Public Declarations: The Political Economy of Sovereign Debt Restructuring Negotiations

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Introduction

Years of financial mismanagement by politicians and imprudent lending by foreign investors culminated in Greek Prime Minister George Papandreou's October 2009 admission that the Greek economy was in "intensive care" and facing "the worst economic crisis since the restoration of democracy" (*The Guardian* 2009). Greece's published budget deficit for 2009 was revised from 3.7% to 12.5% and later to 15.6% of GDP and its statistical irregularities were confirmed in an EU publication in January 2010 (European Commission 2010). Following Papandreou's revelation, credit agencies downgraded Greek bonds, the government enacted radical economic reforms and public strikes and riots spread across the country. Despite this, the Greek government insisted that Greece could meet its debt obligations – until April 2010 when it publicly admitted that it would be forced to default without a new injection of funds. Even with the resulting bailout, public opposition to austerity heightened and Papandreou attempted a last ditch national referendum on bailout measures in 2011 before he resigned in November. Papandreou lost office, but Greece received one of the largest creditor bailouts in history. Yet, new evidence reveals that secret EU negotiations actually began as early as 2008, long before the government made its new debt statistics public. Several meetings of high level EU, IMF and government officials occurred throughout 2008 and 2009 to discuss what financial instruments

and aid packages could be used (Schneider 2018; Blustein 2016). Given that secret negotiations were already underway, why did Papandreou draw attention to the government's insolvency, thereby risking his own tenure?

The Greek government's dilemma highlights the conventional wisdom that financial crises are bad news for incumbent leaders. Incumbents are punished at the ballot box for presiding during recessions, and financial crises can be understood as "recession accelerators" (Reinhart and Rogoff 2009). The established link between economic downturns and political punishment makes Panandreou's actions even more puzzling; if incumbents' tenure is threatened by a crisis, they should seek to obfuscate not escalate the public's knowledge of financial distress. Why would leaders choose to move debt restructuring negotiations into the public eye when there is an electoral cost to doing so? Why do leaders take public positions in sovereign debt restructuring negotiations?

In this paper, I analyze the government's strategic choice to use public position taking as a politically costly signal to increase creditor haircuts. Voters punish leaders who preside over a financial crisis and office-minded politicians seek to minimize these political costs. While secrecy is an appealing tactic to the degree that it minimizes public reaction, remaining secretive in debt restructuring negotiations also disincentivizes creditor action, as it exacerbates creditors' informational asymmetry about the likelihood and costs of default. Instead, if the government wants to convince creditors of concession-worthy financial distress, it must rely on costly signaling. By publicly advertising the depth of economic suffering, the government activates rather than curtails domestic political costs, for the purpose of lending credibility to their claims and separating themselves from less-distressed cases. But the cost implies that governments will only go public when the signal is sufficiently high to remedy the informational asymmetry with creditors and garner leverage for a higher haircut, thereby helping governments preserve their tenure in the medium to long term. With domestic electoral accountability at the heart of this costly signaling game, the benefit and likelihood of going public increases with the likelihood of

political punishment. With democratic political institutions and adverse macroeconomic conditions that heighten the government's sensitivity to political costs, the tradeoff should be most relevant – providing governments with the highest incentive to credibly signal. If the government gambles correctly, a public signal should elicit larger creditor haircuts.

I substantiate my argument with data on public pronouncements of moratoriums and creditor haircuts for 25 defaulting countries on a yearly basis from 1980-2007. In line with my expectations, I find that conditional on democratic accountability, larger socioeconomic pressures increase the probability of public position taking. Importantly, the public gamble pays off; public tactics elicit larger creditor haircuts.

These findings 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. Existing work on sovereign debt restructuring has focused on why and when default occurs, and has thus largely conceptualized default as a binary outcome.[1] This project is among the first to conceptualize debt restructuring as a continuum of both strategies and outcomes rather than a default/no default dichotomy (Enderlein et al 2013; Cline 2004; Roubini 2004). I analyze *how* governments act in restructuring negotiations in order to explain variation in haircut outcomes, which should be of interest for work on the determination of tactics in international negotiations more broadly (Odell 2002; Dur and Mateo 2009; Bailer 2012).

Second, 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 1998; Putnam 1988). More limited work elaborates on how domestic politics impacts the conduct

[1]Much of this work centers around the enforcement problem of international lending beginning with Bulow and Rugoff (1989) and Eaton and Gersovitz (1981). 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), creditor collusion (Voth and Drelichman 2014), and lender sentiment (Reinhart and Rogoff 2009).

of leaders at the international bargaining table, as a means of signaling responsiveness to domestic audiences (Dreher 2003; Caraway, Rickard and Anner 2012; Slantchev and Schneider 2017; Schneider 2018) 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 predictable domestic political costs can be strategically manipulated by leaders at the international level to win concessions from their negotiating partners. Contrary to the the norm of secrecy in international negotiations, leaders go public not because of appeals to transparency or democratic idealism (Dahl 1999; Follesdal and Hix 2006; 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 leaders can manipulate electoral costs at home to signal credibility and create leverage with foreign creditors abroad in order to elicit preferential policy outcomes.

Sovereign Debt Restructuring

This section provides background on the sovereign debt restructuring process. While empirical work in other issue areas has explored variation in negotiating tactics (Dur and Mateo 2009; Bailer 2012), parallel understandings of sovereign debt restructuring have been more difficult due to the opaqueness of the negotiation process. Without consistent information, previous studies of restructuring dynamics have been largely limited to case studies of the most high profile cases.[2]

I define debt restructuring as "an exchange of outstanding sovereign debt instruments,

[2]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.

such as loans or bonds, for new instruments or cash through a legal process" (Das et al. 2012). 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 1/3 of all contemporary cases, usually when default risk is high ex-ante (Asonuma and Trebesch 2016). 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 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, but debt restructuring and debt reduction are not synonymous. There also exists significant variation in debt reduction outcomes, such that while the average creditor haircut is 37-40%, haircuts range from negative values (ex. Brazil 1983) to greater than 80% (ex. Albania 1995).

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 Zettlemeyer 2006). This makes both creditor incentives and negotiations different from other types of debt restructurings. Additionally, 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. Below, I briefly provide information and examples about the restructuring process for sovereign debts owed to private creditors.

Restructuring commercial bank debt occurs under the umbrella of the London Club. 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.[3] If these large 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.[4] 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.[5] 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.[6] The final exchange offer cannot go into action without nearly unanimous approval from all creditors.

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 and is not often seen in negotiations with official creditors as in the Paris Club. Furthermore, this type of intra-creditor dispute, even if eventually re-

[3]The London Club will often refuse to meet unless the indebted state has reached or made significant process 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).

[4]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.

[5]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.

[6]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 1985a).

solved, 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 has become increasingly common after the 1980s (Schumacher et al 2015).[7]

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 et al. 2012).[8] 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.[9] 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 allow 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.

While the opaqueness of the restructuring process has previously inhibited a systematic understanding of the negotiation process, studies of restructuring events have demonstrated their impact on economic outcomes. Recessions following a financial crisis are longer and deeper than more traditional recessions (Reinhart and Rogoff 2009; Jorda,

[7]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 et al 2015)

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

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

Schularick and Taylor 2013), but the size of a negotiated haircut has an additional effect. Restructurings with higher creditor haircuts lead to higher spreads on bond yields, longer periods of capital market exclusion, and lower GDP growth (Cruces and Trebesch 2013; Marchesi 2015). Higher haircuts also lead to much steeper declines in GDP, but only until countries exit the crisis episode. (Trebesch and Zabel 2017). Higher haircuts even increase the likelihood of litigation (Enderlein, Schumacher and Trebesch 2015). These findings highlight that the economic effects of default aren't fixed. The potential for economic recovery depends on the outcome that can be reached during the negotiation process – thereby underlying the importance of exploring the political dynamics of debt restructuring negotiations themselves.

The Political Economy of Negotiations

I develop a political economy model of the three-way interaction between the government, its citizens, and its foreign creditors. The government faces an impending financial crisis that precludes it from fulfilling its debt obligations and adversely affects the economy. To tackle the crisis, restructuring with foreign creditors is required. The government must coordinate this restructuring, while simultaneously facing voters, who are unaware of 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 and voter sanctions – which is no easy feat. The government's dilemma is further complicated by the international interaction where profit-motivated creditors, also unaware of the crisis' seriousness, may prevent the government from achieving the concessions they require to appease voters.[10] As the pivotal actor, the government must incorporate domestic costs, the political institutions that aggregate those costs, creditor coordination, and their own tenure motivations into a strategy. Based

[10]I assume for theoretical simplicity that restructuring negotiations are carried out with a single and unified creditor group. See Ferry (2018) for an explanation of how potential heterogeneity in creditor preferences affects the government's choice of strategy.

on these factors, the government must decide whether to renegotiate their debts in private or in public. While there are a variety of actions an indebted state could take that are considered more or less public in the empirical sense, as a theoretical concept I focus on two pure cases. The government must decide whether to conduct negotiations entirely behind closed doors, where the public only sees the final outcome. Or the government can negotiate in front of open doors by making explicitly public statements about its inability to continue repayment.

From the government's perspective, the main advantage of a private strategy is that it provides some shelter from domestic electoral repercussions. As the crisis unfolds, the government has more information than its citizens about the crisis' likely severity.[11] This implies that while citizens dislike a weak economy they have a more difficult time evaluating the true economic state and more importantly for politicians, the government's role in causing and resolving it. 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 (Anderson 1995, Lewis-Beck 1988), or sociotropic (Kinder and Kiewit 1979) evaluations, recessions are bad for incumbents.[12] While there is less work about punishment in financial and debt crises specifically (Malone 2011; Crespo-Tenorio, Jensen and Rosas 2012; DiGiuseppe and Shea 2015), 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, Suffi and Trebbi 2014), decreased support (Hernandez and Kriesi 2015), and more anti-government riots and protests (Funke, Schularick and Trebesch 2016). It is in the best interest of the

[11]The government is unlikely to have complete information about the crisis' impact, given that this requires predictions about external events. The argument holds as long as the government has more information than their citizens.

[12]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.

leader to prevent voters from making the connection between economic downturn and punishment, by keeping citizens unaware. Negotiating behind closed doors prioritizes maintaining the information asymmetry between politicians and voters, as a means of minimizing electoral punishment.[13]

While this appeals to politicians, the drawback of remaining secretive is that it disincentivizes creditor concessions, leaving the government with high domestic adjustment costs. The government not only has more information than their citizens, but they also know more about their capacity for repayment than creditors. The entanglement of ability to pay with willingness to pay leaves creditors unsure of whether the government lacks the resources to pay or whether the government is simply unwilling to make adjustments away from domestic objectives and towards debt servicing (Reinhart and Rogoff 2009; Standard and Poors 2006). Given asymmetric information, creditors have no way of distinguishing concession-worthy levels of distress. As creditors are loathe to yield concessions unless it is required to avoid default, they lack the information required to confirm a haircut's necessity.[14] If the crisis can be kept under wraps, it must not be severe enough to warrant high, if any, creditor concessions. The predominant risk of negotiating in private is that if the information asymmetry is high enough, it may prevent creditors from reaching any agreement at all. If an agreement is reached, the haircut is likely to be small and domestic adjustment painful.

[13]This is not the 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 naïve 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 negotiating behind closed doors has the primary benefit of limiting citizen information about impending economic downturns. This weakens the likelihood that citizens will punish the incumbent at the ballot box in the short term – but it is does not eliminate it.

[14]Even after a sovereign defaults, creditors as a whole are better off restructuring their original claims. According to game theoretic models of sovereign debt, initiating a credit boycott against a defaulted sovereign until they fulfill their claims always hurts the lender. Lenders will do better renegotiating the loan contract and continuing to provide credit (Bulow and Rogoff 1989). Commercial banks have been empirically shown to benefit from providing debt reductions to defaulted sovereigns, as in the Brady Plan that raised the stock prices of 11 major US commercial banks with large developing country portfolios by 35%. See Demirguc-Kunt and Huizinga 1993 and Kho, Lee and Stulz 2000.

In the Greek debt crisis, the downgrading of Greek bonds to junk status in January 2011 triggered a second wave of concern about a Greek default. Yet, ever since the joint EU/IMF bailout in May 2010, the government remained firm in Greece's ability to repay its debts without formal restructuring. On May 2nd, and reiterated again on May 21st, 2011, Papandreou publicly stated that Greece would rule out restructuring with the aid of EU/IMF bailouts and domestic reforms. When public conversations turned to the inevitability of restructuring in June 2011, they came not from the Greek government but from the German Finance Minister, Wolfgang Schaeuble.[15] Yet, Blustein (2016) suggests that while Greece publicly maintained its ability to repay its commitments, plans for a Greek bond restructuring began in private as early as 2010, even before the plunge in bond yields. He recounts that in the spring of 2010 a clandestine meeting took place at a Washington hotel where IMF and EU government officials met to discuss strategies that would inflict losses on bondholders. The meeting was highly secretive, but it suggests that private conversations about bond restructuring were occurring simultaneously with government rhetoric touting repayment.

Enlightening the tradeoff, Papandreou's continued tenure in this period is indicative of the benefits of a private strategy. Government support (for the Prime Minster and the Panhellenic Socialistic Movement, PASOK) eroded consistently throughout Papandreou's premiership, but the period between summer 2010 and spring 2011 demonstrated resiliency. For example, while Papandreou's popularity tell 13% in just 4 months after December 2009, it declined much more slowly between June 2010 and Mach 2011, falling only 9% in 10 months (as reported in Koliastasis 2016).[16] The trend must also be compared to a general dissatisfaction among voters towards all politicians as support for the

[15] According to Schaeuble, "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).

[16] Koliastastis (2016) uses quarterly public opinion data from the polling firm Metron Analysis.

main opposition party, New Democracy, and its leader Antonis Samaras, also declined. As of May 2011, voters were still more likely to vote for PASOK over New Democracy, although by small margins. Voters were also tied on the question of who was the most suitable Prime Minister, Papandreou or Samaras. Most importantly for Papandreou's survival, 53% of Greeks still opposed early elections (Greek Reporter 2011). When a no confidence vote was held on June 21st, 2011, Papandreou maintained his premiership by a margin of 155 to 143 in the 300 Member Parliament (The Guardian 2011). Judged against the background of continued economic decline, the government appears to be marginally rewarded for dismissing restructuring and maintaining Greece's ability to recover. Unfortunately, as the tradeoff also suggests, the cost of a private strategy was that when the Institute of International Finance (IIF) presented their first offer for "voluntary participation" in a bond restructuring in July 2011, it was only for a 20% creditor haircut (Zettelmeyer, Trebesch and Gulatti 2013). This was far lower than the Greek government and population were willing to accept.

Instead, if the government wants to convince creditors of concession-worthy financial distress it must engage in public signaling, at the cost of public opinion. Public position taking in restructuring negotiations presents governments with the opposite tradeoff, prioritizing a high haircut to maintain tenure in the medium term. The primary benefit of a public strategy for the incumbent government is thus its ability to extort a greater creditor haircut by relieving creditors' information asymmetry about the likelihood and costs of default. As creditors will only share the adjustment burden if they believe default is imminent, a public signal can clarify this missing information and help overcome conflicting preferences. A public signal gives creditors a way to distinguish between an unwillingness to pay, which doesn't require creditors to make concessions, from an inability to pay, which threatens creditors' own bottom lines. If governments are willing to bear domestic costs, costly signaling can yield a separating equilibrium with high creditor concessions.

Specifically, high haircuts are beneficial to the government in the medium term. 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 (Tomz 2004). 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 stimulation 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; Hellwig 2010). 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.[17] Additional evidence finds that voters may reward the government for securing a "good deal" in negotiations with official creditors, which suggests an additional benefit to bargaining "hard" (Vreeland 2003).

However, to be credible as a creditor coordination device, the public signal most be costly. In particular, the signal must be costly in a way that an indebted state in less dire economic circumstances would be discouraged from sending it, allowing creditors to separate government types (Fearon 1994). Thus, the primary cost of publicly declaring debt distress is that it increases the government's accountability for adverse economic conditions at the ballot box. By going public, the government reveals to the domestic audience the likelihood and costs of default. As information begets accountability, a public revelation of debt distress is sure to signal the government's ineptitude in managing the economy. A public statement accentuates, rather than diverts, attention towards economic decline, which ensures that the link between recessions and electoral punishment holds (Kramer 1971). While publicity and transparency may support normative democratic ide-

[17] 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.

als, 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 governments' decreased probability of remaining in office when citizens can observe economic crises (Malone 2011; DiGiuseppe and Shea 2015; Chwieroth and Walter 2015; Crespo-Tenorio, Jensen and Rosas 2012).[18]

In Greece, after the IIF presented its offer for a "voluntary" 20% haircut in July 2011, negotiations over the specifics of a second bailout continued. On October 31st, 2011, Prime Minister Papandreou made a "bombshell decision" to call for a national referendum on the restructuring deal, just days after he had supposedly agreed to the deal in Brussels. The call for a national referendum was widely interpreted by domestic voters and foreign leaders as a public admission that Greece was prepared to default and exit from the Euro. A public referendum would serve as a reminder to the world that if Greek citizens voted no, disorderly default was a real possibility.

Papandreou's aids proclaimed to the media that a public referendum was a calculated and logical gamble (Tha Guardian 2011). 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" (Smith 2011). One political commentator analyzed the announcement to the conclusion that "Papandreou is in a stronger position than people think" (Elliott 2011). Not only was it possible that Papandreou might win a "no" con-

[18]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.

sensus from the referendum,[19] 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 against a disorderly default (Elliott 2011). The government expected to gain significant leverage with their creditors, by making clear that default was a possible reality.

As the theory implies, Papandreou's admission came with high domestic costs – costs that eventually proved to be the government's downfall. 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 (Kathimerini 2011). 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). On November 6th, amidst dissent in his own party, Papandreou resigned. 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. Private creditors agreed to accept a 53.5% nominal face value reduction, which was higher than the 50% measure agreed to in October.[20] Almost 97% of principal debt was included in the deal (Zettlemeyer, Trebesch and Gulati 2013). Papandreou attempted to activate domestic reaction in exchange for larger creditor concessions –unfortunately, he gambled away his own tenure.

To summarize, I argue that indebted governments face a tradeoff in reaching a restructuring agreement that will appease both creditors and voters. On the one hand, private negotiations minimize short-term political costs by preserving asymmetric information, but at the cost of creditor concessions. On the other hand, publicly declaring insolvency

[19]Polls showed that 60% of the population were against the terms of the bailout, but 70% were against leaving the monetary union, which would be the natural result of a disorderly default.

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

is beneficial in the medium run by providing bargaining leverage, but it activates public opinion costs. In this tradeoff going public acts as a costly signal to credibly demonstrate the crisis' severity, in order to win a larger haircut.

However, it is important to note that the average debt restructuring takes 28 months to conclude (Das et al. 2012).[21] This implies that the tradeoff between electoral punishment and creditor concessions may not take place contemporaneously, given that leaders are held accountable at specified intervals. Negotiations can span several years and the government may be held accountable multiple times within a negotiation period, while the final outcome is only agreed upon once at the end. Because voters suffer from recency bias (Weingast, Shepsle and Johnson 1981), the domestic costs or benefits of a public or private strategy are born immediately and last as long as economic performance remains the same. Voters weight the information they have about the present economy more heavily than they weight long run performance – this makes a recent announcement of debt distress more detrimental in economic evaluations. Conversely, creditor concessions are only awarded at the end of restructuring negotiations, after the government has already incorporated the initial domestic costs or benefits of their strategic choice. In other words, the outcome of negotiations represent a more long term possibility for redemption and reasserting power after a settlement is reached, assuming the government was able to maintain power in the interim. The government's tradeoff thus encompasses economic voting effects that take hold in the short term against redemption effects from a high haircut that take hold in the longer term. The intertemporal nature of this tradeoff necessitates a focus on government survival, as the theory has so far been elaborated, rather than on incumbent survival. It also generates predictions about when governments should go public, but I leave these extensions to future work.[22]

[21] The standard deviation around the mean is also 32 months.

[22] The mechanism here is complicated. It is not clear whether politicians will be incentivized to delay taking public positions until after elections, or gamble for a high haircut right before elections. While the signal will be most credible right before elections, when it is the most costly, the cost may prove too high for governments to bear. Additionally, there is no way for governments to determine how long it will take for an agreement to be reached. They cannot know ex ante how long it will take for a public signal to be rewarded,

The above argument suggests two empirical implications. First, regarding political costs, we should observe a separating equilibrium where only governments that can generate significant domestic costs to convey credibility to creditors will choose a public strategy. The argument suggests that the benefit, and therefore the likelihood, of publicly declaring insolvency should increase with the likelihood of credible political punishment. Admittedly, the best test of this argument would be to use government approval ratings across countries to proxy domestic accountability, but unfortunately, systematic collection of historical public opinion data in a large number of developing countries is unavailable. Instead, I must rely on the conditions under which governments will be more or less sensitive to political costs. To this extent, sensitivity will depend on the political institutions in place. Democracies, characterized by elections that allow for low cost sanctioning of poorly performing politicians, are particularly susceptible to public opinion, making the democratic tradeoff most relevant.[23] 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 ease of sanctioning in democracies modifies the incentives of democratic leaders to be highly sensitive to voters' economic welfare (Schultz and Weingast 2003).[24] Empirically, Crespo-Tenorio, Jensen, and Rosas (2012) and Chwieroth and Walter (2015) demonstrate democracy's baseline condition in tests of financial crises on leadership tenure.[25]

making the signal's timing difficult to predict. Additionally, 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. This decision is made increasingly difficult when the timing of elections might itself be determined endogenously by the government's economic competence.

[23]As opposed to the incentives for accountability in autocracies where the "ousting of leaders is more costly, often requiring social unrest and possibility even civil war" (McGillivray and Smith 2000, 815).

[24]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.

[25]This is also relatable to a sizeable literature on the democratic advantage thesis, which contends that democratic institutions make democracies' claims to repay more credible, leading to increased access and better terms in international credit markets (Root 1989; North and Weingast 1989; Schultz and Weingast

While democratic sensitivity is a baseline proxy for the credibility of political costs, the level of punishment citizens inflict on their government is likely to depend on the actual extent of economic decline. The robust economic voting literature doesn't posit a threshold effect but a continuous one, such that worse economic downturns should be punished more severely. The sanctioning effect of economic voting strengthens as the economy weakens or is expected to weaken. This implies that a public announcement of debt distress in an already depressed economy signals a particularly painful and prolonged downturn, and will be punished accordingly. A public announcement of debt distress in a health*ier* economy may retain some optimism and be punished less severely. Where accountability is already established, a public signal from an indebted state facing acute macroeconomic declines will be more effective at demonstrating credibility and thereby eliciting concessions. This leads to my first hypothesis:

Hypothesis 1: Among democratic governments, those facing deeper socioeconomic pressures will be more likely to publicly default.

Second, regarding the effectiveness of the public signal, the main empirical implication of the model is that governments that signal publicly will win higher haircuts because creditors believe that going public generates sufficient domestic costs to prevent less-distressed sovereigns from using the same strategy. If going public is costly enough to separate states that are unwilling to pay from states that are unable to pay, creditors will react to this information with higher concessions. Public declarations of insolvency resolve the problem of asymmetry and successfully signal credibiilty. This leads to my second hypothesis:

Hypothesis 2: Public default declarations should lead to higher haircuts.

2003; Saiegh 2009; Stasavage 2011; Beaulieu, Cox and Saiegh 2012). Much of this work focuses on institutional constraints like veto players rather than the direct role of citizens per se.

Empirical Approach

To test my theoretical arguments about negotiation strategies and haircuts, I conduct two stages of quantitative analyses using data on public pronouncements of moratoriums and creditor haircuts for 25 defaulting countries from 1980-2007. In the first step, I analyze the determinants of public pronouncements. In the second step, I use these predictions to analyze the effect of public pronouncements on creditor haircuts.

Dependent Variables

There are two key outcomes of interest: (1) public default declarations and (2) creditor haircuts. First, a test of whether the ability to generate credible political costs acts as a separating equilibrium for public strategies requires detailed data on the public or private signals that indebted states make towards private creditors during restructuring episodes. While many studies model debtor state behavior as a dichotomous decision to default, Enderlein et al (2012) develop the first index of government coerciveness. They code negotiation and procedural behaviors from qualitative sources, primarily the financial press. The index has nine sub indicators that capture observable actions towards private credit holders, but to measure the publicity of a government's position I 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. On average, governments are discreet.[26] However, 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 a public audience, the dummy indicator is coded as 1. The variable *Declaration* remains coded as 1 in subsequent years until the action is revoked or withdrawn.[27]

[26] In 80% of cases governments miss a payment, thereby violating the debt contract, without a public declaration.

[27] 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

This measure has several distinct advantages. First, it is measured on a yearly basis, allowing for fluctuation in government behavior within a single debt crisis. In the case of Brazil, the government issued a public moratorium in 1987 during a nationally televised address. "Brazil has taken its decision," Sarney said. "I believe the people have long desired a firmer treatment for resolution of the debt question" (New York Times 1987). The government followed through on their promise to suspend payments before they reached an agreement in 1988. When the government suspended payments again in 1989, they did not announce the moratorium publicly as they had done before. In fact, the government did everything it could to assure the world that it's debt would be paid back. The media dubbed it a "white moratorium" (Aggarwal 1996). This measure captures this change of strategy by coding a public declaration in 1987 but not in 1989. Second, the measure 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. Third, 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.[28] This allows me to study the government's negotiation behavior continuously across different eras of lending. Finally, 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 et al. 2010, Enderlein et al. 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 1980-2007 and includes both developing and emerging market countries. Enderlein et al. (2012) identify debt crises based

of the population.

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

on the annual default list published by Standard and Poor's (2006).[29] 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 et al. (2012). For a list of crisis-years covered in the dataset, see Appendix A.

Second, to determine if creditors react to costly signaling by awarding higher concessions, I measure the outcome of a restructuring as the "*haircut*" or creditor loss. Haircuts can result from changing maturities, interest payments, and face value reductions. Thus, the key variable of interest, 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 of exit yields imputed from market and rating data.

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

Data is provided by Cruces and Trebesch (2013) based on the methodology of Sturzenegger and Zettlemeyer (2008).[30] 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). As a new and con-

[29] 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.

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

tinuous measure, few studies have explored the variation in haircuts, and even fewer have introduced political variables (DiGiueseppe and Shea 2016). The available data covers the entire sample in Appendix A; however, unlike behavioral data, haircuts are only calculated at a crisis' conclusion. They are reported on a crisis, rather than a crisis-year basis, yielding 75 haircut outcomes. Figure 1 plots the distribution of creditor haircuts and identifies significant variation in haircut outcomes. Haircuts range from negative values (Brazil 1987) to greater than 80% (Albania 1995).

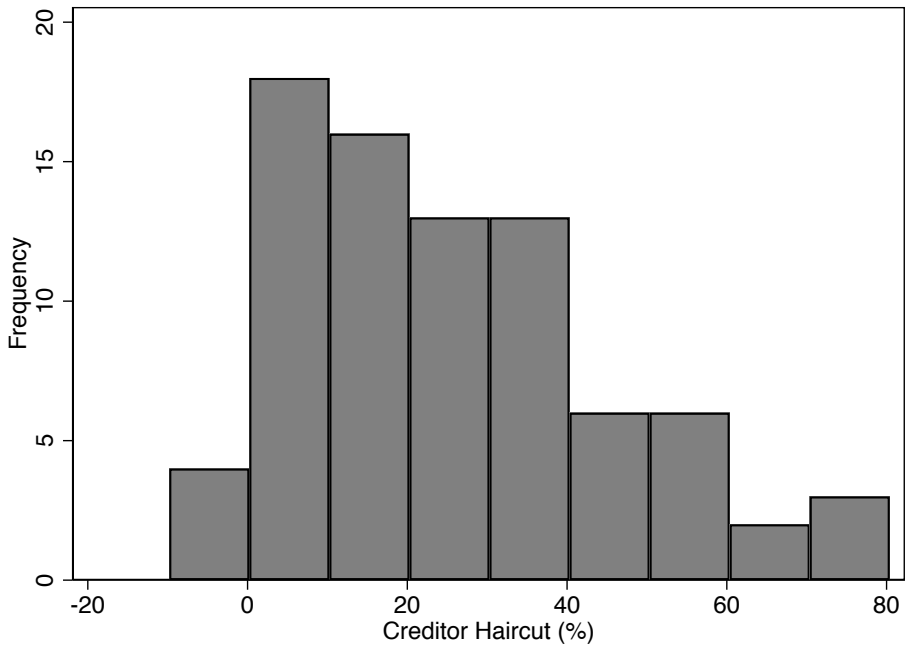

Figure 1: Distribution of Creditor Haircuts

Main Explanatory Variables

The driving mechanism behind my hypotheses is that political costs make a public default declaration credible. To proxy the government's sensitivity to these political costs, 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 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.[31] 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. Based on the relationship between economic decline and political punishment, higher socioeconomic pressure should increase leaders' sensitivity to political costs and make them more likely to signal publicly.

Additionally, I focus attention on the effect of socioeconomic conditions under democratic conditions. Given the small sample size of restructuring cases with private creditors, I use Cheibub et al.'s (2012) definition of a democratic regime. *Democracy* 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 effort to consolidate power. 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.

Model Specification

The empirical analysis proceeds in two stages. In the first stage, I investigate the determinants of public pronouncements using the probit estimator for dichotomous variables with clustered standard errors. To account for temporal variation, I include decade-level dummy variables, and demonstrate that the results hold using year fixed effects.[32] As the cross-country effects are theoretically relevant, I exclude country level fixed effects and choose to use regional dummies (following the World Bank classification) to proxy differences in lending practices across regions. As the primary test of hypothesis 1, I subset the data to look only at those crisis-country-years that have a clear sensitivity to mass public

[31] The measure is available from 1984 onwards.
[32] See Appendix I.

opinion, according to the *Democracy* indicator.

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. I demonstrate in the robustness section that the results hold when incorporating additional controls with less extensive coverage. To capture economic conditions I include a country's *Debt to GDP* ratio, from Abbas et al. (2010).[33] I also represent a country's baseline level of development by including *Per Capita GDP*. Data is from Graham and Tucker (2017).[34] Including this variable allows for the results to separate the effects of long-run development from short-term financial crises. I expect that poorer and more indebted countries should be more likely to declare default publicly. 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.[35] 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 (Sturzenegger 2004, Borensztein and Panizza 2009). Data are from the World Development Indicators.

In the second stage, I use the predicted probability of going public as the primary explanatory variable in estimating creditor haircuts.[36] The primary advantage of this strategy, in comparison to the binary *Declaration* indicator, is that it provides more information on the likelihood of a public moratorium and controls for random or strategic

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

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

[35]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.

[36]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.

uses for publicity that are not accounted for in the theory. In other words, it models the selection into public declarations and minimizes omitted variable bias. Equally important, modeling the process with a series of structural equations better approximates the theoretical model, where the decision to go public is linked with the likelihood of receiving a high haircut. Governments go public, then creditors decide to yield concessions.

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, the data must be aggregated and the predicted probabilities reestimated at the crisis rather than the crisis-year level. The years within a crisis negotiation period are collapsed into a single observation, such that I predict the probability of issuing a public declaration during any year of a negotiation period.[37] To preserve the remaining sample size, I also estimate the interaction of *Democracy* and *Socioeconomic Pressure*, rather than subset the data to a smaller democratic sample.

I specify the second stage 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=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,

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

from which I take the mean and the 95% confidence interval. [38]

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 do however include several additional control variables that are not specified in the first stage. First, I include *Debt Restructured* by the agreement (in USD) (including arrears and excluding holdouts). Data is from Cruces and Trebesch (2013). Second, *Serial restructuring* is an indicator variable coded as 1 if a country reached a previous restructuring agreement in the last 3 years. Finally, I control for whether a state has an ongoing IMF program, as IMF programs can be used to repay debt and the IMF encourages cooperative negotiations. *IMF ongoing* is coded as 1 if there is a current program. Data are from Bauer, Cruz and Graham (2012) who extend the coding from Vreeland (2003).

Results

Graphically, the relationships between socioeconomic pressure and public declarations (H1) and public declarations and creditor haircuts (H2) are displayed in Figure 2. The average socioeconomic pressure within democracies is represented on the left and the average haircut across the full sample is displayed on the right. Without advanced statistical methods, simple t-tests provide preliminary support for both hypotheses. Indicative of hypothesis 1, the average socioeconomic pressure among democracies that publicly default is -4.17. Compared to the average socioeconomic pressure of democracies that did not go public (-4.83), the difference is statistically significant (p=0.014). Supportive of hypothesis 2, on average, negotiation episodes that contain a public declaration receive a 40% haircut. Negotiations that don't see a declaration yield a 23% average haircut, which

[38] 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 (citation). Using a first stage model with more controls does not change the results, but it does significantly decrease the sample size.

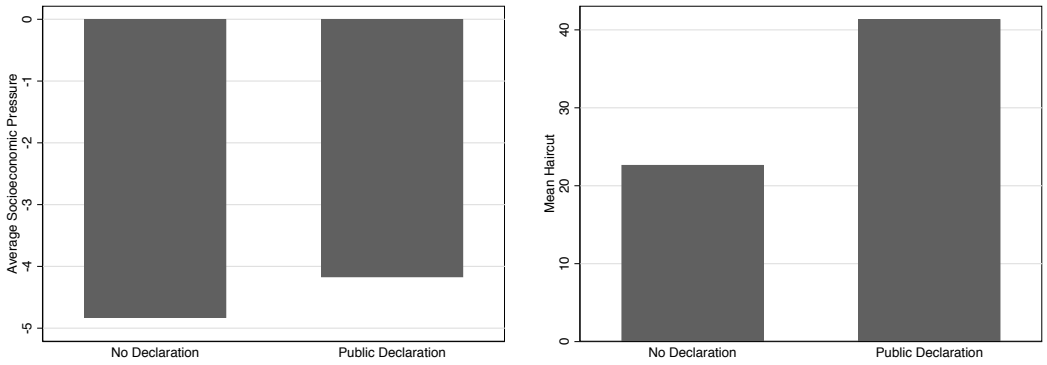

Figure 2: Average Socioeconomic Pressure (In Democracies) and Average Haircuts (Right) Across Public Declarations

is significantly lower (p=0.008). Going public appears to be an effective way to extract creditor concessions.

Table 1 presents the main empirical results, estimating both the selection into public declarations and haircut outcomes. The top part of the table tests the likelihood of publicly declaring default while the second half of the table examines the resulting haircut, which is the main empirical focus. Models 1 and 2 test hypothesis 1, while models 3, 4 and 5 test hypothesis 2. More specifically, Model 1 presents the results of a probabilistic regression on public declarations in the primary democratic sample. Model 2 demonstrates robustness to using an interaction term rather than a split sample. Model 3 predicts the haircut outcome, but only with economic control variables as a baseline. Model 4 adds the Public Declaration indicator and Model 5 estimates the full multi-stage model with predicted probabilities of going public as the main regressor. Overall, the results fit theoretical explanations reasonably well. Chi-square tests indicates that all coefficients together are significantly different than 0.

Focusing first on the propensity to issue a public default declaration, I find support for hypothesis 1, which posits that in democracies, higher socioeconomic pressures increase the likelihood of going public, as a means of establishing credibility.[40] Holding

[40]Appendix D offers a placebo test of hypothesis in a smaller sample of autocracies. Due to collinearity, the estimation model is restricted to a just the main variables but socioeconomic pressures are not a significant predictor of public declarations.

	(1) In Democracy	(2) Interaction	(3) Haircuts	(4) Dummy	(5) Predictions[39]
DV: Public Declaration					
Socioeconomic Pressure	0.404*	-0.148			-0.002
	(0.243)	(0.132)			(0.248)
Democracy		4.182**			6.268**
		(1.280)			(1.960)
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			-0.13*
	(0.004)	(0.004)			(0.008)
Constant	1.052	-2.601**			-4.179**
	(1.288)	(1.212)			(1.889)
Decade/Region FE	Y	Y			Y
N	131	179			66
R^2	0.17	0.22			0.32
DV: Haircuts					
Public Declaration				15.101**	
				(4.660)	
Public Declaration (Predicted)					28.445**
					(15.663, 95.276)
Debt Restructured			0.000	0.000	0.000
			(0.000)	(0.000)	(-0.000,0.000)
Serial Restrucutring			-2.119	-1.334	-8.675
			(4.612)	(4.382)	(-18.843,1.866)
IMF program			-7.449	-7.973	-11.205
			(14.413)	(12.585)	(-20.578,30.240)
Debt/GDP			0.176**	0.173**	
			(0.069)	(0.063)	
GDP per capita			-0.001	-0.001	
			(0.001)	(0.001)	
Investment/GDP			61.207	85.432	
			(61.610)	54.765	
Openness			-0.030	-0.040	
			(0.085)	(0.064)	
Constant			11.523	7.468	18.294
			(18.508)	(16.676)	(-7.181,45.278)
Decade/Region FE			Y	Y	1st stage
N			75	75	66
R^2			0.34	0.41	0.20

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

all else constant in democratic governments, socioeconomic pressure has a positive and significant effect on public declarations. Since the coefficients from a probit model can't be directly interpreted, I estimate the marginal effects of socioeconomic pressure on publicity.[41] Substantively, increasing socioeconomic pressure from its mean by one standard deviation, increases the likelihood of a public declaration by approximately 15%. The main results do not change using an interaction in Model 2 or aggregated to a single crisis observation in Model 5.

The results also speak to expectations from the economics literature. Regarding the control variables, 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. While surprising, this is in line with earlier findings that economic variables explain little of the variation in negotiation behavior (Enderlein et al. 2012). Economic variables tend to be more powerful predictors of debt distress than debt crisis resolution. In a comparison of the strength of political and economic effects, using standardized coefficients, political proxies for public opinion sensitivity tend to matter more. A comparison of the R^2 values with and without political variables also demonstrates the importance of modeling the political dynamics of the debt restructuring process.[42]

The second and main part of the analysis examines the impact of public declarations on haircut outcomes. However, before presenting the main evidence in support of hypothesis 2, Model 3 estimates creditor haircuts with only standard economic variables from the debt distress literature. Relying first on robust predictors of default as a dichotomous concept provides a baseline model to evaluate the importance of incorporating political variables. I include only the control variables identified above and Model 3 confirms that only the Debt to GDP ratio is significant. While more heavily indebted countries get larger

[41] Marginal effects are calculated by holding continuous variables at their median and binary variables at their mode.

[42] See Appendix E.

haircuts, none of the other variables are robust.[43] This suggests that predictions of creditor haircuts that ignore the political dynamics of debt negotiations are underspecified. It highlights the contribution of this work to explaining more fine-grained variation.

Turning to the main results, I find support for hypothesis 2, that public declarations increase creditor haircuts. The dichotomous indicator of Public Declarations in Model 4 is positive and significant. Going public is associated with a 15% higher haircut, ceteris paribus. However, both theoretically and empirically, selection into public declaration is non-random. I argue that governments go public with publicity's impact on haircuts in mind, meaning that the two processes are not independent. To better model this sequential process, Model 5 represents the more conservative two stage test, where I model the selection into public declarations. 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 larger than in Model 4. A 1% increase in the probability of a public declaration leads to a 0.29% increase in the resulting haircut. Using the estimations from Cruces and Trebesch (2013), a 1 percentage increase in haircut is associated with a bond spreads that are 6.75 basis points higher in year 1, and still 3.75 basis points higher in years 4 and 5. These are substantive effects that demonstrate the impact of going public on long run fiscal health. It is worth noting that this is particularly strong support for hypothesis 2, given that 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.

Among the additional control variables added in the second stage, *Serial Restructuring*, *IMF Program*, and *Debt Restructured* are all insignificant. Only *Serial Restructuring* comes

[43]DiGiuseppe and Shea (2016) also find that Debt to GDP and GDP per capita are the only robust economic predictors of creditor haircuts.

close to significance at the 10% level. Of the results, the lack of effect for *Debt Restructured* is particularly surprisingly. However, on closer examination it is not obvious what the predicted effect should be. On the one hand, where only a small amount of debt is affected, creditors may be willing to concede a large haircut, since the substantive effect on their bottom line is small. They can afford to be more generous. On the other hand, where a large amount of debt is affected, creditors may have to concede a large haircut because default would threaten their solvency. In that case, creditors can't afford not to be generous. This remains speculative, but may provide a fruitful area for future research.

Robustness

The main models support my theoretical argument that public default declarations, where they are sufficiently costly, act as a signaling mechanism to separate highly-distressed governments from less-distressed governments, leading to higher creditor haircuts. To ensure that the results are not dependent on model specification choices, I conduct additional empirical tests on both declarations and haircuts which I discuss briefly here and detail in the appendix.

First, Appendix F demonstrates that the findings for hypothesis 1 on the likelihood of public declarations are robust to alternative measures of macroeconomic declines. To capture the broadest macroeconomic trends, model 1 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). Model 2 uses the yearly *unemployment* rate, which, although available for a smaller sample, is a common variable used in the economic voting literature (Kayser 2013). Data is from the World Development Indicators. The results reported in the appendix replicate Table 1, Model 1 and are robust. Different from the socioeconomic pressure measure, which captures perceptions of the economy, robustness to these objective measures of economic decline increases confidence in my results.

The main results above have already replicated the results on socioeconomic conditions using an interaction term rather than a split sample. Appendix G, replicates the interaction model (Table 1, Model 2) using a more continuous *Polity* measure, that ranges from -10 to 10. While Polity itself is a predictor of publicity, the interaction just misses conventional levels of significance. However, as it is signed in the correct direction, this may be more indicative of a low powered sample.

Appendix H introduces a number of additional controls into the first stage model of public declarations.[44] In Model 1, I include political variables that may affect a government's propensity to reschedule. The main results are not significantly affected by the inclusion of domestic institutional measures such as the constitutional system or government ideology. While a dummy for *Left* leaning governments is insignificant, *Presidential* systems are more likely to publicly declare default. This is suggestive of previous findings about personal versus party based systems (citations), where accountability and sensitively to public opinion is higher.[45] Model 2 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. The main socioeconomic pressure variable is robustly significant. Model 3 accounts for the problem of "twin crises" (Reinhart and Rogoff 2009) and there is no change in the main model when I include a dummy for *banking crises*.[46] Finally, to account for creditor country politics, I include a dummy variable for committees chaired by *US Banks* from Ferry(2018).[47] This should capture differences in the banking regulations across creditor countries that could influence the likelihood of public action. The indicator is insignificant and the main results hold.

[44] Based on Table 1, Model 1.

[45] Constitutional systems and ideology are identified from the Database of Political Institutions (DPI)(Beck et al. 2001). 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.

[46] Data from the World Bank's Global Financial Development Database (GFD).

[47] A list of chair banks and their country headquarters is available in Appendix ?.

I also demonstrate the robustness of my results to model specification in Appendix I. Model 1 re-estimates the main model without decade or regional fixed effects. Model 2 substitutes decade fixed effects for year fixed effects. Hypothesis 1 is still strongly supported with these specification changes.

Appendix J turns to the robustness of the second stage predictions in Table 1, Model 4 that uses a dichotomous *Public Declaration* indicator to predict haircuts. While this is a less conservative model than the two-stage specification, introducing additional political and economic variables, similar to Appendix H, doesn't change the results in support of hypothesis 2. Model 1 introduces the same system and ideology variables from Appendix H, but neither *Left* or *Presidential* are significant. Presidential regimes seem to bargain more publicly, but this doesn't translate into larger haircuts. Turning to economic controls in Model 2, countries that experience a *Banking Crisis* are no more likely to receive a high haircut. Neither are restructuring episodes chaired by *US Banks*.

Regarding specification of the haircut results with a binary *Public Declaration* indictor, Appendix K shows that the results are robust to several variations. The main findings do not change when I omit all fixed effects (Model 1). They are also robust to using year fixed effects rather than decade fixed effects (Model 2).

Finally, the estimation of my two-stage model (Table 1, Model 5) requires collapsing crisis-year observations into a single crisis-level observation. In the main results I aggregate the yearly data such that I predict the probability of issuing a public declaration during any year of a negotiation period. In Appendix L I demonstrate that the results are consistent with several additional methods of aggregation. In Model 1, I use the maximum probability of a public declaration for any year in a negotiation period. By saving the predicted probabilities from Table 1, Model 1 of the main results, I identify the crisis-year with the highest probability of a public declaration, and use that year to represent the longer crisis. I then reestimate the two stage model according to the bootstrap methodology detailed in the research design section. The results remain highly signif-

icant. In Model 2, I follow the same procedure but identify the crisis-year within each crisis that was the lowest probability of going public. Finally, instead of aggregating the data, Model 3 uses the predicted probability of going public only in the year the restructuring occured. Models 2 and 3 are both significant at the 10% level. Given the expanded confidence intervals in all of the two-stage models, this is strong support for hypothesis 2.

Conclusion

With sovereign debt accounting for approximately twenty percent of global financial assets, the number of defaults and restructurings in our sample is likely to rise (Tomz and Wright 2013). 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 this crisis, yet efforts in 2015 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 and Guzman 2015).

Yet this work suggests that international policy makers must consider not just how much debt governments owe and it to who they owe it, but the political dynamics of the restructuring process. The tactics and strategies that governments are incentivized to use have a significant impact on restructuring outcomes. This paper is the first to offer a theory of public position taking in sovereign debt restructuring negotiations that links governments, citizens and creditors to negotiation strategies and restructuring outcomes. I claim that indebted governments face a tradeoff between public opinion and creditor coordination. In this tradeoff, the electoral repercussions voters inflict on an economically incompetent leader can be strategically leveraged into a higher creditor haircut by office-motivated governments. By publicly signaling their debt stress and generating domestic

political costs, governments seek to increase the credibility of their claims and convince creditors of the need for a major write off. But if public default declarations increase creditor haircuts why don't all indebted sovereigns go public? Only governments that can generate sufficient political costs will be credible. In democracies with high socioeconomic pressure, the government's sensitivity to domestic costs is acute, making their signal most effective.

This paper offers a mechanism for how citizens, rather than interest groups, firms or legislatures, can constrain both the bargaining behavior and the bargaining power of their national governments in international negotiations. I show that opportunistic governments can manipulate these predictable domestic constraints by choosing to heighten or assuage them during key international negotiations. The findings shed light on the puzzle of why governments initiate costly negotiations in the public eye, particularly when privacy is the norm and transparency is encouraged for the sake of democratic idealism. This also speaks to the importance of introducing an international component into traditionally domestic theories of economic voting. With these findings, the paper contributes to a better understanding of how the relatively uninformed public matters in shaping foreign policy outcomes. I believe that revealing publicly unpopular information, as a means of making domestic political costs credible, is a relevant negotiating tactic in other important international forums. The work here can be extended to a more general theory of the way electoral concerns impact *how* governments cooperate internationally.