Part I

THEORY

Chapter 1

The Puzzle of Cooperation in International Debt

EVERY DAY, LEADERS make promises to foreign governments and nonstate actors. They pledge to repay debts, supply foreign aid, curtail pollution, and limit their military arsenals. Leaders vow to lower barriers to international trade and capital, respect human rights at home, and promote democracy abroad. In principle, these commitments—some formal, some not—regulate how governments behave in world affairs.

Without a world government to enforce commitments, though, why should anyone take foreign leaders at their word? The answer is far from obvious. Some international agreements so clearly serve the interests of participants that defection would be unthinkable. Often, however, cheating would give the transgressor an immediate economic windfall, a military advantage, or a firmer grip on power at home. Moreover, the anarchical nature of world politics makes third-party enforcement of commitments unlikely. In this context, neither scholars nor political leaders can take international promise-keeping for granted.

This book examines one of the oldest and most pervasive types of international promises: debt contracts between sovereign governments and private foreign lenders. For centuries, bondholders and banks have lent money to foreign governments for a variety of objectives, including economic development, military procurement, and domestic consumption. The practice continues to this day. Private bondholders and banks now advance more than $100 billion per year to foreign governments around the world.[1]

International debt contracts raise serious problems of credibility. When a government borrows money on world capital markets, it pledges to repay the principal plus interest and fees according to a schedule in the loan agreement. After creditors disburse the funds, though, the government may be tempted to break its promise by refusing to make full and punctual installments. The government can suspend interest payments, slow the rate of amortization, or—even worse—repudiate the debt, thereby denouncing the obligation as illegitimate.

History abounds with examples of default on international loans. In January 2002 the Argentine administration stopped servicing roughly $100 billion in foreign bonds, triggering the largest default of all time. Its decision, though unprecedented in magnitude, represents only one entry in a litany of defaults by governments over the past few centuries. In a typical year, approximately 10

percent of governments fail to meet contractual obligations to foreign bondholders and commercial banks, and during systemic crises such as the Great Depression, nearly half the countries in the world have been in arrears on their international debts.[2]

Considering the inherent problem of credibility in world affairs, and given numerous cases of default throughout history, what gives bondholders and banks the confidence to lend money to foreign governments? Furthermore, why do governments ever repay their debts to private lenders in distant countries? There is, of course, a deep puzzle here—arguably one of the deepest in the study of politics: how does cooperation emerge in a condition of anarchy? The remainder of the book addresses this question in the context of international debt.

The Puzzle

The literature on international relations offers two major perspectives about how credibility and cooperation can be sustained in an anarchical world. The first is *repeat play*, in which leaders cooperate today to ensure good relations in the future. The second is *issue linkage*, the process of connecting behavior in one area to the threat of sanctions in another. Both provide substantial insights into world politics, but neither—without amendment—adequately accounts for historical patterns of behavior in international finance. After noting the strengths and weaknesses of these approaches as applied to international debt, I propose a reputational theory that builds on models of repeat play but modifies them by conjoining two key features: incomplete information and political change. I then show, using three centuries of data from international capital markets, that this reputational theory offers new insight into relations between debtors and creditors.

Repeat Play

One of the most fertile lines of research in international relations concerns the effects of repeat play. Using game theory, political scientists and economists have demonstrated that cooperation can arise from the threat of retaliation in ongoing relationships.[3] If two parties interact repeatedly with one another, each could retaliate tomorrow in response to uncooperative behavior today. The most severe retaliatory strategy is the grim trigger: "Cross me once and I will never cooperate with you again." A more forgiving strategy, tit-for-tat, requires players to mimic their opponents by matching each act of cooperation with cooperation and punishing each instance of defection by striking back once. Many other strategies could achieve the same objective of punishing cheaters in the future.

When the threat of retaliation is sufficiently plausible and severe, it can support cooperation even in the absence of third-party enforcement. As Robert Axelrod explains, the future can "cast a shadow back upon the present and thereby affect the current strategic situation."[4] Leaders who care enough about the future will calculate that the costs of forgoing cooperation tomorrow outweigh the immediate gains from behaving selfishly today.

It is easy to see how this logic could motivate governments to repay and give investors the confidence to lend. Most countries need to borrow not once but repeatedly to meet ongoing demands for economic development, national defense, and domestic consumption. Investors could, therefore, adopt a history-contingent strategy: penalize countries that default by barring them from new loans or by charging higher interest rates in subsequent years. Faced with this retributive strategy, credit-hungry governments would have powerful incentives to honor their debts, and investors could advance money with reasonable assurance of being repaid.[5]

Does existing research support the repeat-play theory? Surprisingly, the answer appears to be no. In their study of sovereign debt since the 1850s, Peter Lindert and Peter Morton conclude that "investors seem to pay little attention to the past repayment record of the borrowing governments. … [T]hey do not punish governments with a prior default history, undercutting the belief in a penalty that compels faithful repayment."[6] Other scholars, focusing on different time periods, have reached similar conclusions. Cardoso and Dornbusch, Eichengreen and Portes, and Jorgensen and Sachs note, for example, that countries that fell into arrears during the Great Depression did not subsequently receive worse terms of credit than countries that had paid in full.[7] One major study by Özler finds that countries with histories of repayment difficulties were charged higher interest rates during the period 1968–81, but even then the default premiums were remarkably small.[8] The prevailing interpretation of history, it seems, is that international creditors ignore history!

How have scholars explained investors' apparent inattention to history? Some cite ignorance. Vinod Aggarwal opens his massive study of debt rescheduling by contending that "almost without exception, modern bankers have made mistakes as a result of their unfamiliarity with the turbulent history of international lending. Few lenders in the 1970s, for example, knew that sovereign countries had frequently defaulted on their debt payments in the past."[9] Others blame irrational exuberance: investors have been drawn into speculative manias and, without systematically weighing the consequences, have lent even to countries with records of default.[10] Whatever the reason, the received wisdom casts serious doubt on the use of history-contingent strategies to enforce debt contracts.

The repeat-play argument seems problematic not only in practice but also in

theory. To bar a defaulter from capital markets or force it to pay higher interest rates, an aggrieved creditor would need the cooperation of most—if not all—current and future lenders around the world. Why, though, would profit-seeking bondholders and banks collaborate in punishing a government for defaulting on someone else's loans? The notion of retribution seems especially problematic because, for most of financial history, loans came from tens of thousands of scattered investors who probably could not have coalesced into a punishment cartel. Without extensive cooperation among creditors, the threat of punishment may not be credible. Ironically, the repeat-play argument may solve one credibility problem by creating another.[11]

We are, therefore, left with a puzzle. If existing research is correct in concluding that creditors ignore history, and if even retribution-minded creditors would face severe problems in organizing collective punishment, why do sovereign governments ever repay their debts? Perhaps even more troublesome, what inspires investors to lend billions of dollars to governments each year, if not the ability to withhold credit in an ongoing lending relationship? A second possibility is issue linkage.

Issue Linkage

In a complex and interdependent world, countries and nonstate actors can enforce agreements by linking issues, that is, by threatening to retaliate in one area of world affairs if foreigners behave selfishly in another.[12] Actors might, for example, sever economic relations with countries that violate arms control agreements or apply military pressure against parties that fail to respect human rights. Provided the links between issues are credible, leaders will think twice before crossing foreigners, since the gain from cheating on one issue may be outweighed by the loss of cooperation on another.

This insight, so central to international relations theory, may explain how debt contracts have been enforced for centuries. On their own or with help from their home government, banks and bondholders could impose nonfinancial penalties on countries that default. Charles Lipson usefully refers to this kind of retaliation as an "extrinsic" sanction because it involves punishment on an issue distinct from the one that sparked the dispute.[13] In contrast, the repeat-play strategy of withholding access to capital is an "intrinsic" sanction because creditors strike back in the same issue area in which the borrower cheated in the first place.

Creditors could impose various extrinsic sanctions on defaulters. One option is military intervention. The idea of using arms to extract repayment may seem odd today, but many scholars believe this mode of enforcement prevailed until the early twentieth century. Martha Finnemore, for example, writes that militarized

debt collection was "accepted practice" in the nineteenth century and fell from favor only after the Second Hague Peace Conference in 1907.[14] Some academics judge that military pressure was commonly used to collect debts.[15] Others think creditors applied police powers selectively, sending gunboats to compel debtors in only a few colorful cases.[16] Ultimately, though, the prospect of military force should have mattered more than the frequency. According to economists Paul De Grauwe and Michele Fratianni, the *mere threat* of gunboats influenced the behavior of nineteenth-century borrowers.[17]

References to gunboat diplomacy appear not only in scholarly writings, but also in the modern financial press. During the debt crisis of the 1980s, for example, the *Wall Street Journal* ran the following front-page headline: "Theodore Roosevelt Knew How to Collect on Defaulted Loans—He Would Send in the Marines to Protect U.S. Bankers from Deadbeat Nations." The *Journal* contrasted the modern era of peaceful debt renegotiation with a previous age, in which "governments employed soldiers rather than accountants and lawyers to resolve international financial problems."[18] To the extent that this characterization is accurate, military force kept debtors honest for at least part of world history.

A second type of extrinsic sanction involves commerce rather than military cruisers. In many models of sovereign debt, lenders motivate the borrower to repay by establishing a tactical link between finance and trade.[19] If a government defaults, private creditors retaliate not by denying access to future loans but by disrupting commercial relations. Creditors seize goods that belong to the debtor, withhold short-term credit for imports and exports, or (with the help of their home government) impose an embargo on commercial relations with the defaulting state. Confronted with cross-issue retribution of this type, governments may find it worthwhile to repay.

As Philip Lane points out, "The imposition of trade sanctions on the offending country" is "the classic punishment … in the sovereign debt literature."[20] It is easy to see why. Countries gain significantly from international trade, due to the principle of comparative advantage. The prospect of losing trade could, therefore, dissuade debtors from cheating on loans. Moreover, the age of gunboat diplomacy may have passed, but trade sanctions remain a potential weapon in the arsenal of creditors. Linkages between debt and trade could, therefore, explain repayment not only before World War I, but also in more modern times.

Empirical research on the topic has just begun, however, and the available evidence is contradictory. In two recent studies, Andrew Rose shows that trade declines after countries reschedule their debts at the expense of creditors, and that countries receive more loans from large trading partners than from small ones.[21] Both findings are broadly consistent with the trade sanctions hypothesis. On the other hand, Martinez and Sandleris and Mitchener and Weidenmier find no

evidence that debtor-creditor trade falls in response to default, and William English demonstrates that many U.S. states repaid their foreign debts during the nineteenth century, even though they were immune to trade sanctions from Britain.[22]

The trade sanctions hypothesis also suffers from the same theoretical weakness as the repeat-play argument. To exclude a defaulter from international trade, each lender would need help from many foreign actors. Countries and firms that trade with the defaulter—and ones that potentially could do so—would need to collude, even if they were not party to the original loan. Without collusion, the defaulter could minimize its punishment by increasing ties with other buyers and sellers, or by transshipping its products through other states. Trade sanctions, like credit embargoes, raise daunting problems of collective action.

Once again, we are left with a puzzle. Military coercion may have contributed to debt repayment during the 1800s (a theme I reexamine later in the book), but it cannot explain lending and repayment today. The trade sanctions hypothesis, in contrast, has greater explanatory potential across countries and over time and is "widely accepted" among economic theorists.[23] Nevertheless, it is not obvious that traders worldwide would unite against a defaulter, and evidence about the hypothesized link between debt and trade remains limited and mixed. At this point, we cannot confidently say why countries repay their foreign debts or what gives private investors the assurance to lend.

Toward a Reputation-Based Solution

This book argues that we can make progress toward understanding the behavior of debtors and creditors by developing a dynamic theory of reputation—one that combines repeat play with uncertainty and political change. Building on classical theories of repeated interaction, I relax the standard assumption of complete information about the preferences of foreign governments and allow preferences to change over time. These two innovations transform the standard repeat-play theory into a dynamic model of reputation in which investors continually update their beliefs about the type of government they are confronting. The evolving beliefs of investors, which constitute the borrower's reputation in foreign eyes, are fundamental to both lending and repayment. I discuss incomplete information and political change below, incorporate them into a theory of reputation in chapter 2, and test the theory's explanatory power in the remainder of the book.

Models of repeat play in international debt typically involve complete information about the preferences of players. In their seminal paper, Jonathan Eaton and Mark Gersovitz assume that lenders "know all relevant characteristics of individual borrowers," including the fact that governments "are inherently

dishonest."[24] When dealing with governments in a complete-information setting, investors enforce cooperation by threatening to apply the grim trigger: a country that defaults will experience a permanent financial boycott. Many other modelers adopt the same assumption that investors fully understand the preferences of the borrower.[25]

These complete-information models contain a reputational element; creditors condition their lending decisions on whether the borrower repaid in the past. However, the concept of reputation in these models is limited in ways that have important theoretical and empirical implications. Under conditions of complete information, creditors already know the type of debtor they are confronting. There is no opportunity to develop beliefs—and therefore no opportunity to learn—about resolve, competence, and other attributes that could be relevant to repayment. I define the reputation of an actor as the impression others hold about its preferences and abilities. Complete-information models leave no room for changes in impressions, and therefore remove the possibility of updating or learning.

Researchers justify the complete-information assumption in three ways. Some say it "accurately reflects reality" because creditors know with high precision the preferences and abilities of debtors they face.[26] For these researchers, the notion of incomplete information about the debtor is fairly "implausible."[27] Others contend that models of incomplete information are "not necessary" to account for relations between debtors and creditors.[28] In the interest of parsimony they delete what they judge superfluous. Still others believe the use of incomplete information is "unlikely to yield empirically testable models," whereas complete-information approaches can be evaluated with evidence.[29]

Vinod Aggarwal advances many of these arguments in *Debt Games*, the leading study in political science of international debt rescheduling. Aggarwal develops a "situational theory of bargaining" that identifies domestic and international constraints actors face in the wake of a default. His theory assumes that "each player knows both players' payoffs and the rules of the game." According to Aggarwal, this "assumption of complete information not only provides a more tractable model, but also more accurately reflects reality." Models of incomplete information, in contrast, would be "unwieldy" for empirical work.[30]

The concerns are understandable but, I believe, misplaced. As we will see, the assumption of incomplete information is not only plausible but also useful to explain defaults, settlements, risk premiums, seasoning effects, and other patterns in international debt markets through the centuries. Moreover, the battery of empirical tests in this book demonstrates that researchers can in fact use evidence to evaluate reputational theories with incomplete information. We have learned much from models of repeat play with complete information. Now we can deepen

our understanding of debtor-creditor relations and broaden the range of predictable phenomena by placing incomplete information at the center of the analysis.

My reputational theory leaves room not only for incomplete information but also for political change. The workhorse models in economics and political science, such as the iterated prisoner's dilemma, treat preferences as static. Players have identical incentives (they repeat a game with unchanging payoffs) round after round. The assumption of constant preferences is appropriate for some kinds of actors. In the realm of international debt, for example, it makes sense to characterize private creditors as having consistent preferences for profit. But it is less realistic and, I argue, less useful to view government preferences as immutable.

The Argentine default of January 2002 provides a case in point. Analysis reveals that the Argentine default occurred in response to *changing* domestic preferences about the value of compliance.[31] Notwithstanding the complexities of international finance, most Argentine citizens had strong opinions about whether the debt should be repaid and let those opinions guide their votes. In 1999 a majority opposed default and turned against presidential candidate Eduardo Duhalde when he called for a suspension of debt payments. The eventual winner of the 1999 presidential election, Fernando de la Rúa, had campaigned on a platform of honoring the debt. By 2001, however, the policy of repayment became increasingly unpopular. When mass opinion tipped in favor of default, citizens handed de la Rúa a devastating defeat in congressional elections, drove him to resign the presidency, and replaced him with a new leader who declared a moratorium on debt payments as his first public act. By ruling out such swings in public opinion and government ideology, static-preference models of reputation fail to explain the largest default in financial history.

The more general lesson is that political change, either at the highest levels of government or within the populace, can cause government preferences about debt to shift. Diverse domestic opinions make these changes possible. Political leaders, parties, and citizens are not uniformly in favor of debt servicing, nor are they uniformly opposed. Opinion tends to be divided, especially in developing countries during times of crisis, because debt repayment creates economic winners and losers.[32] Recent research shows that elites and masses understand the distributional effects of debt repayment and use them as a basis for policy preferences.[33] Domestic changes—revolutions, coups d'état, institutional reforms, elections, and shifts in the prodebt and antidebt coalitions—could, therefore, alter government preferences about repayment. These insights can be usefully integrated into theories of reputation.

In the remainder of this book, I develop and test a theory of reputation in

international relations, with particular application to financial relations between sovereign borrowers and foreign lenders. The theory, which incorporates both incomplete information and political change, explains why investors lend and governments repay. Beyond that, it generates a wide range of testable implications about the *dynamics* of debtor-creditor relations. The theory predicts how investors treat first-time borrowers, and how risk premiums evolve as borrowers become more seasoned. It explains how debtors ascend or descend the reputational ladder due to the interaction between their behavior and the historical context, and then clarifies how changes in reputation affect access to capital. A theory of reputation that includes uncertainty and political change helps explain why countries with favorable reputations sometimes default, and why nations with histories of noncompliance suddenly settle with foreign creditors. Still more fundamentally, the theory contributes to a deeper understanding of cooperation under anarchy.

---

[1] According to the World Bank (2006, 2:3), disbursements by bondholders and banks to public borrowers in developing countries totaled US$101 billion in the year 2004 and $124 billion in 2005.

[2] Suter 1990, 1992; Standard & Poor's 2004.

[3] Early studies of cooperation in repeated games include Friedman 1971 and Taylor 1976. In the 1980s many researchers, including Axelrod (1981, 1984); Keohane (1984); Lipson (1984); Oye (1986); and Snidal (1985) began to apply these arguments to international relations.

[4] Axelrod 1984, 12.

[5] Authors have formalized this argument in various ways. The seminal formal model is Eaton and Gersovitz 1981.

[6] Lindert and Morton 1989, 40.

[7] Cardoso and Dornbusch 1989; Eichengreen and Portes 1989; Jorgensen and Sachs 1989.

[8] Özler 1993. In a recent study of the period 1880–1913, Flandreau and Zumer (2004, 39) find that past defaults increased yields on government bonds, but the effects were "too small to act as a systematic deterrent."

[9] Aggarwal 1996, 15.

[10] See, e.g., Chancellor 1999; Marichal 1989.

[11] See, e.g., Eaton 1990; Eaton, Gersovitz, and Stiglitz 1986; Glick 1986; Greif, Milgrom, and Weingast 1994; Hellwig 1986; Kletzer 1988; Schultz and Weingast 1998, 2003; and Weingast 1997. Bulow and Rogoff (1989b) advance a related critique: if countries borrow to smooth their consumption, they can default against one creditor and use the proceeds from the loan to purchase a consumption-insurance contract from another lender (the insurer). For responses to the Bulow-Rogoff critique, including discussions of how creditors could tacitly collude to punish defaulters, see Amador 2002; Kletzer and Wright 2000; and Wright 2002.

[12] The concept of issue linkage has a long intellectual history. See, e.g., Keohane and Nye 1977; Tollison and Willett 1979; Haas 1980; Stein 1980; Keohane 1984; Axelrod and Keohane 1985; Oye 1985; Snidal 1985; McGinnis 1986; Martin 1992; Keohane and Martin 1995; Lohmann 1997; Aggarwal 1998; and Davis 2003, 2004.

[13] Lipson 1981, 630.

[14] Finnemore 2003, 24.

[15] See, e.g., Mitchener and Weidenmier 2005b, 2.

[16] See, e.g., Mauro, Sussman, and Yafeh 2006, chap. 7; Mosley 2003, 268–71.

[17] De Grauwe and Fratianni 1984, 158.

[18] *Wall Street Journal,* January 12, 1984, 1.

[19] This argument appears in the seminal work of Gersovitz (1983) and Bulow and Rogoff (1989a) and in more recent papers by Aizenman (1989, 1991); Boot and Kanatas (1995); Diwan (1990); Egli (1997); Fafchamps (1996); Fernández and Özler (1989); Gibson and Sundaresan (2005); Klimenko (2002); Marin and Schnitzer (2003); Rose (2005); and Rose and Spiegel (2004), among many others.

[20] Lane 2004, 2.

[21] Rose 2005; Rose and Spiegel 2004. See also Weidenmier 2005 on trade sanctions and Southern Confederacy debt.

[22] Martinez and Sandleris 2006; Mitchener and Weidenmier 2005b; English 1996. See also Wright 2004b for a discussion of the strengths and limitations of the evidence in Rose and Spiegel 2004.

[23] Rose 2005, 190.

[24] Eaton and Gersovitz 1981, 290.

[25] Some repeat-play models allow the income of the sovereign to fluctuate randomly in response to exogenous shocks, such as natural disasters and changes in commodity prices. Neither investors nor politicians know exactly when disaster will strike, nor can they anticipate when the sovereign will face better conditions.

Nevertheless, actors are presumed to know in advance the probability and magnitude of all shocks that could affect the sovereign. Consequently, investors have nothing to learn about the sovereign's vulnerability to external shocks, much less its resolve and competence in the face of circumstances beyond its control. Reputation-based approaches are distinctive, since they allow investors to update their beliefs about determination, competence, and other features of the debtor that could influence the likelihood of repayment.

[26] Aggarwal 1996, 544.

[27] Buiter 1988, 613.

[28] Kletzer and Wright 2000, 635.

[29] Kletzer 1988, 602.

[30] Aggarwal 1996, 55, 70, 544.

[31] Tomz 2005a.

[32] Frieden 1988, 1989b, 1991.

[33] Tomz 2005b.

Chapter 2

A Theory of Cooperation through Reputation

THIS CHAPTER presents a reputational theory of cooperation between sovereign governments and foreign investors. I introduce the theory in four steps. First, I explain how reputations form under conditions of incomplete information. In my theory, the preferences of governments vary: some governments find it more costly than others to maintain good relations with foreign creditors. Investors cannot directly observe the preferences of foreign governments, but they do have beliefs about each government's type. These beliefs, which constitute the government's reputation, evolve as investors interpret behavior in context. Did the government repay its debts, investors ask, and were economic conditions good or bad? I argue that reputations shift when a government acts contrary to its perceived type.

I then extend the theory to allow for domestic political change. Political preferences can fluctuate over time; a country governed by a prodebt coalition at one moment may come under the influence of antidebt lobbies in the next. Just as investors cannot observe preferences directly, they cannot know for certain that preferences have changed. They can, however, infer whether political shifts have taken place by monitoring the behavior of successive governments. The possibility of political change makes reputations fragile and helps account for the termination and resumption of international cooperation.

Third, I explain how reputations—formed under conditions of incomplete information and political instability—affect incentives to cooperate. In my theory, concerns about reputation motivate countries to repay and inspire investors to lend. The theory not only suggests a plausible mechanism for debtor-creditor cooperation but also generates many testable implications. The theory predicts which countries can borrow, the terms of loans that are offered, and how relations between debtors and creditors evolve with economic and political circumstances.

Fourth, I distinguish my theory from alternative perspectives on reputation and cooperation. In particular, I consider psychological theories of reputation, which hold that participants in international relations interpret history in systematically biased ways. I also discuss rationalist theories in which actors place little weight on history, and therefore consider reputation irrelevant. Finally, I consider theories of issue linkage or direct sanctions, which suggest nonreputational sources of cooperation between debtors and creditors. In subsequent chapters I test the

predictions of these theories against evidence since the 1700s.

Reputations under Incomplete Information

Before making a loan, foreign investors would like to know the probability of default and the value they could recover in the event of a contractual breach. Such calculations are difficult, particularly under the conditions of incomplete information that prevail in international relations, but they are essential for assessing loans. Some bondholders and banks use mathematical models. Others rely on judgment, qualitative techniques, or third-party advice. Nearly all, though, find some way to learn about risks and potential returns.

The Problem of Incomplete Information

Investors naturally seek knowledge of the borrower's economic resources. Does the foreign government have the funds to pay interest on schedule, and will it be able to reimburse the principal when the loan comes due? Some measures of economic capacity, such as earnings from international trade and the level of outstanding debt, have been available to investors for centuries. Other indicators, like gross domestic product, have been collected systematically for a large sample of countries only since the 1950s. These variables shed valuable light on the economic resources of borrowers.

Economic variables do not provide a complete picture of risks and potential returns, though, because the fate of an international loan ultimately depends on the borrower's *willingness* to pay. With no global Leviathan to prohibit breaches of contract, even governments with ample funds can choose to default. In debt, as in other spheres of international relations, governments uphold their commitments when the benefits of compliance outweigh the costs of reneging. Investors therefore require information about the political preferences of foreign governments.

Political factors are especially important because they determine how leaders balance debt repayment against other priorities. Governments can, if they choose, make sacrifices to meet at least part of their foreign obligations. They can cut public spending, increase taxes on citizens, sell state-owned assets, and commandeer foreign exchange from private exporters. When a government pleads poverty in negotiations with international creditors, this almost never implies that the government is penniless. Rather, it signals a lack of political will to elevate the foreign debt over other concerns.

Unfortunately for investors, the preferences of foreign governments are not directly observable. Preferences, unlike economic statistics, exist in the hearts and

minds of foreign leaders. This fact puts investors in a difficult position; they must make loans with only partial information about a key variable in the investment equation. Below, I develop a theory to explain how investors address this problem.

Reputations as Beliefs about Types

Investors know that adverse economic shocks can affect a government's ability to repay. Most countries are small players in global markets, and therefore have little influence over the international interest rate and the price of tradable goods. Countries are also powerless to prevent droughts, floods, hurricanes, and earthquakes from destroying crops and manufacturing facilities. When international interest rates rise, the value of exports falls, or natural disasters strike, governments struggle to raise revenue and foreign exchange for debt service.[1]

But investors also know that governments respond to negative shocks in different ways. Some governments tighten their belts; they impose austerity at home to meet commitments abroad. Other governments appear more fickle; they remain faithful during auspicious years but default when external conditions deteriorate. Still other governments deliberately snub creditors in good times as well as bad.

Why do governments respond differently to similar economic conditions? The answer, I suggest, is heterogeneous preferences. In the reputational theory developed here, governments protect and enhance their access to capital by paying existing obligations on schedule. The reward for honesty comes at a cost, however. To keep payments flowing, governments may need to raise taxes or cut spending, which could upset domestic constituents. Debt repayments pose economic and political dilemmas, especially during hard times.

Many factors could affect how governments balance the costs and benefits of debt repayment. The political strength of incumbents, the willingness of citizens to tolerate austerity, and the power of contending interest groups could all come into play. So, too, could the time horizons of leaders—their patience for reputational rewards that might not materialize for months or years. Even morals could enter the calculation, since some leaders oppose defaulting on ethical grounds, whereas others avoid letting personal principles shape government policy.

The exact sources of heterogeneity are interesting in their own right, but are not the focus of this book. For the reputational argument to succeed, we need only accept that preferences are diverse. The combination of heterogeneous preferences and incomplete information makes reputations possible.

My theory of reputation involves three types of debtors, which I call *stalwarts*, *fair-weathers*, and *lemons*.[2] Each type has distinct preferences that contribute to

different patterns of behavior. Stalwarts have the strongest preference for debt repayment. For stalwarts, the value of foreign capital is high, time horizons are long, and the antipayment coalition is weak, so the reputational benefits of debt service almost always outweigh the costs. Countries with stalwart preferences tend to pay during good times and bad. Fair-weathers, in contrast, have intermediate preferences. The value they attach to future loans is sufficient to motivate repayment in good times, but not during bad ones. Finally, lemons receive the least utility from paying their debts. Governments with lemonlike preferences regularly default in bad times and sometimes break faith in good times, as well.

Bondholders and banks cannot fully know the type of government they are confronting, but they do have beliefs about whether they are dealing with a stalwart, a fair-weather, or a lemon. Those beliefs constitute the reputation of the borrower in the eyes of international investors. As with all beliefs, assessments about the preferences of a foreign government may be erroneous. The reputations in this model nonetheless represent the best guesses investors can make about the debtor, given the information at their disposal.

Learning from Behavior in Context

What information do investors use to learn about political preferences? I contend that investors form beliefs by observing behavior in context: they consider the debtor's record of repayment and the economic circumstances it faced. Repayment records, carefully recorded by individuals and institutions, provide clues about political preferences that are difficult to measure directly. Data about economic circumstances, when available, add further perspective by helping investors see how governments respond to tests of varying degrees of difficulty. The interplay of these two types of information, actual payments and economic shocks, gives investors the raw materials to discern the borrower's type.

I assume that investors use information in rational ways: they update their beliefs about a government in response to new facts.[3] At each stage in the learning process, investors strike a compromise between their prior views and fresh data. If incoming news corroborates investors' preconceptions, beliefs remain the same.[4] If, on the other hand, the latest data challenge existing views, investors adjust by taking a weighted average of old and new evidence. The greater the reliability of new evidence relative to old, the more investors discount their prior beliefs and assign heavy weight to breaking news.

My argument does not require that all people possess identical cognitive abilities or learn rationally in all spheres of life. After all, psychologists have identified a conservative bias in human learning: once people form a first impression, they often downplay dissonant evidence and give undue weight to

their initial views.[5] The proper question is not whether people learn rationally in all circumstances, but under what conditions their learning approximates the rational ideal.

For two reasons, the behavior of international investors should be fairly rational. First, private investors—and the institutions that advise them—have a strong profit motive to update their beliefs instead of clinging to outmoded views that could lead to financial ruin. Second, although investors might respond defensively to data that challenged their personal beliefs, such as religious convictions or moral values, they generally do not have a strong stake in defending views about the creditworthiness of foreign governments.

How Reputations Change

If investors make rational use of information about behavior and context, then reputations should change when governments act contrary to their perceived type, given the circumstances. Suppose a government is widely (though perhaps erroneously) perceived as a fair-weather. If the government defies expectations by servicing its debts under austere conditions, it will improve its standing in the eyes of investors. By the same logic, a decision to default under favorable circumstances will cause the government's reputation to sink. But a putative fair-weather that meets expectations by defaulting under duress and paying when the yoke is light will experience little change in reputation. In these cases, behavior conveys little new information about the government's preferences. Thus, governments that are perceived as fair-weathers should not suffer much reputational loss by defaulting during external crises such as world wars and global economic contractions.

	Reputed Stalwart		Reputed Fair-Weather		Reputed Lemon	
	Favorable conditions	Adverse conditions	Favorable conditions	Adverse conditions	Favorable conditions	Adverse conditions
Repay	X	X	X	⬆	⬆	⬆
Default	⬇	⬇	⬇	X	X	X

FIGURE 2.1: REPUTATIONS CHANGE WHEN GOVERNMENTS ACT CONTRARY TO THEIR PERCEIVED TYPE
Arrows indicate the direction of change in reputation. X's indicate no change.

Parallel predictions apply to other perceived types. Consider a reputed stalwart. Any default by this government would lead investors to assign lower credit ratings, reflecting news that the government is not always willing to service its international debts. Given its preeminent reputation, an alleged stalwart must pay under all circumstances if it hopes retain a class-A rating. At the opposite

extreme, governments with lemonlike ratings have many opportunities to enhance their reputations. By offering an adequate settlement on defaulted debt and servicing any loans it manages to receive, a reputed lemon can elevate its standing and gain greater access to capital markets. In all these examples the lesson is the same: investors change their beliefs when governments act in surprising ways. Figure 2.1 summarizes these predictions.

The argument has an important corollary: reputations can improve even when external conditions are *favorable*.[6] The existence of lemons makes this improvement possible. Investors know that stalwarts and fair-weathers tend to honor their debts under auspicious conditions, whereas lemons sometimes default under those same circumstances. A government that pays during good times can, therefore, distinguish itself from a lemon. Whether this behavior has any effect on reputation depends on prior beliefs about the government. If investors already knew with certainty that the government was not a lemon, such behavior would confirm expectations and cause no change in reputation. If, on the other hand, investors admitted some chance that the government was a lemon, payment would count as contrary evidence and cause a reputational gain. The process will exhibit diminishing marginal returns, with each additional payment enhancing reputation by a smaller amount. At some point, when investors become highly certain that the government is not a lemon, paying under favorable conditions will only preserve—not improve—the government's reputation. Figure 2.2 displays the expected pattern.
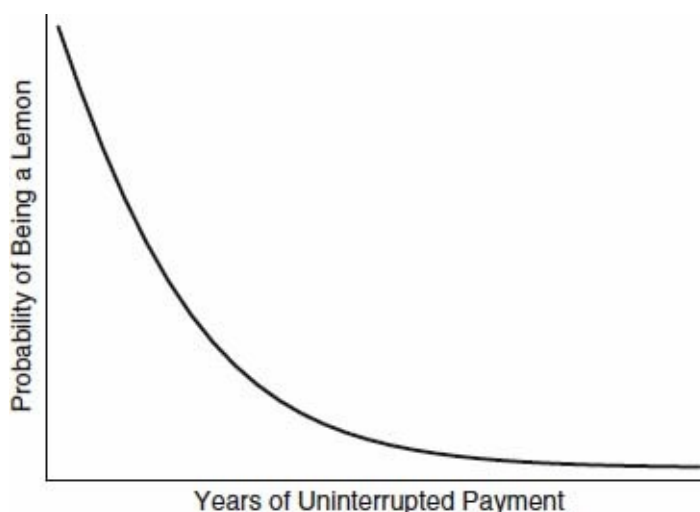

FIGURE 2.2: EVEN IN GOOD TIMES, REPUTATION IMPROVES AS THE DEBTOR BECOMES A SEASONED PAYER

The argument can be expressed as a general claim about the way reputations change in world affairs. Leaders and citizens regularly form beliefs about the preferences of foreign governments. A government alters those beliefs (its reputation) by defying expectations: acting contrary to its perceived type, given

the circumstances. Likewise, a government preserves its reputation by behaving as anticipated, thereby validating beliefs observers hold about the government's characteristics.

Reputations and Political Change

Existing theories of reputation almost always treat the preferences of players as fixed.[7] External circumstances are allowed to fluctuate, but internal attributes are not. This simplification, though useful for many kinds of relationships, misses a fundamental feature of politics. Perhaps individuals never change their stripes, but governments surely do.

I therefore extend my theory by considering how reputations develop when government preferences (or types) can change. Investors cannot directly observe shifts in preferences, but by analyzing the borrower's behavior they can begin to infer whether a domestic transformation has taken place. Incorporating unstable preferences into models of reputation has two effects: it creates slack for reputations to change, and it provides a mechanism for the initiation and termination of cooperation. I discuss these effects in order.

Reputational Destruction and Recovery

In models of reputation with perpetual types, an interesting paradox arises. If types never change, then the body of accumulated data about the government's preferences will eventually become large enough to overwhelm any new observations. At that point, the process of reputation-formation will grind to a halt, and governments with sterling reputations will be able to default without harming their image. Good reputations, once built, will become nearly impossible to destroy.[8]

This paradox follows directly from rational rules of learning. For a rational learner, each piece of evidence that confirms prior beliefs only makes those priors stronger. Eventually the priors become so firmly established (in Bayesian terms, the priors become so precise) that new information, whether consonant or dissonant, hardly budges them one way or the other. The logic is analogous to computing the mean of a sample: when the number of observations is large, adding one more case will have only a small effect on the overall average.

A similar logic applies to learning about debtors. Consider a nation that has paid faithfully for decades through good times and bad. Investors confidently classify the debtor as a stalwart. In fact, so much evidence about the nation's stalwart credentials has accumulated that, in the estimation of investors, there is practically no chance the government could be any other type. What was once a

mere hunch about the country's willingness to pay has now hardened into a taken-for-granted fact.

But suppose one day the country confounds expectations by defaulting. In a model where types never change, the default would seem highly anomalous. Investors might downgrade the debtor slightly, but with so much evidence in the debtor's favor, this one misstep would have little effect. Given the debtor's long history of good behavior, it may take decades of sustained and blatant default to overturn the prior belief that the borrower deserved a high credit rating.

Adding a dose of political instability to theories of reputation solves this problem. Now investors need not regard the default as an inexplicable event. Instead, they can view the default as a signal of shifting preferences—a notice that the country, once run by stalwarts, has fallen under the control of fair-weathers or lemons. It is often said that reputations are hard to build and easy to destroy. Models that allow for political change can reproduce this intuition; standard theories of reputation with persistent types cannot.

The Russian default of 1917 illustrates the need to relax the conventional assumption that types never change. In the century before the Russian Revolution, the czarist governments regularly serviced their debts, and Russian bonds were seen as safe investments. After the Revolution, the new Soviet leaders not only suspended payments but actually repudiated their foreign debts by denouncing them as illegitimate contracts. In a model with constant types, this single act of defiance would have little effect. But in a theory where types can change over time, investors who observed the repudiation would conclude that preferences had shifted. By repudiating the debt, the Soviet leaders squandered their reputational patrimony.

Political instability creates room not only for reputational destruction, but also for reputational recovery. To see how this process works, consider a government that enters office carrying the reputational baggage of its predecessors, who were widely regarded as lemons. By acknowledging the debts of previous administrations and settling any existing defaults, the new government displays higher resolve and competence than expected. After a probationary period, investors become convinced that a better rating would be appropriate and upgrade the government to fair-weather status. The assumption of political instability therefore makes it possible for countries to return to grace after long stretches of willful nonperformance. In offering a fair settlement for past defaults, debtors signal that they are no longer lemons and begin, however slowly, to climb the reputational ladder.[9]

Importantly, the theory in this book allows for political change, but it does not assume that investors are knowledgeable about domestic politics. Investors can, in fact, be ignorant of elections, coups, cabinet shakeups, and other political events in the borrowing state. My theory only requires that investors acknowledge the

potential for political change. The mere possibility of shifting preferences makes reputations fragile, thereby contributing to reputational destruction and recovery.

Initiating and Terminating Cooperation

Instability not only allows reputations to change but also generates variation in behavior. Research about repeat play and issue linkage has tended to emphasize the optimal equilibrium, in which strategies of conditional retaliation motivate players to cooperate indefinitely. But if the equilibrium is cooperation, why do relations ever break down, and how do relations get restored? One answer, already noted, involves exogenous shocks. Some countries stop cooperating during hard times and resume after the shocks have passed. This answer is powerful but incomplete; it cannot explain starts and stops when external conditions remain the same.

A theory with political instability can complete the picture. With static preferences, it is hard to say why a long-standing payer would begin defecting during good times, or why a previously intransigent defaulter would make great sacrifices to settle its debts. These patterns become intelligible in a model where preferences change. By including political instability in theories of reputation, then, we can better understand why reputations shift abruptly and why behavior changes even when external conditions do not.

How Reputations Affect Incentives to Cooperate

In previous sections, I explained how reputations form under conditions of incomplete information and political instability. To complete the theory and derive testable implications, I now consider how reputations affect the incentives of investors and governments.

Reputation and the Incentives of Investors

Investors use the reputation of the borrower—their beliefs about the borrower's preferences—to inform their risk assessments and lending decisions. Other factors equal, countries with bad reputations are seen as less likely to repay. The risk of default does not necessarily deter investors from lending, however. Investors and borrowers can benefit from exchange, even when the borrower might not service debts on time and in full. As Vincent Crawford explains, it is "not optimal to structure a loan agreement so that default … will not occur under any foreseeable circumstance, because risk sharing is an important source of potential gain for both borrowers and lenders."[10] For this reason, investors will lend to governments

that might default, provided the probability of default is not too high and the anticipated salvage value—the amount investors could recover after a breach of contract—would still make the loan profitable.

Nevertheless, the terms of loans to a foreign government should reflect beliefs about the government's type. I argue that the investors respond to the reputations of borrowers in three ways. First, they *charge* for risk: they increase the expected return to compensate for the danger of default. Investors raise interest rates, impose fees, and purchase loans at a discount (require the borrower to pay interest and amortization on more money than it actually receives). The compensation for uncertainty is called the risk premium, which analysts often measure as the difference between the interest rate on a risky loan and the rate on an otherwise similar asset that has little or no chance of default.

Risk premiums create their own problems, however. Raising interest rates by some fixed percentage generally will not improve expected returns by a commensurate amount, because higher rates have two opposing effects: they increase the contractual obligation, but they also exacerbate the probability of default. At some point, increasing the interest rate will perversely reduce the expected return, as the heightened probability of default overwhelms the gains from charging a steeper price. Interest premiums can provide some indemnification against risk, but investors cannot raise rates without limit to compensate for the possibility of default.

Investors respond to reputation not only by charging for risk but also by *controlling* it. Often, they design contracts to reduce the probability of default and stabilize the projected cash flow. Over the centuries, investors have required governments to offer collateral and, in some cases, put pledged assets under the direct supervision of foreign banks or bondholder committees. These remedies are of somewhat limited use in international relations, however. As discussed in part 2 of this book, it has been extremely difficult—and, for most of history, illegal—to seize the assets of a foreign sovereign, and few debtors have consented to foreign control of their customshouses. More promising strategies include shortening maturities, requiring sinking funds, and asking third parties—ones with good reputations—to guarantee loans. Through these and other devices, investors attempt to limit the level of risk.[11]

Finally, when the reputation of the borrower is especially bad, investors *avoid* risk by refusing to lend. They prefer this "credit rationing" strategy when a government seems so risky that no interest rate can compensate for the possibility of default and no contractual provisions can keep uncertainty within reasonable bounds. In this case, investors anticipate that they would lose money (or incur an unattractive combination of risk and return) by offering credit to the government. They would do better by seeking alternative borrowers or refraining from lending altogether.[12]

Investors choose the optimal combination of risk premiums, contractual protections, and credit rationing, given their beliefs about the government's type. Other variables being equal, putative stalwarts receive easier credit than reputed fair-weathers, which, in turn, enjoy better access to international capital markets than governments classified as lemons. Any borrower perceived as willing to pay during good times and bad can attract large loans at nearly risk-free rates, without having to offer collateral or other legal enhancements. Investors rely more heavily on risk premiums and contractual protections when dealing with apparent fair-weathers, since those governments are expected to default when external conditions deteriorate. Finally, investors avoid lending to proven lemons and governments that have not settled existing defaults. Lemons pose such enormous risks that credit rationing is the optimal course of action.

I have argued that all investors learn in approximately the same way and have similar options for coping with the risks of international lending. I now refine the predictions by suggesting that bondholders and banks convert beliefs into actions in slightly different ways. Bondholders have overwhelming incentives to allocate credit based on their beliefs about the government's type. Commercial banks, in contrast, have conflicting priorities.

Most importantly, commercial banks have incentives to offer "defensive loans" to governments that have already defaulted. In the short term, new loans could help the government pay interest on previous debts, thereby sparing the banks from having to declare defaults and record losses on their balance sheets. Over the longer term, new loans could help the debtor revitalize its economy and increase the chance of eventual repayment. Banks are large enough to engage in defensive lending, either by themselves or in concert with others.

Private bondholders, on the other hand, lack the motive and the means to engage in defensive lending. No individual bondholder has enough resources to offer defensive loans unilaterally, and it would be nearly impossible for thousands of bondholders to cooperate in extending such credit. An investment house could float an emergency bond, but it would have trouble finding a market for the new security.[13] Without some means of coercing the mass of atomized bondholders into providing new credit, the emergency issue would be doomed.

The incentives of bondholders and banks differ for a second reason: commercial banks, unlike bondholders, deal with foreign governments on many dimensions. They maintain branches in foreign countries, provide trade credit, and manage the foreign reserves of central banks. These activities provide commercial banks with a steady flow of income. Banks may, therefore, offer "loss-leader" loans to promote good relations with foreign politicians and businessmen, to stimulate the economy of the borrowing state, and to advance other lines of business. Bondholders, again, have neither the means nor the motive to offer loss-leader loans. In light of these differences, the relationship between the reputation

of the borrower and the terms of loans should be stronger for bondholders than for commercial banks.

I close by emphasizing two important points about how investors use reputation. First, investors in my theory are entirely forward-looking. They raise interest rates, shorten maturities, and withhold credit to guard against future risk, not to retaliate against past cheating. The history of compliance with loan contracts is relevant as a source of data for making forecasts, not as a trigger for retribution. Retaliatory strategies, such as the grim trigger or tit-for-tat, play no role in my reputational theory.

Second, my theory requires no collective action on the part of creditors. Investors need not collude, or even know each other, to respond in similar ways. If a government defaults without adequate justification, it acquires a lemonlike reputation not only in the eyes of current investors, but also in the estimation of other individuals and institutions around the world. These parties have no incentive to extend new credit, because each independently knows that lending to a lemon would be a money-losing proposition. Thus, my theory provides a convenient solution to the problems of credibility and collective action that were discussed in chapter 1.

Reputation and the Incentives of Governments

I now complete the theory by explaining how reputations affect the incentives of governments. Governments understand that investors are watching, and that investors update their beliefs as a function of behavior and context. An administration that defaults when external conditions do not justify a lapse of payments will signal (correctly or not) that it is a lemon. Likewise, a government with a history of consistent payments will earn the reputation of a stalwart, and a government that adjusts its payments to external conditions will be classified as a fair-weather. Governments know that investors and rating agencies use these simple rules, among others, to screen debtors. They also anticipate that investors will avoid lending to apparent lemons and will offer high-cost credit to reputed fair-weathers.

Given their understanding of investors, how will governments behave? A genuine stalwart could default, but it knows that any interruption of payments would damage its reputation. For stalwarts, who have relatively weak antidebt coalitions and strong preferences for future credit, the cost of breaking faith typically outweighs the benefits. To a genuine fair-weather, the domestic political costs of mimicking a stalwart generally outweigh the benefits of easier access to capital, while the fear of being miscategorized as a lemon deters the fair-weather from behaving opportunistically during favorable times. Finally, genuine lemons know they could improve their access to foreign money by making sacrifices.

Nevertheless, lemons place such little value on access to future loans and face such high political costs of repayment that emulating a higher-rated government typically will not be worth the price. On average, sincere behavior is the best response to the updating rules investors use.[14]

Testable Implications

My theory not only suggests a reputational rationale for international cooperation, but also generates many concrete predictions about the dynamics of debtor-creditor relations. In particular, investors should charge new borrowers an uncertainty premium, to compensate for the risk that the newcomer could be a lemon. If the country services its debts punctually over a number of years, thereby demonstrating its reliability, its terms of credit should gradually improve. This seasoning process will exhibit diminishing marginal returns, with each additional act of repayment enhancing access to credit by an ever-smaller amount. Over time, the interest rates of a consistent payer will approach the baseline rate that investors offer to low-risk borrowers.

In contrast, governments that default will lose access to capital markets. Investors will not risk another loan until the borrower settles its arrears, thereby distinguishing itself from a lemon. After all, defaulters that refuse to settle during bad times can earn no more than a fair-weather rating. Rational investors will not lend to such countries until economic conditions improve. Once good times return, though, governments that remain in default will be classified as lemons and consequently fail to attract new loans. Thus, in both bad and good times, the settlement of existing defaults should be a precondition for getting new loans from private investors.

More generally, investors will alter the terms of credit when a government acts contrary to its perceived type. They will grant easier access to a government that exceeds expectations, but tighten credit when politicians display less resolve and competence than previously anticipated. Thus, putative fair-weathers that surprise the markets by repaying during hard times will experience a reputational surge and win easier access to capital. Likewise, putative stalwarts that default will suffer a reputational loss and cease to attract loans at favorable rates.

Investors, credit analysts, and government officials should not only behave according to this reputational logic, but also express it in writings and speeches. The effects of reputation should be evident across countries and over time, rather than being limited to one historical moment or one corner of the globe. To the extent that uncertainty premiums, seasoning effects, credit rationing, settlement payments, and adjustments to surprise appear in the historical data, we should gain confidence in the reputational theory.

Alternative Theories

The theory of reputation I develop in this book not only implies that history matters, but also explains *how* actors use history to infer the preferences of foreign governments. Reputations, I argue, reflect both behavior and context. In the area of international debt, investors rationally analyze whether the borrower repaid and the economic circumstances it faced at the time. These pieces of information—the decisions of the government and the difficulty of the test—provide important insight about the borrower's preferences and ultimately shape patterns of cooperation and conflict.

I now contrast my theory with two alternative views about reputation. The first says that actors in international relations interpret history in biased ways; the second maintains that international actors view history as relatively uninformative. I also consider a nonreputational theory, issue linkage, which holds that countries repay their debts to avoid punishment in other areas of international relations.

Biased Learning and Reputation

I have claimed that reputations emerge from the impartial analysis of history. Undoubtedly there will be exceptions—no social scientific theory can explain all variation in human behavior—but when the stakes are high (as in global finance), people will tend to interpret history rationally.

Others have proposed a different logic, in which psychological biases distort how people learn from history, and therefore skew their conclusions about the characteristics of foreign governments. Jonathan Mercer pioneered this psychological approach to reputation.[15] In an influential book, Mercer contends that reputations change when governments act in undesirable, rather than unexpected, ways. People update their beliefs about a foreign government, he argues, only when the government acts against observers' interests. His desire-based theory of reputation represents an important alternative to my more rationalist account.

Mercer's desire-based theory of reputation rests on four assumptions. First, when explaining the behavior of a government, observers judge how much responsibility rests with the external situation and how much is due to the actor's internal characteristics or disposition. In other words, observers decide whether to make a situational attribution or a dispositional one. Second, a reputation is a judgment about someone else's character or disposition. Together, these first two assumptions imply that "a dispositional (or character-based) attribution is necessary to generate a reputation."[16]

Third, "people interpret behavior in either situational or dispositional terms depending on the desirability of that behavior. [They] use dispositional attributions to explain an out-group's undesirable behavior, and situational attributions to explain an out-group's desirable behavior."[17] In psychological studies, the term *out-group* refers to people that are seen as outsiders. Finally, Mercer assumes that all foreign governments are members of the out-group.

From these four assumptions, it logically follows that in international relations, "only undesirable behavior can generate a reputation."[18] When people see undesirable behavior by a foreign government, they assume the unwanted action stems from disposition and update their beliefs about the government's type. But when people see a foreign government acting in desirable ways, they credit the situation instead of the government's entrenched characteristics.

The predictions of desire-based theory differ sharply from my own. I have hypothesized that, by repaying debts, governments can improve their reputations in the eyes of foreign investors. Desire-based theory leads to different predictions: repayment does not improve one's reputation, and reputations deteriorate over time. If investors, who dislike default, follow the logic of desire-based theory, they will make dispositional attributions when a government defaults but cite the situation when the government repays. Consequently a sovereign cannot earn a reputation for honesty or reliability in relations with foreign investors, and its standing before lenders can never improve. As Mercer notes, the sovereign "cannot win."

The two theories also make different predictions about the effect of contextual variables. In my theory, investors use data about context to refine their inferences. Repayment during an economic depression, for example, counts as a stronger signal of resolve than repayment during good times. But in desire-based theory, contextual variables play no independent explanatory role. When deciding whether to make a situational attribution, desire-based observers ironically ignore data about the situation and focus instead on whether the government behaved desirably. If the behavior seems desirable, observers seize upon real or imagined circumstances to rationalize what the government did, but if the behavior seems undesirable, they overlook potentially exculpatory data about the economic, political, or social context.

One can, therefore, test my theory against the desire-based alternative. If desire-based theory is correct, countries that repay should not receive progressively higher credit ratings and lower interest rates. Moreover, the consequences of default and repayment should not depend on actual economic circumstances. Finally, in books and articles about investment, experts should not make dispositional attributions when governments repay. I predict the opposite patterns.

Current Calculations without Reputation

My theory and the desire-based alternative should be tested not only against each other, but also against the null hypothesis that decision makers tend to ignore history. Perhaps international actors—both public officials and private citizens such as investors—focus on the "here and now." They judge the credibility of foreign governments by studying fresh intelligence, not by reviewing the annals of international relations. A government's history of compliance with international commitments would, therefore, have little effect on beliefs about the government today.

Why would decision makers pay little attention to past actions? Daryl Press provides a plausible rationale.[19] His "current calculus" theory does not portray leaders as ignorant or dim-witted. Rather, it envisages leaders as careful thinkers who use history only in low-pressure situations. Historical analogies are, according to current calculus theory, "quick-and-dirty heuristics," mental shortcuts that simplify inferences. These heuristics serve people well for mundane calculations such as "the odds that our friend will show up at the movies," but they are reckless to invoke in more serious situations. As the stakes increase, people "abandon simple heuristics in favor of more careful 'systematic' reasoning."[20]

Current calculus theory makes two important assumptions that differ from my own. First, current calculus theory presumes that decision makers can, if they choose, measure the preferences and abilities of foreign governments directly and in real time. Second, current calculus theory says that the predictive power of current intelligence significantly exceeds the predictive power of history. For this reason, leaders in high-stakes situations expend extra effort "to gather more data and to model the situation more thoroughly," rather than drawing lessons from the past.[21]

In contrast, I assume that history contains unique and valuable information. As any participant or scholar of international relations knows, it is difficult to measure what foreign leaders want and what price they would pay to get it.[22] One can make educated guesses based on current information about political actors and institutions. But such information is likely to be incomplete, and the interpretation will depend on assumptions about how politics in each country works. Without disputing the value of current intelligence, I suggest that history has something to add. By observing past behavior in a variety of circumstances, one can gain additional insight into the preferences of foreign governments. Moreover, even if one could learn everything about foreign politics by direct observation, rather than historical inference, it is not obvious that people would make the investment. After all, current calculations are costly; they require extensive study of politics in foreign countries. Past actions, in contrast, provide insight on the cheap.

Both views of decision making are, of course, plausible. The best way to judge my theory against current calculus theory is not to debate the assumptions, but to investigate whether actors refer to past behavior when judging the credibility of foreign governments. If current calculus theory is correct in the area of sovereign debt, investors should not cite the repayment record of the government as an important indicator of creditworthiness. Instead, they should emphasize direct, real-time measures of political and economic conditions. Moreover, we should not expect past defaults or repayments to influence interest rates and access to capital, after controlling for information investors had at the time.

It is harder to say what current calculus theory predicts about the behavior of debtors. If investors focus entirely on the here and now, foreign governments should not expect default to have reputational consequences. They should recognize that credibility depends on current conditions and not obsess about their repayment records. It might seem, therefore, that one could test current calculus theory against my own not only by scrutinizing the behavior of lenders, but also by studying the behavior of borrowers.

Press insists that current calculus theory makes no such prediction, however. The theory says that leaders reject past actions as a basis for judging the credibility of other states, including foreign borrowers. But those same leaders could, without contradicting Press's theory, mistakenly assume that everyone else —prospective lenders included—draws inferences from the past. In fact, Press's own reading of history suggests that leaders invest heavily in their own reputations while ignoring everyone else's. Why would leaders behave this way? Press acknowledges that his "rationalist story seems to have a nonrationalist underpinning."[23]

In part 2, I test current calculus theory by investigating whether lenders ignore the past. I also explore the possibility that *both* lenders and borrowers disregard history. This stronger version of current calculus theory would eliminate any reputational incentive to repay and force us to consider other sources of debtor-creditor cooperation.

Issue Linkage and Cooperation

Many scholars argue that cooperation between debtors and creditors stems from issue linkage, rather than reputation. The key idea was introduced in chapter 1. Either by themselves or with help from their governments, creditors establish a tactical link between financial and nonfinancial relations. They threaten to retaliate against defaulters by sending gunboats or disrupting trade. These "direct sanctions," as they are called in the economics literature, can create powerful incentives to repay.

Reputational and linkage theories are not mutually exclusive, but they are

logically distinct. To understand why investors lend and governments repay, it is important to establish the empirical prevalence of these two mechanisms. Across countries and over the centuries, have lending and repayment been sustained mainly by concerns about reputation, or by threats of cannon fire and commercial interference? Having already derived many testable implications of my reputational theory, I conclude by describing an empirical strategy for detecting the presence of issue linkage.

Linkage models make specific predictions about the behavior of debtors and creditors. For instance, countries that are highly vulnerable to military and commercial retaliation should service their debts more scrupulously than countries that can better withstand retaliation. By extension, investors should withhold loans from militarily and commercially invulnerable countries, while offering the lowest interest rates to governments than can be punished most easily. Moreover, if a debtor decides to default selectively by repaying some debts but reneging on others, it should minimize the cost of noncompliance by giving priority to the strongest creditors—those most capable of imposing sanctions—while relegating relatively weaker creditors to the bottom of the repayment queue. Finally, investment analysts and credit rating agencies, which are paid to offer accurate and useful advice, should emphasize the threat of direct sanctions as a key criterion in lending decisions. These patterns, and others derived later in the book, are not implied by my theory of reputation.

Plan for Subsequent Chapters

The reputational theory in this book provides a general explanation for compliance with debt contracts and other international commitments. In a condition of anarchy, governments uphold their international commitments to avoid being classified as unreliable types and excluded from potentially beneficial agreements. The theory not only accounts for cooperation under anarchy, but also generates a wide range of predictions about the dynamics of debtor-creditor relations.

Part 2 tests the predictions of my theory and the leading alternatives. For each theory I identify many observable implications: patterns of behavior we would expect to find if the theory epitomized debtor-creditor relations. I then measure how extensively the expected patterns appear in data from international capital markets. My strategy involves putting each theory at risk as many times as possible by scrutinizing a large number of observable implications over the past three hundred years.

Chapters 3 through 5 test key predictions of my reputational theory. In chapter 3, I examine how investors treated new and seasoned borrowers during the 1700s

and 1800s. Those two centuries are particularly interesting because many new countries emerged and tapped capital markets for the first time. Statistical and qualitative data indicate that investors demanded a significant premium from new borrowers, precisely because they lacked information about the type of government they were confronting. Without the reassurance of a long and unblemished credit history, investors prudently decided to cover their risks. As the chapter shows, countries that repaid their early debts were able to reborrow at lower interest rates, which converged asymptotically to the levels of well-seasoned debtors. In contrast, countries that defaulted on their first loans were branded as unreliable. Until those countries settled their defaults, thereby signaling a commitment to repayment, investors refrained from offering new credit.

Chapter 4 considers a different source of evidence. Over the centuries, an industry has emerged to advise investors about lending money to foreign governments. Bankers, financial analysts, and rating agencies have commented in countless books and articles on which sovereigns were most creditworthy and for what reasons. In the competitive world of investment analysis, these authors have strong pecuniary incentives to offer accurate and useful advice. Through a systematic analysis of expert opinion, we can gauge the importance of reputation and issue linkage. The data, drawn from a representative sample of investment texts published in the United States and Britain during the 1920s, strongly support the reputational theory. The vast majority of authors identified reputation as a top consideration when investing in foreign securities, and their comments revealed a logic of reputation that closely matched my theory. In contrast, I found very little discussion of direct sanctions. Other data, including the content of bond advertisements, rating manuals, and securities regulations, as well as remarks from bankers and fund managers during the late 1990s, corroborate these findings.

Chapter 5 reinforces the analysis by examining how reputations formed in good times and bad. During the boom period of the 1920s, as in the most prosperous phases of the eighteenth and nineteenth centuries, investors charged higher rates to new borrowers. Moreover, they steered clear of apparent lemons that defaulted when external conditions did not justify a lapse. The Great Depression made it difficult for investors to distinguish lemons from fair-weathers, but it provided new opportunities to identify the stalwarts. Under my theory, a putative fair-weather that pays during hard times will climb the reputational ladder, and investors will extend easier credit that reflects new beliefs about the debtor. I test this proposition against data from the Great Depression, when a few hard-hit debtors exceeded expectations by meeting their obligations in full. Detailed case studies show that these surprising payers were able to refinance their debts at lower interest rates. Moreover, both archival data and investment commentary attribute the outcome to the reputation those countries gained by

paying under adversity.

The evidence in chapters 3–5 not only supports my theory, but also casts doubt on alternative models of reputation in international relations. Contrary to desire-based theory, investors make dispositional attributions even when the borrower behaves in desirable ways, and they take situational data (such as the Great Depression) into account when interpreting the behavior of foreign governments. Against current calculus theory, investors regularly use past actions to predict future behavior. There is, therefore, a strong correlation between credit histories and access to capital, even after controlling for other indicators available to investors. Finally, the desire of leaders to protect and enhance their reputations follows naturally from my theory, but is perplexing if not inexplicable in current calculus and desire-based models.

Chapters 6 through 8 test the predictions of nonreputational theories, in which investors use issue linkage and other retaliatory strategies to enforce cooperation. Chapter 6 focuses on the gunboat hypothesis. Many scholars have argued that, before World War I, creditor countries used their militaries to deter governments from defaulting and to collect debts from deadbeats. I show that the apparent correlation between default and military intervention is spurious. Debt default and military intervention coincided, not because the great powers sent forces to assist bondholders, but because they were responding to civil wars, territorial conflicts, and tort claims that happened to arise while debtors were in default. Moreover, creditors generally did not threaten foreign borrowers with military retaliation, and patterns of lending and repayment do not fit the military linkage hypothesis. Thus, contrary to popular wisdom, there is surprisingly little evidence of a systematic connection between military power and debt repayment.

Chapter 7 studies the hypothesized linkage between debt and trade. After dismissing the prospect of punishment via asset seizure and trade credits, the chapter focuses on the ultimate commercial sanction: a trade embargo imposed on behalf of creditors by their home government. The chapter presents a detailed study of Argentine debt policy in the 1930s, which scholars often cite to illustrate the plausibility of trade sanctions. Contrary to the conventional wisdom, I show that Argentina repaid its debts to signal its resolve and enhance its reputation, not to avert a trade war with Britain. I then check the generality of this conclusion by conducting a cross-country investigation of debtor behavior during the 1930s, the decade when linkage between debt and trade supposedly reached its height. My statistical analysis shows that governments did not service debts in proportion to their dependence on trade with creditors, nor did they offer preferential treatment to the lenders that were most capable of imposing a trade embargo.

Chapter 8 considers a final measure of retaliatory power: the cohesion of the creditor cartel. At least in theory, a rock-solid cartel could impose penalties that are beyond the reach of atomized lenders. I show that commercial banks are far

stronger and better organized than private bondholders. Nevertheless, investors over the centuries have tended to lend directly, in the form of bonds, rather than maximizing their punishment power by lending through banks and other organized intermediaries. I then consider a unique moment in history, the late twentieth century, when both bondholders and banks played key roles in sovereign lending. During that period, borrowers did not treat organized creditors (banks) better than disorganized ones (bondholders). Moreover, organized creditors did not charge lower rates than disorganized ones. In short, the cohesion of creditors—so important in theories of sanctioning—appears to have little impact on the actual behavior of borrowers and lenders.

The empirical evidence in this book points overwhelmingly in one direction. Across three centuries of international finance, reputations have formed in consistent ways and profoundly influenced the flow of international capital. Direct sanctions, by comparison, have played a surprisingly minor role in debtor-creditor relations. Chapter 9 concludes the book by discussing the policy implications of these findings, and how my theory of reputation could apply to other areas of international relations.

---

[1] Some have argued that debt contracts implicitly take these kinds of contingencies into account. See, e.g., Alesina 1988; Calvo 1989; Carlson, Husain, and Zimmerman 1997; Grossman and Van Huyck 1988; and Obstfeld and Rogoff 1996, 360–61. Others have called for more explicit contingencies in loan contracts, e.g., Borensztein and Mauro (2004).

[2] The term "lemon" is inspired by Akerlof 1970. I also draw inspiration from, and build upon, the work of Cole, Dow, and English (1995) and Eaton (1996), who propose models in which some sovereign debtors are more far-sighted or sensitive to the costs of default than others.

[3] The process is essentially Bayesian. For an introduction to Bayesian inference, see Gelman et al. 2004.

[4] The confirmatory data mainly give investors more confidence in their prior estimates.

[5] Nisbett and Ross 1980, chap. 8. Most psychologists rely on laboratory experiments with undergraduates, but Tetlock (1999, 2005) has found a similar conservative bias in studies of experts. The most wide-ranging and important analysis of perceptual errors by decision makers in international relations is Jervis 1976.

[6] Diamond (1989) develops a similar argument about the dynamics of reputation in domestic debt markets, but his model does not allow for exogenous shocks, and it presumes that lenders can foreclose on the assets of defaulters, which is unlikely in an international setting.

[7] For a review, see Mailath and Samuelson 2006. A small literature has begun to explore the consequences of allowing types to change. See Cole, Dow, and English 1995; Mailath and Samuelson 2001; and Phelan 2006.

[8] Cripps, Mailath, and Samuelson 2004.

[9] As discussed in part 2, financial institutions (bondholder councils, rating agencies, etc.) help investors judge whether settlements are fair, given the circumstances.

[10] Crawford 1987, 2.

[11] Investors might also control the level of risk by focusing their loans on easily monitored projects, such as railroads and infrastructure. See Bordo, Eichengreen, and Irwin 1999, 29–30.

[12] This "credit rationing" phenomenon means that markets may not clear because the supply of international loans does not meet the demands of extremely risky borrowers.

[13] In theory, each bondholder could gain from a defensive loan, which might increase the government's ability

and willingness to service existing debts, but no single bondholder has an incentive to purchase the emergency bond.

[14] The theory developed here does not rule out the possibility of mimicking, in which lemons and fair-weathers emulate more reputable types to boost their reputations, and stalwarts default in order to reap an immediate windfall. Given the preference profile of stalwarts, fair-weathers, and lemons, though, the costs of emulation will typically outweigh the benefits. The theory is also consistent with mixed strategies, provided that stalwarts repay with a higher probability than fair-weathers, who in turn meet their commitments more often than lemons.

[15] Mercer 1996.

[16] Mercer 1996, 45.

[17] Mercer 1996, 9.

[18] Mercer 1996, 46.

[19] Press 2005.

[20] Press 2005, 6.

[21] Press 2005, 23.

[22] On the challenges associated with knowing the motivations of countries and their leaders, see Frieden 1999.

[23] Press 2005, 158.