although ideology *per se* is not driving the yield on government bonds, it is possible that it interacts with the degree to which power is concentrated. Here, we find some evidence that this is true as the interaction of ideology and the concentration of power, in column four, is statistically significant and the coefficient in the right direction. Markets appear to prefer right-wing governments when they are sufficiently free to exercise power. These alternative hypotheses perform weakly in comparison to the centrality of joint power institutions in credibly committing sovereigns to repay their debts.

### *Robustness Checks*

Table 3 presents a number of robustness tests. The first set of changes deal with the substantial impact of European economic and monetary integration on interest rates in the region.<sup>64</sup> The Treaty of Maastricht in 1992 led to a significant convergence in

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<sup>64</sup> Several authors have found that other forms of international organisation also had an impact on sovereign debt. Ferguson and Schularick Ferguson and Schularick, 2006, found an ‘empire effect’ where British colonies enjoyed improved access to credit. Obstfeld and Taylor Obstfeld and Taylor, 2003, found that the Gold Standard conferred a seal of approval before 1914. Perhaps with hindsight, the effect of international organisation on credibility is fleeting. Even membership of the Eurozone no longer confers the same benefits.

interest rates across the region.<sup>65</sup> Governments that were once less credible in the eyes of the market enjoyed lower rates in the run-up to, and in the new era of, the euro. They imported credibility and capital from the region's stronger economies. Even governments outside of the European Union benefitted from the credibility-enhancing effects of integration, as closing a negotiation chapter of the accession process is associated with lower spreads on sovereign debt.<sup>66</sup> We are interested in whether our explanation holds among these countries, even during a period when many could borrow extensively at very low rates.

To test the robustness of our argument in light of European integration we have restricted the sample to the original 11 members of EMU and performed an analysis on two time periods: 1992-2009 to capture the introduction of the Maastricht criteria and 1999-2009 to isolate the effect of eventual monetary union. We have also repeated the specifications on a larger sample of 19 countries that signed up to the Maastricht criteria. Remarkably, we find that our argument holds, even during an age when many commentators believed that government bonds in the advanced economies were entirely risk-free. In all of the models, the interaction between the concentration of power and the level of ideological polarization is statistically significant and in the right direction.<sup>67</sup> Overall, our findings imply that the 'economic fundamentals' are much less important than the political foundations of credibility, as none of the economic variables are statistically significant. Even the level of inflation

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<sup>65</sup> Compliance with the Maastricht criteria as a 'seal of approval' is discussed in Mosley 2003 and Mosley 2004.

<sup>66</sup> Gray 2009.

<sup>67</sup> The sign on the concentration of power is in the wrong direction in these models but we do not interpret this as significant because it is a lower order term in our interaction.

and the fiscal balance do not predict variation in interest rates. It appears that when governments make joint political commitments, their individual economic characteristics are much less important to market actors, but the credibility of their individual political systems still matters.

The second set of changes to our original specification is that we have substituted our principal explanatory variables with an alternative measure: Henisz's index of political constraints. The index measures the feasibility of policy change by capturing the extent to which 'a change in the preferences of any one actor may lead to a change in government policy'.<sup>68</sup> It does so by identifying the preferences of each branch of government for policy change based on party composition and the branch's ability to veto change. It goes even further by capturing the difficulty of overturning policy within and between each branch of government. Although the new measure does not allow us to test the more sophisticated story on the interaction of polarization and decision-making authority, it nevertheless allows us to subject our analysis to further rigorous testing using an alternative variable that captures roughly both of our explanatory variables. We find that the coefficient on Henisz's index runs in the expected direction and is statistically significant. Our results are not an artefact of our measure of institutional configuration.

[TABLE 3 HERE.]

In the final set of changes to our base model, we re-evaluate our finding on the role of government ideology by substituting our original measure of ideology with an

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<sup>68</sup> Henisz 2002.

alternative measure from the World Bank's Database of Political Institutions (DPI).<sup>69</sup> We derived several new variables to capture ideology from this source, including dummy variables that indicate the presence of right-wing and left-wing government. We also repeated each specification with a variable to capture a change in government, rather than the starting value. Our findings show that government ideology is a poor predictor of variation in interest rates with one exception: a change in government ideology towards the right, using our original measure of the concept derived from the Comparative Manifesto Project, is associated with a significant reduction in the yield on sovereign debt. None of the binary variables from the DPI were statistically significant. Thus, on the balance of evidence, the role of ideology is less important than more durable aspects of the political system. While there is some evidence pointing to the importance of ideology, unlike our credible commitments argument, it is not robust to an alternative measure of the independent variable.

We also performed a series of further robustness checks which are not presented in this article but are available on request:

First, a lagged dependent variable (LDV) was added to our main specification. Due to the well-documented problems associated with the use of a LDV,<sup>70</sup> we are skeptical of the validity of the coefficients as the fiscal balance as a percentage of GDP, one of the main predictors of the interest rate, is no longer significant at conventional levels. The only variables which attain significance are inflation and our political variables.

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<sup>69</sup> We used the GOVIRLC indicator from the DPI, which captures the largest governing party's ideology as right, left, or center.

<sup>70</sup> Achen 2000.

Second, we included the short-term interest rate on government bonds as an additional covariate. Like a lagged dependent variable, once it is included the model explains a much higher percentage of variation. And again we are reluctant to interpret the coefficients for the same reason, but our political variables still attain significance at conventional levels.

Third, we dropped the United States as an observation and used the rate on US Treasury Bills (T-Bills) as a control variable. Arguably, the interest rate on US government debt is of systemic importance and should enter the specification on the left-hand-side.<sup>71</sup> We found that the rate is statistically significant in all of our specifications; however, our main finding is robust. There is also reason to be skeptical on the use of US T-Bills as a control variable among the advanced economies specifically, as other government debt is considered as safe, if not more so, than US government debt.

Finally, we replicated our main specifications with a new dependent variable: the difference between the rate on US T-bills and other government debt, also known as the 'spread'. The spread enters as a natural log so that the data conform to the normal distribution. Again, our argument is robust but there are some notable differences between the determinants of the spread and general interest rates. For one, action-based fiscal consolidation is not a statistically significant predictor of the spread, whereas it is a strong predictor of the interest rate. Moreover, the concentration of power is not statistically significant and the level of polarization is only significant at the ten percent level. When interacted, however, the variables are significant at conventional levels.

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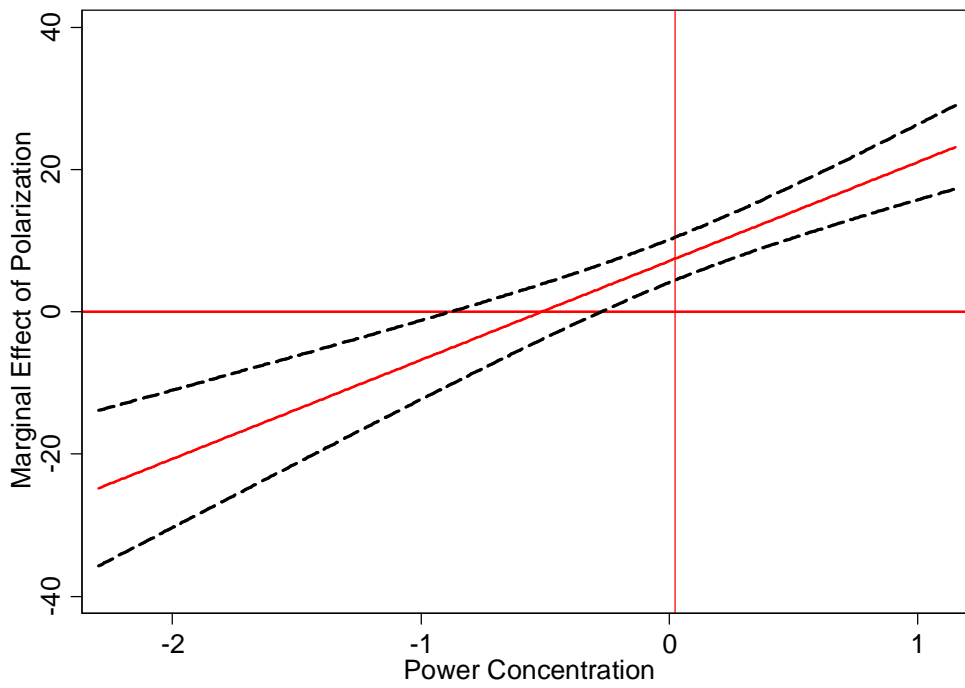
<sup>71</sup> We also repeated the specification with the squared term, as a low US interest rate might signal turbulence, as markets take flight to the safety of US treasury bills.

## **Conclusion**

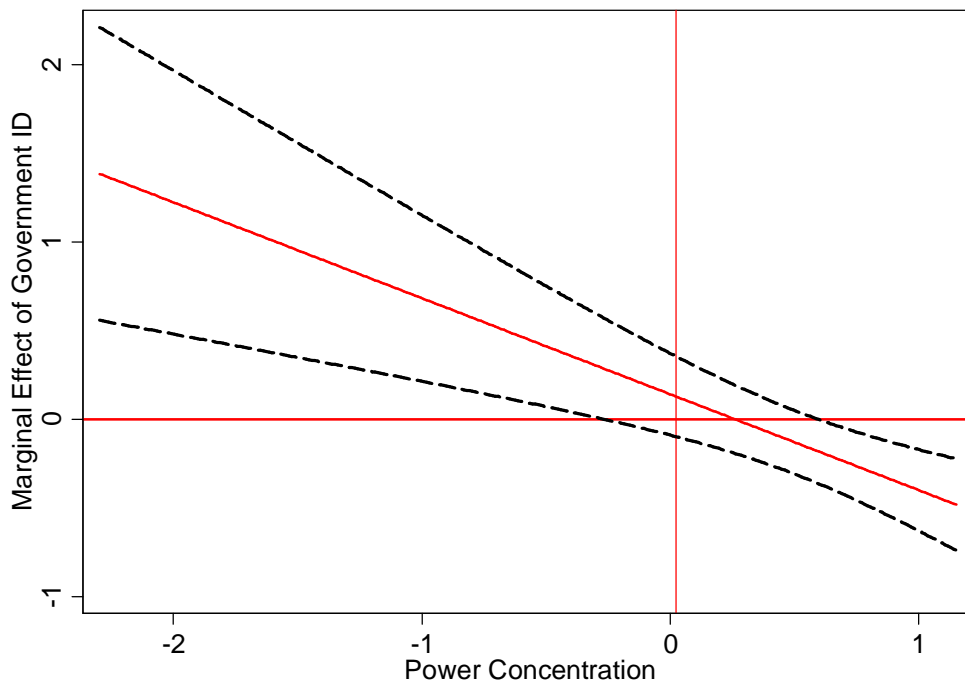
Sovereign debt is a vital feature of international political economy, which has gained even greater prominence during the ongoing global economic and political crisis, most obviously in Europe. Yet, the politics of sovereign debt in the advanced economies has received less attention among scholars of international relations. In particular, the question of how basic political structures influence long-term interest rates in the advanced economies has gone unanswered. This is especially important given that sovereigns, unlike other debtors, can choose not to pay. Their credibility as debtors depends on political choice. In this paper, we focus on the broad characteristics of political institutions. In doing so, our approach is consistent with a major strand of economic theory and with rating agencies' emphasis on long-term risk. Our two key variables are the polarization of the party-system on the classic left-right dimension of economic ideology and the relative concentration of power within the executive and party system. When polarisation is low and power is shared, markets perceive a highly credible commitment to pay back debt. In other words, the risk of policy change, introducing the possibility of non-payment of debts, is low. Our calculations show that constrained political institutions can save countries a fortune in interest payments. Our results clearly reject hypotheses that predict more credible commitments from flexible institutions and are somewhat ambiguous regarding government ideology.

Several contemporary proposals seek to boost the credibility of sovereigns with debt problems. These proposals target fiscal management by introducing fiscal councils, constitutional rules on balanced budgets and constitutional debt brakes. If a polity has a fundamentally credible political structure, because of power sharing and

low polarization, such innovations are unlikely to boost credibility much further. In less credible political systems, commitments to obey fiscal rules may be threatened by the same time inconsistency and political instability problems that undermine promises to repay debt. A fiscal rule may be introduced at time point one in a sovereign debt crisis; reduce interest rates at time point two; and be reneged upon at time point three. Of course, markets will anticipate this process, keeping yields high. The issue is whether such rules will be mere policy commitments or fundamental policy constraints. In the longer term, such rules can be grafted on to systems of concentrated power and polarized competition. However, in the short term, such policies are likely to be interpreted as fundamental shifts in fiscal policy. Unfortunately, the prescription arising from our research is fundamental political change, not policy tinkering. Such changes are rare because elites are usually loath to change a system under which they have become elites and institutional innovations seem alien to established political cultures. The UK's recent rejection of a new voting system is a typical example, but the fundamental change in New Zealand's political system in the 1990s show that wholesale changes can and do take place. In the midst of a sovereign debt crisis, exhortations to fundamentally change political systems exhibit a good understanding of the problem, together with a desperate awareness of how hard it is to fix. An excellent illustration is European leaders' call on Greece's opposition to emulate their Irish and Portuguese counterparts and support the government's austerity drive, even though the Greek parties are polarized and power is concentrated.



**FIGURE 1.** Marginal effect of government ideology on interest rates



**FIGURE 2.** Marginal effect of polarization on interest rates



**TABLE 1. Sovereign debt and the political system**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Inflation	0.42*** (0.02)	0.40*** (0.02)	0.49*** (0.04)	0.41*** (0.02)	0.49*** (0.04)	0.40*** (0.02)	0.44*** (0.03)
Fiscal balance / GDP	-0.31*** (0.03)	-0.27*** (0.03)	-0.36*** (0.05)	-0.31*** (0.03)	-0.32*** (0.04)	-0.22*** (0.03)	-0.30*** (0.04)
Public debt / GDP (t-1)	-0.01 (0.01)	-0.01 (0.01)	-0.02* (0.01)	-0.01 (0.01)	-0.02 (0.01)	-0.00 (0.01)	-0.02 (0.01)
Public debt / GDP (t-1)^2	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
GDP growth (t-1)	0.03 (0.04)	0.01 (0.04)	0.12* (0.06)	0.03 (0.04)	0.13** (0.06)	-0.01 (0.04)	0.12** (0.06)
Fiscal consolidation			0.57*** (0.17)		0.68*** (0.23)		0.59** (0.24)
Concentration		0.45*** (0.16)	1.02*** (0.26)			0.03 (0.20)	0.39 (0.30)
Concentration x consolidation			0.11 (0.14)				0.08 (0.13)
Polarization				0.02*** (0.01)	0.04*** (0.01)	0.02*** (0.01)	0.04*** (0.01)
Polarization x consolidation					-0.00 (0.01)		0.00 (0.01)
Polarization x concentration						0.02*** (0.00)	0.02*** (0.01)
<i>Observations</i>	514	514	345	514	345	514	345
<i>R</i> <sup>2</sup>	0.543	0.550	0.586	0.553	0.601	0.587	0.649
<i>No. countries</i>	23	23	17	23	17	23	17

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**TABLE 2. Sovereign debt, ideology and flexibility**

	(1)	(2)	(3)	(4)
Inflation	0.36*** (0.02)	0.58*** (0.04)	0.40*** (0.02)	0.39*** (0.02)
Fiscal balance / GDP	-0.25*** (0.03)	-0.26*** (0.04)	-0.27*** (0.03)	-0.29*** (0.03)
Public debt / GDP (t-1)	-0.02 (0.01)	-0.07*** (0.02)	-0.01 (0.01)	-0.01 (0.01)
Public debt / GDP (t-1) <sup>2</sup>	-0.00 (0.00)	0.00*** (0.00)	-0.00 (0.00)	-0.00 (0.00)
GDP growth (t-1)	0.02 (0.04)	0.12** (0.06)	-0.00 (0.05)	0.01 (0.05)
Concentration	0.37* (0.21)	0.69*** (0.21)	0.37** (0.18)	0.66*** (0.20)
Polarization	0.02*** (0.01)			
Polarization x concentration	0.02*** (0.00)			
Concentration <sup>2</sup>	0.19*** (0.04)			
Govt. ideology			-0.29 (0.24)	0.31 (0.31)
Govt. ideology x concentration				-0.49*** (0.16)
Observations	514	476	514	514
R <sup>2</sup>	0.602	0.506	0.551	0.560
No. countries	23	23	23	23

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

TABLE 3. Robustness checks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	<i>Euro 11, 1992-2009</i>	<i>Maastricht Criteria, 1992-2009</i>	<i>Euro 11, 1999-2009</i>	<i>EMU and Maastricht, 1999-2009</i>	<i>POLCON</i>	<i>Ideology</i>	<i>Ideology</i>	<i>Ideology</i>	<i>Ideology</i>	<i>Ideology</i>	<i>Ideology</i>
Inflation	0.14*** (0.05)	0.16*** (0.04)	-0.05 (0.07)	0.05 (0.05)	0.38*** (0.03)	0.40*** (0.02)	0.40*** (0.02)	0.42*** (0.03)	0.46*** (0.03)	0.42*** (0.03)	0.46*** (0.03)
Fiscal balance / GDP	-0.46*** (0.05)	-0.27*** (0.04)	0.08* (0.04)	0.04 (0.03)	-0.31*** (0.03)	-0.27*** (0.03)	-0.27*** (0.03)	-0.27*** (0.03)	-0.27*** (0.03)	-0.27*** (0.03)	-0.26*** (0.03)
Public debt / GDP (t-1)	-0.04 (0.03)	-0.05*** (0.02)	-0.04 (0.03)	-0.03 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.00 (0.01)
Public debt / GDP (t-1) <sup>2</sup>	0.00* (0.00)	0.00*** (0.00)	0.00* (0.00)	0.00** (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
GDP growth (t-1)	0.14** (0.06)	0.03 (0.05)	0.11* (0.06)	0.07* (0.04)	0.01 (0.05)	-0.00 (0.05)	0.01 (0.04)	0.01 (0.05)	0.02 (0.05)	0.01 (0.05)	0.01 (0.05)
Concentration	-0.28 (0.31)	-0.62** (0.24)	-0.81*** (0.22)	-0.65*** (0.17)		0.37** (0.18)	0.42** (0.16)	0.43** (0.17)	0.46*** (0.17)	0.44** (0.17)	0.46*** (0.17)
Polarization	0.03* (0.02)	0.01 (0.01)	0.06*** (0.01)	0.03*** (0.01)							
Polarization x concentration	0.03** (0.01)	0.01** (0.01)	0.05*** (0.01)	0.03*** (0.00)							
POLCON (Henisz)					-4.23*** (1.39)						
Ideology						-0.29 (0.24)					
Δ Ideology							-1.06** (0.49)				
Left government								-0.09 (0.44)			
Δ Left government									0.34 (0.52)		
Right government										-0.05 (0.18)	
Δ Right government											-0.29 (0.24)
<i>Observations</i>	174	268	107	167	492	514	514	494	485	494	485
<i>R</i> <sup>2</sup>	0.444	0.427	0.377	0.366	0.540	0.551	0.554	0.555	0.572	0.555	0.573
<i>No. countries</i>	11	17	11	17	23	23	23	23	23	23	23

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**APPENDIX: Descriptive statistics and data sources**

		<i>Obs</i>	<i>Mean</i>	<i>Std. Dv.</i>	<i>Min</i>	<i>Max</i>	<i>Source</i>
<i>Dependent variable</i>	Long-term rate	533	6.69	3.12	1	17.65	(1)
<i>Economic variables</i>	Short-term rate	492	5.83	3.73	0.08	23.3	(1)
	CPI inflation (%)	533	3.71	3.8	-13.84	24.23	(2)
	Fiscal balance / GDP	533	-1.29	4.11	-16.9	20.37	(2)
	General government gross debt / GDP	533	57.7	30.69	0	217.6	(2)(5)(8)
	Output growth (%)	533	2.47	2.46	-7.76	11.49	(2)
<i>Political and policy variables</i>	Power concentration	533	0.05	1.59	-5.57	2.79	(3)(9)(10)
	Ideological polarization	533	26.8	17.89	0.08	80.07	(3)(9)(10)
	Government ideology	533	0.04	0.48	-2.05	1.86	(6)
	Fiscal consolidation	354	0.29	0.7	-0.75	4.74	(11)

Sources: (1) OECD; (2) World Economic Outlook ; (3) Budge et. al. and Klingemann et. al. ; (4) Lijphart ; (5) International Financial Statistics ; (6) Beck et al. ; (7) Henisz ; (8) Abbas et. al. ; (9) World Development Indicators ; (10) Authors' calculations; (11) Devries et. al.

## References

- Abbas, S. Ali, Nazim Belhocine, Asmaa ElGanainy, and Mark Horton. 2010. A Historical Public Debt Database. *IMF Working Paper* WP/10/245.
- Achen, Christopher H. 2000. Why Lagged Dependent Variables Can Suppress the Explanatory Power of Other Independent Variables. *Working Paper*.
- Archer, Candace, Glen Biglaiser, and Karl DeRouen. 2007. Sovereign Bond Ratings and Democracy: The Effects of Regime Type in the Developing World. *International Organization* 61(1): 341-65.
- Armingeon, Klaus. 2002. The Effects of Negotiation Democracy: A Comparative Analysis. *European Journal of Political Research* 41(1): 81-105.
- Baldacci, Emanuele, and Manmohan S. Kumar. 2010. Fiscal Deficits, Public Debt, and Sovereign Bond Yields. *IMF Working Paper* WP/10/184.
- Beaulieu, Emily, Gary W. Cox, and Sebastian M. Saiegh. 2011. Sovereign Debt and Regime Type: Re-Considering the Democratic Advantage. *MPSA Annual National Conference, Chicago, IL, March 30-April 3, 2011*.
- Bechtel, Michael. 2009. The Political Sources of Systematic Investment Risk: Lessons from a Consensus Democracy. *Journal of Politics* 71(2): 661-77.
- Beck, T., Clarke, G., Groff, A., Keefer, P. and P. Walsh. 2001. New Tools in Comparative Political Economy: The Database of Political Institutions. *World Bank Economic Review* 15(1): 165-76.

- Biglaiser, Glen, Brian Hicks, and Caitlin Huggins. 2008. Sovereign Bond Ratings and the Democratic Advantage: Portfolio Investment in the Developing World. *Comparative Political Studies* 41(8): 1092-116.
- Block, Steven A., and Paul M. Vaaler. 2004. The Price of Democracy: Sovereign Risk Ratings, Bond Spreads and Political Business Cycles in Developing Countries. *Journal of International Money and Finance* 23(6): 917-46.
- Budge, Ian, Hans-Dieter Klingemann, Andrea Volkens, Judith Bara, Eric Tanenbaum, Richard C. Fording, Derek J. Hearl, Hee Min Kim, Michael McDonald, and Silvia Mendez. 2001. *Mapping Policy Preferences. Estimates for Parties, Electors, and Governments: 1945-1998*. Oxford: Oxford University Press.
- Bueno de Mesquita, Bruce, Alastair Smith, Randolph M. Siverson, and James D. Morrow. 2003. *The Logic of Political Survival*. Cambridge, MA: The MIT Press.
- Büthe, Tim, and Helen Milner. 2008. The Politics of Foreign Direct Investment into Developing Countries: Increasing Fdi through International Trade Agreements? *American Journal of Political Science* 52(4): 741-62.
- Cantor, Richard, and Frank Packer. 1996. Determinants and Impact of Sovereign Credit Ratings. *FRBNY Economic Policy Review* 2(2): 37-54.
- Cheibub, José Antônio. 2007. *Presidentialism, Parliamentarism, and Democracy*. Cambridge: Cambridge University Press.
- Clague, Christopher, Philip Keefer, Stephen Knack, and Mancur Olson. 1996. Property and Contract Rights in Autocracies and Democracies. *Journal of Economic Growth* 1(2): 243-76.

- Cosset, Jean-Claude, and Jean Roy. 1991. The Determinants of Country Risk Ratings. *Journal of International Business Studies* 22(1): 135-42.
- Cukierman, Alex, G Miller, and B Neyapti. 2002. Central Bank Reform, Liberalization, and Inflation in Transition Economies - an International Perspective. *Journal of Monetary Economics* 49: 237-64.
- Devries, Pete, Jaime Guajardo, Daniel Leigh, and Andrea Pescatori. 2011. A New Action-Based Dataset of Fiscal Consolidation. *IMF Working Paper* WP/11/128.
- Diamonte, Robin, John M. Liew, and Ross J. Stevens. 1996. Political Risk in Emerging and Developed Markets. *Financial Analysts Journal* 52(3): 71-76.
- Dincecco, Mark. 2009. Political Regimes and Sovereign Credit Risk in Europe, 1750–1913. *European Review of Economic History* 13: 31-63.
- Evans, Peter. 1995. *Embedded Autonomy: States and Industrial Transformation*. Chichester ; Princeton, NJ: Princeton University Press.
- Ferguson, Niall, and Mortiz Schularick. 2006. The Empire Effect: The Determinants of Country Risk in the First Age of Globalization, 1880–1913. *The Journal of Economic History* 66: 283-312.
- Flandreau, Marc, Norbert Gaillard, and Frank Packer. 2011. To Err Is Human: Us Rating Agencies and the Interwar Foreign Government Debt Crisis. *European Review of Economic History* 1(15): 495-538.
- Gilardi, Fabrizio. 2002. Policy Credibility and Delegation to Independent Regulatory Agencies: A Comparative Empirical Analysis. *Journal of European Public Policy* 9: 873-93.
- Gray, Julia. 2009. International Organization as a Seal of Approval: European Union Accession and Investor Risk. *American Journal of Political Science* 53(4): 931-49.

- Henisz, Witold J. 2002. The Institutional Environment for Infrastructure Investment. *Industrial and Corporate Change* 11(2): 355-89.
- International Monetary Fund. 2010. *International Financial Statistics*. Washington, DC: International Monetary Fund.
- . 2009. *World Economic Outlook*. Washington, DC: International Monetary Fund.
- Jensen, Nathan M. 2006. *Nation-States and the Multinational Corporation: A Political Economy of Foreign Direct Investment*. Princeton: Princeton University Press.
- Jensen, Nathan M. 2003. Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment *International Organization* 57(3): 587-616.
- Keefer, Philip. 2005. Democratization and Clientelism: Why Are Young Democracies So Badly Governed? *Policy Research Paper 3594*. Washington, DC: World Bank.
- Keefer, Philip, and David Stasavage. 2003. The Limits of Delegation: Veto Players, Central Bank Independence, and the Credibility of Monetary Policy. *American Political Science Review* 97(3): 407-23.
- Kim, Hee-Min, and Richard Fording. 2001. Extending Party Estimates to Governments and Electors. In *Mapping Policy Preferences: Estimates for Parties, Electors, and Governments 1945-1998*, edited by Hans-Dieter Klingemann Ian Budge, Andrea Volkens, Judith Bora and Eric Tanenbaum, 157-78. Oxford: Oxford University Press.
- Klingemann, Hans-Dieter, Andrea Volkens, Judith Bara, Ian Budge, and Michael Macdonald. 2006. *Mapping Policy Preference Ii: Estimates for Parties, Electors and Governments in Eastern Europe, the European Union and the Oecd, 1990-2003*. Oxford: Oxford University Press.



- Kohlscheen, Emanuel. 2010. Sovereign Risk: Constitutions Rule. *Oxford Economic Papers* 62(1): 62-85.
- Kydland, Finn E., and Edward C. Prescott. 1977. Rules Rather Than Discretion: The Inconsistency of Optimal Plans. *The Journal of Political Economy* 85(3): 473-91.
- Leblang, David, and William Bernhard. 2000. The Politics of Speculative Attacks in Industrial Democracies. *International Organization* 54(2): 291-324.
- Leblang, David, and Bumba Mukherjee. 2005. Government Partisanship, Elections, and the Stock Market: Examining American and British Stock Returns, 1930-2000. *American Journal of Political Science* 49(4): 780-802.
- Li, Quan. 2009. Democracy, Autocracy, and Expropriation of Foreign Direct Investment. *Comparative Political Studies* 42: 1098-127.
- . 2006. Democracy, Autocracy, and Tax Incentives to Foreign Direct Investors: A Cross-National Analysis. *Journal of Politics* 68: 62-74.
- Li, Quan, and Adam Resnick. 2003. Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries. *International Organization* 57(1): 175-211.
- Lijphart, Arend. 1999. *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven, CT: Yale University Press.
- MacIntyre, Andrew. 2001. Institutions and Investors: The Politics of the Economic Crisis in Southeast Asia. *International Organization* 55(1): 81-122.
- Majone, Giandomenico. 2001. Two Logics of Delegation: Agency and Fidiuciary Relations in Eu Governance. *European Union Politics* 2: 103-21.

- Mosley, Layna. 2003. *Global Capital and National Governments, Cambridge Studies in Comparative Politics*. Cambridge, U.K.; New York: Cambridge University Press.
- . 2004. Government–Financial Market Relations after Emu: New Currency, New Constraints? *European Union Politics* 5(2): 181-209.
- North, Douglass C., and Barry R. Weingast. 1989. Constitutions and Commitment: The Evolution of Institutional Governing Public Choice in Seventeenth-Century England. *The Journal of Economic History* 49(4): 803-32.
- Oatley, Thomas. 2010. Political Institutions and Foreign Debt in the Developing World. *International Studies Quarterly* 54(1): 175-95.
- Obstfeld, Maurice, and Alan M. Taylor. 2003. Sovereign Risk, Credibility and the Gold Standard: 1870-1913 Versus 1925-31. *The Economic Journal* 113(487): 241-75.
- Olson, Mancur. 2000. *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships*. New York: Basic Books.
- . 1982. *The Rise and Decline of Nations*. London: Yale University Press.
- Persson, Torsten, and Lars E. O. Svensson. 1989. Why a Stubborn Conservative Would Run a Deficit Policy with Time-Inconsistent Preferences. *The Quarterly Journal of Economics* 104(2): 325-45.
- Persson, Torsten, and Guido Enrico Tabellini. 2005. *The Economic Effects of Constitutions*. Cambridge, MA: MIT Press.
- Peter A. Hall, and David Soskice. 2000. An Introduction to Varieties of Capitalism. In Peter A. Hall and David Soskice. In *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, 1-71. Oxford: Oxford University Press.

- Pontusson, Jonas, and David Rueda. 2008. Inequality as a Source of Political Polarization: A Comparative Analysis of Twelve Oecd Countries. In *Democracy, Inequality, and Representation: A Comparative Perspective*, edited by Christopher Anderson and Pablo Beramendi. New York: Russell Sage Foundation.
- Powell, G. Bingham. 2000. *Instruments of Democracy: Majoritarian and Proportional Visions*. New Haven, CT: Yale University Press.
- Przeworski, Adam, Michael E Alvarez, José Antonio Cheibub, and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. Cambridge: Cambridge University Press.
- Qian, Rong. 2010. Why Do Some Countries Default More Often Than Others? The Role of Institutions. *University of Maryland, mimeo*.
- Reinhart, Carmen M., and Kenneth S. Rogoff. 2009. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press.
- Rogoff, Kenneth. 1985. The Optimal Degree of Commitment to an Intermediate Monetary Target. *Quarterly Journal of Economics* 100: 1169-89.
- Roubini, Nouriel, and Jeffrey Sachs. 1989. Government Spending and Budget Deficits in the Industrial Countries. *Economic Policy* 8: 99-132.
- Saiegh, Sebastian M. 2005. Do Countries Have a 'Democratic Advantage?' Political Institutions, Multilateral Agencies, and Sovereign Borrowing. *Comparative Political Studies* 38(4): 366-87.
- . 2007. North and Weingast Revisited: Credible Commitments and Public Borrowing in the Pampas. *Unpublished Article* Available at SSRN: <http://ssrn.com/abstract=1017630>.

- Sattler, Thomas. 2010. Elections, Macroeconomic Preferences and International Financial Market Constraints. *Paper presented to the Centre for International Studies, Dublin City University* February 17.
- Schultz, Kenneth, and Barry Weingast. 2003. The Democratic Advantage. *International Organization* 57(1): 3-42.
- Soskice, David. 1999. Divergent Production Regimes: Coordinated and Uncoordinated Market Economies in the 1980s and 1990s. In *Continuity and Change in Contemporary Capitalism*, edited by Herbert Kitschelt, Peter Lange, Gary Marks and John D. Stephens, 101-34. Cambridge: Cambridge University Press.
- Standard and Poor's. 2008. Sovereign Credit Ratings: A Primer. *RatingsDirect* May 2008.
- Stasavage, David. 2007. Cities, Constitutions, and Sovereign Borrowing in Europe, 1274-1785. *International Organization* 61: 489-525.
- . 2003. *Public Debt and the Birth of the Democratic State: France and Great Britain, 1688-1789*. Cambridge: Cambridge University Press.
- Stasavage, David, and Dominique Guillaume. 2002. When Are Monetary Commitments Credible? Parallel Agreements and the Sustainability of Currency Unions. *British Journal of Political Science* 32(1): 119-46.
- Sturzenegger, Federico, and Jeromin Zettelmeyer. 2007. *Debt Defaults and Lessons from a Decade of Crises*. Cambridge, MA: MIT Press.
- Thatcher, Mark, and A. Stone Sweet. 2002. Theory and Practice of Delegation to Non-Majoritarian Institutions. *West European Politics*(25): 1-22.
- Tomz, Michael. 2007. *Reputation and International Cooperation: Sovereign Debt across Three Centuries*. Princeton: Princeton University Press.

- Treisman, Daniel. 2008. What Have We Learned About the Causes of Corruption from Ten Years of Cross-National Empirical Research? *Annual Review of Political Science*: 211-44.
- Tsebelis, George. 1995. Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism and Multipartyism. *British Journal of Political Science* 25: 289-326.
- . 2002. *Veto Players: How Political Institutions Work*. Princeton: Princeton University Press.
- Vizcarra, Catalina. 2009. Guano, Credible Commitments, and Sovereign Debt Repayment in Nineteenth-Century Peru. *The Journal of Economic History* 69: 358-87.
- World Bank. 2009. World Development Indicators. *Online (WDI) database*.