



Master of Administration and Public Policy

Master's Thesis

Seventeenth Promotion

**Political Costs of Sovereign Default: Examining the Impact of a Sovereign's
Failure to Repay Its Debt On Popularity, 1984-2012**

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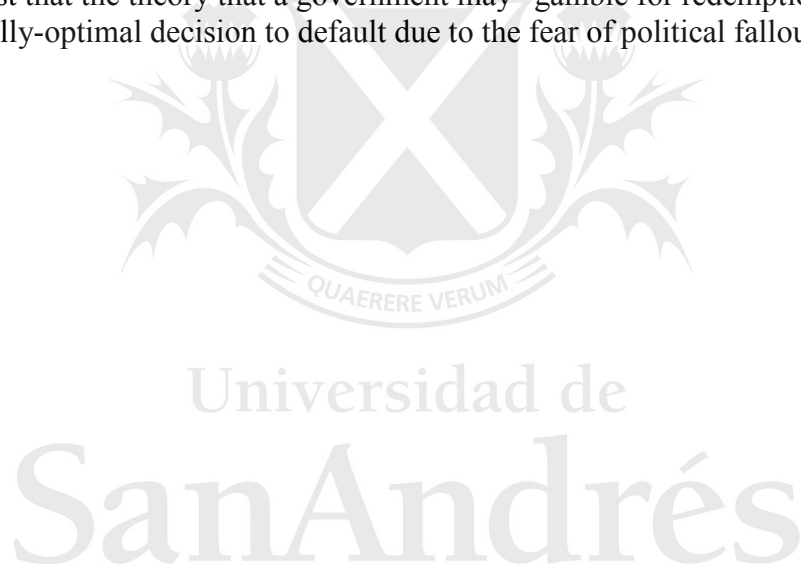
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Abstract

This paper uses a popularity function to study the relationship between sovereign default and government popularity. I construct a dataset of default history for 55 sovereign entities from 1984-2012. By distinguishing between different types of default, I find that defaults on foreign-currency-denominated debt held by banks, and on foreign-currency-denominated commercial debt, are correlated with a drop in government popularity. On the other hand, there is no correlation between defaults on local-currency-denominated debt and changes in government approval. I accompany these findings with case studies to hypothesize that because governments typically have more policy options to manage local-currency debt, the population is more likely to view defaults on such debt as a pro-active policy choice to obtain a socially optimal outcome. Consequently, constituents do not punish politicians who make such a decision. Conversely, defaults on foreign-currency debt are more likely to occur under a government that has run out of policy options and is left with little choice but to stop servicing foreign currency debt. Voters do not view such an outcome favorably. These findings suggest that the theory that a government may “gamble for redemption,” or delay making a socially-optimal decision to default due to the fear of political fallout, is misguided.



Chapter 1: Introduction

On June 30, 2014, the Republic of Argentina failed to make an interest payment on its outstanding international bonds. On July 30, 2014 the grace period on those payments expired, causing the sovereign to default.¹ This default followed a prolonged legal saga that began when Argentina restructured debt that it had defaulted on in 2001. Following this restructuring, certain distressed debt funds and other investors that did not participate in the debt exchange sued Argentina and demanded payment under the original terms of the debt. U.S. courts ultimately ruled in favor of these funds, holding Argentina's other debt service payments captive until the country complied with the ruling. The government refused, causing the country to default once again. This sovereign default was unique in many ways, including in the repercussions of the default. Traditional sovereign debt literature highlights dire economic and financial costs of sovereign debt default. More recent literature has begun to examine the domestic costs of default, and has pointed to negative political outcomes following sovereign default, including political turnover. However, in the case of Argentina in 2014, the government utilized a successful political strategy to neutralize any collateral damage that a new default may have had on the country. In particular, the government framed its decision not to negotiate with distressed debt funds and subsequently default, as a nationalistic policy decision in favor of national sovereignty. At the time, international press recognized the success of the Argentine government's political campaign. One Economist article stated:

Even when Argentina defaulted on July 30th...some...hoped for a negotiated settlement...Those hopes are fading. Ms. Fernández seems to be calculating

¹ S&P Global Ratings. "Research Update: Argentina Foreign Currency Ratings Lowered to 'SD' After Holders Of Discount Bonds Did Not Receive Interest Payment". July 30, 2014. Accessed on www.globalcreditportal.com.

the political benefits of recalcitrance outweigh its economic costs... This strategy has given the president a lift in the polls...²

Another article in the Financial Times stated, “One of the few winners from the fight might turn out to be Cristina Fernández, the country’s president.”³ A news blog called *The Conversation* portrayed the way that the government communicated its strategy, alienating anyone who might not have agreed with the government’s decision by calling them “unpatriotic”:

Meanwhile, the political fallout of the crisis at home has paradoxically been largely to the benefit of term-limited president Cristina Kirchner, reasserting her centrality in politics just as she was losing her clout in the run-up to the 2015 elections.... The Kirchner administration is now once again back on its old mettle, appealing to citizens with the slogan “Patria o Buitres” (“homeland or vultures”), a binary definition that suits her barnstorming rhetoric and mocks casino capitalism and those who support it. Her political opposition is back on the defensive – and her government perhaps reinvigorated – even as she grapples with the thorniest crisis of her tenure.⁴

By all accounts the government’s public relations campaign was successful. The government managed to dodge any negative political fallout, at least in the default’s immediate aftermath. Nevertheless, this outturn of events challenges certain research that points to political costs of sovereign default.

Does a government’s decision to default on its sovereign debt impact its approval ratings? Does the type of debt on which the government defaults impact this relationship?

There is much existing research on why national governments decide to repay their debts, or the incentives that they have to repay, in light of the lack of legal mechanisms to enforce

² “A game of polarization,” 2014. *The Economist*.

<http://www.economist.com/blogs/americasview/2014/09/politics-argentina>

³ Mander, Benedict. 2015. “Cristina Fernández holds out for victory in debt battle”. *Financial Times*.

<http://www.ft.com>

⁴ Riggiozzi, Pia. “How Argentina’s government has drawn new energy from the vulture fund crisis”. 2014. *The Conversation*. <https://theconversation.com/how-argentinas-government-has-drawn-new-energy-from-the-vulture-fund-crisis-31704>

sovereign debt. However, most of the literature has focused on the economic and financial consequences of default, including the potential loss of access to credit markets, the threat that creditors will interfere in a country's trade activities, capital flight, investment declines and financial crises. However, there has not been as much research on the political costs of default. While this topic has been more closely examined by researchers over the past decade, there are still many unanswered questions, or inconclusive answers. My thesis seeks to provide new evidence on the political costs of sovereign defaults, studying default episodes from 1984-2012. Through my novel use of popularity functions, and differentiation between various types of default, I am able to refine the approach taken in the existing literature studying the relationship between sovereign default and government popularity.

It is essential to understand the political costs or benefits of default in order fully comprehend the decision-making process of policymakers when faced with difficult decisions on resource allocation. Specifically, politicians are often forced to consider the tradeoff between prioritizing debt repayment versus other types of spending during fiscal or external crises, as well as the appropriate timing of such decisions. As explained by Panizza, Sturzenegger and Zettlemeyer, high political costs of default "...would open the possibility that defaults occur too rarely (or not soon enough) from a social perspective, at least in an ex post sense, as politicians 'gamble for redemption.'"⁵ Authors Borensztein and Panizza go on to add that if defaults are delayed because of these political costs, the "eventual economic costs of default if the gamble does not pay off" could be amplified.⁶ These authors also note that there could potentially be "positive" impacts of high political costs from the perspective

⁵ Panizza, Ugo, Federico Sturzenegger and Jeromin Zettlemeyer. "The Economics and Law of Sovereign Debt and Default". *Journal of Economic Literature*, Vol. 47, No. 3 (Sep., 2009), pp. 682/

⁶ Borensztein, Eduardo and Ugo Panizza. "The Costs of Sovereign Default". IMF Working Paper. October 2008, pp. 20.

of sovereign debt: “On the positive side, a high political cost would increase the country’s willingness to pay and hence its level of sustainable debt.”⁷

Previous research on the political costs of sovereign default has focused on correlative analysis of the influence of sovereign debt default on the political careers of those in office as well as the effect on election outcomes. However, there has not yet been a systematic study on the impact of sovereign default on government approval ratings, or one that studies how this relationship changes depending on the type of default. My thesis fills this gap. In particular, existing research primarily relies upon voting functions to determine the effect of sovereign defaults on political careers and election outcomes. Yet, voting functions are limited by measuring scarcity, given that elections generally occur only every two to five years. No study has yet utilized popularity functions to determine whether sovereign debt defaults are correlated with a change in government approval. The use of a popularity function, in which the government’s approval rating is the dependent variable, improves measuring frequency. At the same time, differentiation by type of default allows for a more nuanced study of this relationship.

⁷ Ibid

Chapter 2: Literature Review and Theoretical Framework

In determining why sovereign governments repay their debts, given the lack of legal mechanisms available to creditors to demand repayment, sovereign debt literature has traditionally focused on the economic and financial costs of sovereign debt default. Researchers pointed to these costs—which were principally determined to be reputational costs, including exclusion from financial markets and direct sanctions, such as legal attachments of property and trade embargos—as incentives for sovereigns to repay their debt.⁸ This literature highlights the role of non-residents in determining the costs of default. More recently, however, researchers have also begun to investigate the domestic costs of default.⁹ In particular, this more recent body of work looks at how the impact of a sovereign default on domestic residents could also serve as an incentive for governments to repay their debt. Within this line of research, a group of literature has emerged—mostly over the past decade—that has focused on the political impact of sovereign debt defaults. Nevertheless, these studies on political costs—much of which has used empirical evidence—have primarily relied on voting functions to determine the impact of sovereign defaults on the political careers of those in office as well as the impact on election outcomes.

Since the 1980s, following increases in sovereign lending to developing countries through the 1970s and early 1980s, much of the research on sovereign debt has focused on why sovereign debt exists. In light of the lack of bankruptcy laws or other mechanisms to ensure that creditors will have access to repayment from a sovereign debtor, the existence of creditors who choose to lend to sovereigns is puzzling. Because there seems to be no direct incentive to discourage a government from repudiating its debt, researchers have investigated

⁸ Eduardo Borensztein and Ugo Panizza, “The Costs of Sovereign Default”. IMF Working Paper, (October 2008), 3.

⁹ Ugo Panizza, Federico Sturzenegger and Jeromin Zettelmeyer, “The Economics and Law of Sovereign Debt and Default”. *Journal of Economic Literature*, Vol. 47, No. 3 (September 2009), 664.

indirect mechanisms that cause a government to continue servicing its debt, and therefore convince creditors to provide financing, generating a sovereign debt market as a result. Research in the early 1980s pointed to external financial market forces to drive lending to governments. One of the earliest and most influential works on this subject was Jonathon Eaton's and Mark Gersovitz's 1981 paper entitled "Debt with Potential Repudiation: Theoretical and Empirical Analysis". In this paper, Eaton and Gersovitz produce a model in which a sovereign's assumed loss of access to external borrowing following default is sufficient incentive to ensure debt repayment:

Unless the governments of private creditors are willing to coerce debtor governments into repaying loans, there is no explicit mechanism deterring a government from repudiating its external debts.... Thus, the existence of private loans to foreign governments appears to be a paradox, but can be understood using a model with an endogenous penalty... Among the most important of these penalties is exclusion from future borrowing.... should the country refuse to repay, we assume that it faces an embargo on future loans by private lenders and that this embargo is permanent. This assumption is a convenient theoretical representation of the stylized fact that default makes re-entry into private capital markets difficult.¹⁰

Eaton and Gersovitz argue in this paper that sovereign lending would occur if lenders had no direct mechanism to enforce payment and their only way to respond to a sovereign's repudiation of its debt was to withhold future lending. This research presented one of the earliest models to offer an explanation of why the sovereign debt market exists, and focused on external repercussions driven by non-resident actors. Yet, several authors have since criticized the ideas presented by Eaton and Gersovitz.

One criticism that subsequent scholars have raised to Eaton and Gersovitz's theory is that perpetual exclusion from credit markets following a sovereign default is unrealistic. These scholars argue that new lending to a government post-default is beneficial to both the

¹⁰ Jonathon Eaton and Mark Gersovitz, "Debt with Potential Repudiation: Theoretical and Empirical Analysis" (April 1981), 289-290.

government and the creditor. However, if both parties expect post-default lending to occur, then this expectation weakens the impact of the anticipated cost that Eaton and Gersovitz claim drives the existence of the sovereign debt market.¹¹ Another criticism of Eaton's and Gersovitz's paper is that sovereign borrowing in international capital markets is not a sovereign's only access to financing. Alternatives may exist such as "cash-in-advance" contracts, which, as Bulow and Rogoff argue, make the exclusion from external debt markets an insufficient cost to deter countries from defaulting on their debt.¹² In light of these criticisms and since the publication of Eaton's and Gersovitz's paper, research on sovereign debt and the incentives that governments have to continue to repay their debt has developed in several new directions.

One body of research that developed very soon after Eaton's and Gersovitz's paper emphasized the role that other forms of direct costs, besides exclusion from capital markets, play in generating incentive mechanisms for debt repayment. These costs were primarily understood to be associated with the interference of a sovereign's trade or payment transactions with the rest of the world, "...either through seizure outside the country's borders or through denial of trade credit".¹³ Authors who focused on this mechanism include Jeffery Sachs and Daniel Cohen in their 1982 paper "LDC Borrowing with Default Risk", Bulow and Rogoff in their 1989 paper "Sovereign Debt: Is to Forgive to Forget?" and Fernandez and Rosenthal in their 1990 paper "Strategic Models of Sovereign-Debt Renegotiations". However, similar to Eaton and Gersovitz, these authors gave primacy to the role of non-residents in external transactions with the sovereign.

¹¹ Kletzer, Kenneth, "Sovereign Immunity and International Lending." In *Handbook of International Macroeconomics*, ed. Federick van der Ploeg, (1994), 439-79.

¹² Jeremy Bulow and Kenneth Rogoff, "Sovereign Debt: Is to Forgive to Forget?" (1989), 43-50.

¹³ Ugo Panizza, Federico Sturzenegger and Jeromin Zettelmeyer, "The Economics and Law of Sovereign Debt and Default". *Journal of Economic Literature*, Vol. 47, No. 3 (September 2009), 661.

A second body of research also continued to focus on the role of credit markets in generating sufficient costs to default to ensure the existence of a sovereign debt market. However, these authors acknowledged that Eaton's and Gersovitz's focus on sovereigns' permanent exclusion from future borrowing was unrealistic. Instead, these authors—including Harold Cole, Patrick Kehoe, Jonathon Eaton, Kenneth Kletzer and Brian Wright—also consider alternative sovereign financing mechanisms and propose market repercussions beyond pure market exclusion.

A third body of research has begun to look at the domestic impact of default in order to understand the existence of sovereign debt markets. These researchers have highlighted the costs that a default may have on the sovereign's domestic economy or its government. As explained by Panizza, Sturzenegger and Zettelmeyer:

In this case, incentives to repay come from the concern that defaults may have direct adverse effects on domestic agents that the government is trying to protect, or that defaults could be interpreted as bad news about either the sovereign or the economy. The latter may in turn lead defaults to spill over into a much broader range of economic problems.¹⁴

In this vein, some authors (Guido Sandleris, Luis Catao, Sandeep Kapur, Ana Fostel) have pointed to domestic economic costs, including the information that residents may interpret a default to reveal about the economy, including on the domestic credit market, fiscal balances or a country's income. Others have looked at the negative effects that a default may have on domestic residents, for example on government workers.¹⁵

Most related to this third body of research, which looks at the domestic impact of default, a growing body of scholars has started to research the political impact of sovereign defaults. Studies on the political ramifications of sovereign debt repudiation have mostly

¹⁴ Ibid., 664.

¹⁵ Ibid., 663.

emerged over the past decade and have primarily used empirical evidence to study the relationship between default and political outcomes, either through the use of voting functions, or through the use of case studies. At the same time, some researchers have presented theory-based models as a way to understand this relationship, while others have contributed to the field through studying related variables, though not necessarily directly addressing the political costs of sovereign defaults.

There have been several papers written that directly address the political costs of sovereign defaults through the use of empirical evidence. However, this group of papers relies on voting functions to test the relationship between sovereign defaults and political outcomes. Voting functions, which establish electoral outcomes as the dependent variable, are useful because they directly measure the political will of the entire electorate, or voter population. Nevertheless, because elections generally only occur every several years, there is low measuring frequency which makes it difficult to establish causal relationships.

Boensztein and Panizza published the first paper in 2008 that claimed that sovereign debt defaults are associated with a greater likelihood of turnover of important governmental figures. In their first article on the subject, entitled “The Costs of Sovereign Default”, Boensztein and Panizza note that while prior research had found a negative relationship between currency devaluations and political survival of politicians, there had been a lack of research on the relationship between sovereign defaults and political survival.¹⁶ In part to fill this gap in the literature, these authors seek to study the relationship between sovereign defaults and a number of dependent variables, including policymakers’ survival in office.¹⁷ Boensztein and Panizza note that politicians seemingly tend to postpone defaults due to costs

¹⁶ Eduardo Borensztein and Ugo Panizza, “The Costs of a Sovereign Default” (2008), 4.

¹⁷ Ibid., 5.

that defaults may have on their political careers.¹⁸ Political costs, the authors explain, have two significant consequences: they may increase a government's willingness to service its debt and therefore manageable debt levels on one hand, or they made lead to "gamble for redemption" and magnify the economic costs if the gamble fails, on the other.¹⁹ The authors point to three main reasons why delaying default may be detrimental:

(i) Noncredible restrictive fiscal policies are ineffective in avoiding default and lead to output contractions; (ii) Delayed defaults may prolong the climate of uncertainty and high interest rates and thus have a negative effect on investment and banks' balance sheets; (iii) Delayed default may have direct harmful effects on the financial sector.²⁰

Therefore, when deciding whether to continue servicing the country's debt, a policy-maker has a different tradeoff—one that may impact their career—than that of most citizens.²¹

To study this question, Bonsztein and Panizza look at data over the 1980-2003 period and determine the percentage of ruling coalitions that lost elections following a default, the loss in electoral support of the ruling government following a default and the percentage of countries that experienced a change in the chief of the executive branch immediately following, or one year after, default. The authors also study data between 1977 and 2004 to determine the probability of turnover in the IMF governor, who is generally the finance minister or central bank governor, post default. Based on this data, Bonsztein and Panizza find that incumbent governments and finance ministers tend to loose office, ruling governments tend to loose electoral support and IMF governors tend to turnover following sovereign defaults, more so than during "normal times" with no default.²² However, the findings presented by Bonsztein and Panizza are clearly associative and do not provide any

¹⁸ Ibid., 20.

¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

evidence that sovereign defaults cause these changes in electoral support or position turnover. Further, while the paper studies the conditions under which a politician may decide to continue servicing debt or not, and the implications of prolonging such a decision, the paper does not explore the mechanisms through which a default may lead to political costs.

Foley-Fisher (2012), on the other hand, not only finds partial correlative evidence that somewhat contradicts the findings of Bonsztein and Panizza, but he presents a theory explaining the mechanisms behind his empirical findings. Nevertheless, as the author himself recognizes, he also does not identify a causal relationship between default and election results due to "...the low frequency of default events, and the absence of a convenient instrument".²³ However, he presents anecdotal and theoretical explanations for why a policymaker's decision to default may cause voters to re-elect the policymaker.²⁴

Although Foley-Fisher's paper also addresses questions on the timing of defaults in relation to a politician's term in office and whether defaults occurring in early periods of political terms are correlated with "good" or "bad" economic contexts, his contribution to the question of the political impact of sovereign defaults draws on empirical, anecdotal and model-based evidence. His empirical evidence relies on a database of countries that defaulted between 1975-2005, in which the definition of default is "...the failure to meet a principal or interest payment on the due date..."²⁵ At the same time, he uses election data surrounding each of the default episodes using various political election databases, and controls for government spending, GDP per capita growth, debt to GDP, level of democracy and the eligibility of the incumbent to be reelected.²⁶ Based on this data, Foley-Fisher finds a weak positive correlation between default and re-election, which contradicts the findings of

²³ Foley-fisher, Nathan. "The Timing of Sovereign Defaults over Electoral Terms" (2012), 8.

²⁴ Ibid, 24.

²⁵ Ibid., 4.

²⁶ Ibid., 10.

Bonsztein and Panizza. However, because the correlation Foley-Fisher finds is weak and cannot reveal causality, he also provides anecdotal and model-based support to the theory that “...defaulting politicians reveal information on their competence and are therefore more likely to be re-elected by voters”.²⁷ In particular, Foley-Fisher discusses default episodes in the Dominican Republic in 2005, Suriname in 2001 and Macedonia in 1992. All of these cases involve a new government that takes office with an inherited debt burden, for which the origin differs, impacts the government’s decision to default, and in which the government that decided to default is re-elected.²⁸ Finally, Foley-Fisher presents a model which lends further support to the author’s theory that the decision not to repay debt on time or in full reveals political competence and causes the electorate to re-elect the policymaker.²⁹ While these findings challenge previous sovereign debt literature’s theory that the political costs to default provide incentives to repay debt, and empirical evidence provided by Borensztein and Panizza, they also fail to provide conclusive causal empirical evidence.

Complementing the correlative empirical evidence found by Borensztein and Panizza; and Foley-Fisher; Livshits, Phan and Trebesch use a unique dataset to study the impact of sovereign default on political turnover, but make a distinction between the impact of default on a sovereign’s executive leader and its finance minister. These authors use data from 84 countries between 1980 and 2012 on finance ministers, their reason for leaving office as well as chief executives and sovereign debt crises.³⁰ Unlike Borensztein and Panizza, who use exploratory statistics, Livshits, Phan and Trebesch utilize conditional logit fixed effect regression analysis to determine the impact of sovereign defaults on political turnover.

²⁷ Ibid., 24.

²⁸ Ibid. 11.

²⁹ Ibid., 3.

³⁰ Igor Livshits, Toan Phan and Cristoph Trebesch. “Sovereign Default and Political Turnover” (December 2014), 4-6

Similar to Foley-Fisher, they do not find any conclusive evidence that a sovereign default is associated with a change in the executive leader.³¹ However, as they make a distinction between executive leaders and finance ministers, they find robust correlative evidence that sovereign debt crises are correlated to a statistically significant rise in the likelihood of a change in the finance minister.³² This finding supports the findings of Borensztein and Panizza, who did not distinguish between types of IMF governors, and only used exploratory statistics. However, once again Livshats, Phan and Trebesch also recognize that their evidence does not show causality:

...our findings are about correlations, and we cannot make claims of causality. However, these results are suggestive that there are political consequences associated with the onset of sovereign default. In particular, as finance ministers are usually not directly elected, the direction of reverse causality (that changes in finance ministers may increase the probability of default) is less likely.³³

However, these authors plan to continue investigating this question, and to study causality by exploring counterfactual contexts in the future.³⁴ Livshats, Phan and Trebesch believe that, similar to Borensztein and Panizza, if the decision to default on debt causes political costs for the policymaker, this could cause sub-optimal decision-making by the policymaker and cause the policymaker to continue to increase the sovereign's debt stock in hopes of a more favorable economic context which would increase government revenues.³⁵

Unlike Borensztein and Panizza, Foley-Fisher and Livshits, Phan and Trebesch who all use quantitative analysis based on a relatively large sample of sovereign default episodes, one researcher and one group of researchers have studied the political costs of sovereign defaults using case studies. Although these case studies provide insights into the logic that

³¹ Ibid., 9

³² Ibid., 12

³³ Ibid.

³⁴ Ibid., 18

³⁵ Ibid., 2

drives how the electorate views sovereign debt repudiation, they are limited in their applicability to a range of default contexts and it is difficult to extrapolate their conclusions to other sovereign debt crises. Yet, while it is problematic to make generalizations based on these researchers' findings, their conclusions shed light on the subtleties of individual preferences and opinions when it comes to policymakers' debt repayment decisions and should be used to inform future research.

In his article entitled "Interests, Information and the Domestic Politics of International Agreements" author Michael Tomz studies Argentine citizens' opinions about whether its government should continue to honor its debt obligations during the country's 2002 debt crisis. Tomz utilizes the responses of a survey given to 442 eligible Argentine voters in July 2002 in order to determine not only the electorate's views about debt repayment, but also how and under what conditions those views are impacted by responders' self-interest. Ultimately, Tomz concludes that debt repayment, or complying with international contracts "...creates domestic winners and losers; it improves the welfare of some citizens but undermines the position of others."³⁶ Specifically, the decision to continue servicing external debt, Tomz argues, benefits those residents that value external transactions while it may penalize those who suffer from the domestic fiscal consolidation efforts that a government may need to undertake in order to continue to meet its debt obligations.³⁷ Further, Tomz shows how, in the case of the those polled in Argentina in 2002, residents that benefit from access to external financing favored continued debt repayment while those who generally suffer the costs of consolidation—the unemployed or lower-income residents—favored nonpayment.³⁸ Tomz also maintains that the relationship between the likely individual impact

³⁶ Tomz, Michael. "Interests, Information and the Domestic Politics of International Agreements" (July 2004), 1.

³⁷ Ibid.

³⁸ Ibid.

of sovereign debt default for an individual and that individual's debt repayment policy preferences is stronger for those individuals that are better informed on the effects of sovereign defaults.³⁹ Although these conclusions are specific to the responders of the 2002 Argentine survey studied by Tomz, the insights reached by the author may be usefully tested for broader application. However, another group of researchers, studying a different debt crises case, reached conclusions that somewhat differed from those of Tomz.

Like Tomz, researchers Curtis, Jupille and Leblang, in their article "I Save for Icesave: Self-Interest and Sovereign Debt Resettlement" also capitalize on information from one sovereign debt crisis in order to study the dynamics of individual opinions about the sovereign's debt repayment decision. However, these authors find a unique circumstance to study. In particular, they examine the results of Iceland's 2011 referendum in which the country's citizens voted on the terms of the sovereign's debt resettlement.⁴⁰ This case is one of the only cases in which the electorate was directly asked to opine on policymakers' decision regarding sovereign debt repayment and therefore represents an important case to study in order to understand the political impact of a default at the individual level.

Similar to Tomz, Curtis, Jupille and Leblang find that voters did indeed vote in their self-interest when deciding whether or not its government should honor its debts. However, unlike Tomz, these authors determine that the degree with which voters act in their own self-interest is not dependent on "voter sophistication" or voter knowledge.⁴¹ Instead, they argue: "...an information-rich media environment might drive both of these observations by making all Icelanders relatively 'sophisticated' in terms of being cognitively able to connect the

³⁹ Ibid,

⁴⁰ Amber Curtis, Joseph Jupille and David Leblang, "I Save For Icesave: Self-Interest and Sovereign Debt Resettlement" (2012), 5.

⁴¹ Ibid., 0.

consequences of their vote to their expected future personal financial situation”.⁴² At the same time, Curtis, Jupille and Leblang show that in the case of the Iceland 2011 referendum, voters from all different backgrounds did indeed vote in their own financial self-interest. In particular, they determine that:

Those with high credit card debt who were expected to be more sensitive to prospective borrowing costs, and whom would potentially have much to lose from a rejection-default-downgrade scenario, tended to vote in support of repayment. So did those with investment assets, worried, we suppose, about the inflation away of their asset values. The unemployed, by contrast, whom we postulated should worry about the fiscal retrenchment that would attend to repayment of such a large obligation, tended to vote against repayment. Altogether, citizens’ individual self-interests shaped sovereign debt (non-) resettlement.⁴³

Yet, the conclusion that this impact was robust across all constituencies and not dependent on voter “knowledge” may be unique to the educational or socioeconomic circumstances in Iceland. At the same time, these authors determine that concerns about an individual voter’s financial self-interest also operate in conjunction with “symbolic/sociotropic and partisan/political logics”.⁴⁴ However, given that the authors only study one case, once again it is difficult to extrapolate their findings to other sovereign debt repayment decisions. Nevertheless, the importance of voter self-interest in responding to a sovereign’s decision to default or not, and the cost/benefit analysis that is particular to each individual according to their employment, income and investment circumstances, which was found in two very different cases—Argentina in 2002 and Iceland in 2011—may provide important insights into the mechanisms behind individual voter responses to policymakers’ debt repayment decisions.

⁴² Ibid., 2.

⁴³ Ibid., 20.

⁴⁴ Ibid., 0.

In addition to recent empirical studies that directly examine the political costs of sovereign defaults, there is also a body of new research that looks at different, related variables with a focus on questions other than the political repercussions of sovereign default. While this research is peripheral to the study of how a sovereign's failure to service its debt on time and in full impacts its popularity, it nevertheless provides useful insights and nuances that may enrich research on this question. This research incorporates variables such as currency devaluations, economic output, financial-market-determined sovereign risk and financial crises to the study of interactions with sovereign defaults and political repercussions.

Building on Richard Cooper's 1971 article "Currency Devaluation in Developing Countries", Jeffrey Frankel's 2005 research piece entitled "Contractionary Currency Crashes in Developing Countries" studies the political costs of currency devaluation. Cooper was the first researcher to study this question and found that currency devaluations increased to nearly 30 percent from 14 percent the probability of a fall in the government within one year.⁴⁵ Using simple ratios, Frankel, similar to Cooper, finds evidence that a country's chief executive is more likely to change during both the six-month and the twelve-month period following currency devaluation than without devaluation.⁴⁶ Additionally, Frankel also finds that finance ministers and central bank governors are more likely to lose their jobs following a currency devaluation than without such a devaluation.⁴⁷ These results, explains Frankel, are more robust in middle income countries and in presidential democracies.⁴⁸

To explain his findings, Frankel identifies possible mechanisms through which currency devaluations lead to the loss in the popularity of a country's leaders. He concludes

⁴⁵ Cooper, Richard. "Currency Devaluations in Developing Countries" (June 1971), 28.

⁴⁶ Frankel, Jeffrey. "Contractionary Currency Crashes in Developing Countries" (June 2005), 4.

⁴⁷ Ibid., 5.

⁴⁸ Ibid., 5-6

that the contractionary effects of devaluation, specifically through the output loss that devaluations cause due to the impact on domestic balance sheets, are the principal drivers that make devaluations politically costly.⁴⁹ While Frankel's conclusions provide useful insights into the relationship between how changes in economic variables may lead to changes in a government's political support, his findings on the relationship between currency devaluations and changes in political leadership are correlative and not causal and focus primarily on developing countries, somewhat limiting the scope of the research and possibilities to extrapolate conclusions for other cases.

If, as Frankel concludes, currency devaluations lead to political leadership turnover due to the negative impact on economic output that devaluations tend to have, political turnover may seemingly occur from other sources of economic downturn as well. And subsequent economic downturns may lead to sovereign defaults. It is important to identify and understand the direction of causality in these relationships. Lending insight to this question, Michael Tomz and Mark Wright in their 2007 article entitled "Do Countries Default in 'Bad Times'?" ask: "What is the relationship between economic output and sovereign default?"⁵⁰ These authors set out to test the relationship between economic conditions and debt repayment that is predicted by theoretical debt models.⁵¹

To study this question, Tomz and Wright use economic and default data spanning from 1820-2004, in which they focus solely on private, foreign sovereign debt.⁵² While they find a negative relationship between economic output and sovereign default (or in other

⁴⁹ Ibid., 22-23.

⁵⁰ Michael Tomz and Mark Wright, "Do Countries Default in 'Bad Times'?" (May 2007), 352.

⁵¹ Ibid.

⁵² Ibid., 353.

words, conclude that yes, countries do “default in ‘bad times’), the relationship is

“surprisingly” weak.⁵³ Specifically:

...on average, output was about 1.6 percentage points below trend when countries decided to suspend or reschedule payments, and the economies of defaulting countries underperformed by about 1.4 percentage points during the entire period of noncompliance....about 62% of the 169 default episodes in our sample began in bad times....Nonetheless, the relationship between output and default is weak. In more than 39% of all observations, countries managed to avoid default even though output was below trend. Furthermore, in nearly 44% of all years in which countries were not meeting their obligations, the default continued even though output had surged above trend....further...more than one-third of defaults began during good times, and...more than half of defaults ended during bad times...⁵⁴

As the authors show, these findings somewhat contradict predictions of classic debt models that predict a strong, negative relationship between a sovereign’s failure to repay its debt on time and in full and economic output. While this finding is useful in providing evidence regarding the timing of sovereign external defaults, it does not comment on causality (whether economic downturns cause defaults), nor do these findings provide insights to defaults on domestic debt.

Turning readers’ attention towards the importance of sovereign domestic debt, and the role of this domestic debt in determining the political costs of sovereign default, researcher Daniel Waldenström studies how the costs of a sovereign’s failure to service its domestic debt on time and in full impacts finance-market-determined sovereign risk.⁵⁵ Waldenström highlights that although many sovereign debt studies focus on external debt, in fact, domestic debt accounts for a majority of all outstanding public debt.⁵⁶ The author then goes on to capitalize on data recorded for Danish government bond yields during 1938-1948, in both

⁵³ Ibid., 355.

⁵⁴ Ibid., 355.

⁵⁵ Waldenström, Daniel. “How Important Are the Political Costs of Domestic Default? Evidence from World War II Bond Markets” (2011), 7.

⁵⁶ Ibid., 1.

Denmark and Sweden, in order to determine a yield differential between domestic and external debt.⁵⁷ As Waldenström explains, the “...resulting sovereign risk differential is...regressed on a set of exogenous wartime shocks that, arguably, influenced the Danish government’s domestic and external default costs differently. This is how the role of the political-economic cost of domestic default is estimated.”⁵⁸ The use of the bond yield data surrounding the WWII period allows Waldenström to ensure international capital market segmentation in order to isolate impacts on domestic versus external debt.⁵⁹ Ultimately, the author concludes that exogenous “geopolitical wartime shocks” “...explain a significant part of the variation in the sovereign risk differential between Danish domestic and external debt”⁶⁰ lending evidence to the literature that “...both domestic and foreign creditors matter to borrowing governments and they may choose strategically on which of these debts to default depending on the size of their political and economic costs”.⁶¹ While Waldenström’s study provides evidence to the importance of domestic debt, and differentiating between the costs of default on domestic versus external debt, because the data used is restricted to the inter WWII period, there may be factors at play that are unique to this historically exceptional time and place, limiting the applicability of its findings to other geographical or temporal contexts.

In their article entitled “Political Booms, Financial Crises”, authors Helios Herrera, Guillermo Ordoñez and Cristopher Trebesch study the interaction between government reputation, or popularity, and a phenomenon that is often linked to sovereign defaults: financial crises. However, instead of examining how financial crises may impact government

⁵⁷ Ibid., 3.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Ibid., 7.

⁶¹ Ibid.

popularity, which the authors believe would be “...difficult to interpret since in many cases government have changed or adopt very different measures to deal with crises”⁶², they examine the impact that “political booms” or increases in government popularity, have on financial crises. Although a financial crises is different than a sovereign default, they are often related, making this paper not only an important contributor to understanding directions of causality in the relationship between political and economic variables, but the proxy that the authors use for government popularity is a novel proposal that may prove to be useful in studying the impact of a sovereign default on government popularity.

In order to study the impact of booms in government popularity on financial crises, Herrera, Ordoñez and Trebesch use a proxy for government popularity from the Political Risk Service Group’s “International Country Risk Guide”.: “...we focus on the ICRG sub-indicator of “government stability”, which measures:

...the government’s ability to carry out its declared program(s), and its ability to stay in office.... The indicator ranges from a minimum of 0 to a maximum of 12 and it is itself composed of three subcomponents, namely (i) government unity, (ii) legislative strength and (iii) popular support. The measure can thus be interpreted as a measure capturing shifts in the public opinion as well as other factors affecting the strength of a government.⁶³

As the authors point out, using this database provides a way to ensure that the measure is consistent across countries and measured periodically across time (since 1984) unlike other government popularity indicators.⁶⁴ At the same time, Herrera, Ordoñez and Trebesch measure the correlation of this indicator with polling data in four countries (Argentina, Brazil, Germany and the US) and find that the two are highly correlated.⁶⁵ Ultimately, the authors conclude that increases in government popularity more often precede financial crises

⁶² Helios Herrera, Guillermo Ordoñez and Cristoph Trebesch. “Political Booms, Financial Crises”. (July 2014), 11.

⁶³ Ibid., 6.

⁶⁴ Ibid.

⁶⁵ Ibid., 7.

than other indicators, such as credit booms, in emerging market countries.⁶⁶ Because governments in emerging economies tend to have lower popularity than those in advanced economies, the researchers explain, governments in emerging countries are more worried about their "...reputation and tend to ride the short-term popularity benefits of weak credit booms rather than implementing politically costly corrective policies that would help to prevent crises".⁶⁷ These governments, then, tend to "gamble for redemption" instead of implementing regulatory measures in order to avoid a potential financial crisis.

Although research over the past decade, or so, has begun to emphasize the importance of domestic considerations in a government's decision on whether or not to service its debt on time and in full, as well as the importance of popularity concerns, large gaps continue to exist in this research. Specifically, this empirical scholarship has almost exclusively relied upon voting functions and case studies to study this relationship. This research, in conjunction with a handful of papers discussing theoretical considerations in the study of the relationship between debt repayment and political interests, are insightful first steps towards understanding this question. However, there are still many unresolved issues, including insight into the mechanisms through which a country's residents interpret a sovereign debt default, how the type of default impacts this relationship, and how a government anticipates and reacts to those interpretations that future scholarship will need to address.

Regarding theoretical frameworks, most of the existing research that studies this relationship uses rational choice and economic voting frameworks. While there are limits to this perspective, and rationality is bounded, such frameworks better lend themselves to

⁶⁶ Ibid., 1.

⁶⁷ Ibid., 2.

quantitative analysis. My work continues along the framework path set out by the existing literature.

Within rational choice theory, important contributions include the foundational work of Anthony Downs in his 1957 book entitled *An Economic Theory of Democracy* and his model of rational voter behavior. Other important works that guide existing literature on the topic, including my own paper, include the contributions of Mueller (1970), and Goodhard and Bhansali (1970), who use popularity functions to conclude that economic variables have an impact on government approval ratings; Kramer (1971) who uses voting functions to show that changes in real income positively impacts congressional election outcomes in the United States; Norpoth (1985) who discusses political cycles and the voting “bonus” that presidents receive when they take office, called the “inauguration effect”, which they then gradually lose due to the “cost of ruling; and Fiorina (1978, 1981), Hibbs (1979) and Sanders (1987), who discuss the importance of subjective perceptions versus objective measures and the impact of past events versus future expectations and that in general, voters tend to be short-sighted. These also conclude that voters, including uninformed voters, generally have at least one “hard” fact about how their lives have evolved during an incumbent’s administration and that the less voters know about the details of candidates policies and platforms, the more they depend on retrospective voting.

With respect to theories on the decisions that government take regarding debt repayment, authors such as Aghion and Bolton (1990), Dixit and Longregan (2000), Chang (2005), Hatchondo and Martinez (2010) and Tomz and Wright (2013) all generally sustain that the decision on whether to continue repaying debt has—like any public policy decision—important tradeoffs that result in winners and losers. The losers are those that do not hold government debt (generally the unemployed, and the most vulnerable part of the population),

as well as public sector employees, who suffer the most from the effects of the fiscal adjustment that is often necessary during a crisis if a government decides to continue to repay its debt. On the other hand, the winners tend to be those who hold government paper and/or the part of the population that values future transactions with foreigners, which tends to be the part of the population that holds greater economic resources. In their models, these authors study government decisions about whether to continue servicing debt using cost-benefit analysis, taking into account the part of the population that has the largest number of voters or the heaviest political weight.

Based on the theories presented by authors Aghion and Bolton (1990), Dixit and Longregan (2000), Chang (2005), Hatchondo and Martinez (2010) and Tomz and Wright (2013), I hypothesize that the impact of the cessation of payments on a sovereign's debt service would depend on the type of debt being serviced. In emerging markets, which are strongly represented in cases of sovereign default from 1984-2012, a sovereign's local currency debt is most likely held by domestic residents. While foreign investors have had a growing appetite for local sovereign debt issued in emerging markets in recent years, foreign ownership of this type of debt still represented a minority of total sovereign debt issued by the largest sovereigns in emerging markets as late as 2013 and 2015. Specifically, as reported by the World Bank for 21 of the largest emerging market sovereigns for which data was available, in all but one case did foreign holdings of emerging market local currency sovereign debt represent a minority of overall local currency debt in 2013.⁶⁸ On average, foreign holdings of emerging market local currency sovereign debt represented only represented around 20 percent of the sovereign's local currency debt stock out of the

⁶⁸ Klingebiel, Daniela. "Emerging Markets Local Currency Debt and Foreign Investors: Recent Developments". Presentation by The World Bank: Treasury, Pension & Endowments Departments. Available at treasury.worldbank.org, Nov. 20, 2014, pp. 10

sovereigns studied.⁶⁹ Even as late as 2015, the International Monetary Fund reported that for 14 of the largest emerging market sovereigns of the time, foreign ownership in local currency debt was still limited, and was less than half in all cases reported.⁷⁰ Given, therefore, that local currency debt is more likely to be held domestically in emerging markets, and that the “winners” of a sovereign’s decision to continue servicing its debt include those who hold government paper, we can assume that those same individuals or entities would also suffer the most from a sovereign’s decision to stop servicing its debt. Thus, I suspect that government popularity will be most negatively correlated with sovereign default in cases of default on a sovereign’s local currency debt. On the other hand, while parts of the domestic population would also likely suffer from a default on foreign currency debt—particularly those who value future transactions with foreigners—because the portion of foreign holdings of foreign currency sovereign debt would be greater than that of local currency sovereign debt, I presume that less residents would be directly impacted by a default on foreign currency sovereign debt. Hence, I predict that the correlation between default and government popularity would be weaker in cases of foreign currency sovereign debt.

⁶⁹ Ibid.

⁷⁰ International Monetary Fund. “Staff Note for the G20 IFAWG: Development of Local Currency Bond Markets Overview of Recent Developments and Key Themes”. Dec. 14, 2016, pp. 8.

Chapter 3: Empirical Evidence

To study the impact of sovereign defaults on government popularity using empirical evidence, I use a linear two-way entity and time fixed-effects least squares dummy variable model using multiple-period panel data. The use of panel data allows me to control for factors within each sovereign entity and for time effects that may influence the likelihood of default or government popularity. As opposed to existing empirical research on the relationship between default and government approval, which utilizes election outcomes as the dependent variable, my model is novel in its use of popularity as the dependent variable. Specifically, I rely on a previously established proxy for government approval ratings that has higher measuring frequency than election results. Additionally, my approach highlights the nuances among different types of default, and how the type of default may change the relationship to government approval.

1. Data

a. Database population

The database population for my panel data includes all sovereigns that have defaulted on their outstanding debt during the period 1984-2012, as defined by the ratings agency S&P Global Ratings (S&P), as well as any other sovereigns that S&P has rated throughout this period, regardless of whether they have defaulted. I have restricted the population to these sovereigns given my interest in studying cases of default, and because I want to ensure that there are no missed cases of default during the period of interest for the sovereigns included in the database. Given that S&P did not rate the entire universe of sovereigns during this period, if I were to include this universe in my database, I would risk including events of default that were not

registered as such by S&P, due to the lack of sovereign ratings on all sovereigns. I have also excluded sovereigns that would qualify to be included under the aforementioned criteria, but for which we do not have data on the dependent variable, government popularity. In total, these criteria lead to the inclusion of 55 sovereign entities in the database. To see a full list of these entities, see Table 6 below. I have restricted the time period of the panel database to 1984-2012 due to the availability of data on the dependent variable, government popularity. The panel data are measured annually during this period for each entity.

b. Default

For the purposes of my research, I have defined default using S&P's definition. According to this approach, an obligor is in "selective default" or "default" when it "...has failed to pay one or more of its financial obligations when it came due."⁷¹ This includes both episodes of failure to pay all obligations when due within a specified grace period, as well as the failure to pay specific issues or classes of obligations, including the finalization of distressed exchanges. As stated by S&P:

Entities in distress often restructure their obligations, offering less than the original promise. The alternative of a potential conventional default, in which the investor or counterparty stands to fare even worse, motivates (at least partially) their acceptance of such an offer. Standard & Poor's Ratings Services treats such offers and buybacks analytically as de facto restructuring--and, accordingly, as equivalent to a default on the part of the issuer.⁷²

The inclusion of distressed exchanges as episodes of default is consistent with S&P's understanding of meeting financial obligations "as they come due", which "...is that

⁷¹ S&P Global Ratings, "Understanding Standard & Poor's Rating Definitions". February 23, 2017 (republish date). Accessed on www.globalcreditportal.com

⁷² Ibid.

investors are paid on a full and timely basis.”⁷³ This understanding of default is consistent with the approach used by other researchers studying the political costs of sovereign default, including Borensztein and Panizza (2008), Foley-Fisher (2012) and Livshits, Phan and Trebesch (2014). For each sovereign and for each year from 1984-2012, I have classified the year as either a default onset year, in which the sovereign enters into a default, or a non-default onset year, in which the sovereign does not enter into a default.

In addition to identifying general default onset years, I have also broken down the default data into foreign currency defaults, in which the sovereign defaults on market-issued debt held in foreign currency; local currency defaults, in which the sovereign defaults on market-issued debt held in local currency; and foreign currency bank debt defaults, in which the sovereign defaults on debt held by private sector financial institutions in foreign currency. As noted previously, many authors who have researched government decisions regarding debt repayment, including Aghion and Bolton (1990), Dixit and Longregan (2000), Chang (2005), Hatchondo and Martinez (2010) and Tomz and Wright (2013), generally sustain that the decision to continue to repay or default on debt has important tradeoffs that results in policy “winners”, or those who benefit from such a decision, and policy “losers”, or those who suffer as a result of the decision. When a government decides to continue to service its debt, it channels limited government resources towards debt repayment, potentially diverting funds from other public policy initiatives. According to these authors, the “winners” of such a decision include residents who hold government

⁷³ S&P Global Ratings, “Timeliness of Payments: Grace Periods, Guarantees, And Use of ‘D’ and ‘SD’ Ratings”. December 16, 2016 (republish date). Accessed on www.globalcreditportal.com

paper as well as those who value future financial transactions or transactions with foreigners. These individuals tend to have greater financial resources than other residents. On the other hand, the policy “losers” of such a decision include residents who do not hold government debt and public sector employees. These employees, the authors argue, are more vulnerable to the negative consequences of the fiscal adjustments that are often necessary during an economic or financial crisis, if the government decides that it wants to continue to channel resources towards debt repayment. Based on this research, I hypothesize that a larger portion of a sovereign’s population would “lose” if a government defaulted on its local currency debt than on foreign currency debt. This is because I assume that the majority of local currency debt is held by local residents, while only part of foreign currency debt is. Therefore, I would expect that the (domestic) political costs of a sovereign default would be greater on local currency debt. By differentiating between different types of default in my data, I am able to test this hypothesis.

c. Government Popularity

To measure government popularity, I rely on a proxy. The use of a proxy is necessary given the lack of a globally consistent and frequent measure of government approval across countries over the last several decades. The proxy that I have chosen has been used by other researchers to measure government approval. This data comes from the Political Risk Services Group’s “International Country Risk Guide”, and covers over 146 countries from 1984-2012. Within this database, I have used the sub-indicator entitled “government stability”. As explained by Ordoñez, Trebesch and Herrera (2014), who also use this index as a proxy for government popularity, this sub-indicator measures:

...the government's ability to carry out its declared program(s), and its ability to stay in office"... The indicator ranges from a minimum of 0 to a maximum of 12 and it is itself composed of three subcomponents, namely (i) government unity, (ii) legislative strength and (iii) popular support. The measure can thus be interpreted as a measure capturing shifts in the public opinion as well as other factors affecting the strength of a government. The main advantage of using the ICRG data is that it allows us to overcome the lack of cross-country information on government popularity, which is a well-known problem in the political science literature.⁷⁴

In their paper, Ordoñez, Trebesch and Herrera test the correlation between this index and real survey data on government approval measured from a handful of countries for which they could find reliable time series (specifically the United State of America, Germany, Brazil and Argentina) and they find close co-movement between this index and actual survey data from these countries. The authors therefore conclude that the index is a good proxy for government popularity.⁷⁵ I have followed the precedent set by these authors and used this index as a proxy for government approval, given the lack of availability of cross-country surveys on government popularity. While this variable suffers from measurement error, as it is not a true measure of government popularity, I believe it is the best global proxy to which I have access across sovereigns and spanning multiple decades.

d. Other variables

Data on control variables come from a range of sources. The selection of financial or economic control variables that may be correlated to both government popularity and risk of default is supported by the findings of S&P Global Ratings as per their Sovereign Rating Methodology (2016), which "addresses the factors that we think affect a sovereign government's willingness and ability to service its debt on time and

⁷⁴ Ordonez, G., Trebesch C., and Herrera, H. "Political Booms, Financial Crises" National Bureau of Economic Research, Working Paper Series. Working Paper 20346. July 2014, pp. 6

⁷⁵ Ibid., 7

in full” and is “...based on our analysis of sovereign defaults, the effect of financial and economic crises on sovereign creditworthiness, and our view of the credit strengths of sovereign governments compared with those of other issuers.”⁷⁶ The selection was also supported by the findings of Mueller (1970), Goodhart and Bhansali (1970), Kramer (1971), Tufte (1978), Erikson (1989), Cooper (1971), Frankel (2005), Chang (2005) and Borensztein and Panizza (2008). These variables are inflation, unemployment, real GDP growth, GDP per capita, the occurrence of a currency crisis and the occurrence of a banking crisis. Annual data on inflation, unemployment, real GDP growth and GDP per capita come from the World Bank and the International Monetary Fund’s International Financial Statistics. Data on currency and banking crises come from Laeven and Valencia’s 2012 database on “Systemic Banking Crises”.

In addition to these economic and financial variables, I have also included several political control variables. These variables are the margin of majority, or the fraction of legislative seats held by the government; the system of government (parliamentary, assembly-elected, presidential, unelected executives); and the degree to which the sovereign’s government is a democracy (democracy index). The sources of these data are the Varieties of Democracy (V-Dem) dataset, compiled by more than 50 scholars globally and co-hosted by the University of Gothenburg and the Kellogg Institute at the University of Notre Dame, and the Inter-American Development Bank’s Database of Political Institutions (DPI). The inclusion of these control variables is supported by the methodology used by the Political Risk Service’s Group

⁷⁶ S&P Global Ratings, “Sovereign Rating Methodology” Dec. 20, 2016 (republish date)

to compile the index of government stability, which includes elements of government unity and legislative strength; S&P Global Ratings' Sovereign Ratings Methodology, which takes into account "...the effectiveness, stability and predictability of policymaking" into its assessment of "...a sovereign's ability and willingness to service financial obligations..."⁷⁷; the IMF and the IDA's article on "Debt Sustainability in Low-Income Countries-Proposal for an Operational Framework and Policy Implications; and Kohlscheen in his article "Why are there Serial Defaulters? Evidence from Constitutions".

e. Summary Statistics

The below is a summary of the variables used in the analysis. Because we have a total of $n=55$ sovereigns and $t=29$ years, the maximum number of observations of any one variable is $55 \times 29 = 1,595$ observations. However, because there are some missing data, the number of observations in most cases is less than 1595. The default, currency crisis and bank crisis variables are dummies that take on a value of "1" in the onset year for these events, and "0" otherwise. Government popularity is an index, as previously described, ranging from a minimum of 0 to a maximum of 12. System of government is a discrete variable with three possible values, 0-2, which represent a presidential, assembly-elected and parliamentary system of government, respectively. Systems with unelected executives are also categorized as 0. All other variables are continuous.

⁷⁷ S&P Global Ratings, "Sovereign Rating Methodology" Dec. 20, 2016 (republish date)

Table 1: Summary Statistics

Variable	# of Observations	Mean	Standard Deviation	Minimum	Maximum
Government popularity	1589	7.515	2.135	1	12
Default	1595	0.420	0.201	0	1
Inflation	1511	57.197	720.485	-16.117	24411.030
Unemployment	1391	8.960	5.471	0.700	33.390
Real GDP Growth	1578	3.289	6.517	-64.047	106.280
GDP per capita	1553	10122.160	14763.080	65.011	101563.700
Currency crisis	1512	0.040	0.195	0	1
Bank crisis	1512	0.037	0.189	0	1
Margin of majority	1469	0.647	0.206	0.093	1
System of government	1593	0.800	0.929	0	2
Democracy index	1595	0.563	0.285	0.077	0.947

2. Empirical Analysis

a. Model

To test the impact of a sovereign's failure to service its debt on time and in full on government popularity, I have used a linear two-way entity and time fixed-effects least squares dummy variable model using multiple-period panel data. The use of panel data allows me to control for factors within each sovereign entity and for time effects that may influence the likelihood of default or government popularity.

Model:

$$GP_{it} = \beta_0 + \beta_1 D_{it} + \beta_2 I_{it} + \beta_3 U_{it} + \beta_4 RG_{it} + \beta_5 GPC_{it} + \beta_6 CC_{it} + \beta_7 BC_{it} \\ + \beta_8 MAJ_{it} + \beta_9 TG_{it} + \beta_7 DI_{it} + Y_2 E_2 + \dots + Y_{55} E_{55} + \delta_2 T_2 + \dots \\ + \delta_{29} T_{29} + u_{it}$$

Where:

- GP is the dependent variable, government popularity, where i=sovereign entity and t=time
- β_k is the coefficient for the independent variables
- D is a dummy independent variable, default, which is the primary independent variable in which I am interested
- I is an independent variable, inflation
- U is an independent variable, unemployment
- RG is an independent variable, real GDP growth
- GPC is an independent variable, GDP per capita
- CC is a dummy independent variable, currency crisis
- BC is a dummy independent variable, banking crisis
- MAJ is an independent variable, margin of majority
- TG is an independent variable for the system of government
- DI is an independent variable for democracy index
- E_n is the sovereign dummy variable n
- Y_n is the coefficient for the binary regressors (sovereigns)
- T_t is the year dummy variable
- δ_t is the coefficient for the binary year regressor
- u is the error term

b. Model Robustness Checks

In order to test if there are fixed effects present in the data, I ran an F-test in which the null hypothesis is that the fixed effects are equal to zero. This test helps to determine whether a least squares dummy variable (LSDV) or an ordinary least squares (OLS) model is more appropriate. Given the below result, I was able to reject the null hypothesis of no fixed effects at a nearly 100% confidence level. Therefore, the data

have significant fixed effects, and the LSDV model is a better model to analyze the data.

F-test results:

F test that all $u_i=0$: $F(53, 1137) = 4.30$ $\text{Prob} > F = 0.0000$

In addition to testing the presence of fixed effects in the data, I also ran a Hausman test to ensure that a fixed effects model is more appropriate than a random effects model. In this test, the null hypothesis is that the unique errors, u_{it} , are not correlated with the model regressors. Given that the results are significant ($\text{Prob} > \chi^2 = 0.0000$), I rejected the null hypothesis at a nearly 100% confidence level, supporting the decision to use a fixed effects model.

Hausman test results:

Test: Ho: difference in coefficients not systematic

$$\chi^2(8) = (b-B)'[(V_b - V_B)^{-1}](b-B)$$

$$= 71.69$$

$$\text{Prob} > \chi^2 = 0.0000$$

($V_b - V_B$ is not positive definite)

After confirming the presence of fixed effects in the data (versus random effects), I have also tested whether, in addition to entity (sovereign) fixed effects, there are also time (year) fixed effects. This analysis tests whether the coefficients for year dummies are equal to zero. Given that the results show that the $\text{Prob} > F$ is less than 0.5, we can reject the null hypothesis that the coefficients for all years are 0, and therefore prove the existence of time fixed effects.

Time fixed-effects test results:

$F(27, 1110) = 41.69$

$$\text{Prob} > F = 0.0000$$

Therefore, in our model, we have included dummy variables for both entity and year.

c. Model Results

i. Main Findings

Table 2: Model Results 1

Variable	β	$SE \beta$	t	p
Default	-0.602***	0.209	-2.88	0.004
Inflation	-0.000**	0.000	-2.16	0.031
Unemployment	-0.083***	0.014	-6.14	0.000
Real GDP Growth	0.042***	0.010	4.14	0.000
GDP Per Capita	-0.000***	0.000	-5.04	0.000
Currency Crisis	-0.428**	0.211	-2.02	0.043
Bank Crisis	0.032	0.219	0.15	0.884
Margin of Majority	0.837***	0.296	2.83	0.005
System of Government	0.067	0.173	0.390	0.699
Democracy Index	1.792***	0.514	3.48	0.001

N: 1201

Adjusted R-squared: 0.588

F (90, 1110): 20.03, Probability > F = 0.000

** $p < 0.05$, *** $p < 0.01$

Under this model, which explains approximately 59% of the variance in government popularity, the value of the coefficient of the dummy variable default is statistically significant at a 99.6% confidence level. At the same time, the negative sign on the

coefficient for default indicates a negative relationship between sovereign default and government popularity. Specifically, the incidence of a sovereign default is associated with a 0.6 drop in the government popularity proxy index, which is equivalent to a 5% fall. Although these results do not prove a causal relationship between sovereign default and changes to government popularity, they do indicate a strong statistically significant correlation between the two variables. All other variables included as controls in the model are also statistically significant at a minimum 95% confidence level, except the variable indicating a banking crisis, and the variable for system of government.

ii. Secondary Findings

In addition to testing the relationship between general sovereign defaults and government popularity, I have also discerned between the types of sovereign defaults, in order to analyze the specific impact on government popularity of each type of sovereign default for which I have data.

To do so, I have not only run the above model as is, but I've also run it three additional times. Each time, I've replaced the independent variable, D , the dummy variable that takes on a value of "1" during a default onset year (including all cases of sovereign default) and "0" in all other years, with FCD, LCD and FBD, respectively, for foreign currency defaults, local currency defaults and foreign currency bank debt defaults. In each case, the dummy variable only takes on a value of "1" during the years in which that specific type of default occurs, and "0" in all other years. My findings for each respective case are below.

1. Foreign Currency Defaults

Table 3: Model Results 2

Variable	β	$SE \beta$	t	p
Foreign Currency Default	-0.739**	0.369	-2.00	0.046
Inflation	-0.000**	0.000	-2.13	0.033
Unemployment	-0.082***	0.014	-6.06	0.000
Real GDP Growth	0.045***	0.010	4.50	0.000
GDP Per Capita	-0.000***	-0.000	-5.16	0.000
Currency Crisis	-0.411	-0.411	-1.94	0.053
Bank Crisis	0.013	0.013	0.06	0.951
Margin of Majority	0.842***	0.842	2.84	0.005
System of Government	0.080	0.080	0.46	0.643
Democracy Index	1.782***	1.782	3.45	0.001

N: 1201

Adjusted R-squared: 0.586

F (90, 1110): 19.90, Probability > F = 0.0000

** $p < 0.05$, *** $p < 0.01$

Restricting the analysis to cases of sovereign defaults on foreign currency debt, which account for around 25% of the cases of default within our database, does not significantly alter the model results. The model still accounts for around 59% of the variance in government popularity. The coefficient of the dummy variable foreign currency default is still statistically significant, but at a 95% confidence level, which

is lower than the confidence level of the coefficient of the general default variable.

The sign of the coefficient is still negative, representing a negative relationship between the occurrence of foreign currency defaults and government popularity, and under this model, the impact is slightly higher: the incidence of a sovereign foreign currency default is associated with a 0.74 drop in the government popularity proxy index, which is equivalent to a 6% fall. All other variables in the model have similar coefficients and significance levels. Overall, these results are very similar to those of the general default model.

2. Local Currency Defaults

Table 4: Model Results 3

Variable	β	$SE \beta$	t	p
Local Currency Default	0.197	0.386	0.51	0.611
Inflation	-0.000**	0.000	-2.19	0.029
Unemployment	-0.84***	0.014	-6.18	0.000
Real GDP Growth	0.045***	0.010	4.48	0.000
GDP Per Capita	-0.000***	-0.000	-5.12	0.000
Currency Crisis	-0.414	0.212	-1.95	0.051
Bank Crisis	-0.017	0.220	-0.08	0.938
Margin of Majority	0.889***	0.299	2.98	0.003
System of Government	0.082	0.173	0.48	0.634
Democracy Index	1.840***	0.516	3.56	0.000

N: 1201

Adjusted R-squared: 0.585

F (90, 1110): 19.79, Probability > F = 0.0000

** $p < 0.05$, *** $p < 0.01$

Restricting the analysis to cases of sovereign defaults on local currency debt, which also account for around 25% of the cases of default within our database, does alter our findings. Specifically, the impact of default, which in this case is limited to local currency defaults, on government popularity is no longer statistically significant. Given the lack of statistical significance of the coefficient on the variable for local currency default, it is unclear if the relationship between this variable and government popularity is positive or negative. All other results are similar to the previous models.

3. Foreign Currency Bank Defaults

Table 5: Model Results 4

Variable	β	$SE \beta$	t	p
Foreign Currency Bank Default	-0.814***	0.274	-2.97	0.003
Inflation	-0.000**	0.000	-2.25	0.024
Unemployment	-0.083***	0.014	-6.13	0.000
Real GDP Growth	0.041***	0.010	4.05	0.000
GDP Per Capita	-0.000***	-0.000	-5.02	0.000
Currency Crisis	-0.421**	0.211	-1.99	0.047
Bank Crisis	0.020	0.219	0.09	0.927

Margin of Majority	0.894***	0.296	3.02	0.003
System of Government	0.067	0.173	0.39	0.698
Democracy Index	1.821***	0.514	3.54	0.000

N: 1201

Adjusted R-squared: 0.588

F (90, 1110): 20.04, Probability > F = 0.0000

** $p < 0.05$, *** $p < 0.01$

The results of the model that only considers cases of sovereign defaults on foreign currency bank debt, of which 75% of the countries included in the database have experienced (some of which have also experienced other types of default), are similar to those of overall defaults and of foreign currency debt defaults. However, these results are slightly more statistically significant, and show a slightly greater impact of the default on government popularity than the other models. Specifically, the coefficient of the dummy variable foreign currency bank default is statistically significant at a 99.7% confidence level, which is higher than the confidence level of the coefficients for default in the other models. Additionally, the sign of the coefficient is negative, representing a negative relationship between the occurrence of foreign currency bank defaults and government popularity. Finally, under this model, the impact is larger: the incidence of a sovereign foreign currency bank default is associated with a 0.81 drop in the government popularity proxy index, which is equivalent to a nearly 7% decline. All other variables in the model have similar coefficients and significance levels.

iii. Overall findings

These model results indicate that most sovereign defaults are correlated with a drop in government popularity. While these correlations are statistically significant, it is difficult to establish causality. For example, falling popularity of a sovereign government could lead to difficulties in addressing economic distress and taking measures to correct economic imbalances, which could, in turn, lead to a default. At the same time, the year-end, annual measurement of government popularity is a more frequent measurement of government approval than elections, which generally take place every two to five years. While this frequency makes it easier to associate defaults with timely changes in government approval, there are often time lags of at least a few months between a default and the measurement of popularity. These lags complicate the determination of causality. Nevertheless, there is clear evidence of correlation between the failure of a sovereign to repay its debt on time and in full, and a drop in government popularity. This change is most evident in cases of sovereign defaults on foreign currency bank debt, which account for around two-thirds of the cases in my database. However, the correlation is also statistically significant in cases of sovereign default on foreign currency market debt, which account for around one-quarter of the cases in the database. On the other hand, our evidence does not indicate any correlation between sovereign defaults on local currency debt, which account for about one-quarter of defaults in the database, and changes in government approval.

iv. Potential Measurement Errors

Our data potentially suffer from measurement error, limiting the significance of the findings. Most importantly, our measure for government approval is a proxy, and

therefore may not correctly represent the true value of the variable in which we are interested in all cases. Additionally, sovereign defaults are not always obvious. Technicalities involving grace periods, restructurings and administrative issues are just some of the reasons that many observers differ in their opinions on default classifications and timing. These differences can also lead to various levels of dissemination and press coverage, and therefore public knowledge and awareness of such events. Finally, the other variables used in the model come from a range of sources, not all of which are measured at the same moment during each year. Additionally, a lack of data on certain sovereigns for certain years has led to me to use different sources for the same variable. In particular, I have used data from both the World Bank and from IFS for inflation, unemployment, and real GDP growth. Therefore, differences in the methodology for each source could lead to a difference in the value in the database, as opposed to a difference in the true value of the variable. Nevertheless, the availability of this data for the population and time period in which I am interested in studying requires this approach.

Chapter 3 Tables and Graphs

Table 6 – Sovereign Default Onsets, 1984-2012

Sovereign	Foreign Currency Default	Local Currency Default	Foreign Currency Bank Debt Default
1. Albania	--	--	1991
2. Algeria	--	--	1991
3. Angola	--	--	1985
4. Argentina	1989, 2001	1989	2001
5. Australia	--	--	--
6. Austria	--	--	--
7. Bolivia	1989	--	1986
8. Brazil	--	1986, 1990	--
9. Bulgaria	--	--	1990
10. Cameroon	--	2004	1985
11. Canada	--	--	--
12. Cote d'Ivoire	--	--	2000
13. Denmark	--	--	--
14. Dominican Republic	2005	1999	2005
15. Ecuador	1999, 2008	1999, 2008	--
16. Ethiopia	--	--	1991
17. Finland	--	--	--
18. France	--	--	--
19. Gabon	--	1999	1986, 1999
20. Germany	--	--	--
21. Ghana	--	--	1987
22. Greece	2012	2012	--
23. Guatemala	1989	--	--
24. Guinea	--	--	1986, 1991
25. Indonesia	--	--	1998, 2000, 2002
26. Iraq	--	--	1987
27. Jamaica	2010	2010	1987
28. Japan	--	--	--
29. Jordan	--	--	1989
30. Kenya	--	--	1994, 2000
31. Kuwait	--	1990	--
32. Liberia	--	1989	--
33. Madagascar	--	2002	--
34. Morocco	--	--	1986
35. Myanmar	--	1987	1997
36. New Zealand	--	--	--
37. Nigeria	1986, 1992, 2001, 2004	--	--

38. Norway	--	--	--
39. Pakistan	--	--	1998
40. Panama	1987	--	--
41. Paraguay	2003	--	1986
42. Romania	--	--	1986
43. Senegal	--	--	1990, 1992
44. South Africa	--	--	1985, 1989, 1993
45. Spain	--	--	--
46. Sudan	--	1991	--
47. Sweden	--	--	--
48. Togo	--	--	1988, 1991
49. Trinidad and Tobago	--	--	1988
50. United Kingdom	--	--	--
51. United States of America	--	--	--
52. Uruguay	2003	--	1987, 1990
53. Venezuela	2004	1995, 1998	1990
54. Vietnam	--	--	1985
55. Zimbabwe	--	--	2000
TOTAL	--	--	--

Set of Graphs 1: Government Popularity Plotted Against Sovereign Defaults



Set of Graphs 1 Continued: Government Popularity Plotted Against Sovereign

Defaults



Chapter 4: Case Studies

In order to deepen my understanding of the relationship between sovereign defaults and government popularity, I have randomly selected one of the instances of default on foreign currency debt, and one of the instances of default on local currency debt, included in my database to study in further detail. These case studies complement the empirical results uncovered in the previous section. To determine which case to study, I assigned a set of numbers to each group falling within the two types of default, and used a random number generator to select both a foreign currency default and a local currency default example. In the first example, which was a default on foreign currency debt, the default was one of the many consequences of government mismanagement and corruption. These weaknesses led to a lack of funds to not only repay debt service, but also to continue the normal operation of government, including the payment of public sector salaries. The default was not an intentional policy choice, but rather the consequence of a lack of funds. The evidence suggests that the event was viewed negatively by the country's residents. In the second example, which was a default on local currency debt, the default was a by-product of intentional political action to preserve democratic liberty. In this case, the evidence suggests that the default did not alter the public's view of the country's political leadership.

Case Study 1: Paraguay's 2003 Default

Paraguay's default was announced on February 13, 2003, only two days after the senate held a vote to impeach the country's president. The government had failed to comply with the "put" option that was called by bondholders on around US\$20 million of outstanding US-Dollar-denominated bonds issued by the republic.⁷⁸ The put option allowed bondholders to demand early repayment. The relatively small amount of debt outstanding on these bonds, the technical nature of the default and the narrow extent of entities affected (a few local banks) implies that the direct impact of the default on the local population—and on government popularity—was likely limited. However, the default was emblematic of the mismanagement of the public sector, and signaled that the government would no longer be able to finance the clientelism that had prevailed under president Gonzalez Macchi. Not only had the government failed to comply with the terms of its debt repayment, but it could not afford to pay public sector salaries. These factors, of which the default was a symptom, contributed to the administration's change in policy direction post-default, albeit under the same political party. In turn, this change in direction allowed a new administration to obtain funds to regularize both debt service payments and, seemingly more important from the public's perspective, public sector salaries and suppliers' debt. These policies proved to be popular.

Although the 2003 Paraguayan default was a default on foreign-currency denominated bonds, the securities were held by domestic banks.⁷⁹ The terms of the bonds allowed bondholders to demand early repayment of the bonds each year until the bonds' maturity, in 2005.⁸⁰ Some of the bondholders exercised this option in January 2003.⁸¹ However, the

⁷⁸ Briozzo, Sebastian. "Paraguay Foreign Currency Ratings Lowered to 'SD'" Feb. 13, 2003. S&P Global Ratings

⁷⁹ Briozzo, Sebastian. "Paraguay Foreign Currency Ratings Remain at 'SD'" Jun 20, 2003. S&P Global Ratings

⁸⁰ Briozzo, Sebastian. "Research Update: Paraguay (Republic of)". Feb. 18, 2003. S&P Global Ratings

⁸¹ Briozzo, Sebastian. "Paraguay Foreign Currency Ratings Remain at 'SD'" Jun 20, 2003. S&P Global Ratings

government failed to comply with the terms of the agreement, causing the ratings agency Standard & Poor's to put the sovereign's foreign currency rating in "selective default" (SD) in February.⁸² Although no two sovereign defaults are the same, this default was unique in that it was not a failure by the government to repay plain vanilla sovereign bonds. Instead, it was triggered by the sovereign's failure to comply with a contingent clause in the bond documentation. Nevertheless, the government was not only running out of funds to repay its debt, but also to keep the public administration functioning.

The default was disseminated in both local and international media. ABC Color, one of the most widely circulated local newspapers, reported: *"El informe de la calificadora internacional señala que nuestro país cayó en un "default" selectivo (cesación de pagos con algunos compromisos) en cuanto a su deuda soberana a largo y a corto plazo en divisas"* and

*El titular de Hacienda, Alcides Jiménez, admitió que es sumamente perjudicial el último informe de la Standard and Poor's, que baja la calificación de nuestro país en materia de pago de deudasReconoció que la calificación perjudica al país debido a que, a pesar de que no tienen en sus planes tomar nuevos préstamos de libre disponibilidad, el informe repercute sobre las posibilidades de captar nuevas inversiones.*⁸³

Another widely-read newspaper, La Nación, wrote, *"La agencia estadounidense Standard and Poor's rebajó hoy a la categoría de incumplimiento de pagos selectivo, o 'default', la calificación de riesgo de la deuda soberana de Paraguay."*⁸⁴ In the international press, Business News Americas reported that "...the government did not have enough cash on hand to pay" and "The government's failure to pay prompted international rating agency Standard & Poor's to downgrade Paraguay's long-term foreign currency credit rating to a selective

⁸² Ibid.

⁸³ "Mala Calificación a Paraguay es como el manguerazo de los bancos" ABC Color, February 15, 2003. Accessed at abc.com.py.

⁸⁴ "S&P rebaja a 'default selectivo' calificación de riesgo Paraguay" La Nación, February 13, 2003. Accessed at <https://www.nacion.com>

default rating, SD, from B-”.⁸⁵ Agencia EFE quoted a local economist, Carlos Fernandez, in an article on the country’s budget deficit saying ““The reforms that didn’t get made before will have to be made now, because we are already paying for that grace period with higher inflation, permanent lateness in paying salaries to government employees, and a de facto default on debt repayment.””⁸⁶ Most media reports associated the default with the government’s lack of financial resources and mismanagement, which they related to corruption. On the other hand, the government announced that the default, which was driven by the local banks’ decision to exercise the “put” option on the bonds, was “...the banks’ way of getting even...for a government decision made in January to transfer public deposits from private banks of the central bank in a bid to curb speculation against the local currency”.⁸⁷ Yet, regardless of the banks’ motives for calling the “put” option, it was an alternative that was granted to bondholders by the government in the issuance agreement. The government’s insolvency was a separate matter.

A government with limited financial resources has to make difficult decisions about spending priorities. In the year running up to the default, the government prioritized domestic spending on public sector wages and bloated government-related entities over fiscal reforms that would provide financial relief and allow the government to continue to meet its financial commitments. The International Monetary Fund (IMF) reported that this decision was due to lack of domestic political support for fiscal adjustment and reform.⁸⁸ As stated in the IMF’s

⁸⁵ Rindebro, Ulric. “Govt, banks reach debt default agreement”. BNAmericas, February 26, 2003. Accessed at www.bnamericas.com

⁸⁶ “Budget deficit spells big trouble for Paraguayan gov’t.” EFE World News Service, March 28, 2003. Infotrac Newsstand, <http://link.galegroup.com/apps/doc/A99298882/STND?u=tplmain&sid=STND&xid=24290399>. Accessed 20 Jan. 2018.

⁸⁷ Rindebro, Ulric. “Govt, banks reach debt default agreement”. BNAmericas, February 26, 2003. Accessed at www.bnamericas.com

⁸⁸ International Monetary Fund, Paraguay: 2002 Article IV Consultation Staff Reports, Washington D.C., April 2003, available at <https://www.imf.org>

2002 Article IV report on Paraguay, “While the authorities said they would attempt to remain current on external obligations, they face strong political pressures in the run-up to elections to prioritize payments for domestic spending, particularly wages and salaries.”⁸⁹ If the government was representing the interests of its constituents, then its constituents preferred government resources to be used to pay public sector wages and salaries, over other spending, such as debt service. This decision came to a head in the government’s negotiations with the IMF over a stand-by arrangement in 2002. Under the proposal, the IMF would provide financial aid to Paraguay, contingent on the government’s implementation of reform measures. Yet, the lack of domestic political support for such reforms led to the government’s failure to pass required pre-program measures: “However, the Paraguayan congress repeatedly postponed action on two key pieces of legislation which were prior actions under the program—a fiscal adjustment package and a banking resolution law.”⁹⁰ Some of the reforms proposed to address the growing fiscal gap included reductions in pension payments and other operating spending, an increase in the value-added tax (VAT) and measures to broaden the tax base.⁹¹ While these measures were not popular with the public, the government had the added difficulty of a relatively weak mandate, given that the president in power, Gonzalez Macchi, had not been elected to office. Macchi was appointed as president by the local congress after Paraguay’s previous president, Raul Cabos Grau, resigned following his vice president’s assassination.⁹²

In addition to President Macchi’s weak mandate, ongoing corruption charges signaled that the government was mismanaging the limited resources that it did have at its disposal. Corruption had long been embedded in Paraguay’s political structure. As one of last nations

⁸⁹ Ibid., pg. 12.

⁹⁰ Ibid., pg. 5.

⁹¹ Ibid., pg 11.

⁹² Ibid., pg. 6

in South America to return to democracy, following a dictatorship that ended in 1989, the country's evolving democracy was still dominated by the Partido Colorado. The party, which at the time of the default held the world's record for longest-ruling party still in office, had been in power since 1947.⁹³ External observers attributed the party's grip on power, at least in part, to its jobs-for-votes scheme. In 2003, the press quoted a local political analyst, Carlos Martini, stating that one of the reasons the Colorado Party was able to maintain such dominance was due to the control that the Colorados had over the public administration, which had converted it into a "party-state, Paraguay's leading employer. This ensures the Colorados an electoral clientele."⁹⁴ Victor Jacinto Flecha, a local political scientist and economist, associated the political power dynamics to the country's history of military rule: "The military's long run of absolute power also enabled the emergence in the political arena, first of official groups, and mafias later, in order to sustain itself in power."⁹⁵ However, the government's scheme became unsustainable. *The Economist* wrote:

The party's rule, first in dictatorship and since 1989 in democracy, has been based on a compact: in return for political loyalty, some 200,000 Paraguayans have government jobs, many of them unnecessary ones. This cosy arrangement has long been unaffordable: the government's wage bill alone comes to about 50% more than its revenues. The government has borrowed to cover the shortfall, but the gap is widening. "We have a worn-out political and economic system and an unsustainable economic crisis," admits Enrique Riera, the mayor of Asunción, Paraguay's capital. The city, of 550,000 people, employs more than 7,000, and spends 97% of its budget on salaries.⁹⁶

Journalists were not alone in their assessments of the level of corruption evident in the public sector. Transparency International ranked Paraguay as the world's third most corrupt country

⁹³ Briozzo, Sebastian. "Paraguay (Republic of)" Mar 03, 2004 S&P Global Ratings

⁹⁴ "Elections-Paraguay: Colorado Party Poised To Win." Interpress Service, 26 Apr. 2003. Infotrac Newsstand <http://www.galegroup.com> . Accessed 21 Dec. 2017.

⁹⁵ "Paraguay: President-Elect Faces Tough Fight On Corruption." Interpress Service, 22 July 2003. Infotrac Newsstand, <http://www.galegroup.com>. Accessed 21 Dec. 2017.

⁹⁶ "Debtor's reckoning: Paraguay's new president" Aug. 16, 2003, *The Economist*, 368, 8337, 42.

in its 2002 report.⁹⁷ At the same time, the Center for Information and Development Resources in Paraguay, together with the U.S. Agency for International Development, conducted a survey in 2002 that showed that 86 percent of those surveyed in the country were “overwhelmed” by corruption in government.⁹⁸

The Colorado’s jobs-for-votes pact contributed to the party’s ability to stay in power. However, President Macchi’s clear abuse of this power, together with the loss of financial resources needed to keep the scheme functioning, tested the population’s patience. Macchi blatantly misused public funds for personal ends. As reported by The New York Times, “That corruption and impunity was symbolized for many by the incumbent president, Luis Gonzales Macchi, who last year was found to be driving a stolen BMW and narrowly survived impeachment after being accused of mishandling \$16 million in state money.”⁹⁹ Though impeachment proceedings were eventually launched, only two days before the country’s rating was lowered to selective default, the senate ultimately voted to acquit Macchi. Nevertheless, the senators did not refute any of the accusations against the president.¹⁰⁰ In fact, most senators agreed that Macchi was guilty, but decided against impeachment due to political reasons, including the proximity of the next presidential election, as well as considerations of Paraguay’s external image.¹⁰¹ This outcome was not well received by the country’s populace. Media outlets and other institutions believed that the

⁹⁷ Briozzo, Sebastian. “Paraguay (Republic of)” Mar 03, 2004 S&P Global Ratings

⁹⁸ "Paraguay: President-Elect Faces Tough Fight On Corruption." Interpress Service, 22 July 2003. Infotrac Newsstand, <http://www.galegroup.com>. Accessed 21 Dec. 2017.

⁹⁹ Smith, Tony. “Paraguay’s Voters Appear to Extend the Party’s 5-Decade Rule” (April 28, 2003). The New York Times. pA4 Infotrac Newsstand, <http://www.galegroup.com>. Accessed 21 Dec. 2017.

¹⁰⁰ "Paraguay: Acquittal Of President Stirs An Uproar." Interpress Service, 13 Feb. 2003. Infotrac Newsstand, <http://galegroup.com>. Accessed 21 Dec. 2017.

¹⁰¹ Ibid.

result of the proceedings represented the epitome of the impunity of Paraguay's political class.¹⁰²

While the oversized public sector facilitated political support for the Colorado party, this model was only sustainable so long as the government had the financial resources to pay the large wage bill. However, in 2002, the Paraguayan economy fell into recession.¹⁰³ The combination of a regional economic contraction—which limited Paraguay's ability to export, attract foreign investment and receive workers' remittances—, a drought that hurt Paraguay's large agricultural sector, an outbreak of foot-and-mouth disease that affected beef exports, and banking sector challenges, all contributed to Paraguay's economic crisis in 2002.¹⁰⁴ In turn, the country's weak economic performance led to lower government revenues and a larger fiscal deficit.¹⁰⁵ As the public administration's financial resources dwindled not only did the government lack funds to repay its debt, but it began to accumulate arrears in public sector salaries. The IMF reported, "As of January 31, 2003, the public sector had domestic arrears of US\$117 million (2.1% of GDP), including unpaid salaries, overdue supplier credits, and domestic bonds held by the banking system."¹⁰⁶ The local newspaper ABC Color, reported that, in early 2003, the ministry of finance requested urgent financing from the central bank to pay public salaries, which had been paid late for months: "*El secretario de Estado pidió 11 millones de dolares para pagar los costos de las presidenciables y financiar en tiempo el pago de salarios publicos (pago que lleva desde hace meses entre 20 y 30 dias de atraso).*"¹⁰⁷ In the context of the financial and economic

¹⁰² Ibid.

¹⁰³ International Monetary Fund, Paraguay: 2002 Article IV Consultation Staff Reports, Washington D.C., April 2003, available at <https://www.imf.org>

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

¹⁰⁷ "Se cumplen Vaticinios del FMI". ABC Color, April 7, 2003, Accessed at www.abc.com.py

recession that began in 2002, Macchi's administration no longer had the resources to sustain the political model that had kept him in power. Wage arrears, together with the publicity surrounding Macchi's misuse of public funds, led to very low government approval ratings prior to the 2003 elections.

Macchi lost any degree of political legitimacy that he may have previously held in the run-up to the elections. Universal Press International reported that "The president's popularity has plummeted in recent months due to the economic crisis plaguing the country."¹⁰⁸ The country was ready for the elections that were held in April 2003 to bring change to Paraguay's leadership. Although the Colorado candidate, Nicanor Duarte Frutos, was running under the same political party as Macchi, he was forced to distance himself from the Colorado president in power.

Nicanor Duarte Frutos' success in the presidential elections held in April 2003 demonstrates that, although the populace wanted a change in the direction of government, it did not completely reject the political model that had sustained the Colorado party in power for decades. Frutos won on the Colorado ticket, but earned only 37 percent of the vote.¹⁰⁹ This result was significantly weaker than the party's success in the previous election, when the Colorado candidate earned 54 percent of the vote.¹¹⁰ At the same time, the Colorados did not win a majority in the senate. Following the 2003 election, the party held 16 out of 45 seats, forcing them to work with opposition parties in order to pass any legislation.¹¹¹ The weak election results likely reflected voters' exasperation with the party's management,

¹⁰⁸ "Paraguay leader avoids impeachment." UPI Archive: General News, Feb. 11, 2003. Infotrac Newsstand , <http://www.galegroup.com>. Accessed Dec. 21, 2017.

¹⁰⁹ International Monetary Fund. "Request for Stand-By Arrangement –Staff Report; Staff Statement; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Paraguay." March 2004. Accessed at <http://www.imf.org>.

¹¹⁰ "Paraguay's election: The new boss." *The Economist*. May 3, 2003. 367, 8322, 58.

¹¹¹ *Ibid*.

particularly given former president Macchi's corruption charges. The *New York Times* reported that "...many Paraguayans did not believe that Mr. Duarte Frutos, 56, was willing, or able, to break with the Colorados' corrupt past."¹¹² The newspaper published an article that quoted voters saying "In truth, nothing will change because it will be all the same people" and "I'm not expecting any big changes," while voting in the April elections.¹¹³ Nevertheless, more voters preferred to stick with Colorado candidate than take a risk on a relatively unknown candidate, or party. Despite anti-corruption campaign rhetoric, the Colorados offered a certain degree of status quo when it came to public employment. As reported by *The Economist*, most civil servants still belonged to the Colorado party.¹¹⁴ Frutos had announced in his campaign that he would seek to obtain external financing in order to promote public works and generate jobs.¹¹⁵ That same financing would not only allow the government to become current on its debt payments, but also regularize public sector salary and pension payments. The prospect of re-activating the Colorados' political model proved to be more popular than any other competing campaign platform.

While there was political continuity under the Frutos administration given that the Colorado Party maintained its dominance of domestic political institutions, Frutos was forced to implement dramatic fiscal reforms in order to keep the government afloat. The new administration also understood the benefit of front-loading these reforms, given the high popularity of the administration during its "honeymoon" as a newly elected government. As reported by the IMF, the government determined the timing of its fiscal adjustment, in part, due to "...the authorities' desire to take advantage of the momentum of the new

¹¹² Smith, Tony. "Paraguay's Voters Appear to Extend the Party's 5-Decade Rule" (April 28, 2003). The New York Times. pA4 Infotrac Newsstand, <http://www.galegroup.com>. Accessed 21 Dec. 2017.

¹¹³ Ibid.

¹¹⁴ "Paraguay's election: The new boss." *The Economist*. May 3, 2003. 367, 8322, 58.

¹¹⁵ "No se debe endeudar más al país sin antes combatir la corrupción". *ABC Color*. April 30, 2003. Accessed www.abc.com.py.

government's post-election support to front-load the adjustment process".¹¹⁶ Frutos took office in August 2003, and had a high level of popularity throughout the first year of his mandate.¹¹⁷ Capitalizing on this popularity, the new administration initially concentrated its efforts on reforms in tax and customs administration, in order to close the fiscal gap and eliminate revenue lost through corruption. The majority of the country's tax revenue was collected through the customs administration, which was "...perceived as one of the most corrupt institutions in Paraguay."¹¹⁸ Given the high rate of tax evasion (nearly 50 percent) and the culture of corruption, the administration was able to raise revenues significantly over a relatively short timeframe with a few targeted reforms.¹¹⁹ These included on-site business inspections, greater focus on audits, as well as checks and prosecution of corrupt officials.¹²⁰ Revenue collection also likely benefitted from economic recovery. A favorable harvest and improvement in regional economies contributed to higher economic growth in Paraguay in 2003.¹²¹ At the same time, although the new administration eventually implemented measures to address the wage bill, these measures did not, at least initially, involve cutting the number of legitimately-employed public-sector employees. Instead, the policies cut vacant and consultant positions, and, through a census of civil servants and public employee pensioners, aimed to eliminate irregularities.¹²² These measures, at least in part, addressed the public's concern with corruption, the use of public resources and the regularization of public sector salaries, while not significantly impacting the size of legitimate public sector employment.

¹¹⁶ International Monetary Fund. "Request for Stand-By Arrangement –Staff Report; Staff Statement; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Paraguay." March 2004. Accessed at <http://www.imf.org>, 8.

¹¹⁷ Briozzo, Sebastian. "Paraguay (Republic of)" Mar 03, 2004 S&P Global Ratings

¹¹⁸ International Monetary Fund. "Request for Stand-By Arrangement –Staff Report; Staff Statement; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Paraguay." March 2004. Accessed at <http://www.imf.org>, 17.

¹¹⁹ Ibid.

¹²⁰ Ibid.

¹²¹ Ibid., 5.

¹²² Ibid., 18.

The political structure of clientelism in place in Paraguay, which led to a large public sector, made significant public sector operating cost cuts—in order to secure resources for debt service—politically unfeasible in the run-up to the 2003 elections. Any such measures would have been met with significant public backlash, particularly given the president's overt misuse of public funds for personal gain. With this understanding, the government failed to implement the pre-conditions for an IMF program in late 2002. Thereafter, the administration did not meet its debt service commitments. The government's missed debt service payments represented the lack of financial resources available, which in turn, limited its ability to continue to finance the clientelistic structure that kept it in power. Around the same time as the sovereign default, Macchi was acquitted in his impeachment proceedings, despite overt evidence of corruption. The public, as represented in local media, was furious about the outcome of the proceedings, and Macchi's popularity suffered. At the same time, there were arrears in public sector salaries, due to the shortage of available financing. Elections were held April 2003, and although the results were poor, the Colorado candidate, Nicanor Duarte Frutos won. This outcome demonstrated that the electorate did not completely reject the model that had been in place under Macchi's administration. After taking office, Frutos was able to negotiate a deal with IMF, and the new financing allowed the country to regularize its debt arrears. Popularity improved as the functioning the public sector returned to normality.

Case Study 2: Madagascar's 2002 Default

Madagascar's 2002 local currency default was one of the many by-products of an all-encompassing political crisis that temporarily halted nearly all other activity in the country in the first half of that year. After consolidating power within many of Madagascar's institutions, the country's incumbent president refused to acknowledge vote miscounting in the 2001 presidential election. In turn, the opposition candidate contested the election results, and officially declared himself president. The resulting conflict crippled productive activity and led to the closure of the government's treasury bill market, logistically preventing it from meeting its debt repayment commitments, though it seemingly had the financial resources to do so. Nevertheless, the consequences for the general population of the missed payments were limited, and were indirectly supported by a majority of the populace as a necessary by-product of democratic justice.

Didier Ratsiraka, Madagascar's incumbent president, slowly manipulated the country's institutions in the run-up to the 2001 elections in order to solidify his position as the country's dominant political force. Ratsiraka, who had previously ruled the country a socialist dictator, was later democratically voted into office in the country's second free elections in 1997.¹²³ While in office, Ratsiraka devolved power to provincial governments—over which he had more influence than in the capital—, and placed a political ally at the head of the High Constitutional Court, which rules on election results.¹²⁴ As noted by authors Marcus Richard and Paul Razafindrakoto, the weakness of the country's institutions allowed for these, and other, imbalances of power. They state:

What is notable here is that legally Didier Ratsiraka does not appear to have done anything wrong. He came back into office via a popular vote, he won a

¹²³ Nolen, Stephanie. "Madagascar's double vision: with two leaders and two capitals, nation's democracy looks as imperilled as some species." *Globe & Mail* [Toronto, Canada], 9 Mar. 2002.

¹²⁴ Marcus, Richard R., and Paul Razafindrakoto. "Participation and the Poverty of Electoral Democracy in Madagascar." *Africa Spectrum*, vol. 38, no. 1 2003, pp. 30-31.

constitutional change by popular referendum, and he solidified his power base in the other instruments of governance through decidedly constitutional processes. The problem is that the constitution, never a stellar document, has been so manipulated over the past decade that it no longer acts as a guarantor of institutional independence. Indirectly or directly, the powers of the state ultimately reside in the hands of the executive who can act legally virtually without impunity.¹²⁵

Ratsiraka carried out his manipulation of power within the confines of the country's existing legal structure. Even after the elections were held and evidence of miscounting emerged, Ratsiraka hid behind the protection that his successful manipulation of the institutions offered, until such protection could no longer hold up beneath the weight of the democratic majority.

Marc Ravalomanana, who would later become Madagascar's president, did not initially have a large political following. Ravalomanana had earned recognition in the country as a successful, self-made businessman who ran a food products business, and later as the mayor of Madagascar's capital: Antananarivo.¹²⁶ Capitalizing on his ownership of a radio network—Radio Malagasy Broadcasting System—, a helicopter and television outlets, Ravalomanana could easily campaign throughout Madagascar despite the country's poor infrastructure.¹²⁷ This access allowed Ravalomanana to quickly become the main challenger to the incumbent, Ratsiraka, in the election run-up. Ravalomanana also benefitted from the electorate's frustrations with Ratsiraka, and desire for change in political leadership, reflected by the high voter turnout.¹²⁸ It also allowed Ravalomanana to amass an information network that could quickly compile voting statistics. As noted by Solofo Randrianja:

Importantly, for the first time the Ministry of the Interior did not have a monopoly on collating the voting statistics. The Ravalomanana support

¹²⁵ Ibid., 31

¹²⁶ Poverty Reduction, Patronage, or Vote Buying? The Allocation of Public Goods and the 2001 Election in Madagascar Author(s): Christine Moser Source: Economic Development and Cultural Change, Vol. 57, No. 1 (October 2008), pp. 142

¹²⁷ Ibid.

¹²⁸ Randrianja, Solofo. "“Be Not Afraid, Only Believe”: Madagascar 2002” African Affairs (2003), pp. 315.

committee, the *Komity manohana an'i Marc Ravalomanana* (KMMR) was able to mobilize such important resources as a half-dozen helicopters and a fleet of four-wheel-drive cars to collect the electoral records which are handed over to the representatives of registered candidates at each polling station. These figures were then fed into a computerized system based in Ravalomanana's campaign headquarters in Antananarivo.¹²⁹

Ravalomanana's ability to count votes, which apparently rivaled the government's, proved to be a critical element in the conflict that followed. It provided him with access to information that gave legitimacy to his claims of victory.

Ravalomanana and his supporters knew that he had won an absolute majority of votes in the 2001 elections, and refused to accept the inaccurate results declared by the High Constitutional Court, sparking a political standoff that would later shutdown the country. While Ravalomanana and his committee tallied 52 percent of the votes in his favor in the December 2001 elections, the High Constitutional Court declared that he had only won 46 percent, thus requiring a second round of voting.¹³⁰ However, Ratsiraka, who had the court and electoral commission in his favor, refused to allow a recount.¹³¹ After being denied the opportunity to participate in a runoff election that would be more independently measured and scrutinized, Ravalomanana, who was encouraged by his supporters, declared himself president on February 22, 2002.¹³² Thereafter, he appointed his own government, to which Ratsiraka responded by appointing a military governor in Antananarivo, declaring a state of emergency and invoking martial law.¹³³ ¹³⁴ At the same time, Ratsiraka's supporters declared

¹²⁹ Ibid.

¹³⁰ Ibid., 315-317.

¹³¹ Nolen, Stephanie. "Madagascar's double vision: with two leaders and two capitals, nation's democracy looks as imperilled as some species." *Globe & Mail* [Toronto, Canada], 9 Mar. 2002.

¹³² Marcus, Richard R., and Paul Razafindrakoto. "Participation and the Poverty of Electoral Democracy in Madagascar." *Africa Spectrum*, vol. 38, no. 1 2003, pp. 39.

¹³³ Randrianja, Solofo. "'Be Not Afraid, Only Believe': Madagascar 2002" *African Affairs* (2003), pp. 317-318.

¹³⁴ Nolen, Stephanie. "Madagascar's double vision: with two leaders and two capitals, nation's democracy looks as imperilled as some species." *Globe & Mail* [Toronto, Canada], 9 Mar. 2002.

a rival capital city, Toamasina, on the coast.¹³⁵ With the country physically divided by roadblocks, much of Madagascar's trade and economic activity halted.

As a result of the political conflict, roadblocks to the coast were put in place by Ratsiraka's supporters—which halted the free movement of goods, limited trade and caused shortages—, the government was unable to implement its budget, the foreign exchange interbank market was closed, and operation of the government's treasury bill market was suspended in February 2002. The suspension of the treasury bill market prevented the government from meeting its domestic debt repayment commitments, causing it to default on its local currency debt.¹³⁶ Reportedly, the amount defaulted reached around US\$200 million, or about 4.5% of Madagascar's GDP.¹³⁷ Treasury bill auctions were put on hold, and outstanding bills were reportedly rolled over.¹³⁸ The default on local currency debt lasted until the political crisis settled, and debt service resumed in July of the same year.¹³⁹

Banks appear to have been the main holders of the government's treasury bills. Yet, because the crisis did not severely affect them, the transmission of any negative impact of non-repayment of the bills to the general population seems to have been limited. There are no public statistics on the distribution of the main treasury bill creditors in Madagascar at the time of the crisis. However, the Enhanced Integrated Framework's (EIF) study on trade integration in the country reported that the government encouraged banks to purchase treasury bills upon the market's reopening in 2002.¹⁴⁰ Yet, they report, banks were largely

¹³⁵ Ibid.

¹³⁶ Banky Foiben'i Madagasikara, Rapport Annuel, 2002, pp. 35

¹³⁷ Beers, David and John Chambers. "Sovereign Defaults: Moving Higher Again in 2003?" Standard and Poor's. February 2003.

¹³⁸ International Monetary Fund. "Madagascar: 2002 Article IV Consultation, Second Review Under the Poverty Reduction and Growth Facility". January 2003, pp. 11

¹³⁹ Beers, David and John Chambers. "Sovereign Defaults: Moving Higher Again in 2003?" Standard and Poor's. February 2003.

¹⁴⁰ Enhanced Integrated Framework (EIF), *Volume 1: Madagascar, Diagnostic Trade Integration Study*, August 15, 2003, <https://www.enhancedif.org>, pp. 50

unwilling to do so, given the high country risk, and because they had reached their exposure limits to these instruments:

...in the face of its needs, with the reopening of an auction market, the Government has encouraged commercial banks to buy treasury bills. It is currently acknowledged that the banks are not buying treasury bills at auction and are not granting enough loans either. Explanations given include the fact that country-risk remains high and that the banks have reached their limit in terms of treasury bill auction purchases.¹⁴¹

One can thus infer that commercial banks held sizeable amounts of these bills prior to the political crisis. Therefore, the government's non-payment would have principally affected these entities directly. Nevertheless, the default does not seem to have significantly influenced the banks' operations, and consequently, the transmission to the local populace was likely limited. The International Monetary Fund reported that the country's banking sector strengthened from 2000-2002 and that the sector remained stable, even after the political crisis, although there was an increase in the incidence of non-performing loans.¹⁴²

Regardless, capital levels, profitability and liquidity reportedly remained high.¹⁴³ At the same time, although the high level of liquidity likely reflects the banks' reluctance to lend, which would have affected the economy's growth, no banks reportedly failed during the crisis. Most households were likely unaffected by the minor impact of the incidents on the banks' balance sheets.

Any indirect effect on the populace from banks' minor operational adaptations—such as a reduction in lending—or on any other potential holders of treasury bills, was also likely limited due to the high level of poverty in Madagascar, the low penetration of the financial system and the country's poor infrastructure—especially in rural areas. At the time,

¹⁴¹ Ibid.

¹⁴² International Monetary Fund. "Madagascar: 2002 Article IV Consultation, Second Review Under the Poverty Reduction and Growth Facility". January 2003, pp. 21

¹⁴³ Ibid.

Madagascar was one of the poorest country's in the world, given that its gross national income per capita was only US\$260.¹⁴⁴ This was especially true of the country's rural residents, where over 75% of these citizens were considered poor.¹⁴⁵ However, around 50% of urban citizens were also considered poor, meaning that a majority of residents lived below the poverty line.¹⁴⁶ At the same time, Madagascar's lack of infrastructure posed constraints to the economic development throughout the country. Christine Moser, in her article on poverty in the country, reported that there was a "daunting lack of infrastructure" and "deteriorating of existing infrastructure".¹⁴⁷ This absence not only likely limited the penetration of the financial system throughout the country, but also the diffusion of financial news and information to the country's more remote settlements. Any direct impact from the default transmitted through the financial sector, and communication about the default, therefore must have been limited for the general public.

Beyond the lack of meaningful transmission mechanisms of the possible consequences of the default to the populace at large, a majority of the electorate indirectly supported the measure, along with additional measures that had larger consequential scopes, through their support of Ravalomanana and his refusal to accept the inaccurate election results. In fact, neither political camp was initially willing to relinquish its claim on power, at the cost of macroeconomic stability. As Richard Marcus and Paul Razafindrakoto argue, the crisis brought more than 50 percent of the population of the country's capital into the streets in support of Ravalomanana's legitimate demand to be recognized as the democratically-elected leader of Madagascar:

¹⁴⁴ Moser, Christine. "Poverty Reduction, Patronage or Vote Buying? The Allocation of Public Goods and the 2001 Election in Madagascar" *Economic Development and Cultural Change*, Vol. 57, No. 1 (October 2008), pp. 138

¹⁴⁵ *Ibid.*, 140.

¹⁴⁶ *Ibid.*

¹⁴⁷ *Ibid.*

Since democracy in Madagascar is not deep enough to allow for other forms of participation (contestation by civil society, political party pressure, media scrutiny, etc.) to under-gird government legitimacy, civic action was not only an acceptable option but the only option for saving the country from a significant backslide towards an opaque political system led by a self-serving autocrat. A social movement that ultimately brought over half of the population of the capital into the streets...served as an important participation mechanism protecting basic liberties from a predatory state. Where there is such an immediate threat to the meaning of democracy such action form a Madisonian institutional argument that liberty must be protected at all costs because it is essential to political life.¹⁴⁸

It was ultimately this level of support and persistence in seeking democratic justice, at all costs—including the shutdown of the treasury bill market that caused the government to default, as well as more widely-impactful consequences such as the loss of 100,000 to 150,000 jobs in export-related enterprises—that ultimately led to the recount of votes by the High Constitutional Court. This official recount revealed that Ravalomanana had indeed obtained over half of the population’s vote in the first round of elections.¹⁴⁹ By June 2002, Ravalomanana took control as the undisputed president of Madagascar, and Ratsiraka fled to France.¹⁵⁰ Temporary economic disruption, and default, was the price that over half of the country was willing to pay in order to protect what they viewed as their basic liberty.

Unlike many other cases of sovereign default, Madagascar’s 2002 local currency default was not driven by a lack of financial resources. Therefore, while many governments in power during a default have to make difficult decisions on resource allocation, weighing the tradeoffs between debt service and public sector wages, Madagascar was in no such condition. The country’s economy was growing prior to the crisis, and the issues that provoked the confrontation were primarily political. In fact, despite the impossibility of tax

¹⁴⁸ Marcus, Richard R., and Paul Razafindrakoto. “Participation and the Poverty of Electoral Democracy in Madagascar.” *Africa Spectrum*, vol. 38, no. 1 2003, pp. 30-31

¹⁴⁹ Randrianja, Solofo. “‘Be Not Afraid, Only Believe’: Madagascar 2002” *African Affairs* (2003), pp. 323-324

¹⁵⁰ Marcus, Richard R., and Paul Razafindrakoto. “Participation and the Poverty of Electoral Democracy in Madagascar.” *Africa Spectrum*, vol. 38, no. 1 2003, pp. 41

collection during the virtual shutdown of the economy, civil servants continued to be paid throughout the crisis. The central bank, for example, reported that public sector salaries and pensions were regularly paid throughout the crisis, although other expenses were kept to a minimum: “*Seuls les salaires et les pensions ont été régulièrement réglés, tandis que les autres dépenses ont été réduites au minimum.*”¹⁵¹ Similarly, reporter Stephanie Nolen wrote that once he declared himself president, and appointed government officials, Ravalomanana began paying public sector wages: “The new president, Mr. Ravalomanana, has now installed ministers in every cabinet office but that of the prime minister. He has started paying civil servant salaries, which may win him goodwill.”¹⁵² The government’s ability to continue to meet salary and pension commitments, despite its apparent logistical inability to service its debt, surely eased the burden of the political crisis on the country’s public sector workers—at least in the capital city—and supported Ravalomanana’s popularity.

Madagascar’s 2002 local currency default is another example of the uniqueness of the circumstances surrounding each case of sovereign default. In this particular case, the transmission of the impact of the default on the general population was limited, which in turn limited the electorate’s response to the default. At the same time, the majority’s support of Ravalomanana, and his claim on the presidency—no matter the cost—demonstrates the public’s willingness to endure any possible knock-on effects that his resistance caused, including default. However, this response was inextricably tied to the political and historical context surrounding the event of default. The default was just one of many by-products of what seemingly was the primary concern of the population at the time—preserving democratic liberty.

¹⁵¹ Banky Foiben’i Madagasikara, Rapport Annuel, 2002

¹⁵² Nolen, Stephanie. "Madagascar's double vision: with two leaders and two capitals, nation's democracy looks as imperilled as some species." *Globe & Mail* [Toronto, Canada], 9 Mar. 2002.

Chapter 5: Interpretation of Results

The case studies on Paraguay and Madagascar's defaults, as well as that of Argentina presented in the introduction, and other cases discussed in articles such as Foley-Fisher's "The Timing of Sovereign Defaults over Electoral Terms," provide a lens through which to view the empirical evidence. The empirical data suggest that the initial hypothesis, which postulated that the relationship between defaults on local currency debt and government popularity would be stronger and more negative than that between defaults on foreign currency debt and government popularity, was incorrect. Nevertheless, the data do indicate that the type of default alters the correlation, or lack thereof, to popularity—just not in the way initially hypothesized. While the lack of a convenient instrumental variable hinders us from determining causality, sovereign default case studies offer a glimpse into the possible mechanisms behind the relationships uncovered by the data.

According to the Sovereign Rating Methodology of rating agency S&P Global Ratings, which studies and rates the likelihood that an entity will continue to repay its debt on time and in full, there is generally a distinction between the likelihood that a sovereign entity will continue to repay its local currency debt versus its foreign currency debt. Specifically, if a sovereign controls its own currency, it can more easily repay its local currency debt than its debt denominated in foreign currency. In fact, the rating agency has observed higher default rates on sovereigns' foreign currency debt than it has on its local currency debt.¹⁵³ This is principally because, if a sovereign can manage its own currency, it has the ability to print money that can be used to finance deficits and repay debt, among other uses. On the other hand, sovereigns do not directly control their sources of, or access to, foreign currency. While

¹⁵³ S&P Global Ratings, "Sovereign Rating Methodology" Dec. 23, 2014.

this ability provides the sovereign with significant policy flexibility to manage local currency debt, the overuse of such an ability comes at a cost. S&P Global states:

...heavy reliance on such an expansionary monetary stance may fuel very high inflation or even hyperinflation, which may cause more serious political and economic damage than rescheduling of local-currency debt. In such instances, sovereigns may opt to default on their local-currency obligations.¹⁵⁴

While such a policy decision may generate negative consequences, the fact that a government in control of its own currency has alternative options to obtain the necessary resources to meet its local currency debt has historically lowered—though not eliminated—the rates of local currency defaults relative to foreign currency defaults. At the same time, a sovereign's decision to default on its debt becomes more of a policy choice when dealing with debt denominated in local currency than it does for foreign currency debt. In the case of debt denominated in foreign currency, an economy may simply run out of foreign currency reserves needed to meet debt payments, such as in a balance-of-payments crisis. Under such a scenario, a government's policy alternatives are limited.

As opposed to a scenario in which a government simply runs out of funds to meet its commitments, which would likely involve other missed payments in addition to missed debt service payments, a local currency default would less likely represent a lack of government funds, given the possibility that the central bank can simply print money to finance the deficit. Therefore, if a government stops servicing its local currency debt, it is much more likely to be an intentional policy decision to no longer prioritize debt repayment, and to instead prioritize other policies or spending that may be favored by the electorate. Paraguay's 2003 default and Madagascar's 2002 default represent two examples of these scenarios.

¹⁵⁴ Ibid.

Paraguay's failure to repay its foreign currency debt in 2003 represented a shortage of funds. The default was not the only consequence of the lack of financing. Other payments, including public sector salaries, were also delayed. The overall missed payments, delays and shortages contributed to a negative sentiment in the country and hurt the government's popularity. Residents were quick to point to the administration's mismanagement of funds and corruption as the main drivers of the country's dire finances.

On the other hand, Madagascar's 2002 local currency default is an example of a government that made an intentional policy decision. The authorities in Madagascar had the resources available to meet its debt service. Unlike cases such as that of Paraguay in 2003, Madagascar did not suffer from an economic or financial downturn prior to its default. The government was able to pay public sector salaries, and continue to execute other expenditures throughout the default period. Yet, the country's political leadership, supported by a majority of the population, was indirectly willing to accept a temporary disruption in debt service payments—due to the logistical issues related to the political division of the country—in order to preserve what they viewed as democratic liberty. In that way, the default was prompted by pro-active policy decisions, as opposed to being the unfortunate negative consequence of incompetent, or lack of, policy decision-making. Indirectly, a majority of the country's citizens sanctioned this decision, and did not view the default, which was a by-product, in a negative light.

The empirical data demonstrate that sovereign defaults on debt denominated in foreign currency have a statistically significant negative correlation with government popularity, while defaults on local currency debt are not statistically correlated with changes to government approval. At the same time, as discussed above, local currency defaults are more likely associated with intentional policy choices than are foreign currency defaults.

Therefore, one can conjecture that an electorate is more likely to hold negative views about a government that has simply run out of funds, for example due to incompetent management, and is left with few options other than missing its debt service commitments than it would a government that has made an intentional policy decision to default on its debt.

In his article “The Timing of Sovereign Defaults over Electoral Terms,” Foley-Fisher derives a model based on intuition. Specifically, the author, like all other researchers studying the political implications of sovereign default, has been unable to determine causality. Therefore, he relies on his intuition—supported by anecdotes of three cases of sovereign default—to derive a model in which “...defaulting politicians reveal information on their competence and are therefore more likely to be re-elected by voters.”¹⁵⁵ In his simulation of the model, Foley-Fisher shows that “...decisions to default are made by competent politicians who take the socially optimal decision and are subsequently re-elected.”¹⁵⁶ This concept somewhat supports my theory that voters are more likely to view favorably politicians who take initiative to make a proactive policy decisions to default. However, I take this theory one step further by arguing that defaulting governments are more likely to reveal their competence by making a decision to default on local currency debt, given that more policy options are typically available to governments when dealing with debt denominated in their local currency. Such a theory is supported by my empirical evidence, which shows that foreign currency defaults are statistically correlated with a drop in government popularity, while local currency defaults are not associated with any such change.

¹⁵⁵ Foley-fisher, Nathan. “The Timing of Sovereign Defaults over Electoral Terms” (2012), 24.

¹⁵⁶ Ibid., 23.

Chapter 6: Conclusion

My research contributes to the existing literature on the political implications of sovereign default. This body of existing work is still in its incipient stage, and there are only a handful of articles that have examined this question. Those that have offer somewhat conflicting conclusions. While Borensztein and Panizza determine that sovereign defaults are correlated with general political turnover and Livshits, Phan and Trebesch conclude that these episodes are associated with changes in the finance minister, Foley-Fisher, on the other hand, finds that defaults are correlated with re-election. All of the existing research uses election data and functions to respond to their research questions. However, these authors' analyses fail to consider the implications on popularity of the type of debt on which the sovereign defaults. By making the distinction between foreign-currency-denominated and local-currency-denominated debt, I am able to show that only defaults on foreign currency debt are correlated with a statistically significant negative relationship to government popularity. On the other hand, the failure to meet local currency debt obligations has no statistically significant relationship with government popularity. This distinction, which is not accounted for in other existing research, may partly explain why existing researchers have conflicting conclusions.

While I, like the other authors, have been unable to determine causality, my research has led me to hypothesize on the mechanisms that drive the empirical findings. My theory builds upon Foley-Fisher's hypothesis that voters reward governments that make competent policy choices. Based on the empirical and case study evidence, I argue that it is more likely that a local currency default is a competent policy choice than a foreign currency default, which is more likely to be the result of an incompetent government that has run out of foreign

currency funds. My hypothesis fits my empirical findings. Nevertheless, future research will need to test whether this mechanism is truly the cause of these empirical findings.

It is important to understand the cost and benefit matrix that governments face when servicing their debt in order to better advise them on socially optimal debt policies. If the population generally responds neutrally to defaults that are part of intentional policy decisions, and negatively to defaults that result from a government that is left with few policy alternatives, existing theories that serve as policy tools for governments regarding debt management may need to be reexamined. Specifically, authors Borensztein and Panizza's argue that political costs of defaults may provide governments with a greater incentive to service their debt, which means that higher debt levels would not necessarily lead to a higher risk of default.¹⁵⁷ The authors also argue that political costs could cause governments to delay the decision to default, which may lead to negative consequences such as ineffective fiscal adjustments and economic uncertainty.¹⁵⁸ However, if my theory holds, governments that preemptively and proactively decide to stop servicing their debts are not punished by their constituents, while governments that do "gamble for redemption" later suffer political costs. Therefore, fiscally challenged governments have less political incentives to service their debt. Under such a scenario, although the hypothetical risk that a government may default would likely be greater at a lower level of debt than under previous research, governments may be encouraged to consider socially optimal policies—even if such policies lead to default—without the fear of political fallout. While such a conclusion may have important consequences for sovereign debt management and debt markets, future research must further investigate these mechanisms before it can formally be used to advise sovereign debt policy.

¹⁵⁷ Eduardo Borensztein and Ugo Panizza, "The Costs of a Sovereign Default" (2008), 20.

¹⁵⁸ Ibid.

Nevertheless, should future researchers confirm these mechanisms, constituent perceptions of government competency are fundamental in the cost-benefit analysis of debt service policy decisions. Should a government be faced with rising debt service costs, voters may approve of a government that pro-actively opts to default on its debt, or restructure the debt under more favorable terms, than one that re-directs a growing amount of government resources towards debt service, and away from public services or investment. However, if a growing number of governments become wise to the political benefits of making such a decision, lenders may demand higher interest rates on sovereign debt, given sovereigns' greater propensity to default at lower levels of debt. This, in turn, will negatively impact the resources that governments are able to use towards non-debt-service-ends, potentially causing a vicious cycle in which sovereigns default at ever-lower levels of debt and debt service, given rising borrowing costs.

Such a vicious cycle would not only hurt governments, creditors, and credit markets, but also the population at large, given the implications for debt service costs and the level of resources available for other government spending. Citizens should therefore understand the long-term implications of such debt repayment decisions. By holding governments accountable for their borrowing decisions, and encouraging elected officials to engage in sound fiscal policy decisions, citizens can ensure that their government will largely avoid the need to make such a decision regarding debt repayment. Governments that use debt to smooth the taxes needed to fund lumpy government spending, and towards projects with a marginal return that is at least equivalent to the market interest rate, will not be forced into this potentially vicious policy cycle. Surely the political benefits of engaging in such provably competent fiscal policy outweigh any policy alternative

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