UNIVERSITY OF CALIFORNIA SAN DIEGO

Who Wins? The Political Economy of Sovereign Debt Restructuring

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requirements for the degree
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by

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2019

The dissertation of Lauren Lee Ferry is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

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EPIGRAPH

"It is clear that loans to Third World borrowers entail losses; no one would value them at par. What has been unclear is who will bear these losses. That is what the fighting is really about – between creditors and debtors, between creditors and monetary authorities, and among the creditors"

-Charles Lipson

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At the beginning of my graduate career, I was told that "no one writes a dissertation alone." This project is the culmination of a multi-year process that has been inspired by family, friends and colleagues. My interests in this topic were first sparked by the political science faculty at the College of Wooster, where the mentorship of Matthew Krain and Angela Bos was particularly influential. Wooster taught me the value of research, creativity, and scholarly community. The advice and experiences I received while writing my independent study continue to inform my personal and professional development. I am proud to admit that I referred back to my I.S. for inspiration many times in the dissertation process.

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ABSTRACT OF THE DISSERTATION

Who Wins? The Political Economy of Sovereign Debt Restructuring

by

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Throughout history, sovereigns have borrowed from banks, bondholders, other countries, and international institutions to fund their policy objectives. Without international laws to enforce the lending promise, many have puzzled over why lenders lend and why borrowers repay. However, few have asked what happens after default breaks the lending contract. How do borrowers and lenders negotiate a new contract? Who bears the distributive consequences of a broken commitment?

I analyze the debt restructuring process as a bargaining game over the size of creditor concessions, or "haircuts," which vary from zero to reductions in payments above 80%. I argue

that governments' political will to repay their foreign debt is private information for which the political leadership has incentives to misrepresent. Not only do governments have incentives to plead distress to lenders, they have reasons to hide their economic distress from voters who will punish the government for financial mismanagement. Governments that are unwilling to pay, however, can convey their "type" by publicly signaling their distress and invoking political punishment. I build on this political economy model to derive and test several hypotheses in four empirical chapters.

Using both quantitative and qualitative evidence alongside original data on creditor characteristics, I find that public declarations of debt distress do indeed elicit higher creditor concessions, but only where the action is politically costly. I also offer an extension of the model to investigate how creditor heterogeneity effects governments' preferences for costly signaling. Disperse groups of creditors are more difficult to coordinate and governments are more willing to use costly signaling as the number of creditors increases.

My findings provide important insights into debt restructuring specifically and the role of domestic politics in international negotiations generally. By introducing new variation to the processes and outcomes of debt restructuring, I lay new groundwork for analyzing how debt crises are resolved. I also demonstrate that leaders can strategically induce political costs born in equilibrium, in order to win concessions from their international negotiating partners. Leaders go public not because of appeals to transparency or democratic idealism, but because electoral constraints can be strategically leveraged to win favorable outcomes.

1 Introduction

Throughout history, sovereigns have relied on banks, bondholders, other countries, and international institutions, to fund a plethora of foreign and domestic policy objectives. Today, sovereign debt makes up almost 20 percent of global financial assets and has risen to 200 percent of global GDP (International Monetary Fund, 2016). Parallel to the rise in sovereign obligations is the perennial nature of sovereign default. In 2015, almost $180 billion of government debt was in default, with $77 billion of those obligations owed to private creditors. In the same year, countries as geographically and economically disperse as Puerto Rico, Argentina, the Republic of the Congo, and Belarus were in default to private banks and bondholders (Beers and Mavalwalla, 2017).

For this reason, much research in political science and economics has centered on the enforcement problem that is inherent in international lending. With no international bankruptcy regime to provide enforcement, why do sovereigns repay their debts instead of defaulting on all of their financial commitments? Why do lenders lend and why do sovereigns repay? Solutions to the lack of enforcement in sovereign lending have included repeated play and the fear of punishment (Bulow and Rogoff, 1989; Eaton and Gersovitz, 1981), the role of institutions and hand tying mechanisms (Root, 1989; North and Weingast, 1989; Kohlscheen, 2010), reputation (Tomz, 2007*b*), creditor collusion (Drelichman and Voth, 2014), and lender sentiment (Reinhart and Rogoff, 2009). Yet, in the current era of increased financial integration, international relations has seen the rise of a handful of more or less formalized mechanisms for dealing with sovereign

default. Today, full moratoriums on debt repayment are rare. Most of these "defaults" that are theorized in the foundational game theoretic models and coded in empirical datasets are not refusals to pay but attempts to restructure the terms of the initial loan agreement (Das, Papaioannou and Trebesch, 2012). Thus, we no longer understand lending contracts as absolutes, but as semi-flexible arrangements that may need to be rewritten to account for changes in the state of the world. A sovereign's decision in a financial crisis is more than a choice over whether or not to default, but also a political choice over the amount of adjustment the populace can bear. In this dissertation, I explore what happens after the lending contract has been violated. After repeated play and issue linkages have failed to constrain borrower governments, I explain *how* sovereign debt is restructured and develop coherent theories about the political dynamics of the debt restructuring process.

I focus specifically on financial crises where a significant portion of sovereign debts are owed to private creditors, meaning that when a government faces financial hardships it must ask commercial banks and bondholders to renegotiate the terms of their initial lending contracts. This type of lending from private creditors makes up a consistently significant portion of countries' debt portfolios, as shown in Figure 1.1.[1] Yet, when countries experience financial difficulty, negotiations to restructure sovereign debt are protracted affairs that last years or even decades, during which time debtors are unable to recover and creditors are unable to recuperate their claims.[2] Their outcomes, colloquially referred to as creditor "haircuts", also wary widely from no concessions to reductions in payment greater than 80 percent (Das, Papaioannou and Trebesch, 2012). Understanding these restructuring negotiations between sovereign governments and private creditors speaks to age-old questions about global distributional conflict and who bears the burden of adjustment after contractual promises have been broken.

One way of thinking about this conflict is to ask specifically how much do governments

[1] Data is from the International Debt Statistics (2018).

[2] The average duration of the sovereign debt restructuring process is 28 months, but can span up to 10 years (Das, Papaioannou and Trebesch, 2012).

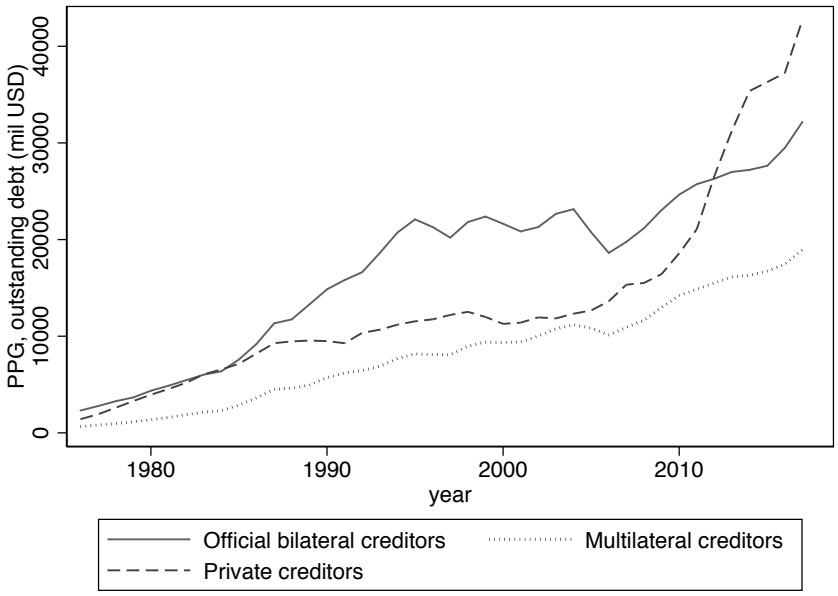

Figure 1.1: Debt outstanding by creditor type

"win" and how much do creditors "lose." Creditor losses, or haircuts, have the benefit of minimizing domestic austerity, however they often come at the expense of longer capital market exclusion (Cruces and Trebesch, 2013). They are also often understood and theorized from a purely legalistic perspective, yet economic statistics imperfectly predict the size of the haircut imposed on creditors. Why? If not with economic fundamentals, how do creditors and debtors overcome their conflicting preferences and distribute the costs of adjustment? How do they agree on the size of creditor haircuts?

In this dissertation, I analyze how the interactions between governments, their citizens, and private creditors during debt restructuring negotiations explain the size of haircut outcomes. I argue that there is an informational problem in sovereign debt. Specifically, that the government's political will to repay foreign debt is unobservable, private information for which the political leadership normally has incentives to misrepresent. Not only do governments have incentives to plead distress to lenders, they normally have reasons to hide their true economic distress from voters who will punish a government for financial mismanagement. Governments that possess

the will but not the ability to repay, however, can convey their "type" by publicly signaling their distress and invoking political punishment. This electorally costly signal separates governments that are politically able to repay from those that are not and allows a country's private creditors to update their beliefs about the debtor's payment capacity. The primary theoretical implication is that governments who publicly declare their debt distress should extort greater concessions – higher haircuts – from creditors as a result.

I provide support for this theory in several ways. First, in a cross-national test of sovereign debt restructuring with private creditors, I confirm that public declarations of debt distress increase creditor concessions. Second, I extend the theoretical mechanism to question why, given its empirical benefit, all indebted sovereigns don't use a public strategy. The theory implies that public declarations should only be effective at eliciting concessions from creditors when they are costly to the politicians who send them. In other words, public declarations only provide credible information when they separate governments based on their political willingness to repay. Using theories of accountability, I hypothesize that public declarations should be sufficiently costly when the population can observe and sanction the government for an economic crisis. I find that among democratic governments, those facing deeper socioeconomic pressures will be more likely to publicly declare distress. Third, because there are multiple actors and moving parts, I illustrate the key mechanisms of the theory in a case study of the Greek bond restructuring of 2012.

Finally, I broaden the model to consider the effect of creditor heterogeneity on the government's preferences for public declarations. Disperse groups of creditors are more difficult to coordinate and governments should be more willing to rely on costly signaling as the number of creditors increases. Using original data on creditor committees, I find that concerns about creditor coordination affect the government's choice of negotiation strategy. As bond lending proliferates and debt instruments become more complex, I expect the costly signaling mechanism to become increasingly important.

1.1 Sovereign Debt Restructuring

Identifying and gathering systematic information on sovereign debt restructuring is a challenge. An important reason is that there is not a universal definition or a common source of data collection, due in part to the opaqueness of the restructuring process. Without consistent information, previous studies of restructuring dynamics have largely been limited to case studies of the most high profile cases.[3] Given this challenge, I follow Das, Papaioannou and Trebesch (2012) and define debt restructuring broadly as "an exchange of outstanding sovereign debt instruments, such as loans or bonds, for new instruments or cash through a legal process." This is different than default itself, which is defined as "the failure to meet a principal or interest payment on the due date" (Reinhart and Rogoff, 2009). It is important to note that restructuring can occur without default as it does in approximately one third of all contemporary cases (Asonuma and Trebesch, 2016). Default can also occur without restructuring when countries put their own financial houses in order. To demonstrate this important distinction, Figures 1.2 and 1.3 plot defaults to private creditors (top) and restructurings with private creditors (bottom) over time.[4] It is important to note that while the data follow similar temporal patterns, they are not identical.

Regardless of whether restructuring occurs preemptively or post-default, the focus of this work is on the explicit renegotiation and modification of the original loan contract. This process can involve the lengthening of maturities, the adjustment of interest rates, debt buybacks, and reductions in the face value of outstanding debt instruments. All of these methods of restructuring can involve a haircut, or creditor loss. However, debt restructuring and debt reduction are also not synonymous concepts.

Historically, negotiations between creditors and debtors proceeded in an ad hoc fashion, without a formalized machinery to guide the process. Attempts to restructure the terms of

[3] See Das et al. (2012) and Tomz and Wright (2013) for a review of the literature. See Lomax (1986), Aggarwal (1996), Rieffel (2003) and Sturzenegger and Zettlemeyer (2006) for detailed case studies. See Roubini (2004) and Cline (2004) for early efforts to categorize bargaining tactics in sovereign debt restructuring negotiations.

[4] Data on defaults to private creditors is from Beers and Mavalwalla (2017). Data on restructurings is from Cruces and Trebesch (2013).

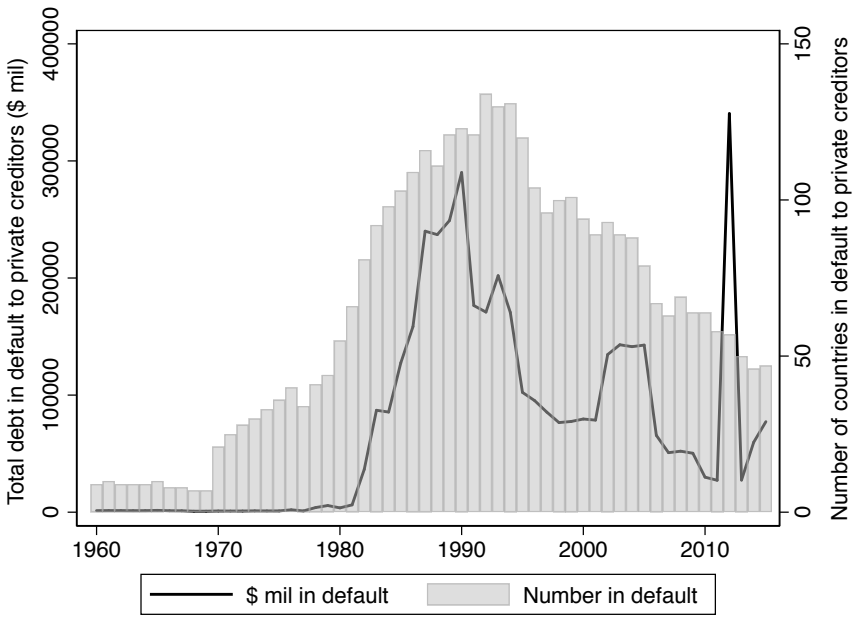

Figure 1.2: Defaults to private creditors

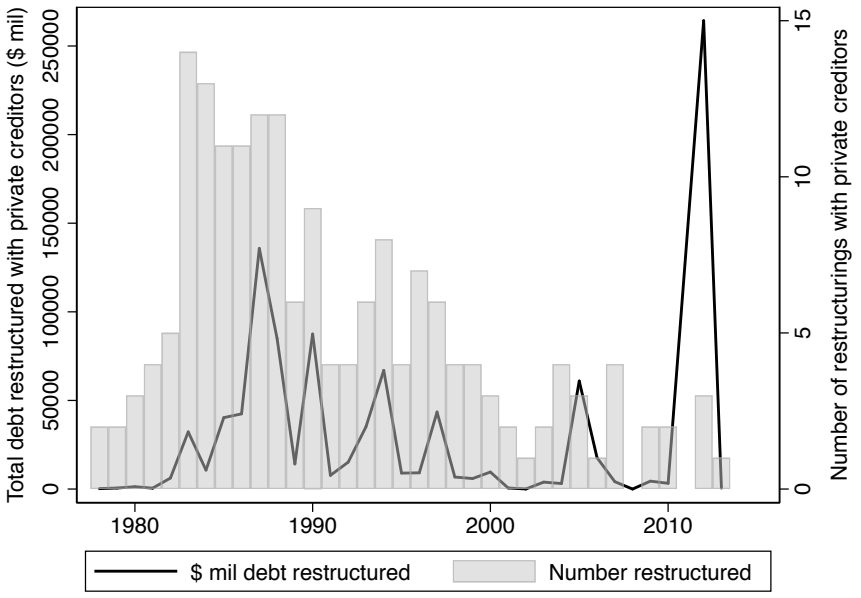

Figure 1.3: Completed restructurings with private creditors

an initial loan contract were handled on a case-by-case basis until the formation of the British Corporation of Foreign Bondholders (CFB) in 1868. While the CFB had little legal authority, it helped to provide information about the financial state of debtor countries and coordinate creditor actions. The CFB's most powerful tool was its ability to refuse access to the London stock exchange (Sturzenegger and Zettelmeyer, 2006). While counterpart organizations were adapted in several other Western countries, the need for a formalized debt restructuring mechanism became less pressing after the 1930s. The need for a more modern infrastructure did not appear until the 1970s.

In the contemporary era, the debt restructuring process differs significantly across creditor types (bilateral, multilateral, commercial, and bondholder). I focus on private debt claims incurred or explicitly guaranteed by sovereign governments. Unlike bilateral and multilateral official loans, which are often used as foreign policy tools on behalf of governments, "the daily business of commercial banks [and bondholders] is to make a profit by pricing and managing credit risk effectively" (Sturzenegger and Zettelmeyer, 2006). This makes both creditor incentives and negotiations different from other types of debt restructurings. The debt accrued by governments is similarly important because unlike debts accrued by individuals, there is no ultimate contract enforcement for sovereign entities. The understanding of sovereign immunity and lack of attachable assets makes legal enforcement on sovereign debt contracts exceptionally weak.[5] Below, I briefly provide information and examples about the modern restructuring process for sovereign debts owed to private creditors.

Restructuring commercial bank debt occurs under the umbrella of the London Club.[6] In the London Club, an indebted state in default, or close to default, approaches the IMF. After the IMF has provided its seal of approval and established sufficient conditionality, the debtor contacts one or two of its largest bank creditors and asks them to chair a steering committee.[7] If these large

[5] Although it's not impossible. Schumacher, Trebesch and Enderlien (2018) argue that recent legal developments including creditor lawsuits, attachable assets, and collective action clauses have strengthened the power of creditors.

[6] The name is slightly deceptive as there is not a permanent secretariat and only a loose procedure.

[7] The London Club will often refuse to meet unless the indebted state has reached or made significant progress

banks agree to chair a steering committee, they are then responsible for forming a larger Bank Advisory Committee (BAC) and inviting other representative banks that will negotiate on behalf of all banks.[8] The committee generally encompasses those banks with the highest exposure to the defaulter and is designed to include representation from multiple countries; however, there is no official formula.[9] Once established, the BAC meets regularly with the defaulted government to verify statistics and exchange offers and counter offers. Once an agreement is reached between the defaulted state and the creditors on the BAC, the "terms sheet" is sent out to all other banks for approval. It is often accompanied by road shows where lead banks and key government officials attempt to sell the outcomes to the prerequisite number of foreign banks.[10] The final exchange offer cannot go into action without nearly unanimous approval from all creditors, usually defined as 95%.

However, the requirement of near unanimity at the final stage provides each individual creditor with an option to renege from the settlement reached. Instead of signing onto the terms sheet, creditors have the option of holding out for a better deal or taking their chances by suing the defaulted government in court. This holdout option is unique to private debt negotiations. It is not often seen in negotiations with official creditors, as in the Paris Club. Furthermore, this type of intra-creditor dispute, even if eventually resolved, can lead to delays of three months or more in implementing the agreed settlement (Trebesch, 2010). Additionally, while sovereign immunity theoretically limits a creditor's ability to act as such, creditor litigation against defaulting countries

towards an agreement with the IMF. However, there are exceptions like the Venezuelan restructuring in 1986. Venezuela was explicit that the IMF would not get involved. According to President Lusinchi, "We don't need the discipline of the IMF because we're going to impose it ourselves. Our situation is special. Our economic structure is basically strong" (New York Times 1984).

[8] Alternative names for the Bank Advisory Committee include the "steering committee" the "London Club committee" and the "creditor committee." Committees range in size from 2 (Vietnam) to 22 (Brazil). The average BAC has 10 member banks. See Chapter Six for more description.

[9] For example, Japanese banks held 60% of Algerian debt in 1996. However, due to inexperience, the chairmanship passed to French bank Societe Generale, who had already sold most of its claims.

[10] Each larger bank on the BAC is also responsible for garnering the acceptance of a certain number of smaller banks. They can threaten to blacklist holdouts from future international syndication, cut interbank credit lines, and withhold important banking facilities (Milivojevic 1985; Lipson 1985).

has become increasingly common after the 1980s (Schumacher, Trebesch and Enderlein, 2015).[11]

A description of the Brazilian debt restructuring from 1983-84 provides an example of this process and its potential hang-ups. Following the reduction in lending after Mexico's 1982 moratorium, Brazil was unable to rollover its growing external debts with new commitments. With only $6 billion in foreign reserves, Brazil initiated negotiations with its private and public creditors in 1982 to restructure its $100 billion external debt (Aggarwal, 1996; Boughton, 2001). While initial negotiations were waylaid by the first nationwide congressional elections since the military's takeover, by the end of 1982 Brazil had begun negotiations with the IMF while simultaneously requesting a new jumbo loan of fresh credit from its creditor committee. Chaired by Citibank's William Rhodes, Brazil's creditor committee reflected the heightened exposure of American banks in relation to European and Asian banks. Nine American money-center banks held $13.7 billion in exposure (*Country Exposure Lending Survey*, 1982).

After formation, the BAC sought to identify the financing gap and relevant information on Brazil's financial situation. They (in conjunction with the IMF) identified a total financing gap of $12.7 billion, $5.7 billion of which had to come from commercial banks. After the IMF and Brazil reached a formal agreement, Brazil requested new lending, rescheduling of principal repayments, trade credit rollover and the maintenance of overnight interbank credit lines (Boughton, 2001). The most exposed banks were largely in favor of this offer, but their inability to gain the support of American regional banks and European/Asian banks prevented the BAC from providing the full requests of Brazil and the IMF. Even though a Phase 1 agreement was signed, over 200 of the 455 involved creditors refused to participate. When Rhodes restructured the BAC in 1983 to include American regional banks with hierarchical control over smaller American banks and with more explicit information provision from the IMF, the 1984 exchange offer saw much greater

[11]The Foreign Securities Immunities Act in the US (1976) and its counterpart in the UK (1978) allowed sovereign states to be sued by private parties for the first time if a discrepancy existed in commercial activities. While only 5% of restructurings in the 1980s involved litigation, almost 50% of restructurings in recent years have involved at least one creditor going to court. Claims adjudicated in these court decisions have also increased to an average of 4% of defaulted debt and 1.5% of debtor GDP in recent years, in additional to delaying the restructuring process itself (Schumacher, Trebesch and Enderlein 2015).

bank participation and a small creditor haircut (Aggarwal, 1996).

Bond debt restructuring has been far less frequent than commercial bank restructuring, but has become increasingly important with the advent of the secondary international credit market (Das, Papaioannou and Trebesch, 2012).[12] In this case, the process unfolds in a similar, yet more ad hoc fashion. First, the defaulted state announces its debt distress and attempts to both verify its total debt claims and identify major bondholders. Second, the defaulted state prepares an exchange offer, sometimes with consultation from and in negotiation with representative bondholders.[13] Thus, while restructuring bond debt can involve important negotiations between debtor and creditors, the process is less routinized and more ad hoc than under the umbrella of the London Club. Lastly, an exchange offer of new instruments for outstanding debt instruments is launched, usually as a take it or leave it offer. These exchange agreements still contain a minimum participation threshold that allows for hold out creditors to delay the restructuring process. Even if enough bondholders agree to the deal to meet the participation threshold, bondholders have still been known to hold out and litigate against indebted sovereigns. For example, holdout litigation following Argentina's 2005 bond restructuring was not resolved until 2016.

Another example from Latin America provides a more concrete description of the bond process. With only $1.3 billion in foreign reserves and significant service on Brady bonds, Eurobonds, and domestic debt due by the end of 2000, Ecuador announced in August of 1999 that it would suspend service payments on certain bonds that were scheduled due that month. In October of that year, Ecuador defaulted entirely and announced that it was seeking to reschedule its external public debt. While initial negotiations were begun quickly after the default announcement, a run on domestic banks, the ousting of President Mahuad, and subsequent dollarization, meant that the IMF did not approve an agreement until April of 2000 (Sturzenegger and Zettelmeyer, 2006). As far as consultation with creditors, Ecuador's bonds were largely held by institutionalized cred-

[12]There have been approximately 20 bond restructurings since 1950.

[13]For example, Belize's 2007 bond restructuring involved a fairly concentrated creditor committee while in Ecuador's 2009 bond restructuring, no committee was formed.

itors, making identification of relevant parties easier than in more recent cases (Das, Papaioannou and Trebesch, 2012). Yet, as is common with bond restructurings, no formal creditor committee was created. Instead a consultative group of eight representative creditors was formed to consult on the economic and financial position of the country, although the committee only met twice (Sturzenegger and Zettelmeyer, 2006). In July of 2000, Ecuador formally launched an exchange offer on its defaulted Brady bonds and Eurobonds. In exchange for its defaulted debt, it offered new bonds that would mature in 2030.

For both bank and bond debt, once deals are concluded there exists significant variation in the negotiated settlement, or haircut. Figure 1.4 demonstrates that while the average creditor haircut is 37-40%, haircuts range from negative values (ex. Brazil 1983) to greater than 80% (ex. Albania 1995) (Cruces and Trebesch, 2013).[14,15] The estimates are even higher, almost 100%, for countries participating in the World Bank's Highly Indebted Poor Country (HIPC) Initiative.[16] Both the average haircut and haircut dispersion have increased over time, with more recent debt crises being more likely to receive a face value reduction (Cruces and Trebesch, 2013).[17]

While the opaqueness of the restructuring process has previously discouraged quantitative academic research, work on the consequences of haircuts have established their economic impact. Recessions following a financial crisis are longer and deeper than more traditional recessions (Reinhart and Rogoff, 2009; Jorda, Schularick and Taylor, 2013). Furceri and Zdzienicka (2012) estimate that debt crises reduce growth by almost 10 percent after 8 years. However, the size of a negotiated haircut has an additional effect. Restructurings with higher creditor haircuts lead to higher spreads on bond yields during default (Cruces and Trebesch, 2013). But, after restructurings are concluded high haircuts soften GDP contraction (Marchesi, 2015). Thus,

[14]There is some debate about the appropriate haircut calculation but different measures capture similar quantitative trends. Benjamin and Wright (2008) calculate a similar haircut measure for 90 restructurings and find that the average haircut is 38% percent.

[15]Figure 1.4 is recreated from Cruces and Trebesch (2013) with updated data. It plots creditor haircuts over time where the circle size represents the volume of debt restructured in each deal.

[16]However, official creditors take the lead in these negotiations. Commercial debt obligations are relatively small.

[17]Sizable haircuts can still be achieved by lengthening maturities and lowering interest rates.

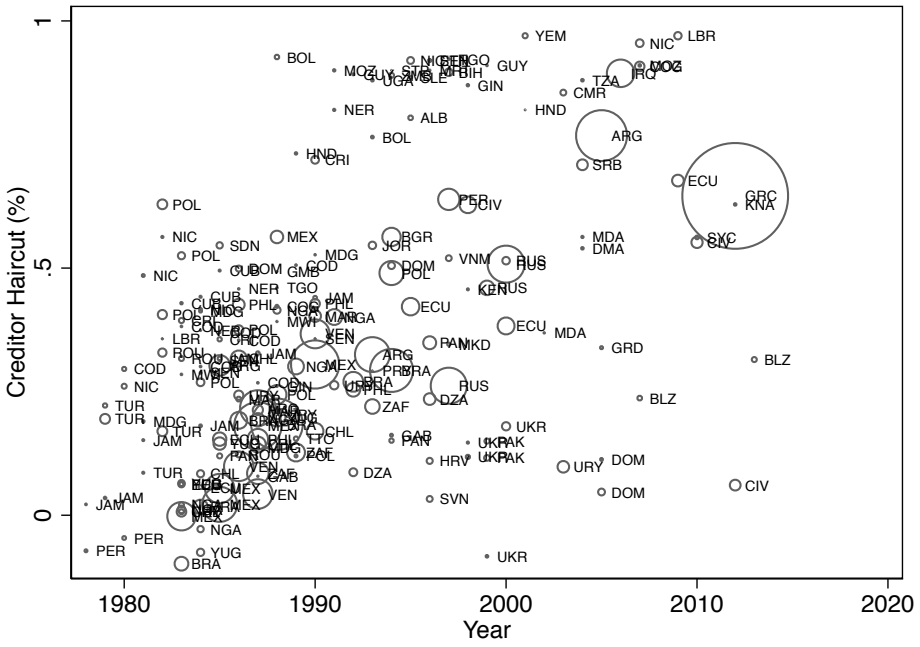

Figure 1.4: Creditor haircuts and debt restructured over time

while higher haircuts can lead to much steeper declines in GDP during default, the negative effects end when the country exits the crisis episode (Trebesch and Zabel, 2017). Similarly, Reinhart and Trebesch (2016) find that the economic position of indebted states improves more significantly after a restructuring when deals involve debt write-offs. These findings highlight that the economic effects of default aren't fixed – there is a tradeoff between domestic austerity and capital market exclusion. The potential for economic recovery depends on the outcome that can be reached during negotiations, which requires an understanding of the institutional and procedural norms that govern the debt restructuring process.

In comparison to work on the financial causes and consequences of debt restructuring, scholarship on the political implications of restructuring has been more limited. It has focused more on predicting sovereign credit access and the occurrence of default, rather than on debt restructuring, with several notable exceptions. For instance, a robust literature has developed around the democratic advantage hypothesis and significant debate continues about whether

institutional constraints allow countries better access to capital markets, at lower interest rates, leading to fewer defaults (North and Weingast, 1989; Schultz and Weingast, 2003; Beaulieu, Cox and Saiegh, 2012; Biglaiser and Staats, 2012). Additional literature has focused on distributional preferences over sovereign debt policies (Ballard-Rosa, 2016; Curtis, Jupille and LeBlang, 2014; Tomz, 2004). As the exception to this trend, Cline (2004) and Roubini (2004) provide two early attempts to qualitatively categorize debt restructuring negotiations based on private sector participation and coerciveness. In the quantitative empirical literature, while Enderlein, Trebesch and von Daniels (2012) suggest that political variables like democracy help explain government's coerciveness towards their creditors and DiGiuseppe and Shea (2018) find that leftist governments extract higher haircuts from their creditors, political restructuring dynamics have been understudied.

1.2 Core Contributions

The findings in this dissertation provide insights into debt restructuring specifically, and the role of public opinion in international negotiations more generally. First, despite the resurgence of sovereign debt crises in advanced states, we are ill-equipped to understand the political dynamics of the negotiation process itself. The majority of existing work on sovereign debt restructuring has focused on why and when default occurs, and has thus largely conceptualized default as a binary outcome based on lists from Standard and Poor's or the World Bank. This binary operationalization neglects important variation in how debtor states behave during negotiations and how debt restructuring outcomes vary. Moreover, limited research exploiting variation in restructuring outcomes has focused on the economic consequences, rather than the political causes (Rose, 2005; Cruces and Trebesch, 2013). This project is among the first to explore the political determinants of continuous debt restructuring outcomes and I analyze *how* governments act in restructuring negotiations in order to explain variation in creditor haircuts.

Relatedly, in investigating variation in indebted state strategies during restructuring negotiations, I move past treating creditors as a homogenous group. This dissertation is not only among the first to to conceptualize debt restructuring as a continuum of tactics and offer a systematic explanation, but it is also novel in its treatment of creditors as a diverse group with heterogeneous preferences. While scholars have attempted to collect this data in previous work (Trebesch, 2010; Das, Papaioannou and Trebesch, 2012; Lomax, 1986), I introduce a novel data set on the chair bank, member banks, and number of creditors involved in each restructuring. By injecting new data into an opaque substantive process, I provide evidence that who the government is bargaining with matters for how they bargain. This has strong implications for the institutional design of the debt restructuring process and suggests that burden sharing arrangements may have unintentional, and negative, consequences that must be addressed in recent initiatives to reconfigure the debt restructuring framework.

Finally, previous work has given priority to preference-based arguments explaining the ways in which special interest groups, firms, or legislatures constrain the government's benefits from international cooperation (Milner, 1997; Milner and Rosendorff, 1997; Putnam, 1988; Broz, 2005; Broz and Hawes, 2006; Ehrlich, 2008). More limited work elaborates on how domestic politics impacts the conduct of leaders at the international bargaining table, as a means of signaling responsiveness to domestic audiences (Dreher, 2003; Dai, 2005; Caraway, Rickard and Anner, 2012; Schneider and Slantchev, 2017; Schneider, 2019*a*,*b*, 2020) or extorting concessions out of foreign actors (Rickard and Caraway, 2014). My findings build on the latter, while positing that voters and their ability to inflict electoral punishment are at the heart of a government's constraints in international negotiations. By applying theories of economic voting, where citizens punish the incumbent for economic downturns, I demonstrate that strategically induced political costs born in equilibrium can by used by leaders at the international level to win concessions from their negotiating partners. Contrary to the norm of secrecy in international negotiations, leaders go public not because of appeals to transparency or democratic idealism (Dahl, 1999; Nye, 2001)

but because the costs can be strategically used as leverage in a top-down signaling framework (Stasavage, 2004). My analysis builds on these insights from American and International Politics to demonstrate how public opinion matters in international negotiations as a signaling mechanism to credibly reveal private information and elicit preferential policy outcomes.

1.3 Chapter Outline

In the remainder of this dissertation, I analyze the political dynamics of sovereign debt restructuring negotiations by combining political economy insights wth multi-method empirical tests. I theorize debt restructuring negotiations as a three-player bargaining game, test implications of the theory for negotiation behaviors and outcomes, and introduce an extension to the original theoretical model. In Chapter Two, I introduce a political economy theory of the three-way interaction between the government, its citizens and its creditors as they bargain over the size of creditor haircuts. My main argument is that governments possess private information in debt restructuring negotiations about their political willingness to pay. I define willingness to pay as how much the government can adjust resources away from domestic objectives without jeopardizing their hold on power and imply that this is not directly observable by creditors. This creates incentives to misrepresent private information by pleading distress to creditors and hiding distress from citizens. One way for the government to overcome the bargaining dilemma is to rely on public declarations of debt distress as a costly signaling mechanism. When public declarations invoke domestic electoral punishment, they serve to separate governments that are politically unwilling to pay from those that are, increasing the resulting creditor concessions.

Yet, if public declarations increase creditor concessions, what prevents all indebted governments from using a public strategy? I further unpack the theoretical mechanism to imply that public declarations should only be effective at eliciting concessions when they are costly to the politicians that send them. When are public declarations costly? Relying on theories of

domestic accountability, public declarations are most costly to incumbent leaders when citizens observe economic distress, care about economic distress and can sanction the government for economic distress.

In Chapter Three, I test the empirical implications of the theory on negotiation outcomes. Using data on public default declarations and creditor haircuts for 25 defaulting countries from 1980-2009, I establish that public signals of debt distress elicit larger creditor haircuts. The results not only suggest that the substantive impact of public declarations is large, but that political strategies matter more than many traditional economic variables.

In Chapter Four, I focus on the theory's predictions for negotiation behavior by providing a quantitative test of the mechanism level hypothesis that public declarations of debt distress are only an effective strategy when they are costly to politicians. The hypothesis is supported by data that shows that where citizens can observe economic crises and hold governments accountable, governments are more likely to issue public declarations. Democracies with high socioeconomic pressure are more likely to use a public strategy. These findings speak to the long-standing democratic advantage argument and suggest that while the institutional constraints of democratic institutions might make democratic leaders less likely to default, the public opinion costs make them more likely to act coercively in restructuring negotiations. I also return to the main results of Chapter Three, and show that controlling for selection into public declarations, public declarations continue to significantly increase creditor haircuts.

In Chapter Five, I illustrate the theory's mechanism using an in-depth case study of the Greek bond restructuring in 2012. By outlining events from 2009 to 2012, I provide an in-depth analysis of the mechanisms that connect the government's negotiation strategy to both domestic public opinion and negotiated creditor outcomes. I show that during the early period of the crisis, when the government denied the need to restructure its private bond obligations, public support eroded slowly. Yet, the first plan for a bond restructuring proposed a 20% haircut, which was unacceptable to the Greek government and its citizens. I compare this to the public's reaction in

October 2011, when Papandreou called for a national referendum on the restructuring deal, which was widely interpreted as a public admission that Greece was prepared to disorderly default. The political costs of the decision were high, as evidenced by public opinion polls and Papandreou's resignation, but the resulting deal signed in March 2012 was one the largest restructurings in history. Moving insolvency into the public eye invoked a domestic backlash, but it also increased creditor concessions.

Chapter Six offers an extension of the model that considers the role of creditor heterogeneity in debt restructuring negotiations. Private creditors have different exposures, ties to borrowers, and roles in international banking. Disagreements between creditors are also commonplace. I argue that governments must consider a public signal's heterogeneous reception by the larger group, given its domestic cost. Drawing on theories of group coordination, I argue that it is easiest to coordinate creditors around large concessions when the group is small or a few members have large stakes. When there are few credit holders with highly concentrated exposures, creditors have a strong incentive to find a quick and effective negotiated solution out of their own self-interest. However, when debt is held by disperse creditors with small individual claims, each individual creditor is much better equipped to wait for full repayment. In this case, creditors will struggle to solve the coordination problem on their own without a focal point to draw the most recalcitrant holdouts into the fold. I argue that where creditor dispersion makes coordination most difficult ex-ante, a public signal is more effective and governments are more likely to bear the associated political costs. Using a novel dataset of creditor characteristics, I find evidence that governments are more likely to publicly announce default as the number of creditors increases.

Finally, in Chapter Seven, I conclude the dissertation by considering the political and academic implications of this work. I also discuss future research that could be derived from this agenda. Growing sovereign debt burdens, the potential for international contagion, and continued disagreement on common standards of debt restructuring lead me to expect that debt restructuring will only become more common in the future.

2 The Political Economy of Sovereign Debt Restructuring Negotiations

The length and variation in debt restructuring outcomes presents a puzzle: If creditors and debtors can't agree on the distribution of adjustment costs using the wealth of economic data at their disposal, how else do they overcome their conflicting preferences? The size of haircuts is important to creditors' bottom line and to borrowers' economic recovery, yet we lack a coherent explanation of the debt restructuring process. In answering this question, I focus on how indebted states' negotiation behavior can change negotiation outcomes in their favor. This chapter introduces three sets of actors, delineates their preferences, and builds a political economy theory of sovereign debt restructuring with several testable implications.

Specifically, I argue that while economic statistics provide a baseline to establish the government's ability to pay, it does not capture the government's willingness. The government's political willingness to repay its foreign obligations is private information, and this informational problem in debt restructuring provides the government will incentives to misrepresent. Not only does the government have incentives to plead distress to its creditors, it also has incentives to hide distress from its citizens, who will punish the government for economic mismanagement.

So how does the government overcome the informational problem? One way for the government to solve the distributional conflict in its favor is to rely on public declarations of debt distress as a costly signal of their debtor "type." By invoking domestic political punishment, an

electorally costly signal should separate governments that are politically willing to pay from those that are not, and extort greater creditor concessions as a result. Because this separation hinges on the domestic costs of a public declaration, I end by theorizing under what circumstances the signal should be sufficiently costly. I ultimately derive hypotheses about both the use and success of public declaration strategies.

2.1 Actors, Information and Incentives

What prevents creditors and debtors from reaching an agreement over the size of creditor haircuts? I model the three-way interaction between the government, its citizens, and its foreign creditors as a bargaining game over the size of creditor haircuts. I assume that the government faces an impending crisis that precludes it from fulfilling its debt obligations. To tackle the crisis, restructuring with foreign creditors is required. The government must coordinate this restructuring while simultaneously facing voters, who are only incompletely informed about the crisis' seriousness, at the domestic polls. The fundamental problem for office-motivated politicians is to negotiate a deal that maintains their political power, by minimizing adverse economic effects, austerity, and voter sanctions – which is no easy feat.

I thus focus on the indebted government as the pivotal actor and primarily assume that incumbent politicians are motivated by their political survival. However, the need to default endangers a leader's ability to stay in power for several reasons, both direct and indirect. Financial crises can reduce access to international credit markets (Cruces and Trebesch, 2013; Gelos, Sahay and Sandleris, 2011; Tomz, 2007*b*), spillover into private credit markets (Artera and Hale, 2008), and negatively impact trade (Rose, 2005; Martinez and Sandleris, 2011; Zymek, 2012), investment (Fuentes and Saravia, 2010) and economic growth (Furceri and Zdzienicka, 2012). Regardless of the mechanism, default is highly dangerous for leaders and positively associated with job loss (Malone, 2011; Crespo-Tenorio, Jensen and Rosas, 2014; DiGiuseppe and Shea, 2016). Given

this danger, I secondarily assume that leaders are also concerned with the political survival of their political parties. As the ex-ante probability of job loss during a financial crisis is high, leaders prefer to see their own party, or those with similar ideologies, in office rather than the opposition.

One way for the government to stem domestic pressures in a financial crisis is to win large concessions from creditors at the international bargaining table. Bigger concessions, or bigger haircuts, are beneficial to the government in the medium term, after an agreement has been reached and implemented. A haircut specifies how much of the government's original claims must be repaid, over what time horizon, and at what interest rate. The smaller this remaining obligation and the longer the length of maturities, the less the state will have to divert out of the fiscal budget in the following years. Key for the government, is that a high haircut unlocks funds previously committed to debt servicing, which can be used to secure the government's position in office. Whether the government uses these funds to minimize fiscal austerity broadly or to protect particular interest groups, fiscal stimulus can buy government support. This is reminiscent of the political business cycle where excess funds allow the government to manipulate the economy at strategic intervals (Nordhaus, 1975) or time elections opportunistically with economic expansions (Kayser, 2005). In line with this expectation, Dreher and Vaubel (2004) find that new IMF credits are larger before elections and Dreher (2004) concludes that access to these credits can positively impact a leaders' tenure.[1] Additional evidence finds that voters may reward the government for securing a "good deal" in negotiations with official creditors, which suggests a further benefit to bargaining "hard" (Vreeland, 2003). But this is not to say that the benefits of a high haircut don't come with significant costs, primarily exclusion from international capital markets.[2]

However, profit-motivated creditors may prevent the government from achieving the concessions they require to appease their voters.[3] Intuitively, a default and subsequent restructuring

[1] Dreher's (2004) findings are contingent on the state of the economy. IMF agreements concluded within 6 months of elections increase the incumbent government's election probabilities only if GDP growth is low.

[2] However, Trebesch and Zabel (2017) find that exclusion from a high haircut is not as long lasting as previously thought.

[3] I assume for theoretical simplicity that restructuring negotiations are carried out with a single and unified creditor group. See Chapter Six for an explanation of how potential heterogeneity in creditor preferences affects the

always harms the creditor in the sense that they are not able to recuperate the entire value of their initial claim. However, initiating a credit boycott against a defaulted sovereign until they fulfill their claims is always suboptimal for the lender (Bulow and Rogoff, 1989); creditors are better off restructuring their original claims and reestablishing positive lending as quickly as possible. Simply put, if prolonged crises worsen the economic position of indebted states, holdout can lengthen the time until creditors see renewed repayment. Debt reduction can increase incentives to undertake new efficient investments in the indebted state, leading to higher future growth rates and cash flows to repay foreign claims. As Bulow and Rogoff (1989) show, if the borrower obtains a haircut and services the rest of the debt, then the lender receives higher payments than if the lending contract was dissolved entirely. Creditors, like the Puerto Rican bondholder and mutual fund Nuveen Asset Management, acknowledge this reality in statements like the following:

> We don't advocate for restructuring authority lightly. As investors, we prefer political solutions that avert restructuring whenever possible. Yet we believe when an issuer reaches the point where debt reduction becomes inevitable, any delay only serves to engage in value destruction through additional unsustainable borrowings, economic contraction and/or population loss due to reduced government services. Thus the restructuring – painful as it may be – provides greater value to creditors than lobbying for maintaining the status quo (Feliciano, 2016).

The empirical literature on sovereign default supports this conclusion and finds that prolonged crises with significant uncertainty can lead to shareholder losses for publicly traded financial institutions. When this is the case, creditors can also benefit from debt relief. For example, Arslanalp and Henry (2005) find that debt relief can raise the stock prices of major commercial banks that were highly exposed to developing countries. In the context of the Brady plan to reduce the private debt burdens of Latin American governments, providing debt reduction raised the stock prices of 11 major US commercial banks with large developing country portfolios by 35%.[4]

government's choice of strategy.

[4]Other studies have further confirmed that even if debt reductions come from official sources, banks see their stock prices rise (Demirguc-Kunt and Huizinga 1993; Kho, Lee and Stulz 2000).

Thus, while creditors are willing to restructure, they are still profit-motivated and seek to maximize their returns up until the point that would incur a full, costly, default. The fundamental conflict in bargaining negotiations is that while both creditors and debtors are willing to negotiate, they prefer to inflict the maximum adjustment costs onto the other party. Venezuelan President Carlos Perez likened these conflicting preferences to a form of "economic war, in which each side wants to use all the missiles it has to defend its interests" (Reuters, 1989).

Ideally, creditors would be able to determine the minimum haircut that would avoid default and optimize its offer at the debtor's reservation point. If this information were public knowledge, in the form of widely available economic indicators like debt to GDP ratio and debt to external reserves, the conflict would be resolved quickly and a timely agreement on the size of a haircut would be reached. However, I argue that concessions are not easily optimized and negotiations prolonged because the government's political will to repay its foreign debts is unobservable, private information. Only the government has full information on the state's *economic and political* debt distress, which makes its financial ability to pay and its political willingness to pay distinct concepts (Tomz, 2007*b*; Gray, 2013). Dating back to Eaton and Gersovitz (1981), a country's ability to pay refers to whether it has the financial resources to meet its commitments, even if this means redirecting expenses away from other areas of the government budget and into debt servicing. In this way, the ability to pay can be easily assessed by tracking fiscal pressures in relation to government revenues. In comparison, a country's political willingness to pay focuses on whether the government is willing to make these adjustments, usually at the expense of other domestic objectives. Thus, I follow Panizza, Sturzenegger and Zettelmeyer (2009) and argue that willingness to pay is the only concept that matters as even the largest debt obligations can be repaid if adjustments to taxes and spending are large enough to compensate. Countries are always able to pay, but without international legal enforcement, they are not always willing.[5,6]

[5]Even in the case of a sudden credit stop, with a large enough adjustment the same commitment can be paid with additional time to find the necessary foreign reserves. Sovereign governments even have the power to commandeer foreign exchange from private entities.

[6]Leaders could also sell territory to raise the necessary funds for repayment. Greek citizens were not supportive

More specifically, willingness to pay refers to the fact that honoring sovereign lending contracts is a cost-benefit calculation that occurs in the hearts and minds of political leaders. When full repayment is deemed too costly on political, social, ideological, or moral grounds, indebted governments will be unwilling to pay their foreign debts. Government resources are fungible but finite and therefore, a government's willingness to pay is based on their preferences to elevate foreign debt above other foreign or domestic policy concerns - to pay creditors rather than pensioners. How costly governments view this redistribution of resources will depend on how much they believe they can adjust without forfeiting these personal preferences. Previous scholarship highlights that willingness to pay is not static and that changes in anti- or pro- debt coalitions, institutional reforms, elections, veto players, opposition parties, legislative majorities and coalition partners, all affect the costs of repayment and therefore the government's willingness to repay (Tomz, 2007*b*; Stasavage, 2003; Saiegh, 2009). For example, one of the most popular iterations of this argument is that executive constraints in democracies should make them more willing to repay their obligations (North and Weingast, 1989). While institutional factors change slowly, other political and ideological considerations change more quickly, which means that for creditors "the judgment is more of an art than a science" (Blustein, 2016).

A focus on willingness rather than ability to pay means that claims of poverty do not correlate with penniless governments. The role of imperfect information in the bargaining game implies that indebted governments have strong incentives to misrepresent their distress (Fearon, 1995). Creditors lack the information required to confirm a haircut's necessity, which gives the government an opportunity to exaggerate their distress in hopes of hoodwinking creditors into a larger haircut. For example, investors in the Venezuelan negotiations in 1989, acknowledged that "the only claim for debt reduction is political. The new Government of Carlos Andres Perez needs to win an important victory to back its economic reform program" (The New York Times, 1989*b*). In a New York Times editorial, the chairman of Chase Manhattan Bank stated that Argentina's

of suggestions from German politicians that Greece sell islands, the Acropolis and the Parthenon in order to repay its debts (The Guardian 2010).

ability to pay was a "matter of judgement" and that that while creditors thought "Venezuela [had] the resources to service its debts...[that] too is part of...continuing discussions" (The New York Times, 1989*a*). Indebted governments might be capable of paying more, but they are not always willing to do so when payment has political costs.[7]

This is not to say that creditors don't have some information on the non-economic factors that are correlated with willingness to pay. Creditor's information is imperfect rather than nonexistent, and they rely on sophisticated mathematical models, third party advice, and qualitative evidence to assess the value of their contracts. For instance, the "big three" credit rating agencies (Moodys, Fitch, and *S&P*), on which many banks and bondholders rely, explicitly acknowledge their incorporation of ability and willingness to pay and include measures of political institutions, corruption, and the rule of law. Creditors also take their cues about sovereigns' willingness to pay from peer group heuristics (Gray, 2013; Brooks, Cunha and Mosley, 2015).[8] Because these sources of information provide suggestive information at best, creditors are continuously looking to find new information on which to update their beliefs. This is evident in the movement of international capital markets around political events and announcements

[7]It is important to note that not all indebted governments plead poverty. Venezuela made a large debt payment in 2015 by draining its foreign and gold reserves, even though its citizens were facing a deep recession. On the other hand, Ecuador defaulted and restructured its debts in 2007 even though the 2000s saw consistently high growth from the commodity boom.

[8]These considerations should also be factored into the risk premiums that borrowing countries must pay. However, it is important to point out the imperfections of these assessments, and that interest rates are not well correlated with the latent variable willingness to pay for several reasons. First, this dissertation focuses on sovereign external debt that is due in the medium to long term. Case study evidence suggests that much of the debt included in these restructuring negotiations was acquired 10-30 years prior and significant political and economic changes can occur in that span to imply that interest rates do not always align with current realities. Risk premiums would be more accurate in cases where debt is actively traded on the secondary market and bond yields would be more helpful than coupon payments. Additionally, the cyclical nature of default and debt restrucutrings similarly suggest that large loans were made to developing countries in times of global liquidity. For example, the wave of Latin American debt crises in the 1980s and 1990s dealt with debt that was primarily issued in the 1970s when commercial banks had significant resources that they were looking to invest. While there is some variation, risk premiums were generally low and relatively standard across the region. Similarly, Ballard-Rosa, Mosely and Wellhausen (2019) find that when global capital markets are flush, political considerations of risk are less salient to investors. Finally, the theory, and my findings in Chapter Four, suggest that democracies should be more likely to publicly declare their debt distress. Yet, democracies do not appear to have higher or lower interest rates than autocracies when they borrow (Saiegh 2005). However, controlling for section, democracies are more likely than autocracies to be able to enter international bond markets, which runs counter to their decreased willingness to pay (Beaulieu, Cox, and Saiegh 2012).

(Bernhard and Leblang, 2006; Luechinger and Moser, 2014; Moser and Dreher, 2010).

While large concessions may help solidify the government's tenure after it reaches an agreement with its creditors, the government is also accountable to its population during the – potentially prolonged – period that negotiations are still ongoing. The government's bargaining dilemma is further complicated by the domestic interaction where under-informed citizens may sanction the government for its economic mismanagement before an international agreement can be reached. Incentives that are rational for the government in negotiations with its creditors are not equally rational in its concurrent negotiations with the domestic population.[9]

Similar to its international negotiations, the government also has more information than its citizens about the crisis' likely trajectory and severity.[10] This implies that while citizens dislike a weak economy they are often under-informed about economic outcomes (Hiscox, 2006; Guisinger, 2009) and therefore have a difficult time evaluating the government's role in economic management. Keeping this information private is beneficial to leaders who know that if citizens had more information about the impending crisis they would surely be punished at the ballot box. Whether voters make retrospective and egocentric (Fiorina, 1981), prospective (Lewis-Beck, 1988), or sociotropic (Kinder and Kiewiet, 1979) evaluations, recessions are bad for incumbents.[11] While there is less work about punishment in financial and debt crises specifically (Malone, 2011; Crespo-Tenorio, Jensen and Rosas, 2014; DiGiuseppe and Shea, 2016) debt crises are costlier and longer than traditional economic downturns (Reinhart and Rogoff, 2009; Jorda, Schularick and Taylor, 2013), implying a particularly strong punishment effect. Even if leaders maintain office following financial crises, they tend to face increased polarization (Mian, Sufi and Trebbi, 2014), decreased support (Hernandez and Kriesi, 2016), and more anti-government

[9]This is similar to Putnam (1988). However, Putnam conceptualizes the domestic level as a bargain with legislatures and I conceptualize the domestic level as a bargain with citizens.

[10]The government is unlikely to have complete information about the crisis' impact, given that this requires predictions about external events. Citizens are also likely to observe general economic declines. The argument holds as long as the government has more information than their citizens.

[11]I build on the robust political science literature supporting the presence of an economic voting effect. However, I do not make assumptions about the mechanism. For a review of the literature see Anderson (2007).

riots and protests (Funke, Schularick and Trebesch, 2016). It is in the best interest of the leader to hide their economic incompetence, by obfuscating attention away from economic downturns to whatever extent they can. Private information again provides the government with incentives to misrepresent, this time by hiding distress from the electorate.[12]

It is also worth noting, that sovereign debt restructuring is particularly well suited to preserving citizens' information asymmetry. That is, sovereign debt restructurings are simultaneously ad-hoc and technical. To the former, Rieffel (2003) notes that the Bank Advisory Committee, which negotiates with indebted states on behalf of al other credit holders, lacks permanent membership and a permanent secretariat. It also negotiates on a case-by-case basis, with only a few guiding principles. Additionally, there is no central source of information on sovereign debt restructuring and even in retrospect there is disagreement between sources about what deals classify as a restructuring.[13] This variation in the restructuring process itself makes restructuring episodes easier to conceal in terms of ambiguity.

To the latter, in restructuring negotiations, indebted governments and commercial lenders haggle over lengthening maturities, interest rates, bond swaps, collateralized obligations, inclusion of arrears, inclusion of private sector debts, etc. Any of these factors can imply a haircut, but not necessarily in ways that are visible to a layperson. To add further complication, parties often bargain simultaneously over multiple instruments as they create a "menu" of options that can be subscribed to in predetermined proportions. Holdouts, litigation and collective action clauses create another layer of legal intricacy. This technicality suggests that debt restructuring often lends itself to a conversation among exports. Negotiations are easier to hide and therefore the

[12]This is not to say that negotiating in private precludes economic voting effects entirely; It is impossible for the government to hide every adverse symptom or solve problems of misattribution. Voters are naive in their assessments, sometimes penalizing politicians for "acts of God," like shark attacks, droughts, and influenza (Achen and Bartels 2002) or economic problems beyond their control like interest rate hikes and commodity price declines (Campello and Zucco 2016). I simply argue that hiding distress weakens the likelihood that citizens will punish the incumbent at the ballot box in the short term – even if it is does not eliminate it.

[13]The two most common lists of sovereign debt restructurings, those from the World Bank's Global Development Finance Report (2003, 2004, 2006, 2007) and the Institute of International Finance (2001), diverge on the coding of several cases (Das et al. 2012).

public's ignorance is easier to preserve, which is in the best interest of incumbent leaders.

To summarize, the bargaining problem arises because the government has more information than both creditors and citizens. They also have incentives to misrepresent their distress differently towards each opponent. Not only do governments have incentives to plead distress to lenders to increase concessions, they also have reasons to hide their true economic distress from voters who will punish a government for financial mismanagement. The government can't reveal information to one of its opponents without adversely affecting its negotiations with the other.

2.2 Public Declarations as a Costly Signal

I argue that one way the government can solve this bargaining problem is to use its conflicting incentives to its advantage and publicly reveal information as a costly signal to creditors about their "type." Specifically, governments that lack the political will to pay can convey their type by publicly announcing their debt distress and invoking political punishment. This electorally costly signal separates governments that are politically willing to repay from those that are not and extorts greater concessions – bigger haircuts – from creditors as a result.

However, to be credible as a signal of debt distress to creditors two things must be true. First, the signal must be costly and second, the signal must be sufficiently costly to separate debtor "types" – to separate debtors who are politically willing to pay from those that are not. To the former, the signal must be costly to be understood as credible information on which creditors can update (Fearon, 1995). Thus, publicly declaring default is costly when it increases the government's accountability for adverse economic conditions. By going public, the government both reveals the full burden of the crisis to the domestic audience *and* triggers a response in international capital markets to worsen already declining economic conditions. According to this logic, even if citizens can already observe a general economic decline, the visceral reaction in the financial markets should exaggerate the government's already toxic financial position and citizens'

knowledge of the government's role. A public announcement of debt distress or default should be met with a swift loss of investor confidence. Exchange rates, stock market valuations, and credit ratings should fall.[14] And bond spreads and interest rates should rise. More importantly for leaders, angry creditors can cut off future funding and trade credits. As one New York banker said in reaction to Peru's 1985 default announcement "if they get confrontational, we'll cut off all that...they they won't be able to import food or spare parts, and there'll be an immediate political cost" (The New York Times, 1985). Creditors weren't bluffing and within a month, Peru was having to ration imports because its trade credits had been revoked.

While it is possible to think of political and economic costs as separate, I follow the banker's claim that the political implications of economic costs are the driving factor for incumbent politicians. Paired with publicity and clear accountability, further downward pressure on the government's financial position should reify to citizens that the crisis is likely to get worse and last longer. For one businessman in Argentina this meant that after the government's public default in 2001, "every day it gets harder to make a living in this country. Now the situation seems even more uncertain...People can't spend money when they don't know what's going to happen. We were in a bad shape before. Now things are getting worse" (KRTBN Dallas Morning News, 2001). As information begets accountability, a public revelation of debt distress politicizes the government's economic incompetence and dually increases the crisis' severity and salience. While financial markets should always react negatively to the government's refusal to pay, it is where citizens can sanction their government for this downturn that the link between recessions and electoral punishment is complete (Kramer 1971). While publicity and transparency may support normative democratic ideals, in this case public position taking may also, "[rivet] the yoke of public opinion closer and closer round the neck of all public functionaries" (Mill 1838, 87-88, as cited in Stasavage (2004)). The true costs, and therefore credibility, of a public signal are borne in an incumbent government's decreased probability of remaining in office when citizens

[14]For example, after Ecuador's public default announcement in 1999, the sucre opened 11% weaker the next day.

understand and care about the crisis' full impact and possess the ability to sanction (Malone, 2011; Crespo-Tenorio, Jensen and Rosas, 2014; DiGiuseppe and Shea, 2016).[15]

To the latter, the signal must be sufficiently costly to separate debtor "types," where I define type as a range of expected government payoffs *without* receiving a haircut. In other words, I conceptualize a government's type as their expected survival in office with no creditor concessions. These types can then be ranked. At one extreme, governments that are politically unwilling to repay their foreign claims have low expectations of survival in office unless they can convince creditors to award a high haircut. These government types balance their high probability of job loss against the short term public opinion costs of revealing the state's distress to its citizens. Only those governments that need a high haircut to survive, because current payments are politically infeasible, will be willing to pay the costs of revealing information to the public. At the opposite extreme, governments that are politically willing to pay have a high expected payoff. They are likely to remain in office without concessions. Their heightened sense of security implies that they will be unwilling to risk short-term public opinion costs. Therefore, because a public announcement of debt distress is electorally costly, only governments that require a high haircut to stay in power will rely on the costly signaling mechanism.

When the signal is costly enough to separate government types, it communicates credible information to a government's creditors. Only governments that are politically unwilling to repay their foreign commitments will endure public opinion costs and creditors should adjust their bargaining position accordingly. Public declarations solve the information problem and demonstrate significant distress to creditors such that, "from the point of view of strategic negotiations,

[15]It is important to note that the costs of a public negotiation strategy articulated here are not synonymous with the concept of audience costs. Audience costs stem from the punishment a government would incur if they back down from a public threat (Fearon 1994). A host of literature has used this premise to argue that audience costs are a way to convey governmental preferences in international negotiations, and are more credible in democracies (See Fearon 1994; Schultz 2001; Partell and Palmer 1999; Mansfield, Milner and Rosendorff 2002; Broz 2002; Lipson 2003; Tomz 2007). However, in my theory of sovereign debt restructuring negotiations, the costs stem from the revelation of information that is harmful to the leader. The costs occur as soon as the information is revealed and are not conditional on the leader's actions following the revelation. Public position taking is always costly, even if the leader wins a favorable outcome.

[indebted states] are in a much stronger position" (Ecuadorian Central Bank President Pablo Better as quoted in Dow Jones Newswires (1999).)

Thus, I argue that governments possess private information in debt restructuring negotiations vis-a-vis their creditors and citizens. They possess incentives to misrepresent private information by pleading distress to creditors and hiding distress from citizens. One way for the government to overcome the bargaining dilemma, is to rely on public declarations of debt distress as a costly signaling mechanism. When public declarations invoke domestic electoral punishment, they serve to separate governments that are unwilling to pay from those that are, increasing the resulting creditor concessions. I test my primary hypothesis – that *governments who publicly declare their distress will receive higher haircuts* – in Chapter Three.

2.3 When are Public Declarations Costly?

However, public declarations of default are rare events and occur in less than 15% of cases.[16] If public declarations unequivocally increase creditor haircuts, what prevents all indebted governments from using a public strategy? Further unpacking the theory's mechanism implies that public declarations should only be effective at eliciting concessions when they are costly to the politicians that send them. A public declaration only provides credible information to creditors if it separates debtor states based on their political willingness to pay. So when are public declarations politically costly?

In my argument the key mechanism is that politicians expect to bear costs when negative information about the state of the economy is revealed. More specifically, a public default declaration and the reaction in international markets should reiterate to citizens that things are going to get significantly worse before they get better, which is the fault of the government. Absent the fine-grained and cross-sectional survey evidence that would directly capture this effect,

[16] See Chapter Three.

I rely on theories of accountability to indirectly determine when public declarations are most costly to politicians. Public declarations should be particularly costly when citizens observe economic distress, care about economic distress and can sanction the government for economic distress.

I acknowledge that accountability is a complex process that requires connections between policy preferences, election outcomes, policy making, and public policies themselves (Powell, 2004). The multitude of connections is perhaps why the literature yields few results relating public opinion to international cooperation (Kono, 2008). In order for public opinion to constrain government behavior, economic conditions must be prevalent and salient to domestic audiences, as the economy often is. Much research makes the same assumptions as Wlezien (2005), that "the economy is always an important issue to voters." Indeed, one of the most robust findings in political science is that voters punish leaders for economic mismanagement, albeit more recent findings are nuanced to account for contingency effects (Kayser, 2014). Voters are more likely to penalize leaders for economic downturns than they are to reward leaders for economic upticks (Bloom and Price, 1975). Economic performance has also been found to be particularly salient during recessions and for citizens who are vulnerable to economic shifts (Singer, 2011). This suggests that for electoral accountability to function citizens must know and care about economic distress. This heightened level of political salience is most likely to be the case under adverse economic conditions. Citizens may not believe a public declaration of default in good times, but they are likely to observe, care, and express dissatisfaction when a public declaration triggers the worsening of an already precarious economy.[17]

Given the politicization of economic performance, most importantly for accountability is that citizens be able to sanction the government for their economic incompetence. In this vein,

[17] I focus on the mass political economy effects of economic voting; However, there is also important variation in who specifically wins and loses from debt restructuring outcomes. The amount citizens care is likely to be dependent on their personal stake in the outcome. While I leave a more detailed explanation of distributional implications to future work, see DiGiuseppe and Shea (2018), Tomz (2004), Curtis, Jupille and Leblang (2014), and Nelson and Steinberg (2018).

Przeworski, Stokes and Manin (1999) describe governments as accountable if incumbents who act in the best interests of their citizens win reelection and those who do not lose reelection. In democracies, elections are the fundamental tool by which citizens sanction the government, thereby holding them accountable.[18] In democratic regimes, the government must be successful at the polls to stay in power and this requires support from broad swaths of the population rather than a few influential groups that can be easily coopted (Bueno de Mesquita et al., 2003). Therefore, the heightened accountability and ease of sanctioning in democracies modifies the incentives of democratic leaders to be highly sensitive to voters' economic welfare (Schultz and Weingast, 2003).[19] My focus on electoral accountability as the primary mechanism in international cooperation is in line with the literature that equates democracy to heightened voter influence on leader survival (Bueno de Mesquita et al., 2003; Milner and Rosendorff, 1997; Mansfield, Milner and Rosendorff, 2002; Mattli and Plümper, 2002). It is also supported by Crespo-Tenorio, Jensen and Rosas (2014) and Chwieroth and Walter (2015), who demonstrate democracy's baseline condition in tests of financial crises on leadership tenure.

It is important to note how heightened ballot-box accountability following a public default declaration in a democracy provides different information than the democratic signal itself. There is a sizable literature on the democratic advantage thesis, which contends that democratic

[18] I note that the timing of public declarations around elections is another implication of this theory. However the theoretical predictions are indeterminate. It is not clear whether politicians will be incentivized to delay taking public positions until after elections (Schneider and Tobin 2017, Schneider and Slantchev 2018), because public opinion costs are unlikely to be redeemed by a finalized restructuring deal before the election date, or gamble for a high haircut right before elections because this is when public opinion costs will be highest and the signal strongest. It is also unclear whether creditors will refuse to negotiate with an outgoing government, in case the new government changes the bargain, or try to lock in a deal with a government they are familiar with (Trebesch 2010). This decision is made increasingly difficult when the timing of elections might itself be determined endogenously by the government's economic competence.

[19] I do not posit that politicizing economic downturns in autocracies is costless. Costs stem from the revelation of information that is harmful to the leader and occur as soon as the information is revealed under all domestic institutional configurations (see Magaloni (2006) and Reuter and Gandhi (2011) for economic costs to non-democratic regimes). I simply argue that democracies are more sensitive to these costs than autocracies. According to DiGiuseppe and Shea (2015), it is also possible that autocratic leaders are more dependent on foreign debt to channel private goods to their selectorate. Therefore, not only do autocratic leaders have coercive abilities to suppress negative public opinion costs, they might also weigh capital market exclusion higher than democratic leaders when deciding how to act in debt restructuring negotiations.

institutions make democracies' claims to repay more credible, leading to increased access, better terms in international credit markets, and lower default rates (Root, 1989; North and Weingast, 1989; Schultz and Weingast, 2003; Saiegh, 2009; Stasavage, 2011; Beaulieu, Cox and Saiegh, 2012). While the constraints of democratic institutions should increase creditor's beliefs about the government's willingness to pay, my point is that democratic susceptibility to public opinion also makes democracies more likely to act coercively because the populace is unwilling to bare the austere alternatives. This runs counter to common expectations, and suggests why democracies who make public declarations provide new information to creditors about the political costs they face.

Based on these insights from democratic accountability, I derive an additional hypothesis about the theory's mechanism. Public declarations are only an effective strategy when they are costly to politicians and therefore, *among democratic governments, those facing deeper socioeconomic pressures will be more likely to publicly announce default.*

2.4 Discussion and Conclusion

Negotiations to restructure sovereign debt are complex, protracted affairs that are of primary importance to the economic recovery of indebted states. As sovereign debt rises, the number of restructuring negotiations in our sample is likely to increase. The recent debt crises in Greece, Spain, Iceland, and Ireland also demonstrate that debt crises are not limited to the developing world. International financial institutions are not unaware of the importance of debt restructuring, yet recent efforts to pass a UN resolution on new principles in debt restructuring, lacked the support of the largest creditor nations. This, paired with the prolonged recovery from the Greek debt crisis and the recent end to the Argentinian litigation crisis, have led Nobel laureate Joseph Stiglitz to claim that sovereign debt is at the top of the policy agenda (Stiglitz, 2015).

This work argues that international policy makers must consider not just the economic

fundamentals that predict debt crises, but the political dynamics of the debt restructuring process. The political incentives of the government are key to understanding how indebted states bargain and the outcomes that they reach. I thus argue that imperfect information about the government's political will to repay foreign debt leads to a protracted bargaining game. Privileged information about the government's political, rather than economic, incentives provides the government with incentives to misrepresent by exaggerating distress towards lenders and minimizing distress towards citizens. One way for the government to resolve the information problem is to publicly declare its debt distress, allowing citizens to hold leaders more accountable for economic decline. Strategically activating economic voting costs serves as a costly signal to separate governments that are politically unwilling to repay from those that are and to extort greater creditor concessions as a result.

By translating economic voting costs from the American and Comparative literatures into an international bargaining game, I offer a mechanism for how citizens, rather than interest groups, firms or legislatures, can constrain both the bargaining behavior and the bargaining power of national governments in international negotiations. I argue that opportunistic governments can manipulate predictable domestic constraints to win favorable international outcomes. Moreover, unlike Fearon (1994)'s conception of audience costs, governments are willing to bear domestic costs in equilibrium if they believe the costs will be outweighed by the benefits of international concessions. The findings shed light on the puzzle of why governments initiate costly negotiations in the public eye, particularly when privacy is the norm in international cooperation.

In the next several chapters, I test the empirical implications of my theory. In order to establish empirical support, I first define and operationalize a "public declaration" of debt distress. I provide examples of what public declarations look like and descriptive statistics about their occurrence. Chapter Three uses this measure to demonstrate that public declarations of debt distress are rewarded with higher haircuts. Chapter Four uses the same measure to test the mechanism level hypothesis that leaders are more likely to use public declarations when they are

politically costly. Chapter Five provides an in-depth qualitative analysis of the 2012 Greek bond restructuring in order to illustrate the theoretical mechanisms discussed in this chapter.

Chapter 2, in part, is currently being prepared for submission for publication of the material. The dissertation author was sole author of this material.

3 Do Public Declarations Lead to Higher Haircuts?

The testable hypotheses derived in the previous chapter provide an opportunity to investigate the political dynamics of the debt restructuring process in a systematic manner. The simple argument in Chapter Two is that imperfect information about the government's willingness to repay its foreign obligations leads to a bargaining game where the government has simultaneous incentives to plead distress towards its creditors and hide distress from its citizens. Given this conflict, the government can make a public declaration of debt distress as a costly signal of their unwillingness to pay. Because the announcement is costly in the domestic political arena, it should communicate additional, credible, information to creditors and increase creditor concessions. In this chapter, I test the main empirical implication, that *public declarations should increase creditor haircuts.*

Below, I explain how I operationalize both creditor haircuts and public default declarations. I highlight the benefit of using this data to move past more dichotomous operationalizations of whether or not the government defaulted. I then conduct a quantitative analysis using data on public pronouncements of moratoriums and creditor haircuts for 76 restructuring episodes that cover 25 defaulting countries from 1980-2009. I find evidence that public default declarations do indeed significantly increase creditor concessions. I show that the results are robust to many alternative specifications.

3.1 Dependent Variable

My central question is whether public declarations of debt distress serve as a costly signal to creditors, in order to increase creditor haircuts. A test of this hypothesis requires detailed data on the outcome of restructuring agreements, or creditor "haircuts," across a wide range of crises. Empirically, haircuts can result for changing maturities, interest payments, or face value reductions. Thus, the key dependent variable, creditor *Haircuts*, is calculated as the following in net present value terms. The discount factor used to calculate present value is denoted r_{it} and relies on exit yields imputed from market and rating data.

$$\text{Haircut}_{it} = 1 - \frac{\text{Present value of new debt } (r_{it})}{\text{Present value of old debt } (r_{it})}$$

Data is provided by Cruces and Trebesch (2013) based on the methodology of Sturzenegger and Zettelmeyer (2008).[1] The data is fine grained enough to compare *the degree* of burden sharing that creditors are willing to accept and represents an important advancement on previous dichotomous measures (Cline, 2004; Roubini, 2004). Haircuts in market based restructurings range from negative values (Brazil 1987) to greater than 80% (Albania 1995) such that higher haircuts represent a higher adjustment burden on creditors and lower haircuts represent a higher adjustment burden on debtors. As an additional benefit, the measure is general enough to apply to both bank and bond restructurings, across different eras of lending. Finally, few studies have explored the variation in haircuts, and even fewer have introduced political variables (DiGiuseppe and Shea, 2018). Figure 3.1 plots the distribution of haircut outcomes for market based restructurings between 1980-2009.

3.2 Main Explanatory Variable

To capture public signals of debt distress, I introduce a measure of default declarations. While many studies model debtor state behavior as a dichotomous decision to default, Enderlein,

[1] See Cruces and Trebesch (2013) for more discussion on the measure's calculation.

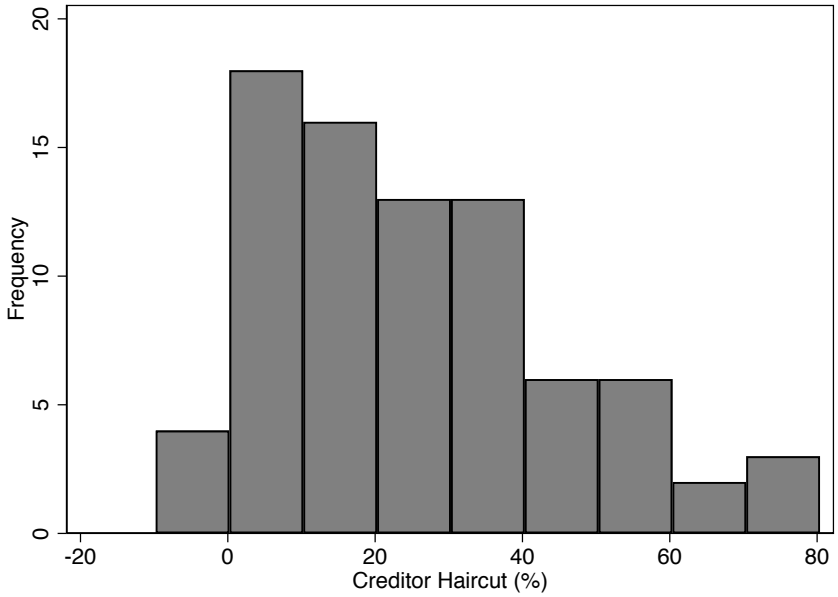

Figure 3.1: Distribution of creditor haircuts

Trebesch and von Daniels (2012) develop the first index of government coerciveness. They code negotiation and procedural behaviors from qualitative sources, primarily the financial press. Their original index has nine sub indicators that capture observable actions towards private credit holders. To measure the publicity of a government's position I specifically rely on their coding of an "explicit moratorium or default declaration." The authors note that most sovereign defaults occur "silently" whereby governments miss payments without a public announcement.[2] Based on Figure 3.2 below, in 80% of cases governments miss a payment, thereby violating the debt contract, without announcing that information in front of a public audience. However, in the 15% of cases when a key government official (president, prime minister, minister of finance or economy, or the president of the central bank) officially proclaims the decision to default in front of its public (usually via a televised speech), the dummy indicator is coded as 1.[3] This distinction

[2] Although some restructurings occur without missed payments.

[3] I do not dispute that other actions governments take towards their creditors may be observable to some segments of the general public, especially if they get reported by the financial press. I simply argue that a statement from a government official in front of a public audience is the most visible to the largest segment of the population. For a summary of Enderlein, Trebesch and von Daniels' (2012) measures see the figure in Appendix B.

between technical default and public default declarations is important. It verifies the theoretical assumption that governments can be in technical default, while at the same time minimizing that reality towards their citizens. Enderlein, Trebesch and von Daniels (2012) provide the measure on a country-crisis-year basis; however, because the dependent variable, creditor haircuts, is only observed once in a crisis episode, I aggregate the indicator to the crisis level. The variable *Declaration* thus denotes whether a country issued a public declaration during any year of the negotiation period.

But what does a default declaration look like? While the context, timing, and executive personalities vary significantly, I provide a few examples from the 11 cases that issued a public declaration. On New Year's Eve 1989, President Perez of Venezuela stated in a televised speech that, "I gave precise instructions to the finance minister, Dr. Hector Hurtado, to officially notify creditor banks that from January 17, 1989 onwards we will suspend amortization payments on all the foreign bank debt outstanding as of 1983" (Associated Press 1988). In Argentina, Interim President Adolfo Rodriguez Saa announced in a national address on December 23rd, 2001 that "we are going to take the bull by the horns...I am announcing that the Argentine state is suspending payments on its foreign debts" (BBC 2001). President Jose Sarney of Brazil was more apologetic in 1988, when he announced in a television and radio speech that "the country is suspending payments on its foreign debt. I must confess it isn't easy to take a decision of this magnitude" (Associated Press 1988). However, in other cases, default declarations didn't involve a full refusal to pay but a unilateral statement on the amount of debts a country can pay. For example, Ecuadorian President Jamil Mahoud announced that "this is the decision of the Ecuadoran government. We can't and won't pay interest on the collateralized bonds, we'll only meet payment on interests of bonds without collateral" (Dow Jones, 1990). Nigerian Major General Ibrahim Bangida promised a similar plan to limit debt repayments to 30% of export revenues in 1986 (Dow Jones 1986).

This measure of default declarations has several distinct advantages. First, the measure

Table 3.1: Cases with public default declarations

Country	Year Restructuring Concluded
Argentina	2005
Brazil	1988
Dominican Republic	1994
Ecuador	1995
Ecuador	2000
Nigeria	1987
Nigeria	1991
Peru	1997
Russia	2000
South Africa	1987
Venezuela	1990

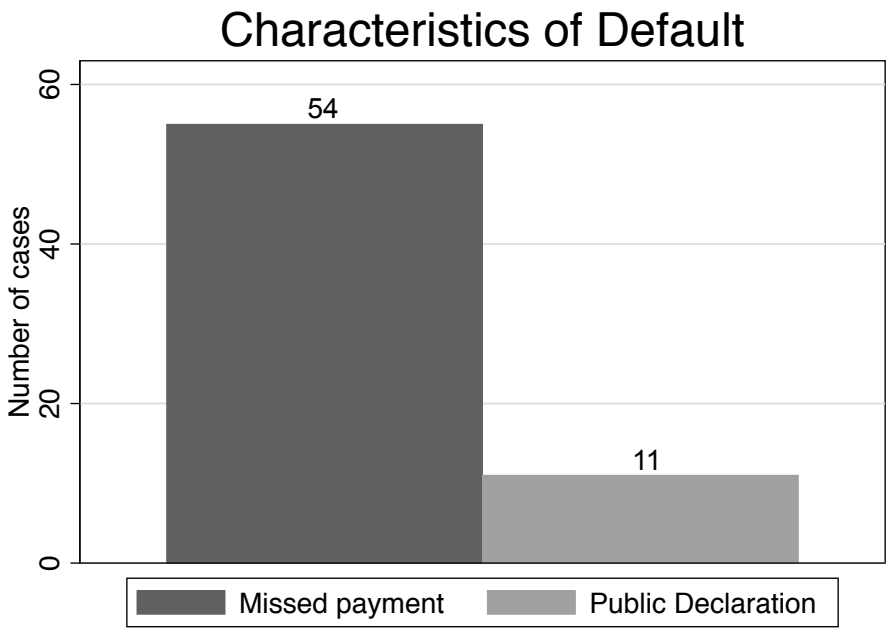

Figure 3.2: Characteristics of default

captures only behavior towards private creditors. It does not include actions towards official bilateral or multilateral creditors, where the negotiation process is less profit motivated. Second, the indicator is coded in a general way as to apply to both bank creditors and bondholders. For example, the Dominican Republic issued several public moratoriums against its bank creditors in the 1990s as Argentina did against its bondholders in the early 2000s.[4] This allows me to study the government's negotiation behavior continuously across different eras of lending. Third, the novelty of this dataset is such that previous studies have only attempted to study negotiation behavior as an aggregate measure of total coercive actions (Enderlein, von Daniels and Trebesch, 2010; Enderlein, Trebesch and von Daniels, 2012). Studying public moratoriums specifically provides a theoretical and empirical innovation, by demonstrating that governments are motivated towards specific behaviors rather than coerciveness as a general concept.

Data on default declarations is available from 1980-2009 and includes both developing and emerging market countries. Enderlein, Trebesch and von Daniels (2012) identify debt crises based on the annual default list published by Standard and Poors.[5] They then exclude countries that had only limited access to private creditor markets, as negotiations with the poorest countries are dominated by official creditors and the IMF. Specifically, they remove all countries under the Highly Indebted Poor Countries Initiative (HIPC) and with populations under one million. They also drop countries whose debt restructuring took place under exceptional circumstances (Iraq's post war exchange and the Yugoslavian successor states of Bosnia and Herzegovina, Croatia, Macedonia, Slovenia, and Serbia and Montenegro). Several restructurings were dropped due to significant missing information about negotiations with private creditors (Cote D'Ivoire, Cuba, Gabon, Iran, Jamaica, Kenya, Paraguay, Trinidad and Tobago, Vietnam). The resulting sample covers 25 defaulting countries over 218 country-crisis-years or 76 separate restructuring periods.

[4]The Dominican Republic enacted a public moratorium from 1989-1994. Argentina's public moratorium lasted from 2001-2005.

[5]In some cases they extend the list to include years when governments openly begin debt restructuring efforts without missing a payment. For example Uruguay opened talks with its creditors before it technically defaulted in 2003.

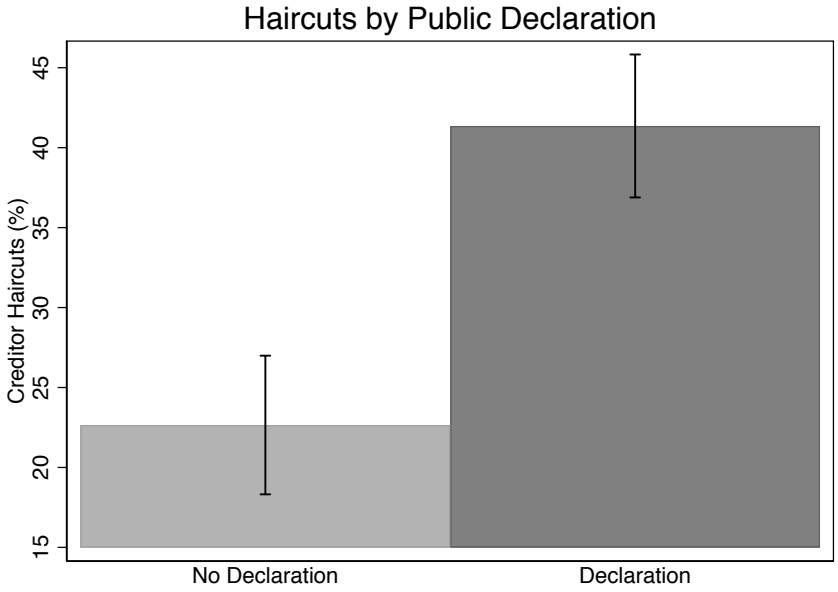

Figure 3.3: Average creditor haircut by default declaration

For more detailed information on the coding and sampling process see Enderlein, Trebesch and von Daniels (2012). For a list of crises covered in the dataset, see Appendix A. For a list of cases that issued a public declaration see Table 3.1 above.

Graphically, the relationship between public declarations and creditor haircuts is displayed in Figure 3.3. Without advanced statistical models, simple t-tests provide preliminary support for my main hypothesis. On average, negotiation episodes that contain a public default declaration receive a 41% haircut. Negotiations that don't use a public declaration yield a 23% average haircut. The difference is significant at the 1% level (p=0.002). Public declarations appear to be effective at extracting creditor concessions.

3.3 Model Specification

Given sample size limitations, the declaration models are empirically precise. While it is important to control for economic and political conditions in order to avoid omitted variable bias,

I rely on control variables that are available across a large number of developing countries. To represent the negotiation episode, I aggregate yearly measures to the crisis level and I demonstrate in the robustness section that the results hold when incorporating additional controls with less extensive coverage.[6,7] To capture indebted states' economic need for a high haircut, I include a country's *Debt to GDP* ratio, from Abbas et al. (2010).[8] I also represent a country's baseline level of development by including *Per Capita GDP*. Data is taken from Graham and Tucker (2017).[9] Including these variables allows for the results to separate the effects of economic fundamentals from the political dynamics. Additionally, I account for characteristics of the negotiations themselves. I include *Debt Restructured* by the agreement (millions of USD) (including arrears and excluding holdouts), consistent with the idea that creditors have conflicting incentives when a significant amount of debt is on the line. They want to avoid disorderly default at the same time as they are loath to set a precedent for high haircuts that could be cited in other cases. Data is from Cruces and Trebesch (2013). I also include a measure of *Serial Restructuring* as an indicator variable coded as 1 if a country reached a previous restructuring agreement in the last 3 years. Finally, I include Bauer, Cruz and Graham (2012)'s indicator of whether an indebted country is under an *IMF Program* in the year the negotiation is finalized. The independent, dependent and control variables are summarized in Table 3.2 below.

I rely on ordinary least squares regression with country level clustered standard errors to estimate my main regressions. To account for temporal variation, I include decade-level dummy variables, and demonstrate that the results hold using a year time trend. As the cross-country effects are theoretically relevant, I exclude country level fixed effects and choose to use regional dummies (following the Correlates of War classification) to proxy for differences in lending practices across regions.

[6] I use the average of yearly indicators across the negotiation period.

[7] Results are robust to measures of short term debt obligations, strategic interests of creditor countries, financial openness, natural resource wealth, global spillover and political institutions.

[8] By combining multiple sources, this dataset represents the most extensive historical coverage for all IMF members.

[9] The authors supplement data from the World Development Indicators with data from the Penn World Tables.

Table 3.2: Creditor haircuts summary statistics

	Mean	SD	Min	Max
Haircut(%)	25.330	20.557	-9.8	80.4
Public Declaration	0.151	0.360	0	1
Debt/GDP	76.882	36.986	19.3	210.833
GDP per capita	3213.577	1687.813	517.694	6704.548
Serial Restructuring	0.548	0.5011	0	1
IMF Program	0.877	0.501	0	1
N	72			

3.4 Results

Table 1 presents the main empirical results. Model 1 presents the base model with just my main explanatory variable, public declarations. Model 2 presents the main model including a full set of economic and negotiation specific controls. Model 3 uses only the economic fundamentals to provide a comparison between the explanatory power of observable economic variables and political dynamics. Model 4 replicates the main model (Model 2) with standardized regression coefficients in order to better compare the size of political and economic effects.[10] Overall, the results fit theoretical expectations well. F-tests indicate that all coefficients together are significantly different from 0.

Turning to the main results, the effect of the main explanatory variable indicates that when indebted sovereigns issue public declarations, creditor haircuts increase. The *Declaration* indicator is consistently positive and significant. It also has a large substantive effect. Based on Model 2, I find that a public declaration is associated with an 11% higher creditor haircut, holding all else constant. In comparison, a country's *Debt to GDP* ratio would have to increase by more than 80% for the economic effect to equal the impact of a public declaration.

The results also speak to expectations from the economics literature. Regarding the control variables, only the *Debt to GDP* ratio is a significant predictor of haircut size. While more heavily indebted countries receive larger haircuts, none of the other economic conditions or negotiation

[10] Variables are standardized by subtracting the mean and dividing by the standard deviation.

Table 3.3: Creditor haircuts main results

DV: Haircuts	(1) Base	(2) Main	(3) Economic	(4) Standardized
Public Declaration	14.271**	11.272**		0.201**
	(5.975)	(4.904)		(0.088)
Debt/GDP		0.138**	0.136**	0.256**
		(0.051)	(0.054)	(0.095)
GDP Per Capita		-0.002	-0.002	-0.180
		(0.002)	(0.002)	(0.155)
Debt Restructured		0.000	0.000	0.088
		0.000	0.000	(0.149)
Serial Restructuring		-1.652	-2.756	-0.040
		(4.076)	(4.228)	(0.102)
IMF Program		-5.998	-6.060	-0.098
		(11.280)	(12.315)	(0.185)
Decade/Region FE	Y	Y	Y	Y
N	76	72	72	72
R^2	0.27	0.35	0.32	0.35

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.01

characteristics are robust. Additionally, comparing Models 2 and 3 indicates that controlling for political dynamics over and above economic fundamentals increases the overall explanatory power of the model. Model 4 with standardized regression coefficients confirms that public default *Declarations* and *Debt to GDP* ratio have the largest substantive effects. Together, this suggests that predictions of creditor haircuts that ignore the political dynamics of debt negotiations are underspecified. It highlights the contributions of this work in explaining more fine-grained variation in restructuring outcomes based on both political and economic considerations.

3.5 Robustness Checks

To ensure that the results are not dependent on model specification choices, I conduct additional tests which I report below and in the appendix. In Table 3.4, I rely on an alternative coding of the dependent variable, creditor haircuts. As coded by Cruces and Trebesch (2013), a

haircut can result from many actions including lengthened maturities, lower interest payments, and face value reductions. While all of these actions can imply a haircut in net present value terms, lengthening maturities and lowering interest rates reduce payment obligations in the long run. A face value reduction on the other hand reduces payment obligations more immediately, providing a greater benefit to indebted leaders in a precarious political climate, who hope to minimize austerity and restart growth. Extending the theory presented in Chapter Two, this suggests that indebted states should use public default declarations to not only elicit higher creditor haircuts but also garner face value reductions more specifically. I thus replace the main dependent variable with a *Face Value Reduction* dummy from Cruces and Trebesch (2013). I include the same control variables as in Table 3.3, Model 2 and use a probabilistic estimation to account for the dichotomous dependent variable. The positive and significant declaration coefficient suggests that public default declarations also increase the likelihood of winning a face value reduction. While it is outside the scope of this chapter, not all means of receiving a haircut are created equal.

Appendix C introduces additional control variables into the model's estimation. First, Model 1 includes a measure of *Short Term* debt as a percentage of total reserves, as a proxy for debt servicing pressure. A high ratio of short term debt to foreign exchange reserves signals liquidity constraints in repaying foreign debt obligations. Data are from the World Development indicators. Second, in Model 2 I include a variable for *US Military Aid (Log)* to measure potential strategic interests of donor countries.[11] Creditor countries, the US in particular, have been known to place pressure on domestic banks when heavily indebted countries are of geostrategic importance. The US government's role in the Brady Plan is prime evidence of this phenomenon.[12] Data are taken from the USAID Greenbook. Third, Model 3 adds additional controls for the economic interactions of indebted countries. Using data from the World Development Indicators, I include a country's *Trade Openness*, defined as the ratio of imports plus exports divided by

[11] I follow conventional practice to add 0.01 to all observations.

[12] The US is not the only major creditor country, but US banks chair the majority of Bank Advisory Committees. The US is one of the most dominant international donors and its interests align closely with their allies. Similar strategic aid data is not available for other creditor countries.

Table 3.4: Face value reductions

DV: Face Value Reductions	(1)
Public Declaration	3.346***
	(1.020)
Debt/GDP	0.002
	(0.005)
GDP per capita	0.000
	(0.000)
Debt restructured	-0.000*
	(0.000)
Serial restructuring	0.521
	(0.639)
IMF program	01.133
	(0.884)
Decade FE	Y
Region FE	Y
N	71
R^2	0.65

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001
Based on Table 3.3, Model 2

GDP, and *Investment*, as a percentage of GDP. Fourth, the size of creditor concessions might be constrained by the international economic climate. Creditors do not make restructuring decisions in a vacuum and should care about potential spillover effects. To account for this, I include a measure of *Regional Debt* (% GDP) in Model 4, which aggregates data from the World Development Indicators based on countries' Correlates of War classification. In Model 5, I rely on the *US Federal Funds* rate as another proxy of global liquidity, with the idea that monetary conditions in the United States influence risk perceptions and capital flows abroad. Data is from the Federal Reserve Bank of St. Louis. Fifth, Model 6 introduces a measure of natural resource wealth from Ashford (2013). *Oil Exports*, as a percentage of GDP, should proxy for oil rich countries' additional ability to repay their foreign debt obligations. Finally, in Model 7 I follow DiGiuseppe and Shea (2018) who find that leftist governments win larger haircuts. The variable *Left* is from the Database of Political Institutions. As in the main models, I use the average of

yearly indicators across the negotiation period.[13]

Interestingly, only *US Military Aid* and *Oil Exports* are significant, although the variables for *US Federal Funds* and *Left* just miss conventional significance levels. While geostrategic partners get larger haircuts and oil wealthy states receive smaller haircuts, the main findings on public declarations remain consistent. Other than a country's debt burden, economic fundamentals are an incomplete predictor of creditor haircuts.

Appendix D further demonstrates that the results are robust to empirical modeling choices. Model 1 re-estimates the main model (Model 2) in Table 1 without regional or decade dummies. Model 2 replaces the decade dummies with a yearly time trend. Model 3 reports results with robust rather than clustered standard errors. My main results are robust to these specification changes, confirming the importance of public declarations as a predictor of creditor haircuts.

While sovereign debt is generally a lengthy process that involves multi-year negotiations, several countries in my sample experienced concurrent restrucurings within the same calendar year. This generally occurs when countries restructure their commercial bank and bond obligations separately, yielding two different deals a few months apart with similar haircuts.[14] In the case of Mexico, the government managed to negotiate two separate deals with the same group of creditors in 1985.[15] Because the key independent variable, public default declarations, is initially recorded by Enderlein, Trebesch and von Daniels (2012) on a yearly level, this presents an empirical challenge. When countries conclude multiple restructuring deals in the same year, the current coding obfuscates which particular deal the declaration dummy is referring to. The same problem exists for the other control variables in the model.[16] In the specifications presented so far, I opt to use the smaller haircut observation for each of the four country-crises in question, as the most conservative coding of the dependent variable. However, in Appendix E I demonstrate that the

[13]For dichotomous variables, I use the median.

[14]This occurred in the Dominican Republic (2005), Pakistan (1999), and Russia (2000).

[15]Mexico finalized a restructuring deal in March 1985 and August 1985.

[16]While important to address, the resulting haircuts in these special cases are very similar. This only occurs in four cases and the largest difference in creditor haircuts for two restructurings completed in the same country-crisis-year is 6.6% (Dominican Republic 2005).

results are robust to alternative decisions about these cases. In Model 1, I use the larger haircut observation for each country-crisis. In Model 2, I choose to drop the four cases in question. My main results do not change, and the requirement of burden sharing across creditor types appears to minimize the empirical concern.

3.6 Discussion and Conclusion

The results reported in this chapter support the conclusion that public default declarations lead to higher creditor haircuts. Indebted governments receive significantly greater concessions when they are willing to bear the domestic costs of a public declaration. Of more general significance to international relations, the results suggest that opportunistic governments can manipulate domestic costs to win favorable international outcomes.

These findings build on and contribute to previous work on international negotiations. First, scholarship on the variation in negotiating behavior has been limited, focused mainly on identifying variation (Odell, 2000) or explaining how government actions affect negotiated outcomes (Elms, 2006; Schneider, 2011). More limited work has focused on explaining why governments choose the negotiation tactics they do (Bailer, 2012). This chapter adds to the former by focusing specifically on negotiations over sovereign debt obligations, a substantive area that has seen little study due to its relative opacity. I improve on earlier attempts to understand variation in debt crises by Cline (2004) and Roubini (2004), and relate this variation in debtor state behavior to an economically important outcome. The results support the premise of this literature that *how* indebted states bargain affects the negotiated outcome that can be reached. Negotiation behaviors and tactics matter in many issue areas, including debt restructuring.

Most importantly, creditor haircuts play a pivotal role in debtor states' recovery from economic crises. While higher haircuts do increase capital market exclusion in the short term (Cruces and Trebesch, 2013), they also soften GDP contraction and improve the financial po-

sition of indebted states in the long term (Reinhart and Trebesch, 2016; Marchesi, 2015). The outcome that governments and creditors agree to determines how much austerity the domestic population will have to bear and the results presented here suggest that these effects are not insignificant. Moreover, they are determined more by political factors rather than economic fundamentals. While understanding creditor haircuts is substantively important to restoring economic growth, predictions of creditor haircuts that ignore the political dynamics of debt negotiations are underspecified.

As a presidential candidate, even US President Donald Trump suggested that he might reduce the American national debt by getting creditors to accept partial, rather than full, repayment, saying that "I would borrow, knowing that if the economy crashed, you could make a deal." (New York Times, 2016). If public declarations are a necessary evil to help ensure the high haircuts that governments care about, behavioral strategies like public declarations should become more important. Unlike economic fundamentals, politicians have agency over their decision to publicly announce debt distress, making it a potentially attractive tactic. As sovereign default and subsequent restructurings are a perennial reality, costly signaling mechanisms are too.

Chapter 3, in part, is currently being prepared for submission for publication of the material. The dissertation author was sole author of this material.

4 Are Public Declarations Costly?

This dissertation is about how governments restructure their sovereign debts owed to commercial creditors. It argues that indebted governments can use public default declarations as a costly signal in order to win larger creditor concessions, or haircuts. In the previous chapter, I tested the link between negotiation behavior and negotiation outcomes and concluded that governments who default publicly do indeed receive higher creditor haircuts. While the findings in the previous chapter demonstrate that politics, over and above economic fundamentals, matter in determining a substantively important economic outcome, it does not yet explain why only 11 cases chose to use a public default strategy.

If public declarations yield higher haircuts, which reduce austerity and help recover economic growth, why don't all governments go public? While 80% of cases are in technical default at some point during restructuring negotiations, why do only 15% of cases default publicly? The answer to this question comes from the theoretical argument in Chapter Two, where I argue that for public declarations to provide credible information to creditors two things must be true. Public default declarations must be costly and they most be sufficiently costly to separate indebted governments based on their political willingness to pay. Where these conditions hold, public declarations solve the information problem and demonstrate significant distress to creditors. I further argue that the key mechanism for this effect is that the primary costs of a public default declaration are borne in the domestic political sphere. Because public declarations highlight to citizens that the economy is likely to get far worse before it gets better, it should

also politicize the government's incompetence in managing the economy. As information begets accountability, public default declarations are costly because they risk electoral punishment at the domestic ballot box.

In this chapter, I seek to support the assumption that public declarations are indeed a *costly* signal. Ideally, I would test costliness by comparing fine grained survey data on political support or approval ratings for incumbent leaders immediately before and after issuing a public default declaration. A natural test of this argument would have high external validity and if the announcement was unexpected, also have a claim to causal identification. However, precisely because default declarations are largely unexpected, conducting a survey in the midst of an announcement is highly unlikely. The last public default declaration coded by Enderlein, Trebesch and von Daniels (2012) was in 2005 and the correlation between sovereign crises and developing countries implies that detailed historical data is hard to find. Because of this limitation, Chapter Five turns to a qualitative case study of the Greek bond restructuring completed in 2012 where I argue that Prime Minister Papandreou's announcement served as an implicit announcement of an imminent default.

A second method of verifying the political costliness of public declarations would be to manipulate the default announcement experimentally. Experimentally manipulating whether respondents were exposed to an executive stance touting repayment or an executive who announced an immediate default, would allow a clean and direct test of the mechanism. It would also allow for interesting extensions of the theory to better understand the constellation of interests that have a stake in punishing the government for its incompetence. However, to be externally valid, the survey would have to be conducted in an indebted country that has a positive probability of defaulting. Puerto Rico (although it is a US territory) and Argentina are likely candidates but for now, I leave this alternative method to future work.

Instead, in this chapter I offer an indirect test of the costly signaling mechanism. I rely on theories of accountability to ask when public declarations of debt distress are likely to be more

or less costly to incumbent leaders. While accountability is a complex process, I assume that in order for governments to be held accountable for their economic performance, the economy must be salient. Citizens must observe, care, and most importantly, be able to sanction the government for their dissatisfaction. Salience is likely to be higher under adverse macroeconomic pressures and electoral sanctioning mechanisms are more routinized in democratic political institutions. Therefore, because public declarations are only an effective strategy when they are costly to politicians, I test the mechanism level hypothesis that *among democratic governments, those facing high socioeconomic pressures will be more likely to publicly announce default*. These are the cases where the signal is likely to be costly enough to be effective.

Using the data on public default declarations introduced in Chapter Three, I provide a quantitative test of the theory's costly signaling mechanism. I use this data at both the crisis-year and the crisis level to show that democracies with higher socioeconomic pressures are more likely to announce their default publicly. I find that economic and political conditions that increase the government's cost of publicly announcing default, do induce a separation in their negotiation strategy. Finally, because this test of the costly signaling mechanism implies that selection into default is non-random and that countries only use a public declaration strategy where they think it will be successful, I estimate an additional selection model to ensure that the results in this chapter and the previous one are robust.

4.1 Dependent Variable

To test whether politicians use public default announcements when they are politically costly, I rely on the dichotomous measure of default *Declarations* that was introduced as an independent variable in Chapter Three. For this analysis, *Declarations* will now become the dependent variable in order to understand the selection into public negotiation tactics. Recall, that this variable is coded from Enderlein, Trebesch and von Daniels (2012)'s measure of an "explicit

moratorium or default declaration." It is coded as 1 when a key government official (president, prime minister, finance minister, or president of the central bank) announces the decision to default in front of a national, public audience. While governments frequently enter technical defaults, public default announcements are rare and only occur in about 15% of cases (for a list of cases see Table 3.1). Sovereign default is typically silent.

Additionally, as the main explanatory variables in my mechanism test, introduced below, are reported on a country-year basis, I opt for Enderlein, Trebesch and von Daniels (2012)'s original country-crisis-year coding in order to increase my variation and sample size. This allows for 218 country-crisis-year observations rather than the 76 negotiation episodes that were analyzed in Chapter Three. The country-crisis-year observations cover the same cases, but span all of the years in which countries were actively involved in debt restructuring negotiations with their creditors.[1] This implies that governments make a separate decision each year about whether or not to issue a public default declaration. For example, Brazil issued a public default declaration in 1987; However, when it suspended payments again in 1989, it went out of its way to assure creditors that this was not a refusal to pay. The media dubbed 1989 a "white moratorium" and 1989 is not coded as a public default declaration in the data. I show that the results are robust to aggregating the indicator to the crisis-level in alignment with the empirical results presented in the previous chapter.

The benefit of this measure is that while many studies have explored the determinants of default, few papers have explored the determinants of specific debtor actions during restructuring negotiations (Cline, 2004; Roubini, 2004). Default can occur in many ways. In the only other quantitative study of indebted state behavior, Enderlein, Trebesch and von Daniels (2012) do indeed find that the traditional economic variables used to predict default are ill suited to explaining indebted state coerciveness towards private creditors. While their work focuses on indebted states'

[1] Also note that there is variation in how many years debt restructurings require before an agreement is reached. Every year in which a country is in active negotiations is a separate observation so longer negotiations will become more observations in this version of the dataset.

political and economic incentives to act coercively as a general concept, I strive to theoretically and empirically explain publicity as a distinct negotiating strategy. The measure of public declarations is well suited to this purpose.

4.2 Main Explanatory Variables

As I expect that public declarations are most costly when voters hold governments accountable via elections and when voters care about the economic implications of the crisis, I introduce two main explanatory variables and their interaction. First, I use Cheibub, Gandhi and Vreeland (2010)'s dichotomous definition of a democratic regime given the small sample size. *Democracy* is an indicator variable that takes on the value of 1 if it matches the authors' criteria for direct or indirect executive selection, elective legislative selection, allowance for multiple parties on a *de facto* and *de jure* basis, alternation of parties in power, and the absence of executive efforts to consolidate power.[2]

Additionally, to account for how much voters care about the implications of a financial crisis, I rely on the ICRG's measure of *Socioeconomic Pressure*. This variable measures pressures in society that could constrain government action or fuel social dissatisfaction and that arise from socioeconomic conditions. It combines the ICRG's submeasures for unemployment, consumer confidence, and poverty. It is also available on a yearly basis and covers a significant portion of the developing world during the 1980s, which is a significant benefit. [3] I use the measure in its inverted form, such that it ranges from -12 to 0 with higher values indicating more socioeconomic pressure on the government. I determine the likelihood of issuing a public declaration within a sample of democracies and introduce an interaction term between socioeconomic pressure and democracy for robustness.

[2]For this particular sample, Cheibub et al.'s (2010) coding is identical to dichotomizing the Polity IV measure above 0.

[3]The measure is available from 1984 onwards.

4.3 Model Specification

In my estimations, I control for a number of additional variables that may confound the effect of political accountability on public declarations. My choice of control variables is based on factors that are historically available for a cross-section of developing countries, however the results hold when incorporating additional controls with less extensive coverage.[4] To capture economic conditions I include a country's *Debt to GDP* ratio, from Abbas et al. (2010). I also represent a country's baseline level of development by including *Per Capita GDP*. Data is from Graham and Tucker (2017). I expect that poorer and more indebted countries should be more likely to declare default publicly given their economic inability to pay. Finally, existing work suggests that voters may find it more difficult to punish leaders for economic downturns when they are influenced by globalized economic conditions.[5] To account for this, I include two measures of a country's openness to globalization. First, I include *Trade Openness* as the sum of imports plus exports divided by GDP. Second, I include *Investment* as a percentage of GDP. These variables are also commonly used in the default literature (Borensztein and Panizza, 2009). Data are from the World Development Indicators. Table 4.1 summarizes key variables.

The dependent variable, public default declarations, is dichotomous and the appropriate estimator is a probit model with clustered standard errors.[6] To account for temporal and regional variation, I include dummy and region fixed effects.[7] While the cross sectional effects are theoretically relevant, I demonstrate in the appendix that the results are robust to using a time trend and year fixed effects.

[4] Results are robust to measures of democratic institutions, country demographics, election timing, transparency, and other economic conditions.

[5] See for example Hellwig and Samuels (2007), who find that globalization decreases economic voting. Kayser and Press (2012) also demonstrate that voters benchmark across countries.

[6] Standard errors are clustered at the country level.

[7] For regional dummies, I follow the Correlates of War classifications

Table 4.1: Public declarations summary statistics

	Mean	SD	Min	Max
Public Declaration	0.156	0.364	0	1
Democracy	0.732	0.444	0	1
Socioeconomic Pressure	-4.867	1.230	-8	-1.833
Debt/GDP	79.221	39.129	16.4	289.6
GDP per capita	3183.943	1473.690	494.239	6639.529
Investment/GDP	0.203	0.056	0.024	0.376
Trade Openness	58.780	39.082	12.346	198.767
N	179			

4.4 Results

The top panel of Table 2 presents the estimation results for three specifications: (1) a democratic model, where the analysis is subset to only democratic observations,[8] (2) an interaction model, with the full sample and an interaction term between democracy and socioeconomic pressure, and (3) a crisis-level model where the results are aggregated to the crisis level in comparison with the haircut results described in Chapter Three. The positive and significant effect on *Socioeconomic Pressure* in Model 1 and *Interaction* in Models 2 and 3 confirm that democracies with high socioeconomic pressure are more likely to publicly announce debt distress. Governments rely on public signals where economic and political conditions make them costly enough to be effective. Since the coefficients from a probit model can't be directly interpreted, I estimate the marginal effects of socioeconomic pressure on issuing a public declaration in Model 1.[9] In the democratic model, increasing socioeconomic pressure from its mean by one standard deviation increases the likelihood of a public declaration by approximately 16%.

Interpreting the results of a probit interaction are challenging because the interaction effects depend on all the covariates in the model rather than on the two main interacted terms. Therefore, to interpret the results of models 2 and 3, I follow the methodology of Ai and Norton

[8] Appendix B offers a placebo test in an autocratic sample, where I would expect null results. Due to collinearity in the much smaller sample, the estimation model is restricted to a just the main variables but socioeconomic pressures are not a significant predictor of public declarations.

[9] Marginal effects are calculated by holding all other variables at their median value.

Table 4.2: Public declarations main results

	(1)	(2)	(3)
DV: Public Declarations	Democracies	Interaction	Crisis-Level
Democracy		4.182**	6.278***
		(1.280)	(1.960)
Socioeconomic Pressure	0.404*	-0.148	-0.002
	(0.243)	(0.132)	(0.248)
Interaction		0.523**	0.908***
		(0.266)	(0.345)
Debt/GDP	0.001	0.004	0.013**
	(0.005)	(0.004)	(0.005)
GDP Per Capita	-0.000**	-0.000***	0.000
	(0.000)	(0.000)	(0.000)
Investment/GDP	-1.616	-3.603	-9.855
	(4.070)	(3.510)	(6.520)
Trade Openness	-0.006	-0.007	-0.014*
	(0.004)	(0.004)	(0.008)
Decade/Region FE	Y	Y	Y
N	131	179	66
R^2	0.17	0.22	0.33
DV:Haircuts			
Public Declaration (Predicted)			28.445**
			[15.663, 95.276]
Debt Restructured			0.000
			[-0.000,0.000]
Serial Restructuring			-8.675
			[-18.843,1.866]
IMF program			-11.205
			[-20.578, 30.240]
Decade/Region FE			In first stage
N			66
R^2			0.15

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.01

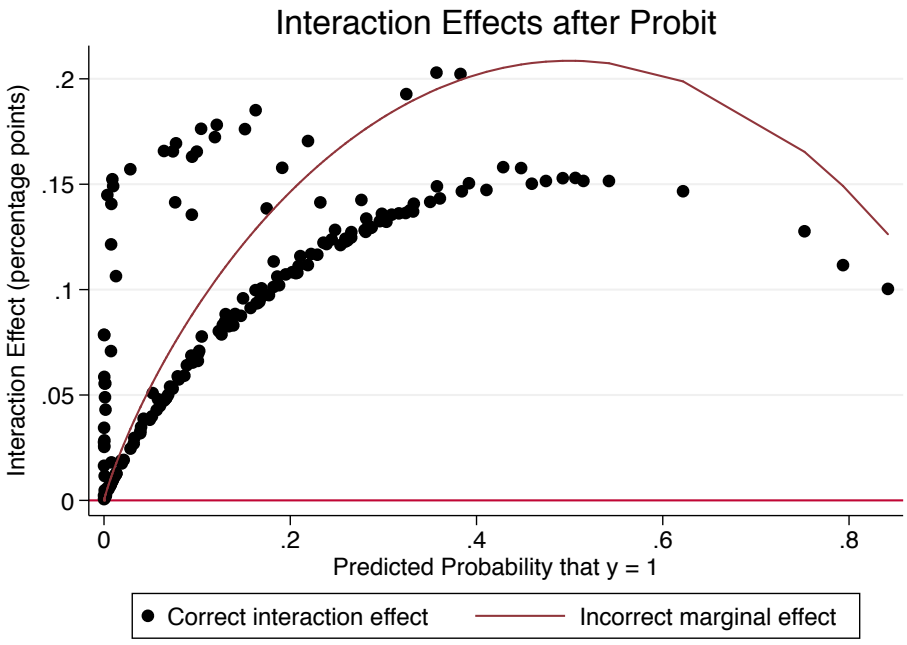

Figure 4.1: Crisis-year interaction effect

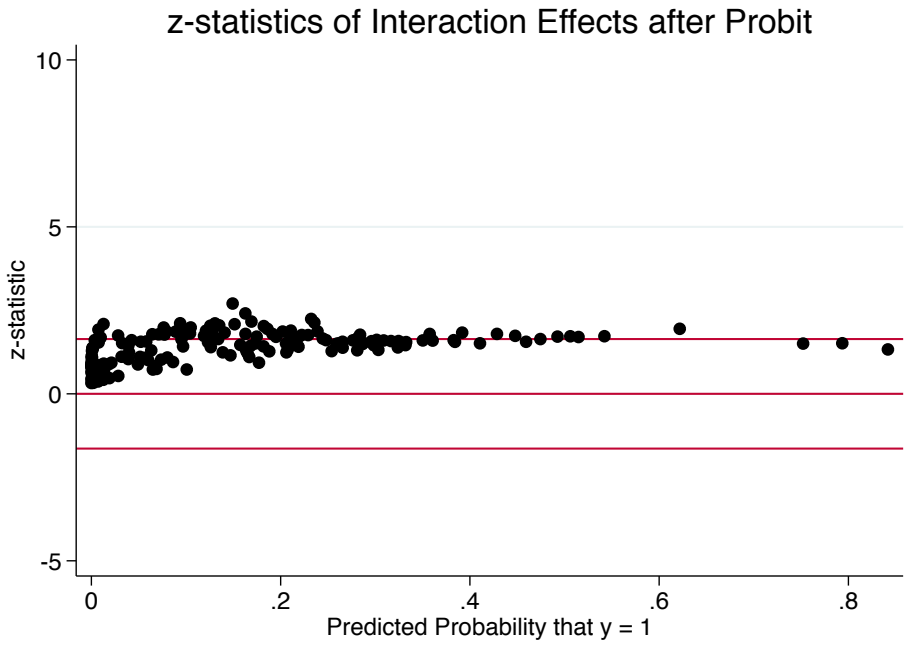

Figure 4.2: Crisis-year Z-statistic

(2003) and graph the interaction effect as the cross difference and z-score across the predicted probability of issuing a public declaration. I display the graphs for Model 2 (country-crisis-year effects) here and include the equivalent graphs for Model 3 (crisis effects) in Appendix A. In Figure 4.1, there are two important things to notice. First, the cross difference approach in this case isn't that different from the more traditional marginal effects calculation. Second, the interaction effect, while variable, is always positive. Democracies with high socioeconomic pressure have an increased likelihood of going public. In Figure 4.2, the important takeaway is that while there is variation, a substantial number of observations are significant at the 5% level.

The results also indicate that other control variables matter as well. Richer countries are significantly less likely to make public statements. However, while signed in the predicted direction, none of the other economic variables reach significance with the exception of *Debt to GDP* in Model 3. While surprising, this is in line with earlier findings that economic variables tend to be more powerful predictors of debt distress than debt crisis resolution (Enderlein, Trebesch and von Daniels, 2012).

4.5 Robustness Checks

The main findings in this chapter are confirmed by several robustness checks that I describe here and provide detailed results for in the main text and appendix. Most importantly, a test of the costly signaling mechanism implies that selection into public declarations is non-random and that governments opt into public strategies where they expect them to be successful. This could influence this dissertation's main findings from Chapter Three, that public declarations are rewarded with higher creditor haircuts. To ensure that this is not the case and that the results of the previous chapter still hold, I estimate a selection model using the predicted probability of going public, generated from Table 4.2, Model 3, as the main regressor in the prediction of

creditor haircuts.[10] Recall that in Chapter Three, I used the binary *Declaration* indicator as the main independent variable to predict the size of creditor haircuts. The primary advantage of this additional selection strategy is that it provides more information on the likelihood of a public default declaration and controls for random or strategic uses for publicity that are not accounted for in the theory. In other words, it models the selection into public declarations by using information on when public declarations are expected to be costly. Equally important, by modeling the process with a series of structural equations, it better approximates the theoretical model, where the decision to go public is linked with the likelihood of receiving a high haircut. To demonstrate the validity of this method, Appendix C presents the two stage results using the deviance residuals rather the predicted probability as the main regressor in the second stage. Using the residuals serves as a placebo test to proxy non-costly declarations and as expected, the residuals are insignificant predictors of creditor haircuts.

However, there are two primary drawbacks of using predicted probabilities as a regressor. First, it introduces additional uncertainty into the model's estimation. Specifically, the predicted probability is not a sample statistic, and therefore has a confidence interval around its point estimation that must be taken into account. Heightened uncertainty weakens the predictive power of my estimations. However, as this bias works against my findings, I can be more confident if the results are statistically significant. Second, because public declarations are observed yearly throughout a crisis episode and haircuts are only observed once at the end of an episode, I must use the predicted probabilities from the aggregated crisis-level results (Table 4.2, Model 3) in the first stage of the model.

I specify the second, creditor haircut, stage of the model using an ordinary least squares regression with clustered standard errors, identical to Chapter Three. However, because the

[10] I use Model 3, given that haircuts are only available at the crisis rather than the crisis year levels. This also allows confirmation of the results in Table 3.3. Note that I do not claim to have an exclusion term, and the structural model here is different from a two stage least squares regression. This method accounts for selection into public declarations but does not rely on exogenous variation. Instead, it offers a more conservative test to increase confidence in the strength of the findings.

predicted probabilities for a public declaration generated in a first stage probit are not data, I bootstrap the model estimations. I use the bootstrap function to draw 1000 samples of size N (where N=66) from the dataset with replacement. For each draw, I estimate the original probit equation and generate predicted values of the public declaration dependent variable. This generates 1000 predicted probabilities of a public declaration for each observation in the sample, which I then use to calculate haircuts in the main, second stage, model. This produces 1000 final estimates, from which I take the mean and the 95% confidence interval.[11] The variables from the first stage probit regression, including decade and region dummies, cannot be included in the second stage estimation. However, they are accounted for indirectly based on their influence on the resulting probabilities. I include *Debt Restructured*, *Serial Restructuring* and *IMF Program* in the second stage. These second stage controls are described in the specification section of the previous chapter.

The results of the two stage model are shown in the bottom panel of Table 4.2. Here, I report the bootstrapped bias-corrected coefficients. The bias-correcting method adjusts for bias in the bootstrapped sampling distribution in relation to the underlying sample and I thus report the bias-adjusted confidence intervals in parentheses rather than the standard errors. Looking at the statistical significance, the predicted probability of going public is significant, positively signed, and substantively large. A 1% increase in the probability of a public declaration leads to a 0.28% increase in the resulting haircut, ceteris paribus. It is worth noting that this is particularly strong support for the dissertation's theory, given that the sample is small and the bootstrapping method inflates the standard errors to account for increased uncertainty. The confidence intervals are larger than in the single stage model, and I can be more assured that the results represent statistical significance. Bringing both my main and mechanism level hypotheses together, politicians are

[11] I do not use an instrumental variable model because the success of such a model is contingent on a valid instrument that induces change in negotiation behavior but has no effect on haircuts. Using a weak instrument may be counterproductive and yield the statistical tests unreliable, especially in non-linear models with small sample sizes. Using a first stage model with more controls does not change the results, but it does significantly decrease the sample size.

more likely to issue public declarations when they are costly enough to ensure credibility and creditors react to public declarations with higher haircuts.

Returning to the mechanism level hypothesis that governments should only issue public declarations of debt distress when they are costly enough to provide credible information, Table 4.3 replicates the main results using a measure of explicit *Threats*, rather than default declarations, as the main dependent variable. The variable *Threats* is coded dichotomously as part of Enderlein, Trebesch and von Daniels (2012)'s coerciveness index and takes on the value of 1 where a government actor threatens to repudiate on its foreign debts.[12] The main distinction between default declarations and explicit threats is that with an explicit threat to repudiate the government does not follow through on its actions. For example Jordan threatened to repudiate its debts on the eve of the first Iraq war but the threat was not paired with an actual moratorium.[13] While a formal default declaration is akin to a declaration of war, threats without action should be less powerful as a signal to foreign creditors. Moreover, as a threat is not actually paired with a moratorium, it should also be less costly to politicians. A threat conveys to citizens that things *might* get worse while a default declaration, and the subsequent reaction in international financial markets, conveys that things will *definitely* get worse. Therefore, while the main independent variables, particularly the interaction term, should be signed in the same direction, the effects should be less significant. This is indeed the case, and the interaction of democracy and socioeconomic pressure is insignificant in predicting government repudiation threats.

Appendix D introduces a number of additional controls.[14] In Model 1, I control for the constitutional system, which might impact the clarity of responsibility for crisis management. The main results are robust and the *Presidential* dummy is positively significant. This is suggestive of previous findings about personal versus party based systems and the attribution of responsibility (Powell, 2000). Similarly, Model 2 controls for government ideology by including a Left

[12] Where government actor is defined in the same way as a default declaration, encompassing a president, prime minister, finance minister, or leader of the central bank.

[13] The correlation between declarations and threats is only moderate, r=0.26.

[14] Based on Table 4.2, Model 2.

Table 4.3: Explicit threats

DV: Threats	(1)
Democracy	1.426
	(1.205)
Socioeconomic Pressure	-0.220
	(0.213)
Interaction	0.261
	(0.245)
Debt/GDP	0.006**
	(0.003)
GDP per capita	-0.000
	(0.000)
Investment/GDP	3.642
	(2.594)
Trade Openness	-0.008*
	(0.005)
Decade/Region FE	Y
N	66
R^2	0.16

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001
Based on Table 4.2, Model 2

government dummy to account for the representation of labor interests that would benefit from a higher haircut.[15] Model 3 also controls for *Executive* and *Legislative* elections held in a given year. Neither variable reaches significance, but the *Executive* variable is tentatively suggestive that going public is less likely in the year of an election, most likely as the costs of going public are prohibitively high without time to win redemption with a large haircut.[16] Model 4 includes the *Transparency Index* from Hollyer, Rosendorff and Vreeland (2014). As the mechanism proposed here is about the provision of credible information, I ensure that the propensity for public declarations isn't correlated with a more general disposition towards openness.[17] Finally, following Ballard-Rosa (2016) I control for the impact that urbanization

[15]Constitutional systems and ideology are identified from the Database of Political Institutions (DPI). The variable *Presidential* takes on the value of 1 for purely presidential systems. The *Left* variable takes on the value of 1 if the government is identified as left oriented.

[16]I subset the election timing results to the democratic sample from Table 4.2, Model 1.

[17]A freedom of the press measure could also be an appropriate control for general information provision. While they measure different government behaviors, I choose the Hollyer, Rosendorff and Vreeland (2014) measure because

might have on restructuring behavior, by including the percentage of the population living in *Urban* areas. Data are from the World Development Indicators.

Appendices E, F and G replicate the full results from Table 4.2, with alternative measures for citizens' concerns about the implications of financial crises. To capture the broadest implications of a crisis, Appendix J uses *GDP Growth* between two subsequent years (in %). While the bluntness of the measure may capture many economic and political phenomena, it has the most extensive coverage across the entire dataset. Data is from Graham and Tucker (2017). Appendix K uses the yearly *Unemployment* rate, which, although available for a smaller sample, is a common variable used in the economic voting literature (Kayser, 2014). Finally, Appendix L replicates Table 2 using the change in *Government Expenditures* between two consecutive years, as a proxy for how changes in government spending impact voters' welfare. Data on unemployment and government expenditures is from the World Development Indicators. The results reported in the appendix are robust. Macroeconomic pressure and institutional accountability are significant predictors of public declarations. However, whether the effect is additive or conditional is dependent on model specification.

Finally, Appendix H demonstrates that the mechanism level results are robust to empirical modeling choices. Model 1, replicates the main results without region or decade dummies. Model 2 replaces the decade dummies with a yearly time trend and Model 3 adds year level fixed effects. Model 4 reports results using robust rather than clustered standard efforts. My results are robust to these alternative specifications, supporting the finding that democracies with high socioeconomic pressures are more likely to publicly declare default. Governments issue public default declarations where they are politically costly enough to convey credible information to commercial creditors.

it is available in a longer time series. Freedom House's Freedom of the Press is only available after 1993, and while the results are robust to its inclusion, the sample size decreases significantly

4.6 Discussion and Conclusion

This chapter focuses on the theory's mechanism in order to support the theoretical assumption that public declarations are costly in the domestic political arena. In a test of the signaling mechanism, I find that governments are more likely to use public default declarations where political and economic configurations make the announcements more costly to the politicians who send them. Governments are more likely to engage in costly signaling when voters hold the government accountable and care about the implications of the financial crisis. More specifically, I find that democratic governments with high socioeconomic pressure are more likely to default publicly. This supports my theoretical argument in Chapter Two that the costliness of a public signal separates governments based on their political willingness to pay.

Interpreted alone, these findings are puzzling. Why would governments intentionally highlight financial distress, especially where citizens have the interest and ability to punish them? Paired with the findings from Chapter Three, the logic of this dissertation is more complete. Governments that are politically unwilling to repay their foreign debt obligations can activate domestic political costs in order to credibly signal their need for higher haircuts. Public declarations generate an international component to domestic economic voting costs that opportunistic governments can manipulate to win favorable international outcomes. At the policy level, this suggests that as the world becomes more democratic, the importance of costly signaling should rise. With more democracies and more complicated debt structures, the information asymmetries between creditors and debtors would grow wider, and this makes the behavioral strategies of indebted states more important in filling the information gap.

This also suggests an important revision to our understanding of the democratic advantage hypothesis in sovereign debt (Root, 1989; North and Weingast, 1989; Schultz and Weingast, 2003). A host of literature has equated democratic institutional constraints with a greater willingness to repay, implying that creditors view hand tying as a positive piece of information. While this

may be the case in predicting default, interest rates, or credit access, this chapter suggests that the dynamics change after default has occurred. After debt contracts have been violated, democratic susceptibility to public opinion actually encourages democracies in socioeconomic distress to act *more* coercively. Democracy and sovereign debt are multifaceted concepts, and I imply that democratic institutions have different effects at different stages of the lending and renegotiation process.

The strength of this chapter is its ability to track large-scale cross-national trends in who turns to public strategies in sovereign debt restructuring negotiations. Scholarship on the variation in negotiating behavior has been limited, focused mainly on identifying variation (Odell, 2000) or explaining how government actions affect negotiated outcomes (Elms, 2006; Schneider, 2011). Other work has focused on explaining why governments choose the negotiation tactics they do (Bailer, 2012; McKibben, 2013). While this work adds to our knowledge of the latter, the weakness of this approach is that it offers only an indirect test of the theory's mechanism. It shows that governments are more likely to issue public defaults where they should be costly, but it I do not yet measure the public's opinion directly. To bridge this gap in approaches, the following chapter turns to a case study of the Greek bond restructuring in 2012. I rely on Prime Minister Papandreou's announcement of a referendum over the terms of an IMF/EU bailout to show that issuing a public default declaration was indeed costly for the Papandreou administration.

Chapter 4, in part, is currently being prepared for submission for publication of the material. The dissertation author was sole author of this material.

5 The Domestic Politics of International Negotiations: Evidence from the Greek Bond Restructuring of 2012

In the previous chapters, I outlined and tested a political economy theory of debt restructuring negotiations. I argued that given the information problem between governments, creditors and citizens, governments that are politically unwilling to repay their foreign debt obligations can issue a public declaration of debt distress. Because public declarations are politically costly, they should separate government types and provide credible information in order to increase creditor concessions. In Chapters Three and Four, I tested two implications of this theory to show that governments are more likely to issue public default declarations where they are politically costly and that creditors reward public defaults with greater concessions. While previous chapters of the dissertation have focused on testing the government's bargaining strategies and outcomes, I have not yet addressed the underlying mechanism about the credibility of public commitment theories.

This work, and many others, rely on the assumption that citizens hold their government accountable for actions that endanger their welfare. It is these costs that allow the government to leverage domestic political costs in international negotiations, although where work has searched for direct evidence the results have been more nuanced (Tomz, 2007*a*; Schneider, 2019*b*, 2020). In this chapter, I highlight the key points of my theoretical argument paying special attention to

assumptions about the political costs of default declarations. To do this, I use qualitative case evidence and survey data from the Greek bond restructuring that was concluded in March 2012. I rely primarily on news excerpts and the financial press to outline the events from 2009 to 2012 and provide in-depth illustration of the mechanisms that connect the government's negotiation strategy to both domestic public opinion and negotiated creditor outcomes. Augmenting the time series cross sectional analyses from the previous chapters with a small-n approach allows me to emphasize key components of the theoretical mechanism without being constrained by data availability. It also allows me to explore concepts like "political willingness to pay" that are difficult to quantify.

As an illustrative example, the Greek bond restructuring of 2012 demonstrates the existence of private information, incentives to misrepresent information towards both creditors and citizens, and an attempted public default declaration. The theory predicts that as information begets accountability, the public default declaration, by providing negative information, should heighten citizens' ability to sanction the government for economic mismanagement.[1] Following the announcement, the government should be penalized for its economic incompetence. However, if the signal is costly enough to be credible, the government should be subsequently rewarded with a higher haircut.

I show that during the early period of the crisis, when the government denied the need to restructure its private bond obligations, public support eroded slowly. Yet, the first plan for a bond restructuring proposed a 20% haircut, which was unacceptable to the Greek government and its citizens. I compare this to the public's reaction in October 2011, when Papandreou called for a national referendum on the restructuring deal, which was widely interpreted as a public admission that Greece was prepared to disorderly default. The political costs of the decision were high, as evidenced by public opinion polls and Papandreou's resignation, but the resulting deal

[1] And citizens who learn that they will be the most adversely affected should be the most willing to punish the government. Survey data from Argentina (Tomz 2004) and referendum data from Iceland (Curtis et al. 2014) suggests that those dependent on social safety nets were less likely to support repayment while financial interests and credit card holders were more likely to favor repayment.

signed in March 2012 was one the largest restructurings in history. Moving insolvency into the public eye invoked a domestic backlash, but it also increased creditor concessions.

5.1 Case Selection

In this chapter, I rely on the Greek bond restructuring of 2012; However, I make no claims that Greece is a typical case. Greece is by many metrics of financial crises an exception. Not only is Greece a more developed country than the average debtor in the post-Bretton Woods era, but its massive spillover potential and the constraints of the European monetary union presented a unique challenge.[2] Instead, there are two main benefits that tracking a more "typical" case would not provide. First, the value of analyzing the Greek case is that new academic and journalistic evidence has revealed the existence of a "private" period of restructuring that was not visible to the domestic audience. While we can assume that these periods of hidden negotiations occur in most cases, especially given the technical nature of sovereign debt, the Greek case presents a rare opportunity to compare public opinion and creditor outcomes across two distinct periods of government strategy. The verified private period can be compared against Prime Minister Papandreou's public announcement of a referendum vote on the 2011 bailout package, which informed citizens and creditors alike that default was imminent. Paired with a wealth of local public opinion surveys that span the entire crisis, it's possible to provide a systematic assessment of the implications of the Greek bond restructuring on domestic public opinion. Rather than relying on assumptions, the Greek case provides clear evidence that there was an informational asymmetry between the government, its citizens and its creditors.

Second, while the Greek case is extreme, it provides a hard test of the theoretical mechanism and biases against supporting my argument. The theory rests on the idea that public default declarations are successful as a costly signal because they help close the information

[2]Greece also differs from the typical emerging market debtor in that most of its bonds were dominated in domestic currency (€) and under domestic law.

gap between the government and its creditors at the expense of closing the information gap between the government and its citizens. As the theory hinges on communicating information about the government's political willingness to readjust government expenditures towards debt servicing and away from other domestic policy objectives, this implies that the signal should be strongest where the information gap is the largest. Because the Greece case received far more media attention than the average sovereign debt crisis, significantly more information about Greece's financial position and internal politics was communicated through the public press. This additional transparency biases against the referendum announcement providing any new information to both domestic audiences and external creditors. Additionally, as I describe below, Papandreou's announcement of a referendum served as an implicit, rather than explicit, announcement of default, which is slightly different than the empirical definition of a public declaration used in the previous chapters. The announcement of a referendum was intended to transfer authority to Greek citizens and because public opinion was widely against the measures, I show that it was interpreted as a sign that Greece was prepared to default. However, this is not as precise or an official default announcement per se, and it also weakens the information provision and biases against demonstrating theoretical support. While Greece is atypical, it is particularly well suited to tracking the theoretical mechanism in an unlikely environment.

While the Greek case allows me to disentangle theoretical concepts and mechanisms in a way that previous chapters could not, there are, of course, important limitations to this approach. First, the findings may lack external validity and generalizability. The average debt crisis is smaller and poses fewer threats to systematic financial health; Yet given that debt crises are rare events, every case of sovereign debt restructuring is unique in some regard. There have only been 187 debt restructurings with private creditors since 1970 and the restructuring process itself is largely adhoc. This makes identifying a "typical" case more challenging and it is important to note that the Greek case is more enlightening of the tradeoff that middle income and emerging market countries, like Argentina, South Africa, or Brazil face, in comparison to lesser developed

countries in financial distress. Second, the Greek case represents an observation where the dependent variable, public declarations, is present. It does not address the opposite phenomenon in a case where the government chose not to turn to public negotiating strategies. Future research would benefit from exploring examples where the government chose not to issue a public default declaration. The Romanian debt restructurings in 1982, 1983, and 1986 would be particularly interesting cases, given the authoritarian control of Nicolae Ceausescu during the negotiation period. The Romanian restructuring is noted as both one of the most collegial negotiations with private creditors (Enderlein, Trebesch and von Daniels, 2012) and one of the most painful, where the government attempted to quell any protests about food and energy shortages during the worst winter the country had experienced since World War II (The Globe and Mail, 1981).

The theory presented in Chapter Two predicts that a public default declaration should be associated with domestic political costs that weaken the government's hold on political power. If this is true, the Greek government should be punished for revealing that the economy is "beyond hope" in comparision to periods where the government maintained their ability to pay. I do not presume that the Greek government, or any government, can successfully sweep a financial crisis under the rug. Combatting a crisis without some news of distress reaching citizens is practically impossible. Instead, I expect that the public will punish the government more gradually during periods where the government denied the need to default and that punishment will be more swift and pronounced when the government highlights its own incompetence by implicitly announcing their default on foreign obligations. Furthermore, precisely because of this political punishment, I expect that following public default tactics creditors should agree to greater concessions.

To assess these predictions, I collected information from the financial press, journalistic accounts, and public opinion polling. I rely primarily on the database Factiva to conduct a routinized search of the news coverage surrounding the Greek bond restructuring of 2012.[3] This provided several thousand articles in the main English-language presses, that I analyzed with

[3]I use the search algorithm "Greece w/10 debt".

the assistance of several research assistants. I supplemented these results by reading the crisis' coverage in several Greek news outlets available in English.[4] I also provide quantitative support from survey firms, Google trends, and financial data. While interviews with experts working in the Greek financial ministry would only strengthen the case as an illustrative example of the theoretical mechanism, I leave this to future work.[5]

In the remainder of the chapter I provide a brief background on the Greek financial crisis. I then describe the government's adherence to a rhetoric of repayment through May 2011. Finally, I compare the earlier stage of the crisis to Papandreou's announcement of a referendum on the IMF/EU bailout deal in October 2011, which I argue served as an implicit announcement that a disorderly default was highly probable.

5.2 From a Revised Deficit to an EU Bailout

In this case study, I focus specifically on restructuring the portion of Greek external debt that was owed to private creditors. While Greece restructured its official debts several times, only in 2012 did they alter their private obligations. For Greece, private debts were held primarily by bondholders, although Greek bonds had accumulated on the balance sheets of many European banks. At the beginning of the crisis, these debts totaled well over €200 billion and private borrowing made up the majority of government financing, as visualized in Figure 5.1.[6] However, Greek debt was not accumulated overnight. Years of budgetary mismanagement and corruption, exacerbated by the 2004 Athens Olympics and the ability to borrow cheaply under the guise of

[4]One potential bias of this strategy is that the coverage in English language presses might be different than the coverage in Greek language presses. However, I do not have any a priori expectations as to the direction of this potential bias. As negotiations with creditors are largely conducted in English, this most likely mirrors the information sources of the financial community. Differential reporting would be more problematic at the domestic level if the Greek reporting geared towards domestic audiences was not adequately covered in foreign publications.

[5]In the course of this dissertation I contacted several officials working in the Greek finance ministry and Public Debt Management Agency (PDMA) via email. Receiving a response from these experts has been challenging and remains a consideration for future research.

[6]Greece did not report its external debts by creditor type until after the EU investigation in 2010. Nor did it report to the International Debt Statistics at the World Bank.

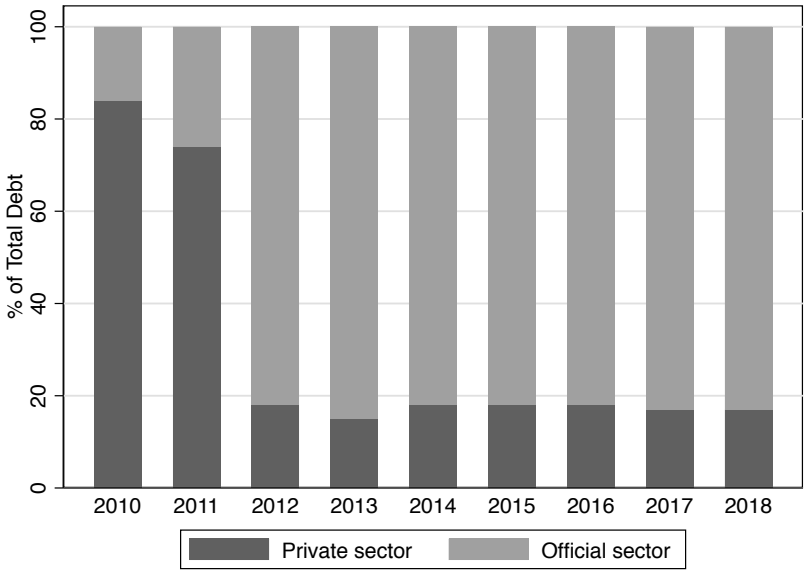

Figure 5.1: Greek government debt by creditor type
Source: Hellenic Republic Ministry of Finance, Borrowing and Debt Annual Report (2017)

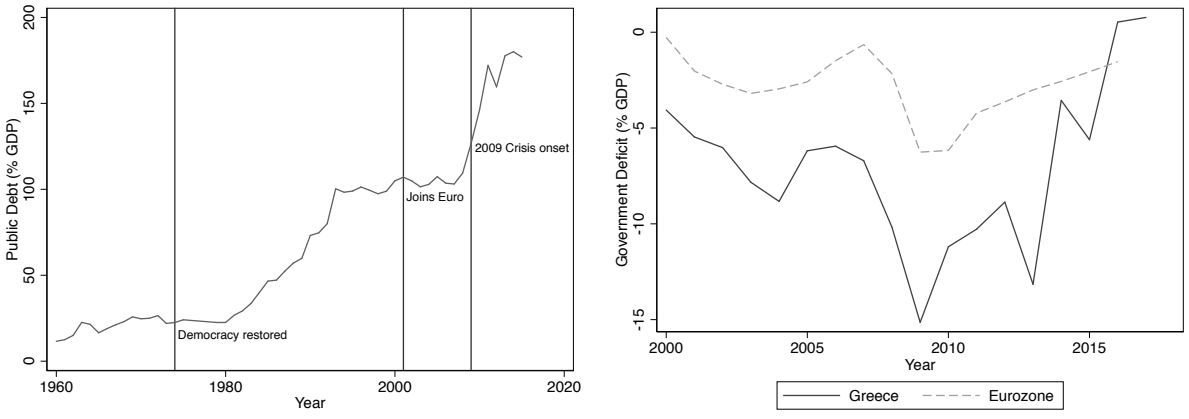

Figure 5.2: Government debt (% GDP) (left) and Government deficit (% GDP) (right)
Source: Abbas et al. 2010 and Eurostat

Eurozone stability, allowed Greek obligations to skyrocket. It was not until after the election of a new Socialist government (PASOK), under Prime Minister George Papandreou, that continued borrowing to cover the government's growing deficit became truly unsustainable. In October 2009, Papandreou announced that the government would exceed its published deficit of 3.7% and that total debt would rise to almost 130% of GDP (see Figure 5.2).[7] The size of Greece's deficit and debt burden were especially shocking, given that they had promised to operate within the fiscal boundaries of their membership in the European Union.[8] Following Papandreou's announcement, an independent EU investigation confirmed the government's statistical irregularities and the Greek budget deficit was revised to 12.5%, and later to 15.6% of GDP.

The government's announcement significantly eroded market confidence. In December 2009, all three major credit agencies, Fitch, Standard and Poor's and Moody's, lowered Greece's sovereign credit rating in fear of a potential default. Fitch was the first to make such an adjustment, downgrading long term Greek debt from an A- status to a BBB+ status on December 9^{th},[9] which was the first time since Greece introduced the Euro that its rating fell below the A grade. According to Fitch, "the weak credibility of fiscal institutions and policy framework...exacerbated by uncertainty over the prospects for a balanced and sustained recovery," led them to make its downgrade decision; Within minutes of the announcement the Greek stock exchange fell 6%. Greek credit ratings were subsequently downgraded several times over the period 2009-2012, culminating in a C rating (substantial risk) in February 2012 and an RD rating (restricted default) during the bond swap in March 2012.

A decline in sovereign credit ratings implies that Greek debt obligations carried a substantial, and increasing, risk of default, which was mirrored in Greek bond yields from this period. The differential between risky Greek bonds and safer German bonds first began to diverge in 2008

[7]Figure 5.2 presents the total public and publicly guaranteed external debt (including commercial and official obligations) as a percentage of GDP.

[8]The Growth and Stability Pact limits member governments to a 3% deficit and 60% debt to GDP.

[9]Fitch grades the risk associated with sovereign debt issues. Grades range from AAA (the highest rating) to RD/SD/D (when a country is in default).

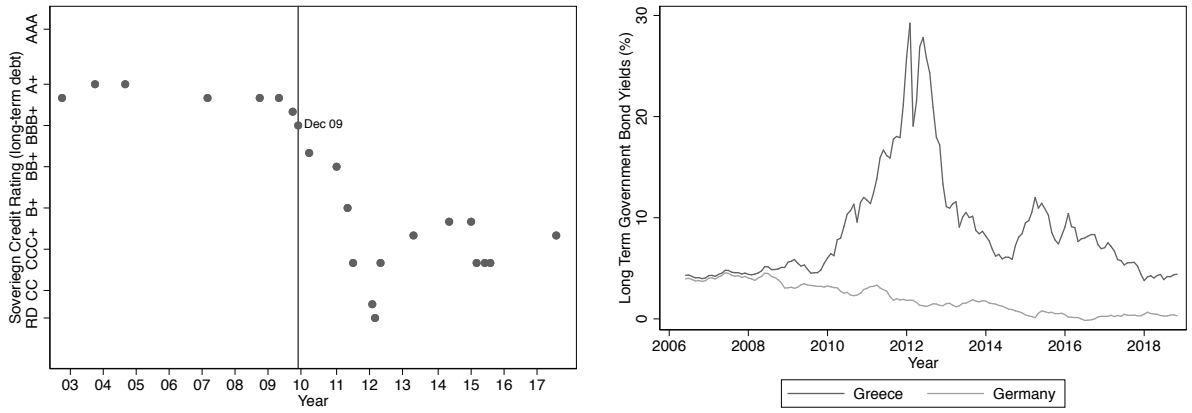

Figure 5.3: Fitch sovereign credit ratings (left) and Long-term bond yields (%) (right)
Source: Fitch and St. Louis Fed

following the financial crisis in the United States. Yields increased again after the Papandreou government revealed its revised budget deficit in October 2009, indicating the higher premiums on Greek bonds that were required to satisfy international investors. Long-term Greek bond yields peaked at 29.24% in February 2012, right before the finalization of the bond restructuring deal (see the right hand panel of Figure 5.3).

Yet, amidst turmoil in the financial markets, Papandreou initially rejected any notion of a Greek default, stressing that Greece was a "responsible country" that would curb the budget deficit on its own. In Papandreou's words "the problem [was] home-made and [the] Greeks are responsible for putting their financial house in order" (The Guardian, 2010).[10] Rather than turning immediately to repudiation or a European bailout, the government pledged radical reforms that would crack down on tax evasion, trim the bloated public sector, and reduce government expenditures.[11] Thus, while the revised government deficit and the detiorating economic climate were a known quantity following the EU commission report, Papandreou's statements and actions are indicative of an early "will to repay" - a theoretical concept that is hard to observe directly.

More specifically, the Greek's willingness to repay is apparent in their continued adoption

[10] In fact, Papandreou said "We need no bilateral loans, we have never asked for bilateral loans."

[11] Their position was reinforced by the German's equal unwillingness to provide bailout funds. For an explanation of the German government's position see Schneider and Slantchev (2018). For work on the public resistance to the bailout in Germany see Bechtel, Hainmueller, and Margalit (2017).

of painful austerity measures and the fact that, at least initially, there was relatively broad support for the government's actions in parliament and the population. Table 5.1 summarizes the main austerity measures implemented by the Papandreou administration and the key point to notice is that the measures become increasingly severe over time, even though they ran against Papandreou's election platform to protect the lower and middle classes.[12] The first austerity package was announced in December 2009 and implemented in February 2010. It was relatively modest, projecting a savings of only €0.8 billion, mainly by freezing government salaries and introducing a 10% cut in public sector bonuses and allowances. The second austerity package in March 2010, dubbed the "Economy Protection Plan" was significantly more extensive and projected a total savings of €4.8 billion. Austerity measures in the second plan included a 30% cut in public sector employees' supplementary pay, a 12% cut in other public bonuses, and a 7% cut in public salaries. It also raised value added taxes (VAT) from $19-21\%$, increased taxes on fuel, luxury and sin goods, and levied a 1% additional tax on personal incomes over €100,000. Perhaps most controversial was a freeze on Greek pension installments.

Not only was the government willing to legislate tax increases and spending cuts in order to repay its foreign debts, but - initially- citizens were also willing to accept these measures as necessary. In February 2010, around the time of the first austerity package, 64.3% of Greeks thought that the harsh measures were justified (Athens News Agency, 2010). In March, 60% of citizens still approved of austerity as a necessary choice, although more citizens expressed displeasure with the measures as "unfair" (Reuters, 2010*b*). However this is not to mask the fact that some measures received more support than others. While the majority of Greeks polled opposed the higher taxes on fuel, the VAT tax, and freezes on public pensions, 50% of Greeks backed bigger salary cuts in the public sector, 65% backed higher alcohol duties and 82% backed higher luxury taxes (Reuters, 2010*d*). Most importantly as an indictor of willingness to pay, 78% of citizens believed that the austerity measures would be implemented. 66.3% considered

[12] Specific austerity measures included in Table 5.1 are representative and not exhaustive.

Table 5.1: Summary of greek austerity packages, 2010-2011

First austerity program Announced December 2009 Implemented February 2010	• Freeze in government salaries • 10% cut in public sector bonuses • 90% tax on bonuses at banks • 5:1 replacement ratio for retiring public employees
Second austerity program Announced March 2010 Implemented March 2010	• 30% cut in public employees' supplementary pay • 12% cut in public sector bonuses • 7% cut in public sector salaries • Rise in VAT from $19-21\%$ • Rise in taxes on fuel, tobacco, liquor, and luxury goods • 1% tax increase on incomes over €100,000 • Pension freeze
Third austerity program Announced May 2010 Implemented June 2010	• 8% cut in public sector bonuses • 3% salary cut for public utility employees • Limit or abolish bonuses for public sector employees • Increase in average retirement age to 65 (from 61) • Rise in VAT from $21-23\%$ • Rise in taxes on high pensions • Rise in taxes on fuel, tobacco, liquor, and luxury goods
Fourth austerity program Announced October 2010 Implemented June 2011	• €50 billion in privatization & selling national property • Rise in taxes on income over €12,000 • Rise in property taxes • Rise in taxes on fuel, tobacco, liquor and luxury goods • Rise in pension taxes
Fifth austerity program Announced September 2011 Implemented October 2011	• 30% wage cut for public employees • 60% of pay for civil servants dismissed • Lower tax-free-income threshold to €5,000 • 20% cut in pensions over €1,000 • 40% cut in pensions for citizens under 55 • Cuts in education funding by merging schools

default improbable in February and 72% considered default improbable in March (Reuters, 2010*d*; Athens News Agency, 2010; Reuters, 2010*c*). At the beginning of the crisis, repayment seemed like the best way out of crisis.

Additionally, while trade unions and left-wing political parties (primarily the communist party KKE) organized ongoing protests, strikes and demonstrations during this period, their animosity doesn't appear to be reflected in the general population. Despite the protests, a February 2010 public opinion poll showed that 76% of those surveyed were against strike action (Dow Jones Newswires, 2010*b*). One participant in the protests, private sector employee Pagiaslis Giannis, even expressed that while people are protesting against austerity, they also understand the necessity of government action. As Gionnis put it, "it's like a slap that a father gives to his child and the child reacts even though he knows he was wrong" (Reuters, 2010*f*). Thus, resistance appears to be limited to a leftwing and unionist backlash, as even Papandreou's main political opponent, New Democracy's Antonis Samaras, initially pledged support to help Papandreou push ahead on harsh austerity measures. Taken together, the wide majority in support of austerity measures gave Papandreou the "determination, real political will, and the strength to carry through" with reforms that would adjust resources away from domestic objectives and towards repaying creditors (Agence France Presse, 2009).

And creditors paid attention, also perceiving that Greece was still politically willing to repay its obligations. Following the announcement of the first austerity package, a representative from BNP Paribas, a large financial institution with high exposure to Greek bonds, expressed the creditor's sentiment that a Greek default is "not the most likely scenario" (Agence France Presse, 2009). Creditors and credit ratings agencies also continued to watch the political climate closely. One analyst from the Fitch credit rating agency explicitly acknowledged this in his note that they had observed the "considerable support" the government had for its fiscal efforts in public opinion polls. He deemed that as creditors watched, it was "critical that the Greek government delivers and is seen to be delivering on its fiscal measures and [that] it must stand ready to enact further

measures" (Market News International, 2010). What creditors learned from the government's statements, actions, and political support was apparent in the Greek government's ability to float an oversubscribed 10 year bond in early March 2010.[13]

Despite early optimism, the need to refinance €16 billion while borrowing became increasingly expensive, led the Greek government to request activation of an emergency IMF loan in April of 2010. After several tense weeks of negotiations, on May 2^{nd} 2010, the European Commisson, the European Central Bank (ECB) and the International Monetary Fund (IMF) announced a joint €110 billion in loans over the next three years, with German financing making up the largest portion (€22 billion) of the European contribution (€80 billion). In return for the loans, Greece agreed to deepen its already significant austerity measures, with the goal of bringing the government deficit back to 3% by 2014. Included in the additional €38 billion in savings were further tax increases on luxury goods, sin goods, and the VAT (from $21-23\%$). It also increased the average retirement age to 65 and raised taxes on high pensions. It cut public sector allowances by 8% and limited or abolished bonuses for public sector employees. A week after signing the bailout deal, Eurozone leaders announced two additional rescue measures, the European Financial Stability Facility (EFSF), with a lending capacity of €440 billion, and the ECB's secondary market purchase program (SMP), to increase market confidence by purchasing distressed Greek bonds.

Combined with earlier government reforms, these measures were devastating to Greek citizens. While Papandreou asked citizens to make "great sacrifices," the government was keenly aware that"it [was] not going to be easy on Greek citizens, despite the efforts...made...to protect the weakest in society" (BBC, 2010). Even though the majority of Greek citizens supported these efforts as a necessary evil, overall macroeconomic performance weakened significantly. GDP growth in Greece declined from -0.3% in 2008 to -5% in 2010. Similarly Greek unemployment rose from 7.76% in 2008 to 12.7% in 2010. While many in the Eurozone continued to worry about

[13] Although the bond included steep 6% interest rates.

social unrest, the Greek parliament approved the IMF/EU austerity measures with a comfortable majority and the first tranche of funding was released in time for Greece's May 19th, 2010 debt repayment.[14]

5.3 Continued Obfuscation: May 2010- July 2011

International financial markets gave Greece a brief respite following the first IMF/EU bailout and in this section, I continue my narrative of the crisis from the first bailout through summer 2011. I highlight that the government continued to publicly maintain its willingness to adjust the domestic budget in order to accommodate foreign debt repayments, as evidenced by the fourth, and rather comprehensive, austerity package implemented in June 2011. While support from parliament and the population waned, the government appears to maintain a modicum of support for its repayment based policies, winning the majority of local elections in November 2010 and surviving a confidence vote in June 2011. However, during this relatively benign period of continued austerity, the government began to make plans for a private debt restructuring, unbeknownst to its citizens.

Given the lack of recovery following the IMF/EU joint bailout, German Chancellor Angela Merkel and French President Nicolas Sarkozy sought to find a more permanent solution to Eurozone stability at the Franco-German-Russian summit in Deauville. The crux of the October 2010 summit was an agreement that going forward, after 2013, sovereign bailouts from the European Stability Mechanism would require "adequate participation from the private sector." The Deauville proposal, later adopted by the European Council,[15] provided the go-ahead for private debt restructuring to take place in Eurozone countries. Not surprisingly, the markets reacted negatively, making the possibility of a Greek recovery without additional intervention

[14] 172 MPs voted in favor of the bailout and its conditions, out of the 300 member parliament. PASOK held 160 seats, indicating support for austerity from other political parties. However, three members of PASOK abstained and Papandreou immediately expelled them from Parliament.

[15] The proposal was adopted in a very watered down version and later effectively abandoned.

increasingly unlikely.

However, after the Deauville proposal and amidst market outrage at the newfound legality of Eurozone restrucutring, the Papandreou government remained firm in Greece's ability to repay its debts without a formal restructuring of its bond obligations. From fall 2010 to summer 2011, the government actively ruled out any proposals that would inflict losses on private bondholders. After a Reuters poll of economists in September 2010 upgraded the probability of a Greek default within five years to 43%, finance minister Papaconstantinou responded that "there will never be an issue of restructuring public debt" (Reuters, 2010*e*). In December 2010, Papandreou publicly discredited restrucutring, saying that the "the logic of restrucutring the debt would be catastrophic for the economy, for our credibility, for our future" (France 24, 2009). At the World Economic Forum in January 2011, Papandreou proclaimed that Greece was "not moving to restructuring" and that they "have a road map to move out of the debt problem" (Market Watch, 2011). He cited the government's success in reducing the budget deficit in 2010 as evidence of his plan at work. Reiterated as late as May 21st, 2011, Papandreou was clear that "debt restructuring was not an option" (Reuters, 2011*b*).

While sticking to the rhetoric of repayment, the government was also actively coordinating a "medium-term programme" (or "mesoprothesmo") to increase austerity further. The fourth austerity program took significantly longer to finalize and in the meantime the government was also campaigning to ensure that they still had a public mandate for reform - that the public was also willing to pay. They set their hopes of demonstrating their willingness on gaining a public backing in the November 2010 local elections.

Going into the local elections, support for the ruling party had declined with the implementation of the June austerity package, which was a condition of the IMF/EU bailout. However, in the fall of 2010 PASOK was still polling 9% points above their principle opponent New Democracy (Reuters, 2010*a*) and Papandreou himself was polling almost 20% ahead of Antonis Samaras (Dow Jones Newswires, 2010*a*). While rising prices, unemployment, and an ongoing recession

had disillusioned many, "the government and Papandreou in particular [were] still seen as the last opportunity to change things" (Agence France Presse, 2010). Thus, while the government initially insisted that the November 2010 local elections should be focused on regional issues, and not be reflective of the government's national politics, they changed their stance on October 25th, 2010.

More specifically, several of PASOK's main opponents used local elections as a soap-box, to argue against the government's austerity measures.[16] Former PASOK "rebel" Yiannis Dimaras[17] and candidates backed by New Democracy and the communist party KKE pursued strategies that mixed regional issues with a largely symbolic anti-austerity platform, which prompted Papandreou's about face to stake the party's claim on the results of the local elections.[18] In a televised statement, Papandreou claimed that if PASOK should lose a significant, however unspecified, amount of support in these elections, he would dissolve parliament and call new elections. He stated that "I am not glued to my post. I am only interested in fighting for my country...it's up to the citizens to decide whom they trust to govern...citizens will decide...if we will hold steady on the path of salvation...or if we will go back to decay and to the Greece of bankruptcy" (Aljazeera 2010). This meant that the choice presented to voters became more complicated than a choice between socialists and conservatives - it became a yes or no to austerity with the hopes of reinforcing the momentum for further cuts.

Between elections on November 7th and runoffs on November 14th, the government not only reinforced its will to pay with public backing but it also demonstrated its resiliency to staying in power under tough economic circumstances. While denying the need to restructure, PASOK won 7 out of 13 regional elections for approximately 45% of council seats. They also won the

[16]The Greek constitution does not permit political parties to contest local elections and local elections are officially run by open regional lists. However, in practice, regional lists are created and endorsed by the national political parties. MPs associated with the party usually head the local lists as candidate governors. PASOK put together party-endorsed lists for 12 of 13 regions, with the exception of Peloponnese, where they supported the list of an independent candidate governor.

[17]One of the 3 PASOK MPs dismissed for abstaining from the vote on the 3rd austerity package that was part of the IMF/EU bailout.

[18]For an analysis of party stances in the 2010 local elections see Gemenis (2012).

largest percentage of popular votes (34.7%) over New Democracy (32.8%).[19,20] This, combined with new poll results that 80% of Greeks were against early national elections, meant that the government considered the local elections a moderate victory with a new mandate to impose austerity measures (Xinhua News Agency, 2010).[21]

And the government did just that, using its local victory towards the fourth austerity program that was finally approved in June 2011. As a further demonstration of their preference for repayment, the new package included €50 billion in privatizations, selling national property, increased housing taxes and increased pension taxes. It also raised taxes on incomes above €8,000, even more so for incomes above €12,000. However, passing the fourth austerity package was not as easy as gaining parliamentary approval for the three previous austerity programs. The parliamentary vote went in PASOK's favor, but with only 155 votes in the 300 member parliament, including one defection from the prime minister's own party.

Parliament's waning support, but ultimate acceptance, of the fourth austerity package reflected the public's equally waning willingness to sacrifice domestic objectives for foreign repayment in the spring of 2011. Figure 5.4 shows the likelihood of voting for PASOK from the government's victory in 2009 through August 2011, based on various public opinion polls. While the likelihood of voting for PASOK declined approximately 9% in the two months following Papandreou's 2009 budget deficit announcement, it declined slowly through 2010, falling only 10% over the year. Comparing this downward trend to the general dissatisfaction towards all

[19]However a significant number of citizens abstained from local elections as evidenced by low turnout (68.8% and 46.68% respectively).

[20]It is also interesting to note that the communist party, KKE, finished third in total votes with 10.9% of votes cast and 42 seats. They were the only party with a pro-default, pro-restructuring platform (other parties like New Democracy were more broadly anti-austerity). While their third place finish is generally in line with the continued support for PASOK in this period, the slight increase in KKE support is suggestive of increased dissatisfaction with pro-payment government policy.

[21]Research suggests that evaluations of the economy, which are central to the theoretical argument of this dissertation, are biased by partisan preferences (Ramirez and Erickson 2014, Scott and Pickup 2019). This has additional implications for this project, suggesting that PASOK voters should be more likely to continue supporting the government under policies of repayment. While investigating differential partisan effects would be a worthwhile addition, in this particular instance, exit polling during the local elections was cancelled due to budget cuts, making such an investigation beyond the scope of this dissertation.

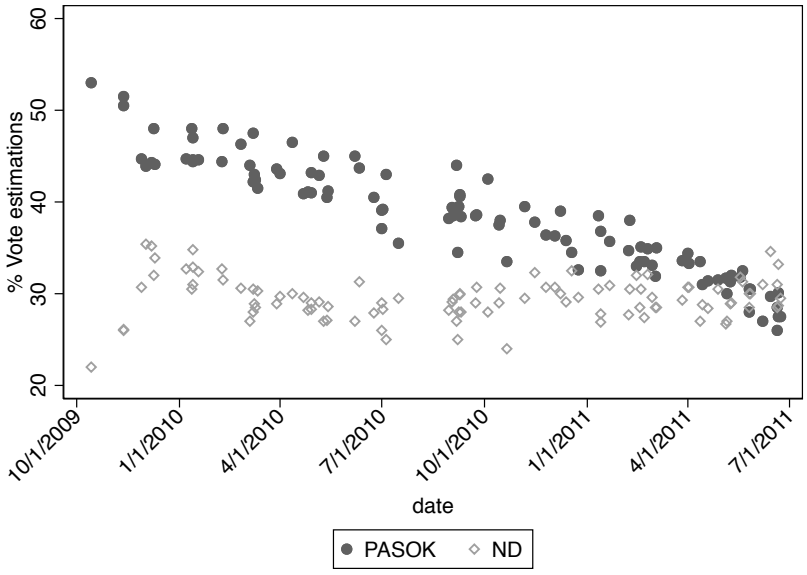

Figure 5.4: Vote estimation from public opinion polls
Figures are based on answers to the question "Who are you most likely to vote for?"
Sources: Various Greek polling firms including Public Issue, Focus, Metron Analysis, Alco, MRB, Rass, GPO, Palmos Analysis, Kapa Research, Pulse RC, and VPRC

main political parties, New Democracy in particular, the government held on to its lead through the fourth austerity package in June 2011, although with very small margins. By the summer of 2011, the Greek public had become increasingly disengaged, such that PASOK's decline in support came more from citizens claiming they would abstain from voting rather than from citizens switching their vote to another party. In May 2011, poll estimates as high as 37% claimed they would not vote in new elections (Reuters, 2011*d*). Despite public hesitation and wariness of the recession, the government passed its austerity bill and survived a vote of no confidence on July 21, 2011. Judged against a background of continuous economic decline, the government appears to be marginally rewarded for dismissing restructuring and maintaining Greece's ability to recover. PASOK's decline in support was gradual and indicative of rising unemployment and prices, as citizens still considered the government their best option to exit the crisis.

However, while the government managed to publicly continue its commitment to repayment and a Greek recovery, they were also involved in secret negotiations about restructuring,

that were hidden from the domestic citizenry. While it is difficult to observe "secret" negotiations contemporaneously, the case of Greece is particularly enlightening as new evidence suggests that while Greece publicly maintained its ability to repay its commitments, plans for a Greek bond restructuring actually began in private as early as 2010.[22] Blustein's (2016) evidence highlights that during an April 2010 meeting between Greek Finance Minister George Papaconstantinou, the IMF, the ECB and the European Commission, "one message was emphatically conveyed: there would be no restructuring of Greece's debts" (Blustein, 2016). As Papaconstantinou remembers, "It was in the most clear terms, aimed at me: 'George, do not open this issue'" (Blustein, 2016). And yet a the same time in Spring 2010, a clandestine meeting at a Washington hotel did occur between the IMF and Eurozone officials on the subject of restructuring Greek debt. As the author describes: "... Secrecy was of the essence...the official position in capitals was to dismiss talk of debt restructuring as absurd. The purpose of the secret talks was to see if support might be forthcoming..." (Blustein, 2016).

Officials ultimately lacked the necessary time to follow through on restructuring talks before the 2010 bailout. But even as the bailout was being formalized, the director of the research department at the IMF wrote another memo that called for a secret restructuring plan in case the current austerity plan failed. He stated, "It is critical to reach a clear and confidential understanding with the [Greek] authorities and the EU on how to proceed forward should such circumstances materialize" (Blustein, 2016). This particular confidential plan also appears not to have come to fruition, but secrets abounded during this period. Some meetings remained so clandestine that officials working on the Greek case expressed surprise at their revelation years later (Blustein, 2016).

As an additional piece of evidence for this secretive period of negotiations, a hastily planned meeting of European financial officials occurred in Luxembourg on May 6th, 2011 but

[22] Schneider (2019) also reveals that discussions about how to avert a Greek crisis and what possible financial instruments and financial aid packages could be used if a crisis occurred were ongoing between several Eurozone countries throughout 2008 and 2009.

was initially concealed from the public audience. A German news magazine, *Spiegel Online*, reported that a secret meeting had been convened to discuss the future of Greek debts and its membership in the Eurozone. When reporters followed up, a spokesman repeatedly denied that such a meeting was taken place. The meeting did in fact occur, and once this information was brought to light, the spokesman stated that "I was told to say there was no meeting. We had certain necessities to consider." Jean-Claude Junker, the Eurogroup chief, himself is quoted as saying "when it becomes serious, you have to lie" (The Telegraph, 2011).

Given that these findings are just becoming public, it if safe to assume that many private negotiation strategies are unobservable. Yet, Greece provides strong suggestive evidence that secret communications were ongoing and common in complex sovereign debt restructuring negotiations. While the full extent of secret meetings and their specific agendas are still unclear, it is evident that the Greek government knew a private restructuring was on the horizon, but they chose to hide that information from their public until the fall of 2011. While the government knew the situation was acute enough to warrant restructuring, they leaned on their incentives to misrepresent the distress towards their domestic audience.

In fact, when public conversations turned back to the inevitability of a bond restructuring in June 2011, they came not from the Greek government, who was preparing a new austerity package, but from the German finance minister Wolfgang Schuable's open letter to the European Central Bank (ECB) in June 2011. In the letter he states:

> This means that any agreement on 20 June has to include a clear mandate – given to Greece possibly together with the IMF – to initiate the process of involving holders of Greek bonds. This process has to lead to a quantified and substantial contribution of bondholders to the support effort, beyond a pure Vienna initiative approach. Such a result can best be reached through a bond swap leading to a prolongation of the outstanding Greek sovereign bonds by seven years, at the same time giving Greece the necessary time to fully implement the necessary reforms and regain market confidence (as quoted in Reuters 2011).

This statement was shortly followed by a first proposal for debt restructuring from a group of French banks. Another more detailed and inclusive proposal from the Eurozone governments and

the Institute for International Finance (IIF) came after the European summit on July 21st, 2011.

Unfortunately, as the tradeoff and theoretical mechanism suggests, the downside of maintaining private information is that when the Institute for International Finance (IIF) presented their offer for ”voluntary participation” in a bond restructuring deal in July 2011, it was deemed too small almost immediately. Because the government was publicly proclaiming its willingness to repay its foreign obligations, the offer from banks reflected this willingness in the size of concessions. In the proposal, approximately 30 financial institutions, mainly European banks, agreed to a program of debt exchange with four options: (1) a 30 year “par bond” with lower interest rates, (2) a 30 year “discount bond” with higher interest rates, (3) a 15 year “discount bond” and (4) a rollover option. The IIF claimed that the deal would provide a 21% net present value loss for credit holders and the 20% figure was widely reported in the media. At the bank level, major creditors would write off a portion of their claim, including BNP Paribas with €950 million in losses, Commerzbank with losses of €630 million and Societe Generale with losses of €500 million (Reuters, 2011*a*). However, many experts argued that this claim of debt relief was overstated; depending on the discount rate used, the proposal actually entailed a negative haircut, that could increase Greece’s burden in the long run (Zettelmeyer, Trebesch and Gulati, 2013; Cabral, 2011). While not a large holder of Greek bonds, JP Morgan estimated that a more appropriate haircut proposal should be 34% (Reuters, 2011*e*). As Greek bonds were trading at a significant discount in secondary markets, the IIF proposal seems pitifully small. Yet, if Greece was willing to pay, why would creditors write off more than they had to?

5.4 The Call for a Referendum: October 2011

The previous period under which the Greek government denied the need to restructure its bond obligations can be juxtaposed against events from October 2011, when the government agreed to a second IMF/EU bailout that included a private sector bond restructuring. In the final

stage of the crisis, I argue that the government's call for a referendum on the bailout package served as an implicit announcement that Greece, and the Prime Minister in particular, were prepared for the ramifications of a costly and chaotic default. I show that the referendum was taken seriously by creditors who updated their priors about the likelihood of default; And, as portrayed to the media, this was a logical gamble on behalf of the Papandreou administration. However, I also show that the referendum announcement generated significant domestic political costs, as evidenced by Papandreou's resignation, but that the resulting deal was one of the largest in contemporary history.

On October 31, 2011, just days after agreeing to the deal in Brussels, Papandreou made a "bombshell decision" to call for a national referendum on the restructuring deal. Without notifying his Minister of Finance or other European governments in advance, Papandreou stated:

> "This will be the referendum: the citizen will be called upon to say a big 'yes' or a big 'no' to the new loan arrangement...This is a supreme act of democracy and patriotism for the people to make their own decision...we've faith in the people. We believe in democratic participation. We're not afraid of it...Do you want to adopt the new deal or reject it? If the Greek people do not want it, it will not be adopted."

While his message was shocking to the international community, what exactly did Papandreou's announcement convey? Macroeconomic indicators were already low, public support for austerity had already waned significantly, and all 3 major credit agencies had already downgraded Greek bonds to junk status in July. While only creditors can speak exactly to how Papandroeu's announcement affected their quanitative and qualitative algorithms, the case suggests that the referendum call revealed something significant about the leader himself.

According to the theoretical argument, debt payment preferences reside in the hearts and minds of political leaders, which is the primary problem for creditors who want to accurately access the probability of sovereign default and the government's willingness to pay. Yet, up until the referendum announcement, the previous sections of this chapter demonstrated that Papandreou had shown domestic and foreign audiences that he was a leader in favor of debt

repayment, even when it ran counter to his tax-and-spend socialist platform. Before, he had been willing to take hard steps, like implementing austerity and angering his political base, to communicate his desire for repayment. However, with the announcement of the referendum and the significant probability of a "no" vote, given that 60% of citizens were opposed to the bailout deal (CNN, 2011), Papandreou revealed that he could let a disorderly default happen on his watch. Papandreou had never allowed default to be a rhetorical possibility before, in fact he had just signed an IMF/EU agreement to that purpose, and his actions were therefore surprising to members of his own cabinet. For example, one senior government official noted that "nobody knew he was going to do it. He made the decision on his own and only a couple close advisors had been informed" (Reuters, 2011*f*). The Finance Minister, Evangelos Venizelos, was also unaware of the referendum and declared that Papandreou was the "sole instigator" of this decision. It was left to Venizelos to inform Greece's foreign partners about the decision, which he did from the hospital after being admitted for abdominal pain.[23] And most importantly, the financial sector was also surprised by the announcement. According to a strategist for BNP Paribas, the largest holder of Greek bonds, "the Greek referendum was a curveball; nobody saw it coming and it injected a lot of uncertainty" (Reuters, 2011*c*). Thus, while economic and political decline were already apparent, Papandreou's underlying weighting and risk tolerance for these factors led to a surprising behavioral choice.

As this new information was revealed, creditors should update their beliefs about the government's willingness to repay, compromising prior views with new actions. It is clear that they did indeed update, and moreover, that Papandreou's announcement was interpreted in a way that increased the likelihood of disorderly default. According to Nobel prize-winning economist Christopher Pissardes,"in the scenario of a no vote, Greece would declare bankruptcy immediately; they would default immediately" (Reuters, 2011*c*). Thus, a public referendum would serve as a reminder to the world that if Greek citizens voted no, disorderly default was

[23]Foreign leaders, German Prime Minister Angela Merkel in particular, also issued statements that they were unaware of Papandreou's plans for a referendum.

inevitable. A no vote would trigger a "hard default," or a non-negotiated default, in the language of major banks, and many citizens claimed that they preferred the chaos of default to the hardship of years of austerity. With this in mind, an analyst from Fitch Ratings agreed that a no vote on the referendum would "increase the risk of a forced and disorderly default" (Dow Jones Newswires, 2011). IHS Global Insight, a firm specializing in economics and country risk solutions, also raised the probability of a Greek default from 20% after the IMF/EU bailout deal, to 40% after the referendum announcement (NPR, 2011).[24]

Evidence supportive of interpreting the referendum announcement as an implicit default, is also apparent in the financial market's reaction. It's clear that the referendum announcement and its implicit signal of default must have communicated some new information to creditors, because financial markets plummeted drastically on October 31st, 2011. Interpreted in relation to the theory, the referendum announcement must have (1) provided enough information to update creditors' priors about the likelihood and costs of default and (2) the information must have been credible enough for investors to react with their pocketbooks. For example, the Athens Stock Exchange (ASE) composite index fell by 7.7% overnight, the largest daily drop since 2008.[25] German, French and British stock markets also closed significantly down, with the stock valuations of banks holding Greek bonds being most affected. Eurozone bank stocks declined almost 10%. Looking at other indicators of the financial market's reaction, the Euro to US Dollar exchange rate also fell by 2.2% overnight. The daily reporting of 10-year Greek bond yields surged from 24.25% on October 31st to 28.18% on November 1st, representing a 16% increase in Greek borrowing costs.

Investigating the market's reaction more systematically, Figure 5.5 depicts the Euro/Dollar exchange rate and Figure 5.6 depicts the yield on Greek 10-year government bonds over the

[24]However, there was still a significant degree of uncertainty because two thirds of Greek citizens favored remaining in the Eurozone. Which of these pressures would win would depend on how the exact referendum question was worded (CNN 2011).

[25]The drop in the ASE index was larger than the drop in October 2009 when Papandreou released the updated government deficit report.

year 2011. Using Supreman Wald Tests for structural breaks in time series data, I find that the date of Papandreou's announcement demonstrates a statistically significant break for both indicators. More specifically, the Wald test computes whether the change in a statistic is greater than would otherwise be predicted based on previous values. I test for a structural disjuncture without imposing a known break date and find that a structural break occurred on October 31st, the day the referendum was announced. The break is significant at the 10% level for the exchange rate (p=0.07) at the 1% level for bond yields (p=0.00), implying that investors took Papandreou's announcement seriously.[26]

Yet, all the uncertainty the announcement created was intentional. As Papandreou's aids proclaimed to the media, a public referendum was a calculated and logical gamble. The potential benefit for the government was that the threat of a no-vote and a subsequent default would serve as an international wakeup call. According to one official, "...they [European officials] may be pissed off today but tomorrow when they wake up they will need to think through the implications of pushing Greece too far" (The Guardian, 2011*a*) The same government insider went on to say that,

> For months we have sat in meetings warning of the social effects of such stringent austerity and people have chosen not to listen, even when it had become quite clear that the patient was enduring more shock than therapy...Greece may have a problem but at the end of the day it may be an even bigger problem for Europe. (as quoted in The Guardian (2011*a*))

Another political commentator analyzed the announcement to the conclusion that "Papandreou is in a stronger position than people think" (The Guardian, 2011*b*). Not only was it possible that Papandreou might win a "no" consensus from the referendum, but the depth of the "when you owe the bank €1000 you have a problem but when you owe €100 billion the bank has a problem" paradox implied that the IMF and EU would probably be willing to soften the terms to safeguard

[26] Supreman Wald tests are dependent on the time frame used. Because the period following the onset of the global financial crisis in 2008 was particularly turbulent, I focus on the year 2011. Tests of a larger time series continue to identify a break on October 31, 2011 but the break is less significant.

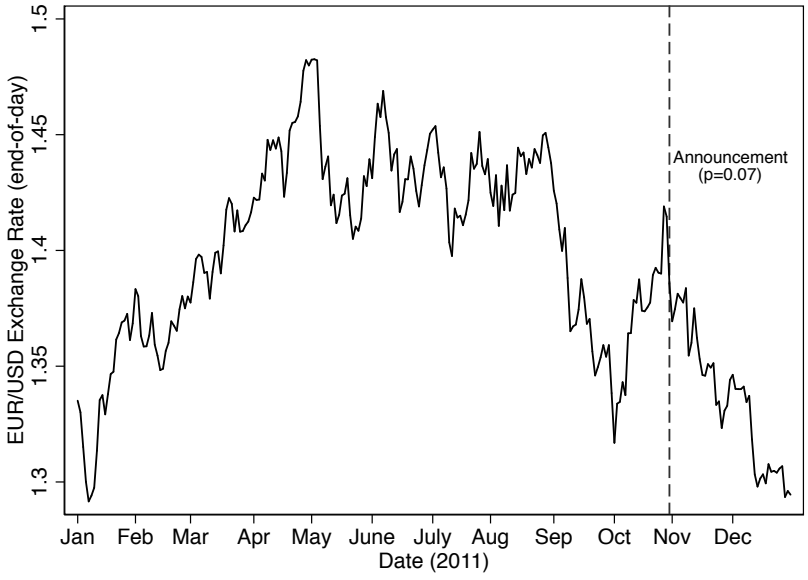

Figure 5.5: Euro/Dollar exchange rate

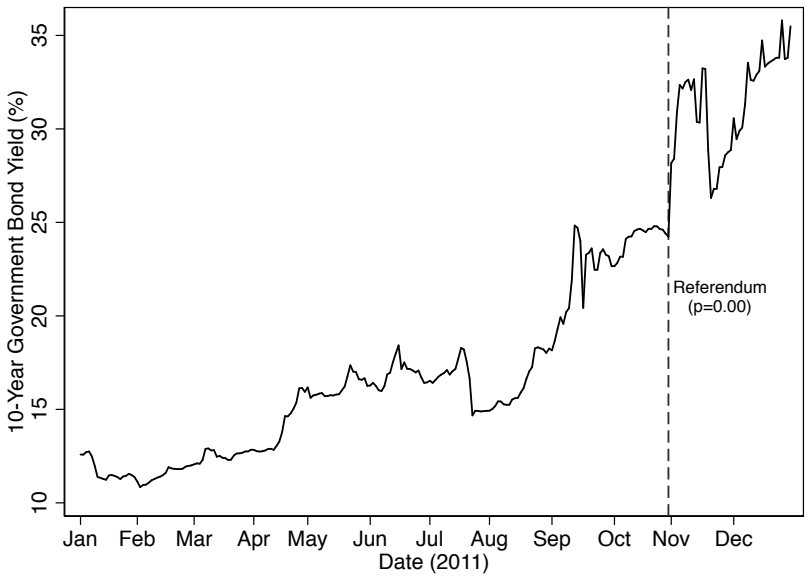

Figure 5.6: 10-year government bond yields

against a disorderly default (The Guardian, 2011*b*). As a bargaining strategy, if Greece got a better deal, "it would certainly increase the chances that the referendum would pass" (NPR, 2011). With the referendum, the government expected to gain significant leverage with their creditors, by making clear that default was a possible reality.

More importantly, the referendum announcement also generated significant domestic political costs as predicted by the theory. If the announcement wasn't costly, then why would creditors react with their pocketbooks? In Greece, widespread domestic reactions began immediately after Papandreou's announcement, largely centered around the future stability of Greece and the Eurozone. Greek citizens were acutely aware that the €800 billion tranche of EU/IMF bailouts to be received in November would run out in January, leaving the government unable to pay salaries and maintain public services. The referendum drew scornful comments like "nothing can save us" and "it's absurd! Now [the government has] put the ball in our court, but [it's] their responsibility to decide" (EKathimerini, 2011; France 24, 2011). One Athens citizen summed up the population's anger with the statement that "Guillotines should be erected outside parliament. They have brought us to this point of catastrophe. We are bankrupt. We are destroyed" (The Guardian, 2011*c*). While the first public opinion polls weren't fielded until November 4th, after Papandreou had already agreed to step down, PASOK recorded only 18.5% of the vote estimation.[27] Within a week, only 1 in 8 Greek citizens (13%) expressed trust in the Premier's handling of the economy, down from 17% at the end of September (Public Issue, 2011).

Absent survey evidence that more closely compares the time before and after the referendum announcement,[28] Google trends data provides evidence that Greek citizens paid attention to the referendum announcement. Figure 5.7 presents the results of Google searches conducted within Greece for Prime Minister "Papandreou" between the crisis' onset in September 2009 and

[27] In comparison to the most resent survey on October 27th that showed PASOK support at 20%. The surveys were carried out by different firms with slightly different survey methodologies. The margin of error on both studies is 3% making the evidence primarily suggestive. The already low approval rating also suggests a ceiling effect.

[28] Given the chaos surrounding the IMF/EU deal and Papandreou's announcement, there are many potential confounds to comparing surveys fielded several days apart.

the end of 2011. The solid line denotes searches in English and the dotted line denotes searches in Greek. Google Trends provides an unbiased and categorized sample of all searches on a particular topic.[29] The data is divided by the total number of searches within the specified geographic limits then scaled onto a range from 0 to 100 based on the proportion of searches compared to the most popular search date. This means that within a temporal period the date with the most searches, in this case the first week of October 2009, has a value of 100. A day that records a value of 50, means that the term was searched half as much as it was on the most popular day. Google Trends reports only the most popular searches and searches with a low volume are recorded as 0. Looking at Figure 5.7 specifically, there was a significant uptick in searches for Papandreou following his referendum announcement. During the week of October 31st, 2011, people in Greece searched for Papandreou 84% as much as they did on the day the revised government deficit was released, which was a significant increase. Noteworthy, is that this uptick is separate from the upward trend during the IMF/EU bailout negotiations in September and October. While these searches do not speak to the type of attention Papandreou received, he clearly received significant attention.[30]

Google Trends does not code searches made by very few people, which makes two additional search terms particularly enlightening. Figure 5.8 presents search data for "f*** y** Papandreou" (in English, solid line) and "PASOK ashes" (in Greek, dashed line). Both terms had low search volumes in the initial period of the crisis so as to register observations of 0. However, searches for both terms peak after October 31st, 2011 and the announcement of the referendum. While Google does not provide data on the raw volume of searches, the fact that they require a high threshold for searches to be considered popular enough to categorize as a trend, is indicative of negative sentiment towards the Prime Minister following his referendum announcement. Capturing these particular phrases as trends, suggests that the direction of attention was indeed

[29]The categorization means that searches for "George Papandreou," "Papandreou," "Prime Minister Papandreou," etc. are all grouped and added together.

[30]Searches for Papandreou's political party, PASOK, do not yield a similar spike around the referendum. Voters appear to have directed their attention to the prime minister specifically, which accords with evidence that Papandreou acted alone without the knowledge of his cabinet or party.

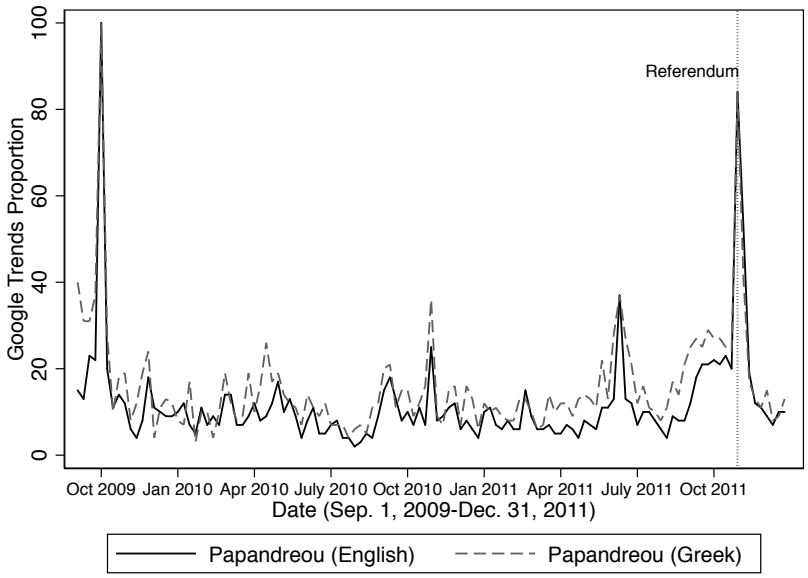

Figure 5.7: Google searches for Papandreou

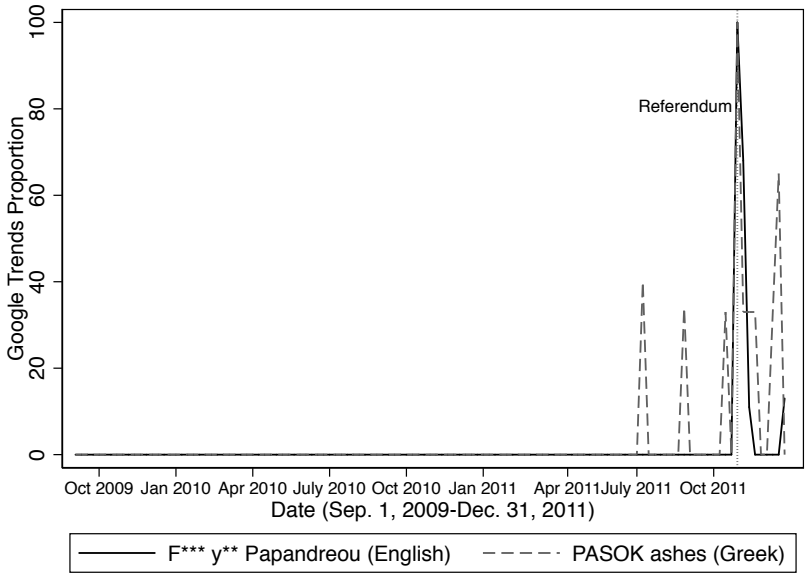

Figure 5.8: Additional Google searches

negative as predicted by the theory.

While less time sensitive, another way of documenting popular dissatisfaction with Papandreou following the referendum announcement is presented in Figure 5.9, which plots Greek citizens' perceptions of their economic situation (left) and trust in political institutions (right) based on repeated Eurobarometer panels. The final panel is especially important as the survey's enumeration occurred between November 5th and November 18th, 2011, just days after Papandreou's referendum announcement.[31] Rather than looking at aggregate responses to voter preference, the Eurobarometer provides more specific questions that speak to the theory's proposed mechanism. If correct, I expect that trust in the government should be lower in November 2011, immediately following the referendum announcement, than it was in previous surveys, when the government was still denying the need to restructure. Moreover, if the referendum mechanism operates by making citizens aware that more financial distress is yet to come, we should also see a decline in citizen's perception of the economy. This negative change in economic confidence should be much more pronounced after the announcement on October 31st, 2011 than it was between earlier periods.

Despite the time gaps, Greek responses meet theoretical expectations. Overall, Greek citizens were more likely than the average Eurozone member to judge their current household position (left) and current job situation (middle) as "bad." While dissatisfaction consistently rose during the crisis period, two trends are interesting to note. First, dissatisfaction towards respondents' household situations and jobs did not rise drastically following the initial revelation of the budget deficit in October 2009. Instead, Greeks were largely unsure of the announcement's effects and it wasn't until the First IMF/EU bailout in May 2010 that economic perceptions were more pronounced in the negative direction. Second and supportive of the theory, the change in dissatisfaction was greater between May and November 2011, than in previous periods. Right after the referendum announcement, respondents were 11% more likely to answer that their

[31] Recency bias (Achen and Bartels 2004) also suggests that respondents should be primed to answer with the recent referendum announcement in mind.

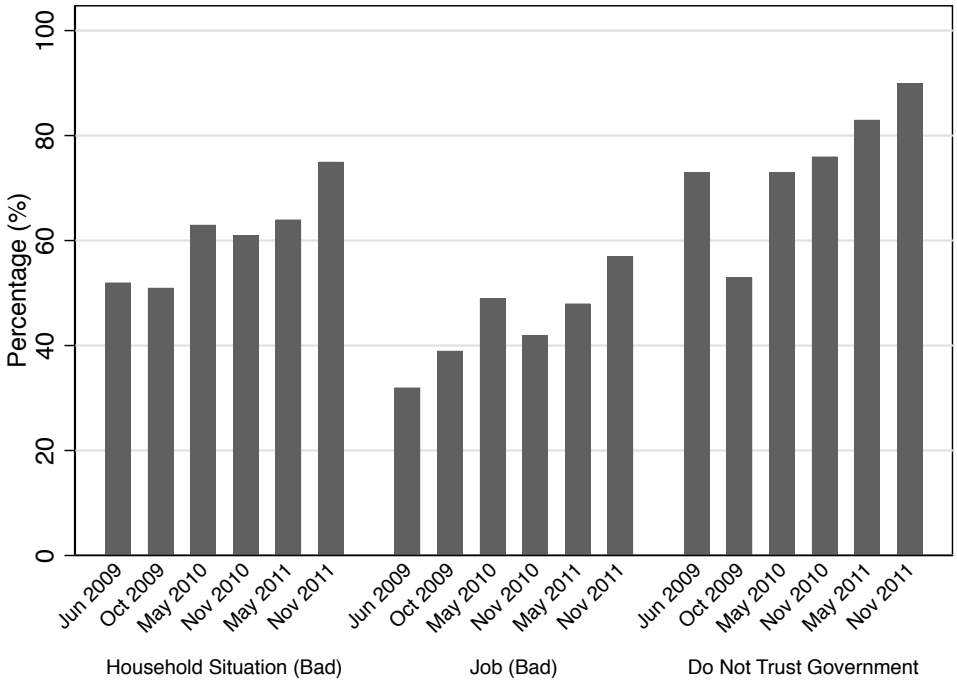

Figure 5.9: Economic assessment and trust in government

household situation was "bad" and 9% more likely to respond that their job situation was "bad." These changes are comparable to how citizens updated after the May 2010 bailout and suggest that citizens updated their assessment of the economy based on the government's actions.

Additionally, Greeks systematically expressed greater levels of distrust towards their government than the rest of the Eurozone. Notably however, while distrust was already high, distrust actually lowered in October 2009 when the government revealed the revised budget deficit. While speculative, this interesting result is most likely to due to the change in government the previous month. As the PASOK government revealed the revised government deficit, they did so under claims that they were not responsible for the debt accumulated under New Democracy and that they were the more transparent party ready to right the other's wrongs. Additionally and in line with the theory, by November 2011, 90% of Greeks tended not to trust their government. Given that the referendum was issued by Papandreou, without widespread government knowledge, responses to the government prompt, rather than parliament or the Eurozone, are particularly

interesting. Distrust towards the government increased only 3% from May to November 2010 and 7% from November 2010 to May 2011, just after the referendum. Given the ceiling effect and the fact that most defections came from Papandreou's own party, this is strong evidence of a public opinion backlash to Papandreou's implied default.

As the ultimate sign of backlash, on November 6th, amidst dissent in his own party, Papandreou resigned his position as Prime Minister.[32] In an attempt to credibly increase his leverage with international creditors, Papandreou gambled too far – sacrificing his premiership to form a unity government where PASOK remained a key coalition partner. The domestic costs of publicly declaring the government's financial distress proved to be the leader's downfall, but in line with the theoretical assumptions he did manage to keep his party at the bargaining table.[33]

However, while the absence of a counterfactual prevents a true comparison, the resulting deal that was signed in March 2012 was the largest sovereign credit event in modern history. The unity government formed under Lucas Papademos pushed forward on Papandreou's original deal, using the credible threat of default to demand lower coupons (interest rates), higher haircuts, and larger participation thresholds. The final deal that was signed in March was an improvement over both the July IIF offer and the October IMF/EU joint deal. First, the March deal was offered as a single take-it-or-leave it package, subtracting creditor's choice of menu options. Second, the March deal included a much wider range of Greek bond obligations, expanding the covered bonds from those with less than a 9 year maturity to all bonds issued before 2012. Finally, the new offer included larger face value reductions and lower interest rates, amounting to a 53.5%[34] nominal face value reduction, which was marginally higher than the 50% agreement in October and the 21% agreement in July. At the end of the adjustment process, almost 97% or 200 billion of principal was included in the deal (Zettlemeyer, Trebesch and Gulati 2013). This surpassed the Troika's 90% participation threshold by a wide margin. Thus, while Papandreou lost office,

[32] Although he kept his seat in parliament and remained the head of the party

[33] Until new elections were called in May 2012.

[34] This equates to an approximately 65% net present value reduction according to Zettlemeyer, Trebesch and Gulati (2013).

Greece won large creditor concessions.

5.5 Discussion and Conclusion

The Greek bond restructuring completed in 2012 presents a unique opportunity to explore the theoretical mechanisms of this dissertation in more detail. The benefit of supplementing the quantitative approach of previous chapters with qualitative case work is the ability to delve deeper into concepts like willingness to pay that are difficult to quantify. It also highlights a more fine grained understanding about credibility and domestic costs in public commitment theories, which are often taken as assumptions in scholarly work. Here, I build on the results of Chapter Four to show that public declarations of default in debt restructuring negotiations are indeed costly.

In this chapter, I explore new variation in how governments react to financial crises, and show that different government strategies used for the purpose of international negotiations affect political support in systematic ways. I rely on the Greek case to demonstrate that the government possessed private information with incentives to misrepresent, emphasizing the government's choice to minimize the depth of the crisis towards its citizens. The Papandreou administration was insistent that they could and they would repay their private obligations without restructuring even when secret negotiations with key creditors were already underway. The government also proved politically resilient in the face of economic decline and unpopular austerity. I compare this period of secret negotiations to October 2011, when Papandreou made a startling decision to call a referendum on the IMF/EU restructuring deal, which was widely interpreted as a costly signal of imminent Greek default. I show that financial markets, creditors and domestic audiences all reacted to Papandreou's revelation. The political costs of Papandreou's turn to the public were high, as evidenced by his resignation from office, but I argue that the resulting deal signed in March 2012 was one of the largest in contemporary history as creditors worried about the reality of the worst-case default option.

These conclusions suggest that there is an important tradeoff between domestic public opinion and international negotiation leverage. In debt restructuring however, unlike many two-level game conceptions in the international cooperation literature, domestic political reaction is not conditional on whether the government backs down from its statements, but whether the government chooses to reveal information in the first place. If the government moves negotiations into the public eye and endorses the release of negative information, the costs are borne regardless of the outcome. In fact, the Greek referendum was cancelled when Papandreou resigned, yet Greece still continued to extort greater concessions from their creditors because they had credibly demonstrated their political *un*willingness to pay. Papandreou lost his premiership almost immediately even though he was ultimately successful at eliciting concessions. Understanding how citizens react to unpopular information and how governments strategically use their reactions, can also provide a more nuanced understanding of multi-level bargaining games across substantive issue areas.

6 Concentrated Claims: The Role of Creditor Heterogeneity in Debt Restructuring Negotiations

The previous chapters laid out and tested the main theoretical arguments of the dissertation. I concluded that public announcements of debt distress serve as an electorally costly signal to separate governments based on their political willingness to pay. Where sufficiently costly, public declarations win larger creditor concessions. In this chapter I extend the theory, suggesting additional applications and contributions based on the characteristics of the creditor group. So far, the expectations derived from the theory are contingent on the assumption of a unanimous creditor group with homogeneous preferences. Yet, private creditors "have different exposures, different ties to each borrower, and vastly different roles in international banking" (Lipson 1985, 203). In this chapter, I relax the assumption of creditor unanimity and explore how heterogeneity affects the decision making calculus of indebted governments.

How does creditor heterogeneity change the government's choice of negotiating tactics? Clues to the answer come from two sources: the theory presented in Chapter Two, and theories of group dynamics (Olson 1965). I maintain my assumption that a high haircut is beneficial to the government and argue that it is easiest for the government to coordinate creditors around this outcome when the group is small or a few members have large stakes. When there are few

credit holders with highly concentrated exposures, creditors have a strong incentive to find a quick and effective negotiated solution out of their own self-interest. The threat to creditors' bottom line will force them to coordinate on their own. However, when debt is held by disperse creditors with small individual claims, each individual creditor is much better equipped to wait for full repayment. In this case, creditors will struggle to solve the coordination problem on their own without a focal point to draw the most recalcitrant holdouts into the fold. Where creditor dispersion makes coordination most difficult ex-ante, a costly public signal is more effective at coordinating creditors around a higher haircut. Governments should be more likely to use public tactics where increased creditors, with heterogeneous preferences, impede creditor cooperation.

To test this extension, I introduce an original dataset on creditor characteristics in debt restructuring negotiations. I extract over 20,000 financial press articles from Factiva using a routinized search algorithm and rely on these documents to code relevant statistics including the number of creditors, the number of creditors on the Bank Advisory Committee, and the chair bank for each restructuring negotiation. Paired with existing data on public pronouncements of moratoriums for 25 defaulting countries on a yearly basis from 1980-2009, I find that governments are more likely to publicly announce default as the number of creditors involved in a restructuring increases. As syndicated lending has fallen out of favor and been replaced by heightened use of the bond market, this may suggest that public tactics will play an important role in future crises.

While how countries bargain in international settings influences negotiated outcomes (Elms, 2006), there are few systematic and quantitative attempts to determine countries' choice of strategy in international negotiations, particularly as they relate to characteristics of the opposition (Odell, 2000; Dür and Mateo, 2009, 2010; Bailer, 2012; Enderlein, Trebesch and von Daniels, 2012). This is particularly apparent in sovereign debt restructuring negotiations where the historical focus has been on *why* governments default rather than *how* (Eaton and Gersovitz, 1981; Bulow and Rogoff, 1989). This dissertation is not only among the first to to conceptualize debt restructuring as a continuum of tactics and offer a systematic explanation, but it is also novel in

its treatment of creditors as a diverse group with heterogeneous preferences. Of relevance to other domains of international negotiation, the findings imply that who the government is bargaining against matters for how they choose to bargain.

6.1 Creditor Heterogeneity

The game theoretic literature establishes that while creditors are profit-motivated, they are collectively better off lending to and restructuring debt with emerging markets (Bulow and Rogoff, 1989). However, because debt is often owed to many banks or bondholders, who are difficult to identify, there exist significant opportunities for collective action problems, where individual creditors have an incentive to holdout at the expense of others (Olson, 1965; Wright, 2012; Zettelmeyer, Trebesch and Gulati, 2013). If one group of creditors agrees to restructure debt at more favorable terms for the debtor, they unlock resources that can be used to repay the claims of a second group of creditors who do not restructure. In other words, when some creditors forgo their claims, the debtor is better able to service its remaining obligations to the hold outs.

Thus, restructuring sovereign debt to private creditors takes place under the umbrella of the London Club[1] and is governed by the principle of burden sharing. As I referred to in the introduction, The London Club dictates a rough process of debt restructuring in which a Bank Advisory Committee (BAC), made up of 5-15 creditors with the largest exposures, negotiate on behalf of all banks with outstanding claims. In the recent era, the London Club has operated under norms of near consensus, such that 100% or 95% agreement is required for deals to be implemented. Additionally, if an indebted government attempted to negotiate outside of the London Club, major creditor banks "work extensively with other banks, both large and small. They are heavily engaged in cross-depositing through the interbank market, and they provide a range of financial services to each other and smaller institutions" (Lipson, 1985*b*). It would be

[1]The name is slightly deceptive as there is not a permanent secretariat and only a loose procedure.

exceedingly difficult for a government to negotiate with a single creditor, without others being aware.[2] As Rieffel (2003) states, "There was no room for individual commercial banks to cut special restructuring deals with the debtor country."[3]

This implies that as creditors and debtors bargain over the size of a creditor haircut, the bargaining range of potential outcomes is constrained by what a unanimous (or nearly unanimous) group of creditors can agree to, without important actors holding out for full repayment. If, as has been assumed in previous work (Enderlein, Trebesch and von Daniels, 2012), creditors had homogeneous preferences this would not impose an additional burden. However, game theoretic work, case studies of the restructuring process and my data collection efforts all suggest that there is significant diversity in creditor preferences that could make the bargaining problem more difficult to solve from the perspective of an indebted government (Fernandez and Kaaret, 1992; Stiglitz and Weiss, 1981).[4]

For example, some creditors are embedded in international borrowing networks, making them more institutionalized, while others, like boutique bondholders, are less concerned with their international reputation. Creditor types that develop long-term relationships with each other and their debtors face a significantly different cost structure than creditors who invest in a "one-off" nature. Having long-term relationships with other creditors and important debtors implies that (1) creditors are dependent on the services that other banks provide and would be adversely harmed if default bankrupted other actors and (2) that creditors are invested in lending to their existing borrowers and would be adversely affected if they had to go in search of new markets. As Lipson (1985*a*) describes, it is the money-center commercial banks that are the "permanent fixtures in international banking."[5] The leading international banks share risk through

[2]This link is perhaps looser in bond rescheduling. However, in all contemporary bond reschedulings, the agreements have been executed as a multilateral group with 85% participation clauses. There is little evidence of governments seeking out individual bondholders.

[3]The one counterexample is Russia's domestic GKO debt in 1999. The original committee of 19 banks was eventually disbanded as creditors opted to exchange their debt bilaterally.

[4]For an overview of the restructuring process see Das et al (2012). For detailed case studies see Lomax (1986), Aggarwal (1996), Rieffel (2003) and Sturzenegger and Zettlemeyer (2006).

[5]Money-center banks (now referred to as Large Financial Institutions in the US) specialize in wholesale and

syndication, sit together on creditor committees and heavily engage in cross-depositing on a day-to-day basis. They also sink costs into developing long term relationships with debtor states, and face significant transaction costs to finding new debtors, gathering statistics, and performing risk assessments (Lipson, 1985*a*). Because of inter-creditor and creditor-debtor relationships, large financial institutions will find it exceedingly difficult to walk away from the restructuring bargaining table, and thus will benefit the most from a restructuring. They have the highest incentives to negotiate and yield large enough concessions to restore growth and positive lending in the future.

Another group that has particularly high incentives to restructure and grant concessions are creditors that have a high level of exposure to a particular crisis. While hundreds of banks and thousands of bondholders of various types may have claims to a state's external debt, exposure is not evenly distributed. Holding a high level of exposure means that these few actors risk losing a potentially fatal amount of their assets if an agreement is not reached and their claims are not repaid. In the earliest iteration of the too big to fail analogy, John Maynard Keynes stated, "If you owe your bank a hundred pounds, you have a problem. But if you owe your bank a million pounds, it has." As such, the high costs to negotiation failure mean that the creditors with the largest stakes in a particular country will be the most willing to concede to greater creditor adjustment and bear the cost of group organization.[6]

The unequal distribution of creditor claims has been a reoccurring theme in several restructuring cases including Brazil (1983), Mexico (1983) and Poland (1994). In a more recent example, Greek debt held by private creditors based in countries that report to the Bank of International Settlements (BIS) was approximately 55 billion. However, 69% of claims in 2010

international banking. Their clients represent governments and large corporations.

[6]However, it is important to note that creditors don't bargain with different debtors in isolation. When claims are highly concentrated across the larger developing market, debt holders face differing incentives because their actions in one crisis are likely to preemptively fix their bargaining range in others. Specifically, creditors with large exposures across the developing world must be concerned with maintaining solvency across a myriad of crises. While they want to reestablish positive lending as soon as possible, too many high haircuts in too many crises could question their bottom line. They are forced to preference the global nature of financial crises over local concerns. Thus, in cases where global debt overhang is high, highly exposed creditors may be reluctant to set a precedent for high haircuts.

were owned by Germany and French banks combined. German lenders held $22.7 billion in sovereign claims and France held about $15 billion (although this excludes the significant French lending to Greek households and companies). In comparison, non-European creditors were relatively less exposed and the United States only held $1.5 billion in exposure (*BIS Quarterly Review*, 2010). Thus, it was those creditors that had the greatest exposure to Greek claims that wound up sharing the burden of adjustment with the debtor. German banks in particular played a much more central role in the restructuring process. In this case, both the government and private creditors together, contributed €56 billion to bailing out Greek bonds while the US contributed relatively little.

Given diverse preferences, disagreements between creditors are commonplace. Trebesch (2010) indicates that almost 30% of debt restructurings are characterized by delays due to creditor holdouts. These heterogeneous preferences can be over the composition of the creditor committee, as in Algeria (1994) when Japanese banks held the bulk of exposure, wanted a tough stance, but were unwilling to lead. Disagreements can also be over the size of the restructuring and new money, like in Argentina (1982) where large banks with high exposure pushed for a generous package while small creditors refused and held-up negotiations. Diverging interests can also be seen over the inclusion of specific debts, usually those privately incurred but publicly guaranteed, as in the Philippines (1987) when major banks refused to sign the deal if Planters Products debt was included. In the most extreme cases, disagreements not only delay agreement, but they lead to costly litigation against sovereign claims in US and UK courts. Schumacher, Trebesch and Enderlein (2015) note that litigation against sovereign debtors is on the rise, both as a the number of cases and the amount of debt disputed.

All of this suggests that a theory of how governments behave in debt restructuring negotiations would be overly simplistic if it ignored the heterogeneous preferences of the creditors with whom the government is negotiating. Ideally, indebted governments would recognize this disparity in creditor preferences and adjust their offers and strategies towards each creditor. They

would request larger haircuts from institutionalized, highly exposed banks than they would from lesser exposed, boutique bondholders. However, as mentioned above, the informal norms of the restructuring process dictate burden sharing and a single outcome that must apply to all creditors equally. Because indebted states are forced to bargain with their creditors multilaterally, they must take the variation of creditor preferences into account, changing their preferences over negotiating tactics.

6.2 Creditor Coordination

How does creditor heterogeneity change the bargaining tactics of indebted states? To incorporate divergent creditor preferences, I build on the theory presented in Chapter Two and model the three-way interaction between the government, its citizens and its creditors as a bargaining game over the size of creditor haircuts. I continue to assume that the government faces an impending crisis that requires restructuring its commercial debt obligations. The government must coordinate this restructuring with its international creditors while simultaneously facing voters at the domestic polls. Office-motivated governments want to maintain their political power and one way to stem domestic political pressures given a financial crisis is to win large concessions from creditors at the international bargaining table. To this extent, indebted governments prefer a high haircut as it frees up funds previously dedicated to debt servicing that can be reallocated towards other domestic policy objectives like minimizing austerity, which helps secure the government's position in office.

I assume that governments are aware of who they are bargaining against and that a high haircut requires the agreement of at least 95% of creditors, including the most recalcitrant ones who would prefer to free-ride. While previous chapters focused on the political determinants of government tactics, in this section, I argue that governments must consider the effectiveness of a potential public declaration in addition to its political costs.

To do so, I build on insights from the logic of group dynamics and collective action theory, which suggest that it is easiest to coordinate actors when groups are small or a small number of members have the largest stakes (Olson, 1965). In these cases, the actors that have the most to gain from an outcome will be willing to expend the resources necessary to achieve it, even if other group members free ride on their efforts. In sovereign debt restructuring, this implies that when there are few credit holders with highly concentrated exposures, those creditors have a strong incentive to find a quick and effective negotiated solution. They lack the ability to walk away because default would threaten their solvency. Their larger stake in the outcome incentivizes them to bear the costs of convincing more hesitant creditors to agree to a joint agreement.

This type of "unequal group" solution to the coordination problem is evident in the power that large money-center banks hold over their domestic counterparts. Money center banks can engage in arm-twisting because they provide important banking services for the domestic banking network. They can threaten to blacklist holdouts from future international syndication, cut interbank credit lines, and withhold important banking facilities (Lipson, 1985*a*; Milivojevic, 1985). Evidence of this phenomenon was apparent in the Greek bond restructuring of 2012, where a Commerzbank representative remarked that the participation of large European banks in the restructuring was "as voluntary as a confession during the Spanish inquisition" (Wall Street Journal as quoted in Zettelmeyer, Trebesch and Gulati (2013)). Thus, while less institutionalized banks face lower costs to holdout then their larger counterparts, the heightened exposure and institutionalization of money center banks prompts them to invest their own resources in achieving coordinated action.

The power of large financial institutions to solve the coordination problem is also supported by the data in Figure 6.1, which plots the relationship between the percentage of sovereign claims held by institutional lenders and the likelihood of experiencing a creditor holdup problem during the restructuring process. Starting in 1977, the Federal Reserve System in the United States began releasing reports on US banks' claims to foreigners. I rely on the FFEIC's Country

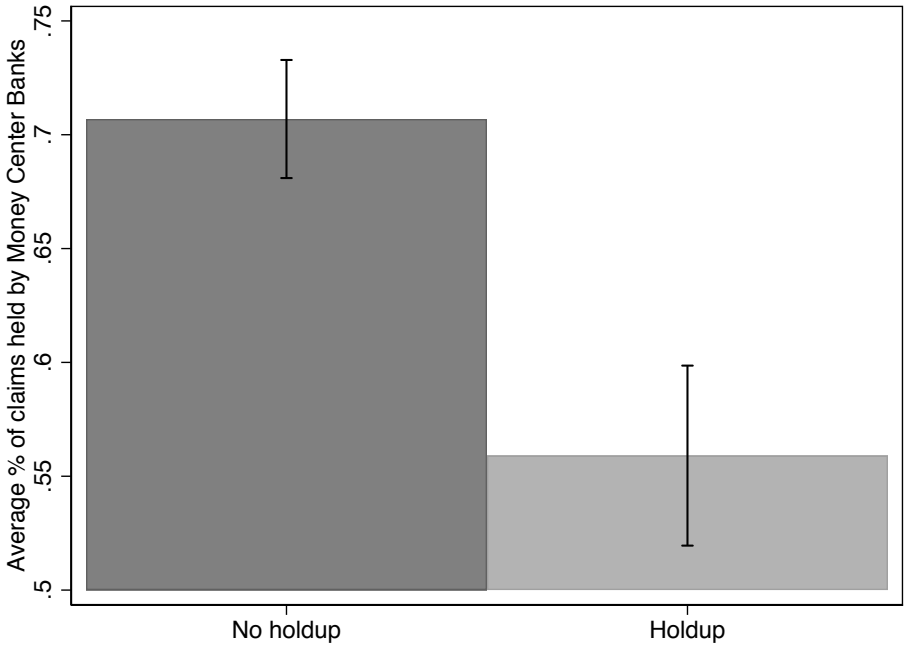

Figure 6.1: Average percentage of claims held by money center banks across creditor holdups

Exposure Lending Survey to calculate the amount US Money Center Banks are owed by a particular debtor nation (after adjustments for guarantees and external borrowing) over the amount all US banks are owed by the same debtor nation (after adjustments for guarantees and external borrowing). Restructuring episodes that experience a creditor holdup problem (right) have a significantly lower percentage of claims held by the money center banks that are capable of coercive arm twisting. When a large percentage of claims is concentrated in a few highly motivated creditors, they have an incentive to solve the coordination problem without any holdups.[7]

[7]Money-center banks (now referred to as Large Financial Institutions in the US) specialize in wholesale and international banking. Their clients represent governments and large corporations. The FFEIC categorizes these banks and their categorizations can vary by year. For example the FFEIC identified 9 Money Center Banks in 1988 (Bank of America, Citibank, Chase Manhattan Bank, Manufacturers Hanover, Morgan Guaranty, Chemical Bank, Continental Illinois, Bankers Trust, First National Bank of Chicago) and 6 Money Center Banks in 1998 (Bank of America, Citibank, Chase Manhattan, Morgan Guaranty, Bankers Trust, First National Bank of Chicago). While the FFEIC surveys are useful in disaggregating claims by creditor type, they are not systematically available for countries other than the United States and therefore serve only an illustrative purpose. Given this limitation, summary statistics by creditor type are only possible for those restructuring episodes where US banks played a central role. As a systematic way of creating this sample, I also gathered original information on the chair of each BAC. I then limit the descriptive statistics to episodes where a US bank acted as committee chair. Data on creditor holdups is from Trebesch (2010).

On the other hand, theories of group dynamics suggest that it is more difficult to coordinate actors when groups are large and members hold small, insignificant personal claims. This scenario should be the most likely to result in a collective action problem, where no one has the incentives to provide a mutually beneficial outcome. In terms of debt restructuring, when debt is held by disperse creditors with small individual claims, each individual creditor is much better equipped to wait for full repayment and they have less incentive to restructure. Even default won't impact their basic solvency as creditors, so creditors are unlikely to bear the costs of group organization on their own. In other words, where concentration is low, coordination is more difficult ex-ante.

Although indirectly, Figure 6.2 supports this intuition by demonstrating the negative relationship between the number of creditors and the size of creditor haircuts. When concentration is more disperse, there is less immediacy on the part of major stakeholder banks to coordinate the group, take drastic measures, and resolve the crisis. The solution is reduced to what the most recalcitrant creditors will agree to, and the resulting haircut is lower.[8]

In this latter scenario, one tactic for the government to address the coordination problem and focus even the most reluctant creditors around a high haircut is to issue a public declaration about debt distress, as a costly signal to creditors.[9] Public declarations are electorally costly because they reveal the government's economic mismanagement to under-informed citizens and trigger predictable economic voting costs. A public declaration of debt distress reveals the true, despondent state of the economy to citizens, which politicizes the government's incompetence, increases the crisis' salience, and where citizens can sanction the government, threatens the leadership's tenure. I confirmed in Chapters 3 and 4 that where public declarations are politically costly, they communicate credible information to a government's creditors and extort higher concessions.

[8]Haircut data comes from Cruces and Trebesch (2013) and is described in Chapter Three.

[9]The literature has suggested many relevant classifications of negotiation tactics including distributive vs. integrative (Walton and McKersie 1965), bargaining vs. problem solving (Carnevale and Pruitt 1992), cooperative vs. non-cooperative (McKibben 2011), and hard vs. soft (Dur and Mateo 2009). The relevant classification here is public vs. private, as only public tactics are sanctionable by the domestic audience and convey credibility.

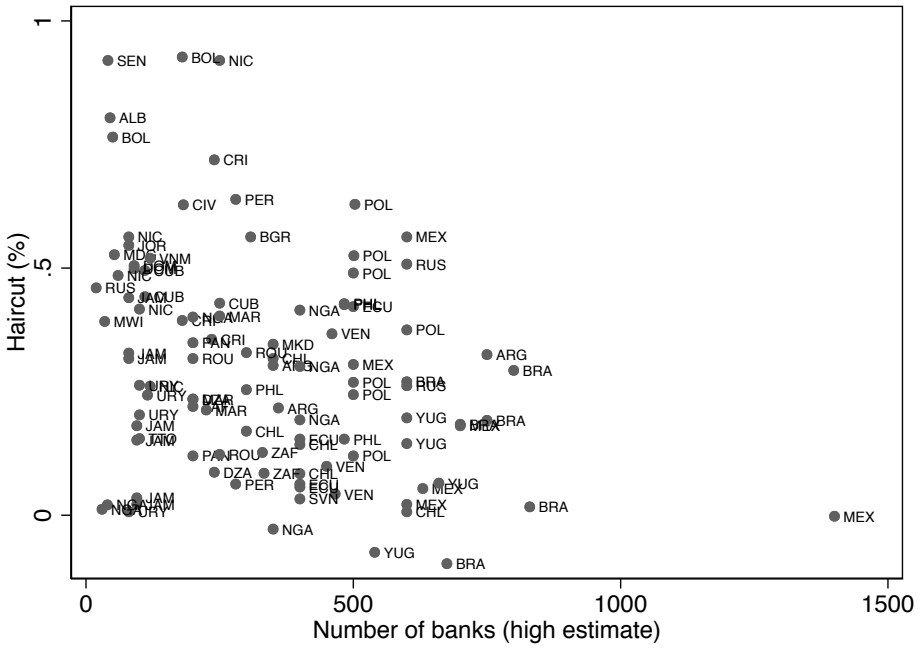

Figure 6.2: Creditor haircuts by number of creditors

Because of the associated political costs, governments will only rely on public declaration tactics when they believe it will be effective. This can mean only publicly signaling where political costs are high enough to ensure credibility and only signaling when it is necessary to ensure creditor agreement around a single outcome. Towards the latter, creditors will be more likely to coordinate themselves when concentration is high, meaning there is less need for an external creditor coordination device. The government will be loathe to bare additional domestic political costs if creditors will coordinate on their own. However, when creditors are more disperse, creditors will be less willing to self-organize and a public signal becomes more necessary as a way of demonstrating to even the most hesitant creditors that default will be costly unless a negotiated solution is reached. The government will be increasingly likely to use politically costly negotiating tactics if it helps unite creditors around a single, high haircut.

For example, Albania's 1995 restructuring involved a relatively small number of creditors. Approximately 45 foreign banks held claims to Albanian foreign debt and they were represented

by five banks on the steering committee.[10] During the negotiation period from 1992-1995, there were no reports in the popular or financial presses of inter-creditor disputes or litigation. At the conclusion of negotiations in 1995, banks were given the option of immediate repayment of their commitments at 20% or preferential access to new par bonds that Albania issued at a 25% exchange. The package essentially reduced Albania's debt by 80%, from around $500 million to $100 million. Albania made a onetime payment of $100 million a month later and was left debt free (Reuters, 1995; BBC, 1995). Albanian leaders also avoided public position taking during their negotiations. On the other hand, Ecuador rescheduled its Brady era bond debt in 2000. Over time, the Brady bonds had been sold on the secondary market until, by the time of restructuring, over 2500 creditors were involved. While Ecuadorian creditors did attempt to coordinate, the creditor group that was formed under Gramercy Advisors (the Ecuador Credit Advisory) only represented a minority of bondholders (Das, Papaioannou and Trebesch, 2012). While the deal was concluded swiftly, it only imposed approximately a 35% haircut on creditors. Furthermore, two separate lawsuits against the Ecuadorian government were filed in US courts (Schumacher, Trebesch and Enderlein, 2015). The Ecuadorian government did explicitly threaten to default in both 1999 and 2000.

This leads to an additional hypothesis that because creditors are heterogeneous, *governments will be more likely to make public declarations when creditors are more difficult to coordinate.*

6.3 Dependent Variable

To test my hypothesis, I conduct a quantitative analysis using a novel dataset of creditor characteristics alongside data on public default declarations. The data covers 25 defaulting countries and extends on a country-crisis-year basis from 1980-2009. The tests are designed to

[10] Creditanstalt Bankverein, Banca Nazionale del Lavoro, Berliner Handelsund Frankfurter Bank, Credit Lyonnais and Union Bank of Switzerland

build on the findings of Chapter Four, demonstrating the impact of coordination over and above the already established importance of domestic political costs.

Public default declarations, as coded by Enderlein, Trebesch and von Daniels (2012), were introduced as the main dependent variable in Chapter Four. The authors develop the first index of government coerciveness and code the negotiation and procedural behaviors of indebted states during negotiations from qualitative sources, primarily the financial press. I rely on their indicator of an "explicit moratorium or default declaration," which takes on a value of 1 if a government official formally proclaims the government's decision to default in front of a public audience.[11] The variable *Declaration* remains coded as 1 in subsequent years until the action is explicitly revoked or withdrawn by the government.[12]

This measure has several distinct advantages which I mention in Chapter Four. First, the measure is available on a yearly basis, allowing for fluctuation in government behavior within and across crises. For example, the government of Brazil issued a public moratorium in its 1988 restructuring but remained adamant in their ability to pay during its 1992 restructuring. Second the measure is coded in a general way to apply to both banks and bondholders, allowing for better comparisons across periods of lending. Finally, the novelty of the data is such that previous studies have only attempted to study negotiation behavior as an aggregate measure of government coerciveness. Previous studies have neglected the different mechanisms that may underly the government's choice of specific strategies.

The sample of debt restructuring cases is restricted to the same specifications as Chapter Four in order to ensure the comparability of results. Data on default declarations is available from 1980-2009 and includes both developing and emerging market countries. Enderlein, Trebesch and von Daniels (2012) identify debt crises based on the annual default list published by Standard

[11] Recall a government official is defined as a president, prime minister, minister of finance or economy, or president of the central bank.

[12] It is important to note however, that on average, governments default discreetly. In the vast majority of cases, (approximately 80%) governments miss a payment, thereby violating the debt contract, without announcing that information in front of a public audience. Public tactics in debt restructuring negotiations remain rare.

and Poors.[13] They then exclude countries that had only limited access to private creditor markets, as negotiations with the poorest countries are dominated by official creditors and the IMF. Specifically, they remove all countries under the Highly Indebted Poor Countries Initiative (HIPC) and with populations under one million. They also drop countries whose debt restructuring took place under exceptional circumstances (Iraq's post war exchange and the Yugoslavian successor states of Bosnia and Herzegovina, Croatia, Macedonia, Slovenia, and Serbia and Montenegro). Several restructuring were dropped due to significant missing information about negotiations with private creditors (Cote D'Ivoire, Cuba, Gabon, Iran, Jamaica, Kenya, Paraguay, Trinidad and Tobago, Vietnam). The resulting sample covers 25 defaulting countries over 219 country-crisis-years. For more detailed information on the coding and sampling process see Enderlein, Trebesch and von Daniels (2012).

6.4 Main Explanatory Variable

In lieu of directly testing creditor heterogeneity by institutionalization or exposure, which would require the almost impossible task of identifying the complete list of credit holders in each restructuring, I capture creditor dispersion with a novel dataset on the number of creditors. While scholars have attempted to collect this data in previous work (Trebesch, 2010; Das, Papaioannou and Trebesch, 2012; Lomax, 1986), no single, publicly available, source provides systematic information on the makeup of creditor committees. Figures exist for the largest cases only and often assume that characteristics remain constant across default episodes. To create the dataset, I follow the procedure outlined in Enderlein, Trebesch and von Daniels (2012), where the authors rely on articles from the financial press. Using the database Factiva, and a routinized search

[13] In some cases they extend the list to include years when governments openly begin debt restructuring efforts without missing a payment. For example Uruguay opened talks with its creditors before it technically defaulted in 2003.

algorithm I extracted over 20,000 pages of articles.[14] I used these articles to code several relevant statistics, including the main independent variable, *Number of creditor banks*. Each observation was confirmed from two independent news sources and where possible, I verified the coding against reference texts on sovereign debt restructuring (Trebesch, 2010; Das, Papaioannou and Trebesch, 2012; Lomax, 1986; Aggarwal, 1996; Rieffel, 2003; Sturzenegger and Zettelmeyer, 2006). I was able to identify the number of creditors for 73 of the covered restructuring deals or 195 out of 219 country-crisis years. Furthermore, as the number of banks tended to be reported in approximate terms, I record separate values for the highest number of reported creditors and the lowest number of reported creditors. I use the upper estimate as the primary measure, but demonstrate that the results are robust to using the lower bound.[15]

Figure 6.3 below depicts the distribution of creditor banks on a country-crisis-year basis. Using the upper bound of approximated creditors, the data range from 19 creditors (Russian GKO debt in 1999) to 700,000 creditors (Argentinian global exchange in 2005). Removing Argentina as the outlier, the average bank restructuring involves roughly 350 creditors.[16] Figure 6.4 graphs the relationship between the number of creditors and public declarations. It provides preliminary support for my main hypothesis that public declarations of debt distress are more likely with a higher number of involved creditors. On average, the number of creditors involved in a restructuring with a public declaration is approximately 30% higher than the number of creditors in a restructuring without a public declaration. Excluding Argentina's 2005 restructuring, this unconditional difference is significant at the 10% level (p=0.071).

[14] I used the search algorithm "country name w/ 10 debt" then saved the resulting articles as searchable pdf documents.

[15] This is an important advancement over previous data collection efforts. As there can be multiple restructurings within a default episode, a more accurate coding allows group size to vary accordingly. For example, the upper bound of Brazil's creditor banks increased from 675 in 1983 to 750 in 1986, then decreased to 600 by 1992. The BAC itself also changed three times during this turbulent period.

[16] 299 is the mean number of creditors using the lower approximation of creditor size.

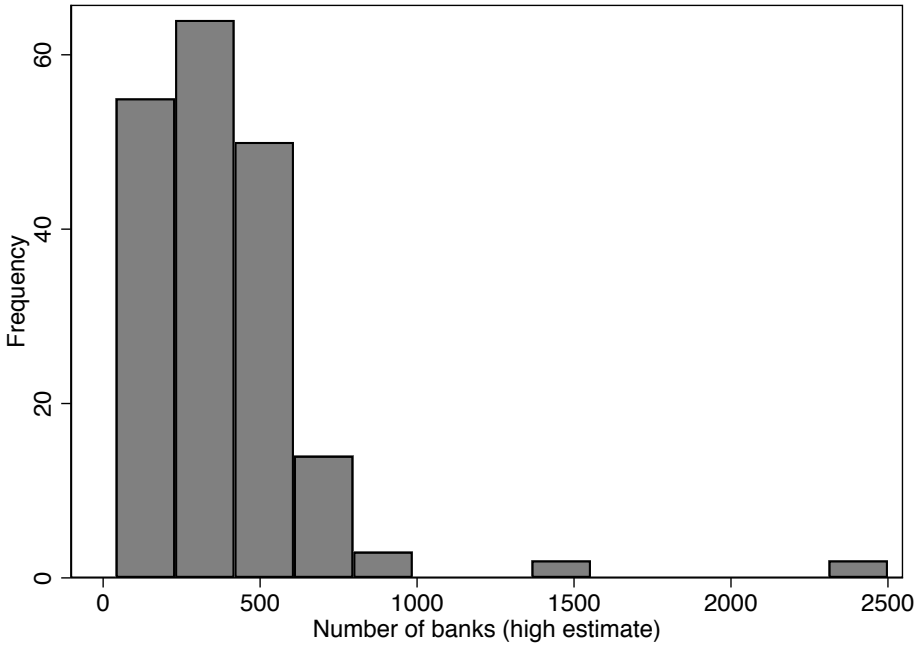

Figure 6.3: Number of banks by crisis year (upper bound)

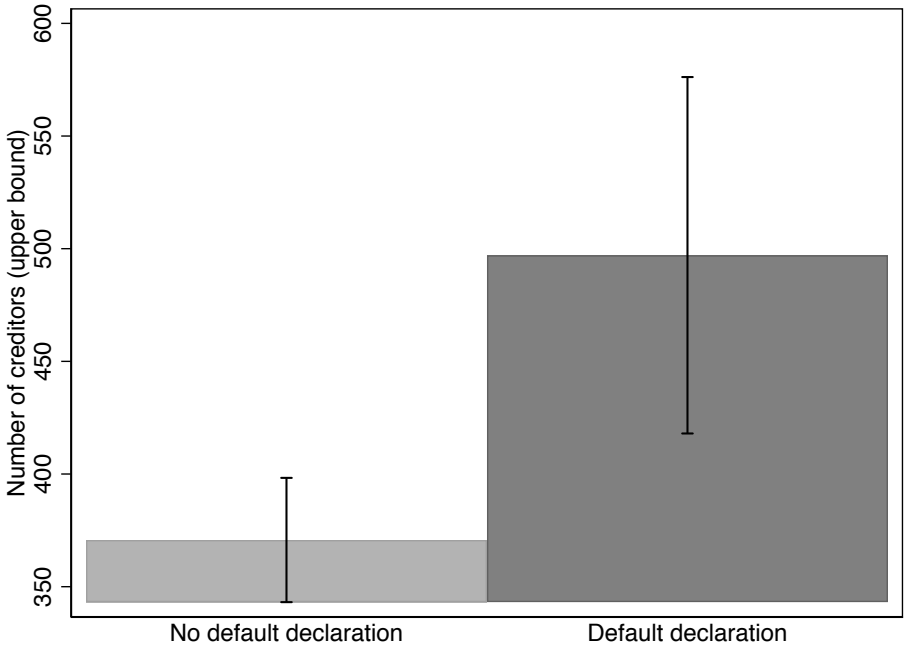

Figure 6.4: Average number of creditors across public declarations

6.5 Model Specification

In order to compare these results to the findings of other dissertation chapters, the estimated models are similar to those presented earlier. I use the same set of control variables for replicability, including the key measures of Democracy and Socioeconomic Pressure. I then introduce additional control variables, whose coding is part of my novel dataset. Given the limited number of restructuring negotiations in the sample, I strive to keep the declaration models empirically precise.

First, to capture economic conditions I include a country's *Debt to GDP* ratio, from Abbas et al. (2010).[17] I also represent a country's baseline level of development by including *Per Capita GDP*. Data is from Graham and Tucker (2017).[18] Including this variable allows for the results to separate the effects of long-run development from short-term financial crises. Second, existing work suggests that voters may find it more difficult to punish leaders for economic downturns when they are influenced by globalized economic conditions.[19] To account for this, I include two measures of a country's openness to globalization. First, I include *Trade Openness* as the sum of imports plus exports divided by GDP. Second, I include *Investment* as a percentage of GDP. These variables are also commonly used in the default literature (Borensztein and Panizza, 2009). Data are from the World Development Indicators.

Third, Chapter Four establishes that public declarations are only effective when they are politically costly. The results confirm that governments are more likely to make public declarations when they are held accountable for crises and when citizens care about the macroeconomic implications of crises. To control for this, I include a measure of *Democracy* as coded from Cheibub, Gandhi and Vreeland (2010). The indicator takes the value of 1 in crisis-years that meet the authors' six criteria for a democratic government. I also rely on the *Socioeconomic*

[17] By combining multiple sources, this dataset represents the most extensive historical coverage for all IMF members.

[18] The authors supplement data from the World Development Indicators with data from the Penn World Tables.

[19] See for example Hellwig and Samuels (2007), who find that globalization decreases economic voting. Kayser and Press (2012) also demonstrate that voters benchmark across countries.

Pressure indicator from the ICRG. The variable measures pressures in society that could constrain government action or fuel social dissatisfaction and that arise from socioeconomic conditions. It combines the submeasures for unemployment, consumer confidence, and poverty and is also available on a yearly basis beginning in 1984. I use the measure in its inverted form such that higher values equate to more pressure on the government. I also include the *Interaction* of democracy and socioeconomic pressure.

Finally, to proxy for differences in banking regulations across creditor countries I include a measure of BAC chairmanship. I follow the same procedure described above and identify the BAC chair bank for each restructuring episode from the financial press. I then identify each bank's country headquarters. The pattern of BAC chairmanship by nationality is presented on a country-crisis-year basis in Figure 6.5.[20] US banks chair the most committees, followed by France and The United Kingdom. For parsimony and explanatory power, I dichotomize this information into a dummy variable that takes on the value of 1 if the committee is chaired by a *US Bank.*

The central hypothesis derived from this theory of creditor coordination requires a probabilistic estimation technique. Because the dependent variable, public declaration, can take on the vales of 0 or 1, I use a probit model with clustered standard errors to estimate the relationship.[21] To account for temporal variation I include decade-level dummy variables. The results are robust to using a yearly time trend and year fixed effects. As the cross-country effects are theoretically relevant, I exclude country level fixed effects and choose to use regional dummies to proxy for differences in lending across region.

[20]Where BAC committees are co-chaired, I include all chair banks in the nationality counts. For example, Morocco's (1986, 1987, 1990) BACs were jointly chaired by the Banque Nationale de Paris and Citibank. The coding records a value of 1 for both US Chair and French Chair.

[21]I cluster standard errors at the country level.

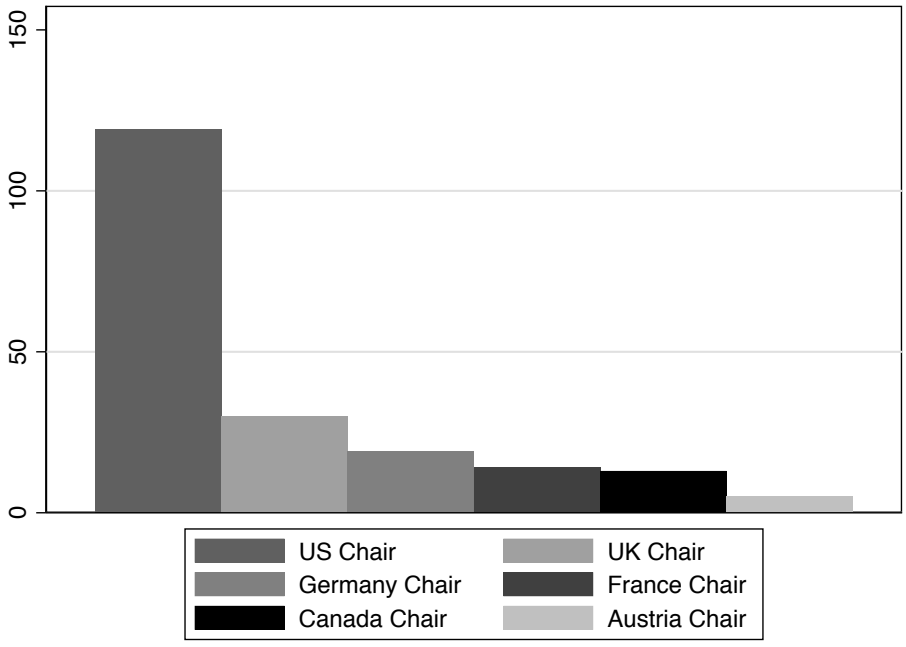

Figure 6.5: Country headquarters of chair bank by crisis year

6.6 Results

Table 6.1 presents the main results for a probabilistic regression. The theory suggests that governments will be more likely to default publicly when creditors are difficult to coordinate and the results confirm this intuition. The positive and significant coefficient in Model 1 indicates that indebted governments are more likely to issue public declarations as the number of creditors involved in a restructuring increases. Based on the estimation of Model 1, moving one standard deviation above the mean increases the probability of a public declaration by 15%. For ease of interpretation, the predicted probability of a public declaration is graphed in Figure 6.6 at varying levels of creditor size.

The results also confirm important findings from the literature. Regarding the control variables, GDP per capita is the only variable of significance, which matches with earlier work on the relative importance of political vs. economic factors (Enderlein, Trebesch and von Daniels, 2012). Extending the theory to account for creditor heterogeneity does not change the fact that

Table 6.1: Creditor coordination main results

	Dependent Variable: Public Declaration			
	(1)	(2)	(3)	(4)
	Main	Low Estimate Exc. Argentina	Time Trend	Crisis Level
Number banks (high)	0.001***		0.001**	0.003***
	(0.000)		(0.000)	(0.001)
Number banks (low)		0.001**		
		(0.000)		
Democracy	3.694**	3.461**	3.677**	4.522**
	(1.632)	(1.632)	(1.613)	(1.889)
Socioeconomic Pressure	-0.206	-0.182	-0.135	(-0.083)
	(0.146)	(0.144)	(0.095)	(0.298)
Interaction	0.512*	(0.476)	0.513*	0.617**
	(0.303)	(0.299)	(0.294)	(0.315)
Debt/GDP	-0.010	-0.010	-0.010	0.001
	(0.008)	(0.008)	(0.008)	(0.005)
GDP per capita	-0.000****	-0.000***	-0.000***	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Investment/GDP	-4.795	-4.758	-5.827	-9.279
	(4.069)	(4.154)	(4.437)	(7.810)
Openness	0.010	0.008	0.009	(0.014)
	(0.007)	(0.006)	(0.007)	(0.010)
US Chair	-0.174	-0.194	-0.084	-0.719
	(0.411)	(0.408)	(0.387)	(0.470)
Year			0.047	
			0.057	
Constant	-2.526	-2.112	-94.032	-5.319**
	(1.988)	(1.852)	(111.497)	(2.297)
Decade FE	Y	Y	N	Y
Region FE	Y	Y	Y	Y
χ^2	962.59***	1701.06***	170.44***	175.51**
N	158	153	158	65
R^2	0.36	0.27	0.37	0.43

Standard errors reported in parentheses. Note: *p<0.1, **p<0.05, ***p<0.01

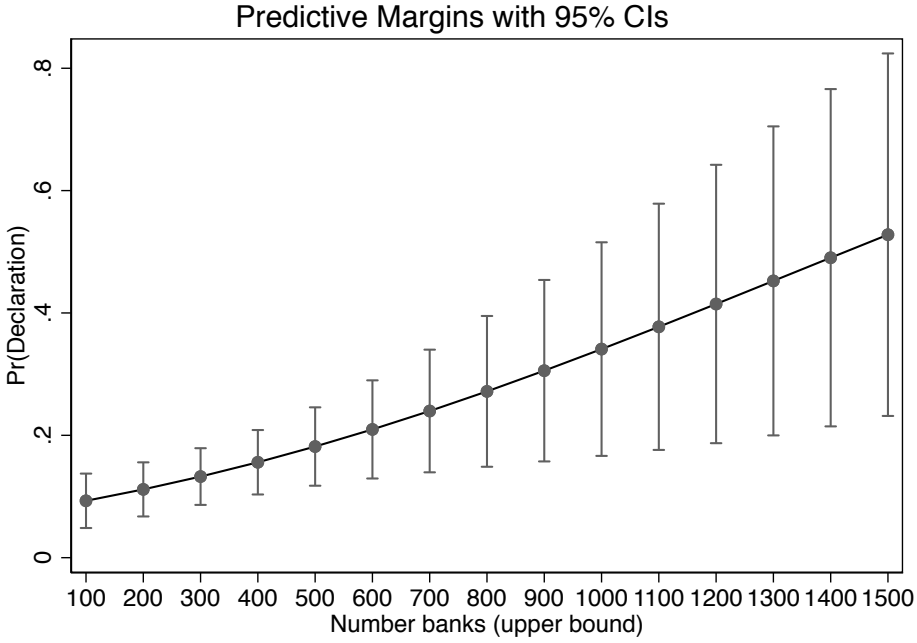

Figure 6.6: Probability of a public declaration

richer countries are less likely to default publicly. Most importantly, the interaction of democracy and socioeconomic pressure remains a robust predictor of public declarations, as first introduced in earlier chapters. This implies that creditor heterogeneity matters over and above the already established importance of domestic political costs. To make a comparison between the results of the previous chapter and this one, it's important to note that the effect of creditor heterogeneity is substantively smaller than measures of political costs. Nevertheless, both political costs and creditor coordination have strong, independent effects on the government's preference to engage in costly signaling.

To ensure that the results are not dependent on model specification, I highlight several further robustness tests. I describe them briefly here, and the results are reported in Tables 6.1 and 6.2 and in the appendix. First, in Table 6.1 Model 2, I rely on the lower estimate of creditor size. I also exclude the crisis-years surrounding the Argentine bond restructuring of 2005, which is a clear outlier case with 500,000-700,000 creditors. This specification represents the most

conservative coding on my independent variable. Second, in Model 3, I rely on a yearly time trend in lieu of decade fixed effects. Finally, in Model 4, I aggregate the data to the crisis rather than the crisis-year level. While the decision to make a public declaration varies on a yearly basis, the number of creditors involved in a restructuring remains relatively constant across each separate period of negotiation. I therefore collapse the years within a crisis negotiation period into a single observation, such that I predict the probability of issuing a public declaration during *any* year of negotiations.[22] The main effects do not change. The number of creditors remains a significant predictor of negotiation behavior.

Table 6.2 introduces two additional operationalizations of creditor characteristics. While I hypothesize that governments turn to public signaling when dispersion dissuades coordination, the mechanism more precisely implies that is because recalcitrant creditors with different preferences may have not a way to exercise their voice other than holding out or litigating. To gauge whether this is the case, in Model 1 I substitute the number of creditor banks on the *Bank Advisory Committee* for the total number of creditor holders. If this is about divergent creditors being left out of institutional forums where negotiations occur, I expect the relationship to be insignificant.[23] In Model 2, I substitute the percentage of total banks that are represented on the creditor committee (*% on Committee*).[24] The higher the percentage of creditors with access to institutional forums, the easier coordination should be to solve and I expect a negative relationship to public declarations. The findings meet expectations, suggesting that it is the number of creditors who do *not* have a seat at the bargaining table that matter most.

Appendix A adds additional control variables into the model's estimation.[25] In Model 1, I include political variables that may affect a government's accountability for issuing public declarations. The main results for creditor characteristics are not affected by the inclusion of

[22] I take the mean of other continuous variables and the mode of all binary variables.

[23] See Appendix 8.3 for the distribution of *Bank Advisory Committee*. Unlike the distribution for *number of creditor banks*, there is not a lot of variation. Most committees range in size from 5-15 creditors.

[24] I divide the size of the creditor committee by the total number of banks (high estimation).

[25] Reported in Chapter 8.3

Table 6.2: Creditor committee operationalization results

	Dependent Variable: Public Declaration	
	(1)	(2)
	Committee Size	Percent on Committee
Bank Advisory Committee	-0.015	
	(0.052)	
% on Committee		-21.058*
		(11.323)
Democracy	-2.195	-2.851
	(2.163)	(2.281)
Socioeconomic Pressure	0.848**	0.986**
	(0.350)	(0.401)
Interaction	-0.642	-0.0778*
	(0.433)	(0.466)
Debt/GDP	-0.011*	-0.016*
	(0.006)	(0.009)
GDP per capita	-0.000***	-0.000***
	(0.000)	(0.000)
Investment/GDP	-2.782	-5.624
	(4.076)	(4.581)
Openness	0.001	0.009
	(0.008)	(0.009)
US Chair	-0.423	-0.504
	(0.364)	(0.499)
Constant	-0.082	2.490
	(1.957)	(3.009)
Decade FE	Y	Y
Region FE	Y	Y
χ^2	1459.33***	2689.69***
N	144	143
R^2	0.24	0.27

Standard errors reported in parentheses. Note: *p<0.1, **p<0.05, ***p<0.01

dummy variables for *Presidential* regimes or *Left* leaning governments, although Presidential institutions are significantly linked with increased public declarations. In Model 2, I control for the problem of "twin crises" by controlling for the onset of a *Banking Crisis*. If dual crises systematically worsen the economic climate, they may provide additional incentives for governments to issue public declarations. While positively significant, the main results do not change. In Model 3, I substitute my measure of US chairmanship for a more specific *Citibank* dummy variable. While creditor country chairmanship may proxy for different banking regulations, different banks may also have individualized coercive abilities, connections to borrowers, or preferences that indebted states are aware of. Because Citibank chaired far more committees than other banks in the sample, I dichotomize the measure. The pattern of bank chairmanship is presented in the Appendix and the main results do not change.

Finally, bargaining tactics matter because they influence negotiation outcomes and public declarations of debt distress are associated with higher creditor haircuts. To ensure that this work on selection into public declarations does not change Chapter Three's findings on declarations' impact, I estimate a final selection model using the predicted probability of issuing a public declaration in Table 6.1, Model 4 as the main regressor for creditor haircuts.[26,27] This two-stage model accounts for the selection into public declarations by using information on when public declarations are expected to be effective at coordinating creditors. Equally important, modeling the process with a series of structural equations better approximates the theoretical model, where the decision to use public declaration tactics is linked with the likelihood of receiving a high haircut.

However, as mentioned in Chapter Four using predicted probabilities presents a methodological challenge. First, it introduces additional uncertainty into the model's estimation. Specifi-

[26] I use Model 4, given that haircuts are only available at the crisis rather than the crisis year levels.

[27] *Haircuts*, is calculated as the following in net present value terms. The discount factor used to calculate present value is denoted r_{it} and relies of exit yields imputed from market and rating data. Data is from Cruches and Trebesch (2013). $\text{Haircut}_{it} = 1 - \frac{\text{Present value of new debt } (r_{it})}{\text{Present value of old debt } (r_{it})}$

cally, the predicted probability is not a sample statistic, and therefore has a confidence interval around its point estimation that must be taken into account. Heightened uncertainty weakens the predictive power of estimations.[28] Second, because public declarations are observed yearly throughout a crisis episode and haircuts are only observed once at the end of an episode, I must use the predicted probabilities from the aggregated crisis-level results (Table 6.1, Model 4) in the first stage. I specify the second, creditor haircut, stage of the model using an ordinary least squares regression with clustered standard errors. However, because the predicted probabilities for a public declaration generated in a first stage probit are not data, I bootstrap the model estimations. I use the bootstrap function to draw 1000 samples of size N (where N=65) from the dataset with replacement. For each draw, I estimate the original probit equation and generate predicted values of the public declaration dependent variable. This generates 1000 predicted probabilities of a public declaration for each observation in the sample, which I then use to calculate haircuts in the main, second stage, model. This produces 1000 final estimates, from which I take the mean and the 95% confidence interval.[29] The variables from the first stage probit regression, including decade and region dummies, cannot be included in the second stage estimation. However, they are accounted for indirectly based on their influence on the resulting probabilities. I include measures of *Debt Restructured*, *Serial Restructuring* and *IMF Program* in the second stage.[30]

The results of the two-stage model are reported in Appendix B, where I report the bootstrapped bias adjusted coefficients. The bias-correcting method adjusts for bias in the bootstrapped sampling distribution in relation to the underlying sample and I thus report the bias-adjusted confidence intervals in parentheses rather than the standard errors. The results confirm that a higher number of creditors increases the likelihood of using a public declaration tactic, and that

[28]However, as this bias works against my findings, I can be more confident if the results are statistically significant.

[29]I do not use an instrumental variable model because the success of such a model is contingent on a valid instrument that induces change in negotiation behavior but has no effect on haircuts. Using a weak instrument may be counterproductive and yield the statistical tests unreliable, especially in non-linear models with small sample sizes.

[30]Data on debt restructured comes from Cruces and Trebesch (2013) and data on the presence of an IMF program comes from Bauer et al. (2012). Serial Restructuring is a dummy variable of my coding. It takes on the value of 1 if a country concluded a previous debt restructuring agreement in the last 3 years.

controlling for this selection, public declarations increase creditor haircuts. This confirms the results in Chapter Three.

6.7 Discussion and Conclusion

Debt restructuring is a complex process involving both heterogeneous actors and strategies. Indebted states don't just decide when to default, but *how* to default. This extension of the dissertation moves past the "blackbox" of understanding restructuring as a dichotomous outcome and shifts scholarly attention to the importance of negotiation procedures. More importantly, it is the first to my knowledge to stake the claim that variation in creditor preferences determines how indebted states act in negotiations with their creditors. Indebted governments turn to politically costly and public declarations of debt distress when they need to coordinate a disperse group of creditors around large concessions. Using novel data on creditor committee characteristics, the main finding is that because institutional norms constrain heterogeneous creditors to a single outcome, governments are more likely to make public negotiations as the number of creditors increases.

The implications for debates about reforming the global architecture of sovereign debt restructuring are substantial. In the case of debt restructuring, it is the norm of consensus and burden sharing that ties indebted states to multilateral negotiations. This opens a larger debate over the appropriate degree of formalization in the debt restructuring process. One the one hand, official creditors and international organizations like the UN have pushed for greater burden sharing agreements between creditors of all types. On the other hand, the use of collective action clauses to curtail hold out creditors has become more popular. This work highlights that these institutional innovations will have different and conflicting procedural implications that have not yet been considered by policymakers. While burden sharing arrangements across creditor types might exacerbate the creditor heterogeneity problem and force indebted governments towards

costly signaling, collective action clauses allow an increased number of bondholders to object to a restructuring without overturning the agreement, thereby decreasing the need for costly signaling. While calls for reform in the restructuring process have been rhetorically tied to equity, burden sharing and multilateralism, *how* multilateralism is executed will affect the political risks governments are willing to take in order to secure higher concessions.

More broadly, the results suggest that who states bargain against matters for how they bargain. While this chapter focuses on negotiations between an indebted state and a group of commercial creditors, inter-group dynamics with diverging preferences are ubiquitous in international cooperation. This mechanism is relevant to bargaining in international forums as diverse as the European Union, The International Monetary Fund, an NATO where a majority of actors must be coordinated around a common solution. As multilateral forums of all types increase in size, the accommodating increase in heterogeneity may create a fundamental change in bargaining behavior. By changing governments' preferences for different bargaining tactics, inclusivity may also have negative implications for political stability.

Chapter 6, in part, is currently being prepared for submission for publication of the material. The dissertation author was sole author of this material.

7 Conclusion

What happens after political leaders renege on their international commitments? Much scholarship has asked how to encourage cooperation under anarchy, and in the area of sovereign debt, seminal work has offered two primary solutions in the form of repeated play and issue linkages. But what happens if these mechanisms fail? – as they often do. Sovereign default is a recurring phenomenon and is no less present today than it was historically. Countries have been defaulting as long as they've been borrowing and in 2018, the IMF identified 24 low-income countries that were either in a debt crisis or at a high risk for one (International Monetary Fund, 2018). At the same time, Greece's recovery is far from assured and middle income countries like Argentina, Turkey and South Africa teeter on the brink of various financial crises. The IMF's new Global Debt Database records that total global debt, as the sum of public and private commitments, is at an all time high of $184 trillion, or a shocking $86,000 per capita, more than two and a half times the world's average income per capita. As debt burdens soar and more anti-austerity governments have risen to power since the 2008 financial crisis, the answer to the question this dissertation poses has become increasingly important.

In this dissertation, I approach the enforcement of lending contracts by exploring what happens after they are violated. After enforcement strategies have failed, I explain how indebted governments and their private creditors renegotiate the terms of the initial contract in order to divvy up the financial losses and adjustment costs. Thus, at the heart of debt restructuring, and at the heart of this dissertation, is that after default comes a distributional conflict, that both debtors

and creditors must solve in order to move forward. Inalienable to renegotiation is that someone wins and someone loses, and the answer speaks to larger questions of global distributional conflict.

I answer this question by studying creditor "haircuts" or the percentage of their initial claims that creditors agree to write off. Haircuts vary significantly, from no concessions to almost full forgiveness, where higher haircuts favor debtors, who have to send less of their scarce resources to foreign creditors, and disfavor creditors, who recuperate fewer profits. To theorize about when indebted governments "win" debt restructuring negotiations, I provide a political economy theory of sovereign debt restructuring that hinges on the role of domestic political costs under incomplete information. I now summarize the theory and findings of the dissertation and discuss their implications for public policy. I also highlight where future research could probe the theoretical mechanism further and make connections to other issue areas plagued by distributional conflicts.

7.1 The Theory and Findings in Brief

The theory in this dissertation builds on the work of other scholars by asking *how* rather than *why* sovereigns restructure their foreign debts. I begin by setting up the interaction between indebted governments, their citizens, and their private creditors as a three-way bargaining game over the size of creditor haircuts. I then introduce the problem of incomplete information, where the government knows more about their willingness to pay than their creditors and more about the severity and longevity of the financial crisis than their citizens. The government has conflicting incentives to misrepresent their financial position, exaggerating their financial distress to creditors, to get a higher haircut, and diminishing their financial distress to citizens, to avoid ballot box costs. I argue that one way for the government to overcome the problems associated with bargaining under incomplete information is to issue public default declarations. Because default declarations reveal the government's economic incompetence, and are sanctionable at the domestic ballot

box, they serve as a costly signal that the government is politically unwilling to pay. Default declarations should separate government "types" based on their political willingness to repay, communicating credible information with which creditors update their preferences. The primary implication is that governments who publicly declare their debt distress should extort greater credit concessions - higher haircuts- as a result.

I provide support for this theory in several ways. First, I find that, indeed, governments who issue public default declarations receive larger creditor haircuts. Moreover, public declarations explain a significant amount of variation over and above more traditional economic variables. Second, to better support the dissertation's theoretical mechanism, I extend the theory to ask why, given the empirical benefit, all indebted governments don't use a public declaration strategy. The theory implies that public default declarations only provide credible information, with which creditors update their beliefs about the government's willingness to pay, when they are costly to the politicians that use them. I rely on theories of accountability to ask when public default declarations are more likely to be costly to indebted governments, arguing that the declarations are more dangerous to leaders where they are salient and easily sanctionable. I find that democratic governments facing deep socioeconomic pressures are the most likely to use a public default strategy. Third, I illustrate some of the finer points of this mechanism in a case study of the Greek bond restructuring of 2012. I use the qualitative evidence to better probe concepts that are hard to measure and quantify.

While the primary focus of this dissertation is on how domestic political configurations affect *how* governments act in debt restructuring negotiations with their private creditors, I also ask how creditor heterogeneity factors into the government's preferences for costly signaling. Creditors have different exposures, different roles in international banking, and different ties to borrowers. Where these preferences make creditors more heterogeneous, it is more difficult for the government to coordinate all creditors around a single haircut outcome. I argue that creditor heterogeneity should make governments more willing to rely on costly signaling and

using original data on creditor committees, I find that governments are more likely to default publicly when more creditors are involved.

While this work builds on the foundations of other scholars, the contribution of this work lies in understanding sovereign debt restructuring as a strategic negotiation over a continuous outcome with distributional implications. It provides important nuance to the story of debt restructuring by focusing on how political, rather than economic determinants, explain both indebted states' negotiating behavior and their negotiated outcomes. To the former, this dissertation is the first to systematically and empirically predict government's choices over negotiation strategies and tactics. It distinguishes specific actions that governments may take in negotiations and offers an explanation for when such actions align with the government's preferences. To the latter, this project moves away from using dichotomous outcome variables to represent debt crises. The relevant question is no longer if sovereigns default, but how creditors and debtors rewrite the debt contract. By allowing for significant variation in creditor haircuts, I acknowledge that while creditors are the winners in some cases, they also write off significant losses in others. While there is also a need for more empirical work in this area, especially given the importance of haircuts for credit market access, litigation, and growth, future work must consider both political and economic factors.

7.2 Implications for Public Policy

The arguments discussed in this dissertation also have a practical significance for current debates surrounding the global infrastructure of sovereign debt restructuring - or the lack thereof. This larger conversation about sovereign debt has returned to the forefront of policy circles following the Eurozone crisis, primarily because the outcomes of restructurings have a strong effect on the country's ability to recover. As international financial markets become more complex, the outcomes that debtors and creditors reach impacts not only the potential for future

growth but can also trigger litigation or set a precedent for future cases. In answer, the United Nations General Assembly (UNGA) voted in 2014 to establish a new initiative to create a debt restructuring framework. Major creditor countries were reluctant to lend support such that the outcome of the initiative was a second UNGA resolution with ambiguous, rather than specific, goals. The resolution outlined nine principles including: sovereignty, good faith, transparency, impartiality, equitable treatment of creditors, sovereign immunity, legitimacy, sustainability, and majority restructuring. Even in its vague form, the US and the UK voted against the resolution. Economists Joseph Stiglitz and Martin Guzman suggested another approach to the UNGA in 2016, based on a "soft law" regime of shared norms and market acceptance but little movement on a common understanding has occured since Stiglitz' speech.

The research presented here suggests not only that the UNGA's nine principles miss important political factors of debt restructuring but that they also don't address perverse incentives that run counter to the UN proposal. First, this dissertation informs the current debate that any future framework for debt restructuring must consider not just the economic consequences of debt restructuring, but also the political ones. Conversations about debt sustainability, particularly as the UNGA defines it, are based on economic parameters. Yet, I show that the political dynamics of the debt restructuring process matter in predicting creditor haircuts. Haircuts are determined more by political factors than by economic fundamentals, and this question of *political sustainability* is absent in the current policy debate. As more anti-austerity politicians have risen to power in the wake of the financial crisis, debt restructuring processes that preserve political stability and continuity will become increasingly important.

Second, the findings address perverse incentives that have not yet been considered in some of the UN's specific initiatives. For example, bargaining in good faith and bargaining with transparency may not always be compatible because the initiative only defines these concepts at the international negotiating table, ignoring their applicability in the domestic political sphere. In this dissertation, I demonstrate that being more transparent at the domestic level allows

governments to act more coercively in international negotiations. Domestic transparency can elude international good faith bargaining, when governments use public default announcements to manipulate larger creditor concessions.

Additionally, the results from Chapter Six on credit coordination emphasize that incorporating equitable treatment of creditors into the design of future global debt restructuring infrastructure may not elicit the intended benefits. Past work suggests that creditor heterogeneity can lead to inefficiencies, particularly by delaying the restructuring process and prolonging the crisis (Fernandez and Kaaret, 1992; Stiglitz and Weiss, 1981). This dissertation adds to these findings to imply that forcing creditors to bargain multilaterally and accept a uniform haircut can lead to additional inefficiencies in the form of unnecessary political costs. Heterogeneity can force governments to take costly actions that they otherwise would prefer not to take, because burden sharing has the potential to reduce haircut outcomes to the least common denominator that the most recalcitrant creditors will agree to. As global initiatives attempt to impose equitable treatment of creditors across creditor types, this should exacerbate the heterogeneity problem I identify. Holding multilateral official, bilateral official, commercial creditors, and trade creditors to the same standards will make it more difficult for governments to achieve high haircuts without taking costly action. The fungibility of debt relief implies that creditors must be concerned that a haircut given by one creditor doesn't free up resources to pay back another, but different policy vs. profit priorities also make the coordination problem more difficult to solve, to the detriment of the citizens in indebted states. These conflicting incentives between equity and efficiency, calls for a more intricate debate about the appropriate degree of formalization and burden sharing in the debt restructuring process. How this multilateral effort to impose equitable treatment is implemented will matter for the political risks indebted governments assume.

This does not imply that an initiative to establish a more formalized debt restructuring process is unwarranted. Clearly, the current system that governs sovereign debt isn't working and a global consensus is needed. Many countries remain in serial default, unable to exit crisis

episodes. The ad-hoc elements of the process have also created space for vulture funds and other more malevolent creditors to manipulate indebted countries to their benefit. Instead, the overarching implication of this research is that any new architecture must address more than just the economic causes and consequences of restructuring. The policy debate must be both economic and political in nature, and more importantly it must span both the international and domestic spheres.

7.3 Implications for Scholarly Work

Finally, I highlight three potential areas for future research - one area that continues to probe the theory's mechanism and addresses the limitations of the dissertation, another that marries knowledge of private and official debt restructuring, and a final area that suggests applications of the theory to other issue areas.

First, the dissertation leaves several theoretical assumptions and empirical implications under- or un- tested. For instance, as I mention in the introduction to Chapter Four, an ideal test of the domestic political consequences that arise from a default declaration would measure "political costs" directly. Absent the ability to do so with current data, I offer a time series-cross sectional test using assumptions about accountability to proxy for when public declarations should be costly. While the results are supportive, the mechanism could be further strengthened with experimental methods. I suggest that using a survey experiment to manipulate the information that incumbents provide to citizens about their stance in debt negotiations, would provide a more causal test with high internal validity. It would also provide additional opportunities to probe both heterogeneous punishment effects based on citizens' partisanship and positioning in the economy and potential priming effects from media coverage of the financial market's reaction to political announcements. However, to be externally valid, the survey would have to be conducted in an indebted country that has a positive probability of issuing a public default declaration.

An alternative path to explore the costliness of default declarations would be to look at political outcomes, like leadership tenure. If public declarations generate ballot box costs for political incumbents, then politicians who issue them should have a greater probability of losing office. While a clear theoretical implication of the theory, the empirical application is more challenging due to questions of strategic timing, which is why I do not address it in the dissertation. Public declarations should be costly, but leaders should also time announcements such that they have time to redeem themselves before they encounter their electorate at the ballot box. Empirical work must also consider endogenous election timing. While missing conventional levels of statistical significance, results from Chapter Four that governments are less likely to issue a default declaration in an executive election year are suggestive of this reasoning. Thus, considering the bluntness and infrequent timing of elections, I find that empirical results between public declarations and leadership turnover are null. This aligns with work by Arias and Stasavage (2019) that political costs from fiscal expenditure cuts are more difficult to find than previously assumed. Instead, Arias and Stasavage (2019) and this dissertation suggest that researchers should explore other implications of political costs that are more fine grained than electoral events. Searching for the effect of default declarations on protests, riots, demonstrations (Funke, Schularick and Trebesch, 2016), government crises (Dreher and Gassebner, 2012), public opinion, or the return of previous governments to power is a more appropriate direction for future work.

While I seek to better support the costliness of a public declaration, I also propose a test of a haircut's political reward. This work and others (DiGiuseppe and Shea, 2018) also make the assumption that high haircuts are beneficial for indebted governments because they reduce the amount of resources the government has to divert towards debt servicing. A high haircut unlocks previously committed funds that the government can use to minimize austerity and restore growth. While empirical work in economics has investigated the effects of haircuts on growth (Marchesi, 2015; Trebesch and Zabel, 2017; Reinhart and Trebesch, 2016), the relationship between the economic and political benefits of a high haircut have not been tested. Improving the economy

and adjusting resources towards domestic purposes should help return the government's political support. For the same reasons mentioned above, testing the effect of haircut size on political tenure is challenging due to the infrequency and endogeneity of elections. The average length of debt crises also implies that many governments lose office before an agreement with creditors is reached. Instead, an additional survey experiment that varies the size of the haircut might be more telling as a way to compare identical leaders who receive bigger or smaller creditor concessions.

A final assumption of the theory is that because public declarations are politically costly, they are viewed as credible information by creditors, who are willing to update their prior beliefs about the government's willingness to pay. How and to what extent creditors update their beliefs is also difficult to quantify. However, as I suggest in a case study in Chapter Five, looking at the movement of financial markets can provide a way to see how creditors and investors react to political statements. The main data in this dissertation documents the use of public declaration strategies at the year level, which coincides with the data availability of most macroeconomic and political variables. However, the specific date on which a public default declaration was issued can be paired with daily observations in financial markets to establish statistically significant changes. The preliminary analyses of financial market activity surrounding Prime Minister Papandreou's referendum announcement can be replicated for the other eleven positive cases of default declarations to more systematically assert that creditor updating is occurring.

Second, at the heart of this dissertation is a question about distributional conflict in debt restructuring negotiations. Yet, I only explore one aspect of the conflict, focusing on the distributional implications between private creditors and sovereign debtors. When indebted governments encounter financial distress, they do not only turn to their private creditors. Debt-restructuring negotiations do not occur in a vacuum, and indebted governments also approach their official multilateral and bilateral creditors, asking for debt relief from them as well. While I argue that private and official creditors have different goals and preferences, necessitating my focus on private actors, it is impossible to ignore that debt restructuring in multiple venues are

related by a larger collective action problem. What one group of creditors agrees to forgive, can be used to pay back those who holdout. Additionally, official creditors care about both the health of their domestic domestic banking center and any particular debtors that have been deemed geostrategically or economically important. They often care about both private creditors and sovereign debtors at the same time and have channels of influence over both sets of actors, which have yet to be investigated. They can influence private debt restructuring negotiations indirectly, as in the Brady Plan, and they can also alter the burden of adjustment directly with official debt relief and new loans. The complexity of the sovereign debt architecture implies that both private creditors and debtors alike should have rational expectations about what other groups of creditors will do. The link between private and official restructuring is echoed in the UNGA's 2015 debt restructuring principles and annual meetings between the London and Paris Clubs.

To this suggestion, there has been scholarly work on the 433 Paris Club restructurings to date. While Cheng, Diaz-Cassou and Erce (2018) document the growth impact of Paris Club restructurings, only Schlegl, Trebesch and Wright (2017) link private and official restrucutrings by evaluating the seniority of external debt types. While the authors also contribute a new database on official haircuts from the Paris Club, and find that, on average, official creditors provide larger haircuts than private actors, they do not evaluate how debt forgiveness in one venue is dependent on another. I suggest that future scholarship should study the domestic and international politics of official debt restructuring and moreover, the real innovation in future debt restrucutring literature should be to understand the political interdependence of debt relief in multiple forums.

Third and finally, situations abound in international politics where actors in multi-player games have superior information but can't reveal it to one opponent without adversely affecting negotiations with another. This dissertation contributes to our understanding of these bargaining dynamics by specifically articulating how a relatively uninformed public matters in shaping important international outcomes. Revealing politically unpopular information, as a means of making domestic costs credible, is a relevant negotiating tactic in other international forums.

The mechanism is relevant and can be applied to other areas of international cooperation, where an agreement over burden sharing between participants is required. For example, one potential extension of the dissertation's theory is in the realm of international trade. Many international trade agreements have escape clauses that governments can invoke during economic declines. Yet, the language surrounding escape clauses is often ambiguous. The theory in this dissertation implies that governments could publicly announce that their economic situation has declined drastically enough to qualify for an escape clause, which would highlight the government's economic incompetence. The domestic reaction should provide bargaining leverage towards getting international trading partners to support reimposing temporary tariffs. Other areas like qualifying for foreign aid and the funding of international organizations, where an agreement over burden sharing between participants is required, might also provide a forum to investigate the mechanism further. At the broadest level, this work extends as a general theory of the way electoral concerns impact *how* governments cooperate internationally.

8 Appendices

For the sake of brevity, the main text of the dissertation referenced several additional tables and figures that are reported here. Appendices to Chapters Three, Four and Six provide additional descriptions of the data and robustness checks for the main results.

8.1 Chapter 3

Appendix A: Crises Covered

Appendix B: All Coercive Measures

Appendix C: Creditor Haircuts Additional Controls

Appendix D: Creditor Haircuts Specification

Appendix E: Creditor Haircuts with Multiple Restructurings per Year

Appendix A

Table 8.1: Crises covered

Country	Restructuring Year	Country	Restructuring Year
Albania	1995	Morocco	1987
Algeria	1992	Morocco	1990
Algeria	1996	Nigeria	1983
Argentina	1985	Nigeria	1984
Argentina	1987	Nigeria	1987
Argentina	1993	Nigeria	1988
Argentina	2005	Nigeria	1989
Brazil	1983	Nigeria	1991
Brazil	1984	Pakistan	1999
Brazil	1986	Panama	1985
Brazil	1988	Panama	1994
Brazil	1992	Panama	1996
Brazil	1994	Peru	1983
Bulgaria	1994	Peru	1997
Chile	1983	Philippines	1986
Chile	1984	Philippines	1987
Chile	1986	Philippines	1990
Chile	1987	Philippines	1992
Chile	1990	Poland	1994
Costa Rica	1983	Romania	1982
Costa Rica	1985	Romania	1983
Costa Rica	1990	Romania	1986
Dominican Republic	1986	Russia	1997
Dominican Republic	1994	Russia	2000
Dominican Republic	2005	South Africa	1987
Ecuador	1983	South Africa	1989
Ecuador	1984	South Africa	1993
Ecuador	1985	Turkey	1981
Ecuador	1995	Turkey	1982
Ecuador	2000	Ukraine	2000
Ecuador	2009	Uruguay	1983
Jordan	1993	Uruguay	1986
Mexico	1983	Uruguay	1988
Mexico	1985	Uruguay	1991
Mexico	1987	Uruguay	2003
Mexico	1988	Venezuela	1986
Mexico	1990	Venezuela	1987
Morocco	1986	Venezuela	1990

Appendix B

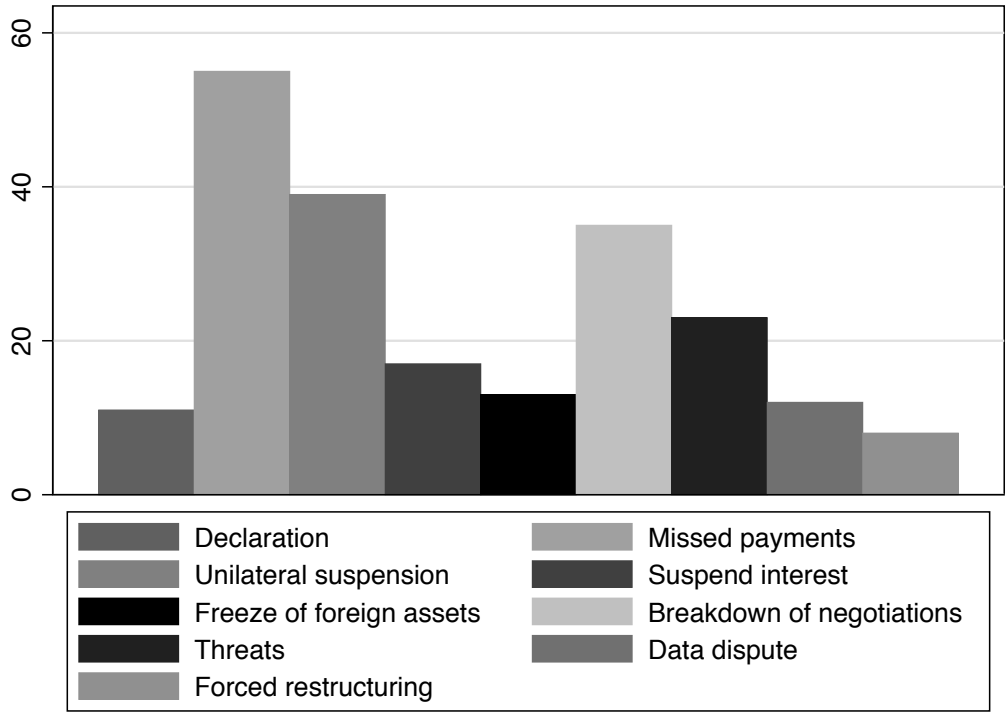

Figure 8.1: Coercive measures

Appendix C

Table 8.2: Creditor haircuts with additional controls

DV: Haircuts	(1)	(2)	(3)	(4)
Public Declaration	0.9358	11.095**	13.203**	11.590**
	(5.491)	(4.932)	(4.737)	(4.936)
Debt/GDP	0.206**	0.138***	0.152**	0.132**
	(0.074)	(0.039)	(0.060)	(0.052)
GDP Per Capita	-0.002	-0.001	-0.002	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)
Debt Restructured	0.000	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Serial Restructuring	-4.342	-1.010	-1.893	-2.326
	(4.457)	(3.820)	(4.457)	(4.056)
IMF Program	-5.482	-7.994	-7.856	-6.526
	(11.637)	(11.201)	(11.834)	(11.602)
Short Term	-0.017			
	(0.013)			
Military Aid (Log)		0.665**		
		(0.244)		
Trade Openness			-0.073	
			(0.053)	
Investment/GDP			73.782	
			(54.601)	
Regional Debt				0.114
				(0.249)
Decade/Region FE	Y	Y	Y	Y
N	60	71	71	71
R^2	0.42	0.44	0.41	0.38

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.01

Based on Table 3.3, Model 2

Table 8.3: Creditor haircuts with additional controls (continued)

DV: Haircuts	(5)	(6)	(7)
Public Declaration	11.195**	13.902***	9.545*
	(4.801)	(4.887)	(5.070)
Debt/GDP	0.155**	0.156***	0.131***
	(0.055)	(0.060)	(0.045)
GDP Per Capita	-0.002	-0.001	-0.002
	(0.002)	(0.002)	(0.002)
Debt Restructured	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Serial Restructuring	-0.816	-1.200	1.211
	(4.076)	(4.088)	(4.703)
IMF Program-3.346	1.841	-2.726	
	(9.502)	(5.233)	(12.644)
US Federal Funds	-2.079		
	(1.379)		
Oil Exports		-0.300*	
		(0.164)	
Left			10.713
			(1.038)
Decade/Region FE	Y	Y	Y
N	71	68	71
R^2	0.41	0.46	0.42

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.01

Based on Table 3.3, Model 2

Appendix D

Table 8.4: Credit haircuts specification

DV: Creditor Haircuts	(1) No FE	(2) Time Trend	(3) Robust SE
Public Declaration	12.788**	10.040*	11.272**
	(5.395)	(5.438)	(4.888)
Debt/GDP	0.143**	0.118**	0.138***
	(0.053)	(0.047)	(0.051)
GDP per capita	-0.001	-0.002	-0.002
	(0.002)	(0.002)	(0.003)
Debt restructured	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Serial restructuring	-5.711	1.522	-1.562
	(4.826)	(3.797)	(3.936)
IMF program	5.002	0.133	-5.998
	(10.202)	(7.078)	(10.361)
Year		1.380**	
		(0.524)	
Decade FE	N	N	Y
Region FE	N	Y	Y
N	71	71	71
R^2	0.21	0.41	0.38

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001

Based on Table 3.3, Model 2

Appendix E

Table 8.5: Creditor haircuts with multiple restructurings per year

DV: Creditor Haircuts	(1) High Haircut	(2) Remove Cases
Public Declaration	12.294**	11.639**
	(5.416)	(5.485)
Debt/GDP	0.151***	0.125**
	(0.053)	(0.057)
GDP per capita	-0.002	-0.002
	(0.002)	(0.002)
Debt restructured	0.000	0.000
	(0.000)	(0.000)
Serial restructuring	-1.140	-1.330
	(4.027)	(4.197)
IMF program	-5.830	-4.497
	(11.387)	(11.252)
Decade FE	Y	Y
Region FE	Y	Y
N	71	68
R^2	0.34	0.35

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001

Based on Table 3.3, Model 2

8.2 Chapter 4

Appendix A: Crisis-Level Effects After Probit

Appendix B: Autocracy Placebo

Appendix C: Deviance Placebo

Appendix D: Public Declaration Controls

Appendix E: GDP Growth

Appendix F: Unemployment

Appendix G: Change in Government Expenditures

Appendix H: Public Declaration Specification

Appendix A

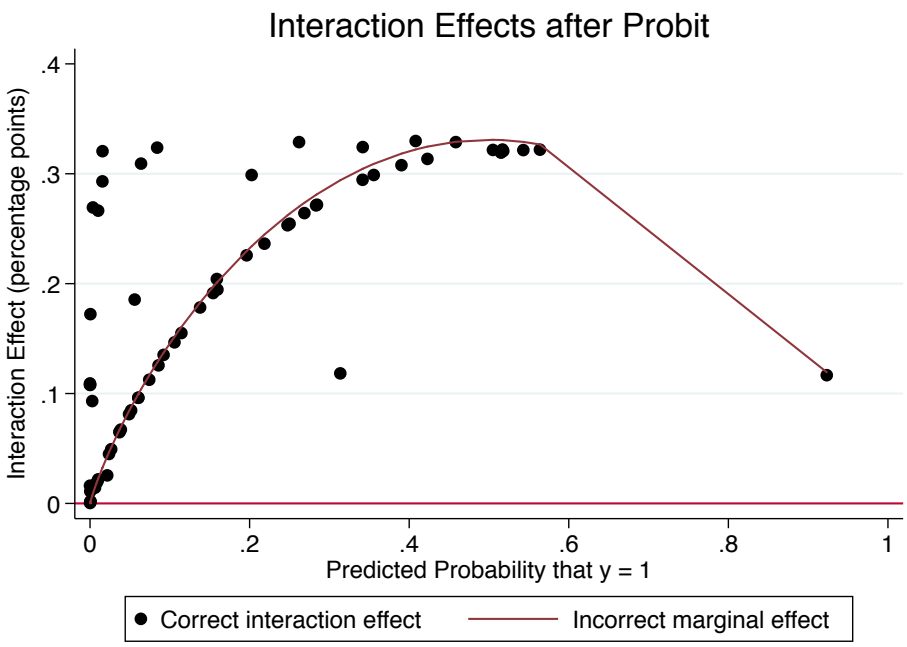

Figure 8.2: Crisis-level interaction effect

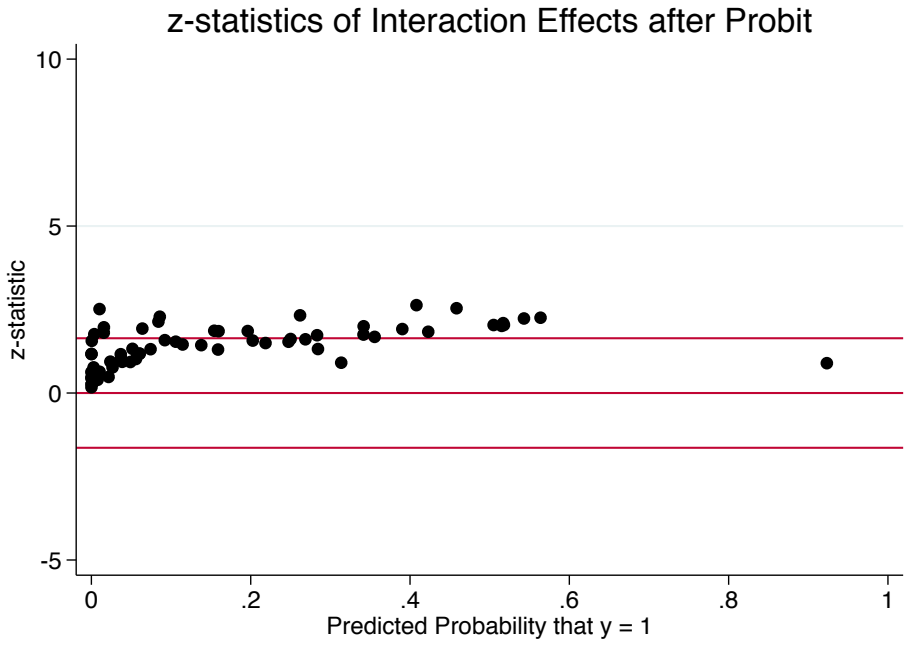

Figure 8.3: Crisis-level Z-statistic

Appendix B

Table 8.6: Autocracy placebo

DV: Public Declarations	(1) Autocracy
Socioeconomic Pressure	-0.313***
	(0.082)
Debt/GDP	0.030***
	(0.010)
Investment/GDP	-4.010
	(4.336)
Openness	-0.028*
	(0.015)
Decade FE	Y
Region FE	N
N	48
R^2	0.28

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001
Based on Table 4.2, Model 2

Appendix C

Table 8.7: Deviance placebo

	(1)
DV: Public Declarations	Deviance
Democracy	6.278***
	(1.960)
Socioeconomic Pressure	-0.002
	(0.248)
Interaction	0.908***
	(0.345)
Debt/GDP	0.013**
	(0.005)
GDP per capita	0.000
	(0.000)
Investment/GDP	-9.855
	(6.520)
Trade Openness	-0.014*
	(0.008)
Decade/Region FE	Y
N	66
R^2	0.33
DV: Haircuts	
Residual	3.171
	[-5.968, 154860.6]
Debt Restructured	0.000
	[-0.000, 0.000]
Serial Restructuring	-9.601
	[-19.987, 0.678]
IMF Program	12.316
	[-15.134, 26.926]

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001
Based on Table 4.2, Model 3

Appendix D

Table 8.8: Public declaration controls

DV: Public Declarations	(1) Left	(2) Presidential	(3) Elections	(4) Transparency	(5) Urban
Democracy	4.448***	8.306***		4.179***	4.108***
	(1.029)	(1.653)		(1.264)	(1.325)
Socioeconomic Pressure	-0.145	-0.135	0.398*	-0.149	-0.153
	(0.134)	(0.134)	(0.239)	(0.136)	(0.134)
Interaction	0.545**	0.498*		0.519**	0.540**
	(0.241)	(0.287)		(0.261)	(0.265)
Debt/GDP	0.004	0.004	0.001	0.003	0.004
	(0.004)	(0.005)	(0.005)	(0.003)	(0.004)
GDP per capita	-0.000***	-0.000***	-0.000**	-0.000***	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Investment/GDP	-2.679	-4.139	-1.814	-3.594	-3.908
	(3.796)	(3.678)	(4.162)	(3.591)	(3.434)
Trade Openness	-0.007	-0.007	-0.006	-0.006	-0.009
	(0.005)	(0.005)	(0.004)	(0.005)	(0.005)
Left	-0.289				
	(0.557)				
Presidential		4.507***			
		(0.517)			
Legislative elections			0.001		
			(0.331)		
Executive elections			-0.249		
			(0.191)		
Transparency				-0.005	
				(0.206)	
Urban					-0.010
					(0.017)
Decade/Region FE	Y	Y	Y	Y	Y
N	17	179	131	176	179
R^2	0.23	0.23	0.17	0.22	023

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001

Based on Table 4.2, Model 2

Appendix E

Table 8.9: GDP growth

	(1)	(2)	(3)
DV: Public Declarations	Democracies	Interaction	Crisis-Level
Democracy		1.071**	0.944*
		(0.479)	(0.523)
Growth	-0.056***	-0.052***	-0.098*
	(0.018)	(0.015)	(0.057)
Interaction		-0.001	0.149
		(0.028)	(0.112)
Debt/GDP	0.001	0.004	0.014*
	(0.005)	(0.004)	(0.007)
GDP per capita	-0.000*	-0.000***	0.000
	(0.000)	(0.000)	(0.000)
Investment/GDP	-2.872	-2.878	-6.805
	(2.826)	(2.425)	(4.511)
Trade Openness	-0.003	-0.004	-0.005
	(0.004)	(0.004)	(0.005)
Decade/Region FE	Y	Y	Y
N	144	203	76
R^2	0.14	0.20	0.21
DV:Haircuts			
Public Declaration (Predicted)			38.291**
			[22.784, 85.193]
Debt Restructured			0.000
			[-0.000, 0.000]
Serial Restructuring			-4.930
			[-16.962, 4.489]
IMF program			14.550
			[-10.650, 32.466]

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001

Based on Table 4.2

Appendix F

Table 8.10: Unemployment

	(1)	(2)	(3)
DV: Public Declarations	Democracies	Interaction	Crisis-Level
Democracy		-0.132	0.856
		(0.479)	(0.946)
Unemployment	0.176***	-1.030***	-1.001***
	(0.059)	(0.052)	(0.069)
Interaction		1.206***	1.091***
		(0.083)	(0.103)
Debt/GDP	0.003	0.003	0.006
	(0.004)	(0.004)	(0.007)
GDP per capita	-0.000***	-0.000***	0.000
	(0.000)	(0.000)	(0.000)
Investment/GDP	0.659	0.659	-3.242
	(6.138)	(6.091)	(7.440)
Trade Openness	-0.024	-0.024	-0.014
	(0.007)	(0.007)	(0.009)
Decade/Region FE	Y	Y	Y
N	112	145	54
R^2	0.25	0.35	0.34
DV:Haircuts			
Public Declaration (Predicted)			22.594**
			[9.047, 57.820]
Debt Restructured			0.000
			[-0.000, 0.000]
Serial Restructuring			-2.017
			[-15.568, 9.764]
IMF program			-0.328
			[-48.905, 27.941]

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001

Based on Table 4.2

Appendix G

Table 8.11: Change in government expenditures

	(1)	(2)	(3)
DV: Public Declarations	Democracies	Interaction	Crisis-Level
Democracy		1.178**	1.567***
		(0.476)	(0.571)
Δ Government expenditure	-0.090	-0.223***	-0.504**
	(0.075)	(0.058)	(0.206)
Interaction		0.136	-0.081
		(0.111)	(0.346)
Debt/GDP	0.001	0.003	0.012**
	(0.005)	(0.004)	(0.006)
GDP per capita	-0.000	-0.000***	0.000
	(0.000)	(0.000)	(0.000)
Investment/GDP	-3.016	-3.320	-6.373
	(3.195)	(2.651)	(5.343)
Trade Openness	-0.006	-0.06	-0.012
	(0.005)	(0.005)	(0.007)
Decade/Region FE	Y	Y	Y
N	139	197	74
R^2	0.11	0.18	0.26
DV:Haircuts			
Public Declaration (Predicted)			33.964**
			[22.494, 90.807]
Debt Restructured			0.000
			[-0.000, 0.000]
Serial Restructuring			-6.030
			[-18.909, 3.362]
IMF program			14.862
			[-5.779, 28.609]

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001

Based on Table 4.2

Appendix H

Table 8.12: Public declaration specification

DV: Public Declarations	(1) No FE	(2) Time Trend	(3) Year FE	(4) Robust SE
Democracy	3.343***	4.220***	2.526**	4.182**
	(0.904)	(1.333)	(1.162)	(1.817)
Socioeconomic Pressure	-0.261***	-0.143**	-0.133	-0.148
	(0.060)	(0.057)	(0.125)	(0.292)
Interaction	0.557***	0.526*	0.418*	0.522*
	(0.199)	(0.273)	(0.229)	(0.320)
Debt/GDP	0.001	0.004	-0.002	0.004
	(0.005)	(0.004)	(0.005)	(0.004)
GDP per capita	-0.000	-0.000***	-0.000**	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)
Investment/GDP	-3.059	-4.016	-1.562	-3.602
	(2.501)	(3.491)	(3.006)	(2.378)
Trade Openness	-0.007	-0.008	-0.006	-0.007
	(0.006)	(0.005)	(0.005)	(0.004)
Year		0.047		
		(0.034)		
Decade FE	N	N	N	Y
Region FE	N	Y	Y	Y
Year FE	N	N	Y	N
N	179	179	149	179
R^2	0.11	0.23	0.13	0.22

Standard errors in parentheses. *$p < 0.10$, **$p < 0.05$, ***p<0.001

Based on Table 4.2, Model 2

8.3 Chapter 6

Appendix A: Control Variables

Appendix B: Two Stage Results

Appendix C: Number of Banks

Appendix D: Chair Banks

Table 8.13: Creditor coordination control variables

Dependent Variable: Public Declarations			
	(1)	(2)	(3)
Number banks (high)	0.002***	0.002***	0.001**
	(0.000)	(0.001)	(0000)
Democracy	8.742***	2.946*	3.824**
	(1.591)	(1.649)	(1.537)
Socioeconomic Pressure	-0.200	-0.123	-0.192
	(0.139)	(0.188)	(0.142)
Interaction	0.583**	0.367	0.521*
	(0.264)	(0.307)	(0.292)
Debt/GDP	-0.014	-0.014	-0.010
	(0.011)	(0.009)	(0.008)
GDP per capita	-0.000***	-0.001***	-0.000***
	(0.000)	(0.000)	(0.000)
Investment/GDP	-5.112	-5.072	-5.296
	(4.093)	(4.584)	(3.728)
Openness	0.013*	0.012*	0.011*
	(0.007)	(0.007)	(0.006)
US Chair	-0.170	-0.147	
	(0.426)	(0.416)	
Presidential	5.476***		
	(0.652)		
Left	-0.633		
	(0.598)		
Banking Crisis		1.442**	
		(0.584)	
Citibank			-0.024
			(0.352)
Decade FE	Y	Y	Y
Region FE	Y	Y	Y
N	158	158	158
R^2	0.395	0.387	0.361

Standard errors reported in parentheses. Note: *p<0.1, **p<0.05, ***p<0.01

Based on Table 6.1, Model 1

Appendix B

Table 8.14: Creditor coordination two stage results

Dependent Variable: Public Declaration	
Number banks (high)	0.003***
	(0.001)
Democracy	4.522**
	(1.889)
Socioeconomic Pressure	(-0.083)
	(0.298)
Interaction	0.617**
	(0.315)
Debt/GDP	0.001
	(0.005)
GDP per capita	-0.000
	(0.000)
Investment/GDP	-9.279
	(7.810)
Openness	(0.014)
	(0.010)
US Chair	-0.719
	(0.470)
Decade FE	Y
Region FE	Y
χ^2	175.51**
N	65
R^2	0.43
Dependent Variable: Creditor Haircuts	
Declaration (Predicted)	21.539**
	[15.226,35.441]
Debt Restructured	-0.000
	[-9.725,7.838]
Serial Restructuring	-12.148
	[-22.224, 0.213]
IMF Program	23.276**
	[11.872, 36.995]
χ^2	34.53**
R^2	0.35

Standard errors reported in parentheses. Note: *p<0.1, **p<0.05, ***p<0.01
Based on Table 6.1, Model 4

Appendix C

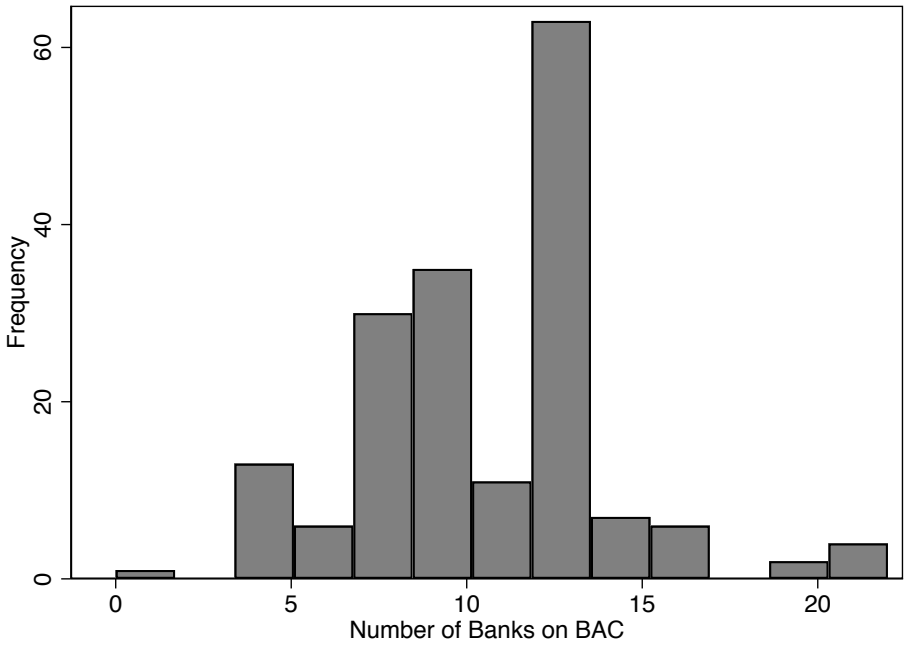

Figure 8.4: Number of banks on BAC

Appendix D

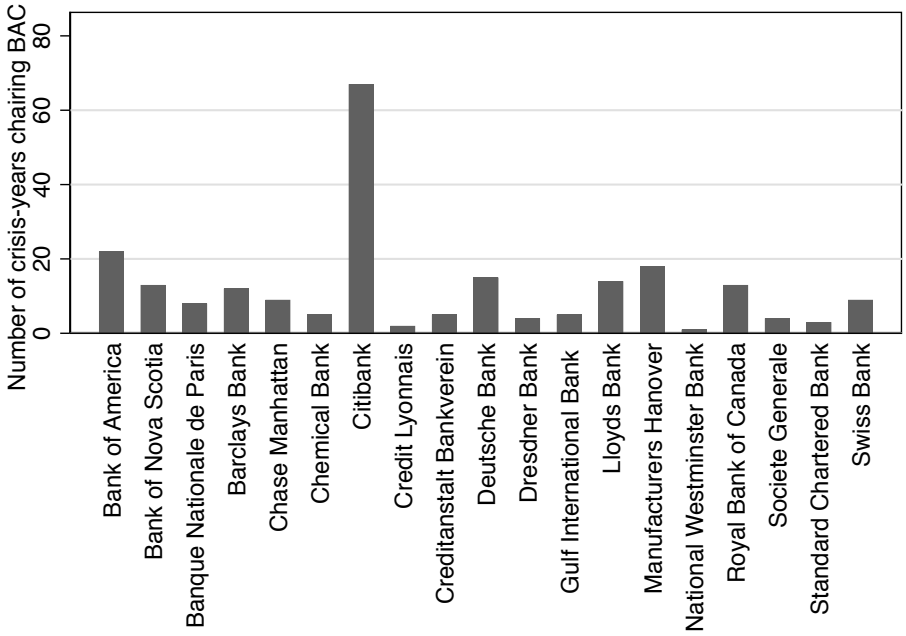

Figure 8.5: BAC chair banks

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