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# ODIOUS DEBT

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## ABSTRACT

Some argue that sovereign debt incurred without the consent of the people and not for their benefit, such as that of apartheid South Africa, should be considered odious and not transferable to successor governments. We argue that an institution that truthfully announced whether regimes are odious could create an equilibrium in which successor governments suffer no reputational loss from failure to repay odious debt and hence creditors curtail odious lending. Equilibria with odious lending could be eliminated by amending creditor country laws to prevent seizure of assets for failure to repay odious debt and restricting foreign assistance to countries not repaying odious debt. Shutting down the borrowing capacity of illegitimate regimes can be viewed as a form of economic sanction and has two advantages over most sanctions: it helps rather than hurts the population, and it does not create incentives for evasion by third parties. However, an institution empowered to assess regimes might falsely term debt odious if it favored debtors, and if creditors anticipate this, they would not make loans to legitimate governments. An institution empowered only to declare future lending to a particular government odious would have greater incentives to judge truthfully. A similar approach could be used to reduce moral hazard associated with World Bank and IMF loans.



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## 1. Introduction

The campaign for sovereign debt relief is based on two ideas. First, certain countries are too poor to repay their loans, at least without inflicting great harm on their people. The academic literature notes that even if loans are justified *ex ante*, countries may suffer negative shocks, and the debt overhang problem that ensues could make debt relief collectively but not individually optimal for creditors [Krugman, 1989; Sachs, 1989]. These arguments can be seen as a rationale for recent moves to grant debt relief to several Heavily Indebted Poor Countries (HIPCs).

The second rationale for debt relief is that some debts were illegitimate in the first place—it was clear at the time the loans were issued that the rulers incurred them without the consent of the people and were likely either to loot the funds or use them to finance repression rather than to benefit the people who would ultimately be asked to repay the debt. Indeed, it seems possible that as many countries face debt problems due to loans that *ex ante* were never intended to help the population as face problems due to *ex post* negative shocks. Yet countries that are not as impoverished as the HIPCs but have a plausible claim that their debts are illegitimate — such as South Africa, which bears apartheid-era debt — are not on the current list of debt relief candidates. This paper focuses on the second line of argument for debt relief and examines the case for eliminating illegitimate or *odious debt*. The argument is that, just as individuals do not have to repay if others illegitimately borrow in their name, the population of a country is not responsible for loans taken out by an illegitimate government that did not have the right to borrow 'in its name.' There is also an analogous principle in corporate law that a corporation is not liable to a third party for a contract that the CEO (or other agent) entered without the authority to bind the corporation.[1] The view that some uses of power by government

[1] For example, if a creditor could not have reasonably believed that an executive had (actual or apparent) authority to borrow on behalf of the corporation (e.g. "such events have happened after the authorization

officials might be illegitimate or criminal is in line with a trend in international law toward the individualization of sovereign activity, examples of which are the prosecution of Slobodan Milosevic for war crimes and the use of the Alien Torts Claims Act for survivors of torture and other human rights abuses abroad to sue the perpetrators in U.S. courts.[2]

We first consider the impact of a hypothetical perfectly truthful institution that assesses whether regimes are odious. By simply announcing its finding, it could create a new equilibrium in which lending to odious regimes is curtailed because successor governments who repudiate odious debt face no loss of reputation. In the absence of enforcement, this equilibrium where lending is curtailed is one of multiple equilibria. Equilibria with lending to odious regimes can be eliminated if laws in creditor countries are amended to disallow seizure of assets for non-repayment of odious debt and foreign aid to successor regimes is made contingent on non-repayment of odious debt. For example, if the International Monetary Fund (IMF) and World Bank adopted a policy of not providing assistance to governments who are repaying creditors for illegitimate loans, governments would then have incentives to renounce odious debt. In equilibrium, banks would not issue odious loans in the first place.

Shutting down the borrowing capacity of illegitimate regimes can be viewed as a type of economic sanction against them. The international community sometimes imposes economic sanctions when it wants to take a position against a government that suppresses democracy and human rights but does not want to resort to war. However, third parties have incentives to evade most sanctions. For example, smugglers or even national governments can profit by flouting trade sanctions. We show below that curtailing odious debt is a self-enforcing sanction that third parties will not have incentives to evade. In fact, this sanction works precisely by eliminating the

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as to require the reasonable inference that the agent's authority has terminated"), the corporation will not be liable to repay the creditor. [American Law Institute, 1958].

existing incentive of creditors to collude with dictators and issue loans that help the dictators and themselves at the expense of the people, so even unscrupulous creditors will abide by it. A second problem with current forms of sanctions is that they often inflict harm on the people they were intended to help. In contrast, curtailing dictators' ability to borrow, loot, and saddle the people with large debts would hurt illegitimate regimes but help their populations. Although there are certainly some cases in which such a sanction on borrowing would not be effective (for example since some illegitimate governments are not creditworthy and hence cannot borrow in any case), we argue that there are a number of countries for which the sanction would be applicable, and it might be worth adding to the toolkit of economic sanctions available to the international community.

After considering the impact of a hypothetical institution that truthfully assesses the legitimacy of debt, we discuss potential biases in the adjudication process and evaluate options to minimize their potential impact. An institution that evaluated existing debt might make false judgments if it favored debtors or creditors. For example, if it cared about the welfare of the people in poor debtor countries, it might declare legitimate debt odious so the country would not have to repay it. If creditors anticipate that they would not be able to collect on even legitimate loans, they would be wary of lending to any government, and the debt market would shut down. We argue that if an institution were empowered only to declare *future* loans to a particular government illegitimate, it would not be subject to this time-consistency problem and would be more likely to judge honestly. A supermajoritarian voting rule to declare a regime odious could safeguard against the possibility that some governments would falsely be branded as odious, which would help ensure that the policy constituted a welfare improvement over the status quo.

[2] *Filartiga v. Pena-Irala* (1980).

We focus primarily on the case of illegitimate governments that loot borrowed funds or use them to repress the people, but we also examine other possible standards for when to block borrowing. A particularly important case is legitimate governments that borrow to finance corrupt or economically disastrous policies. Arguably, democratically-elected governments, such as that of Hugo Chavez in Venezuela, should be free of international constraints on borrowing even if they use loans to finance policies that are economically unsound. Some contend, however, that the international community often bears part of the cost in the form of bailouts by international financial institutions (IFIs). This is the familiar moral hazard argument. When a country pursues risky policies but banks and bondholders anticipate an IFI bailout if the economy collapses, they might lend to a country that they would consider as unworthy of credit absent the prospect of a bailout. We describe how this problem could be addressed using a similar approach to the one we discuss for addressing odious debt. The IFIs could make an announcement that in their view a country was following unsustainable policies and was a bad credit risk. Loans made after this announcement could then be excluded from any future bailouts. This objective could be achieved by making it a condition of future bailouts that the government not repay any loans made during the period that the country was classified as a "bad credit risk." Of course, the private sector would be free to continue lending during this period if it considered the IFIs' judgment to be mistaken. However, it would be doing so at its own risk, knowing it would not be bailed out. Lending to governments that were good credit risks would not be affected, and the IFIs could continue to give aid to countries that followed good policies but suffered bad luck.

The remainder of the paper is organized as follows. Section 2 discusses the legal doctrine of odious debt and examples of debt that might be considered odious. Sections 3 and 4 present

the model and discuss equilibria, showing that an institution that truthfully announces regime type may create an equilibrium with less or no odious debt. Section 5 argues that an institution empowered to declare only future borrowing illegitimate would be more likely to judge honestly, and that requiring the votes of a supermajority of the institution's judges to declare a regime odious would robustly improve welfare over the status quo. Section 6 discusses other cases in which one might want to deter government borrowing, including the case of legitimate governments that borrow to finance wasteful spending where there is a moral hazard problem associated with international aid. Section 7 concludes. The appendix lays out a microfoundational model of the reputational penalty for loan default.

## 2. The Doctrine of Odious Debt and Potential Examples

The doctrine of odious debt originated with arguments made by the U.S. in 1898 during peace negotiations following the Spanish-American War. The U.S. claimed that neither the U.S. nor Cuba should not be responsible for debt that Cuba incurred under colonial rule because, first, the debt had been "imposed upon the people of Cuba without their consent"; second, it had not "been incurred for the benefit of the Cuban people"; and, third, "the creditors, from the beginning, took the chances of the investment," [Moore, 1906]. Spain never accepted the validity of the U.S. arguments, but the U.S. implicitly prevailed, with Spain taking responsibility for the Cuban debt under the peace treaty.[3]

[3] The Soviet state repudiated tsarist debt in 1921 using a similar rationale: "no people is obliged to pay debts that are like the chains it has been forced to bear for centuries" [International Law Commission, 1977]. In 1923 Costa Rica claimed loans issued by the Royal Bank of Canada to Frederico Tinoco were odious. The arbitrator in *Great Britain v. Costa Rica*, U.S. Chief Justice Taft, rejected the relevance of Tinoco's non-democratic status but nullified the debt on the grounds that "the bank knew that this money was to be used by the retiring president, F. Tinoco, for his personal support after he had taken refuge in a foreign country" (*Annual Digest of Public International Law Cases*, 1923).

Some legal scholars have elaborated a doctrine of odious debt using definitions that parallel the U.S. arguments quoted above. Sovereign debt is *odious* if (1) its purpose does not benefit the people and (2) it is incurred without the consent of the people.[4] Under the existing doctrine, both conditions must hold for debt to be considered odious. Thus, the debts of a regime that loots but rules democratically or of a non-democratic regime that spends in the interests of the people would not be considered odious. Some scholars argue that odious debt incurred by one government should not be transferable to a successor government [Feilchenfeld, 1931]. Others hold that debt should remain transferable unless, furthermore, (3) creditors were aware in advance that (1) and (2) held [Sack, 1927, as cited by O'Connell, 1967]. The doctrine has gained little momentum within the international law community, in part because of concern that it would provide an excuse for countries to not repay legitimate debt, which would lead creditors to shut down lending.[5] We explore policies that might help overcome these concerns.

There are certainly a number of cases in which dictators have borrowed from abroad, expropriated the funds for personal use, and left the debts to the population they ruled. For example, under Mobutu Sese Seko, the former Zaïre accumulated over $12 billion in sovereign debt, while Mobutu diverted public funds to his personal accounts (his assets reached $4 billion in the mid-1980s) and to his efforts to retain power (e.g., payments to cronies, military expenses)

[4] We interpret condition (1) as including looting since it is not in the interests of the people. The legal doctrine may intend a more restrictive condition that loans must be spent *against* the interests of the people, i.e. to finance repression.

[5] The doctrine was invoked by Iran in an arbitration case about debts to the U.S. incurred by the former Imperial government in 1948. In 1997 the Iran-U.S. Claims Tribunal ruled that the current government of Iran was liable for the debts, but the Tribunal wrote that in doing so it "does not take any stance in the doctrinal debate on the concept of 'odious debts' in international law." (Case No. B36, Mealey Publications, 1997). In fact, the doctrinal debate is characterized by jurists taking no stance. For example, the United Nations Convention related to sovereign debt under state succession makes no mention of odious debt. [United Nations, 1983].

[World Bank, 2001; Wrong 2000].[6] Similarly, when Ferdinand Marcos lost power in 1986, the Philippines owed $28 billion to foreign creditors, and Marcos' personal wealth was estimated at $10 billion [World Bank, 2001; Adams, 1991].[7]

Successor regimes, however, typically do not repudiate debt, even when it was incurred under arguably illegitimate circumstances. For example, Anastasio Somoza was reported to have looted $100 to $500 million from Nicaragua by the time he was overthrown in 1979. Daniel Ortega, leader of the Sandinista government that succeeded Somoza, told the United Nations General Assembly that they would repudiate Somoza's debt, but the Sandinistas reconsidered when their allies in Cuba advised them that doing so would unwisely alienate them from Western capitalist countries.[8]

Similarly, the apartheid regime in South Africa borrowed from private banks through the 1980's, and a large percentage of its budget went to financing the military and police and otherwise repressing the African majority. The Archbishop of Cape Town has campaigned for apartheid-era debt to "be declared odious and written off," and South Africa's Truth and Reconciliation Commission voiced a similar opinion. The South African government, however, has not endorsed this position. When apartheid was being dismantled in 1993, future-President Nelson Mandela called for the world to normalize economic relations with South Africa, and three days later the finance minister announced at an investor conference in New York that South

[6] All figures are in current dollars. The *Financial Times* reports the $4 billion figure as the estimate of the United States Treasury and International Monetary Fund. An *FT* investigation found that Mobutu's wealth peaked at this value ("Mobutu built a fortune of $4 billion from looted aid," 5/12/97). Others report his 1997 wealth as $9 billion ("Superstar eclipsed by greed," *Times* (London), 5/5/97).

[7] Other examples: Sani Abacha was reported to have $2 billion in Swiss bank accounts in 1999 after 5 years as Nigeria's ruler. ("Going after 'Big Fish,' new Nigerian President trawls for corruption," *International Herald Tribune*, 11/25/99). Jean-Claude Duvalier's successors in Haiti claim he took $900 million with him when he left power in 1986. Haiti's debt was $700 million at the time ("Haiti in life and debt struggle," *Guardian*, 6/17/00). Debt figures from Hanlon (1998).

[8] "Somoza legacy: plundered economy; after Somoza's asset stripping, an economy in shambles,"

Africa would repay its sovereign debt.[9] It seems that the new leadership of South Africa was concerned about building a reputation for playing by the rules of capitalism, and it worried that renouncing the debt would hurt its chances of attracting foreign investment.

More recently, Franjo Tudjman of Croatia was arguably an odious ruler, having suppressed the media, instigated violence against political opponents, and looted public funds. In 1997, the IMF cut off aid that was earmarked for Croatia, at the behest of the U.S., Germany, and Britain. A reason these countries opposed the aid package was the "unsatisfactory state of democracy in Croatia," according to British Foreign Secretary Robin Cook.[10] Meanwhile, commercial banks lent an additional $2 billion to the Croatian government between the IMF decision and Tudjman's death in December 1999 [World Bank 2001].

These examples suggest it would be worthwhile to explore policies that could block odious debt from being issued in the first place.

## 3. The Setup

To model odious debt, we first lay out a model of sovereign debt (which we then augment in Section 4 by examining the impact of an institution that assesses whether a regime is odious). In the model, sovereign debt is supported by a penalty for default that comprises seizure of assets and loss of reputation [Eaton and Fernandez, 1995]; loans are beneficial to the people if the government is not odious, but detrimental to them if the government loots the proceeds; and a country is able to repay its loans even if it has been looted by an odious regime. Because our

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*Washington Post*, 11/30/79; "Cuba's debt mistakes: A lesson for Nicaragua," *Washington Post*, 10/5/80.

[9] "Banks reschedule $8 billion in S. African debt; foes of apartheid had urged more stringent terms to force concessions by Pretoria," *Washington Post*, 10/18/89; "Business accused of helping sustain apartheid," *Financial Times*, 10/30/98; "A jubilee celebration," *Financial Times*, 4/25/97; "SA to begin loan payback next year," *Financial Times*, 9/28/93.

[10] "UK warns Croatia it risks losing aid," *Financial Times*, 7/31/97; "Croats find Treasury plundered;

focus is on the role of the institution, we treat the sovereign debt market in reduced form in the main text; in the appendix we present a microfoundational model for our assumed reputational penalty for loan default.[11]

We describe the players and their utility functions in Section 3.1; income sources in Section 3.2; the loan market in Section 3.3; the timing in Section 3.4; and equilibria, including one that seems to describe the status quo of sovereign lending, in Section 3.5.

*3.1. Players and their utility functions*

The *government* in period 1 has type $G_1 \in$ {odious, non-odious} that is exogenously determined at the start of the game (subscripts denote the time period). $G_1$ is not publicly observed but can be ascertained through an investigation at cost C. In each later period, from t=2 to t=∞, a new government that is always non-odious comes into power.[12] A non-odious government maximizes the population's welfare; an odious government maximizes its own welfare. There also are competitive foreign *banks* with infinite lifetime. The *population* of the borrowing country is a passive player; it does not make decisions in the model. It supplies labor inelastically each period, but is too sick to work if it consumes less than $\underline{w}$. (We use the label $\underline{w}$ because this consumption level will act as a minimum wage when production uses labor.)

All agents have linear utility that is additively separable over time and discount rate $\beta<1$, so $R=1/\beta$ is the equilibrium gross world interest rate. Agents cannot commit; this includes banks

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state says former regime stole or misused billions," *Washington Post*, 6/13/00.

[11] The model is based on Cole and Kehoe's [1996] linked-reputation model in which if a country defaults on debt issued by private foreign banks, it suffers a loss of reputation that extends beyond the debt market.

[12] This assumption simplifies the model but we do not think drives the main results.

that investigate governments being unable to commit that their judgment $J_t \in$ {odious, non-odious} about a regime will be truthful.

*3.2 Assets, production, and income*

The government and population begin with zero liquid assets, but foreign banks have a stock of capital sufficient to cover the country's loan requests.

For it to be feasible for a country to repay its debt even if the previous regime was odious, we assume there are some productive assets that an odious regime cannot loot. In particular, we assume that an odious regime cannot indenture the people's future labor. In each period, after the new government is installed, a production process that uses labor is available. It immediately returns A if the population consumes at least $\underline{w}$ and 0 otherwise. We assume that $A - \underline{w} \geq R - 1 \geq 0$. This implies that even an odious government will choose to pay the population a minimum wage of $\underline{w}$ and use their labor. It also implies that a looted country will be able to make loan repayments, as will become clear below.

Our accounting convention is that income accrues to the government, which then pays other players, although, equivalently, income could accrue to the population whom the government then taxes. In either case, the population in effect consumes the first $\underline{w}$ of income and the government is the residual claimant on other receipts, including the proceeds from borrowing. (In Section 4 we discuss the case where the population obtains some share of the proceeds from borrowing even if the government is odious.) Given the assumptions about utility, a non-odious government will retain no income for its own consumption while an odious government will maximize its consumption.

To generate a productive role for borrowing, we assume there is an investment, which we call *mining*, that returns an amount M > R in period 2 for every unit of capital invested in period 1.[13] The investment fully depreciates after producing output in period 2.

*3.3 Loan contracts*

Banks issue loans only in period 1. The loan contract is as follows. A bank pays an amount D≥0 in period 1 and the country repays D(R-1) in all periods t≥2. (The present value of the infinite repayment stream equals D.) The loan amount and the country's repayment $b_t \geq 0$ in each subsequent period are publicly observable. If the country defaults, it faces a penalty whose present value is $P = P^r + P^s$. $P^r$ is the reputational penalty associated with exclusion from a profitable market in which only those with a good reputation (i.e., a clean record as a debtor) can participate, and its maximum value is $\overline{P^r}$. We treat it in reduced form in the main text, but see the appendix for microfoundations. $P^s$ represents seizure of assets. As a normalization, the maximum total penalty $\overline{P} = \overline{P^r} + P^s = 1$.[14]

*3.4 Timing*

At the outset of period 1, the government type is realized. The bank can investigate the government type and issue a loan D to the government. The government can invest. Labor income is realized and the government pays workers a wage $w_1$. Workers produce if their wage is greater than or equal to $\underline{w}$.[15] Consumption takes place.

[13] The main results of the model would not change if we allowed mining in every period.
[14] This assumption reduces two degrees of freedom from $P^s$ and $\overline{P^r}$ to one. However, since we are not interested in examining comparative statics as $P^s$ and $\overline{P^r}$ change separately, we adopt this restriction for ease of presentation.
[15] The wage payment and realization of labor income occurs simultaneously, but the wage affects the

In period 2, if the country invested in mining in period 1, output DM is realized. The government pays a transfer X to the population and consumes the remainder. A new (non-odious) government replaces the existing government. Labor income is realized, and the government pays the population a wage $w_2$ that is consumed immediately. It makes a payment $b_2$ to the bank. Subsequent periods are identical to period 2 except there is no mining output.

*3.5 Equilibria and the status quo of the sovereign debt market*

As made clear in the appendix, the folk theorem implies that there are multiple equilibria of the reputational cost of default; the extra lending that reputation sustains in an infinitely repeated game can vary between 0 (repetition of single-stage Nash equilibrium) and a maximum value $\overline{P^r}$ after which a country would rather default (Nash reversion). If there is no reputational penalty, or $P^r=0$, loans of $D=P^s$ would be issued to all governments. There are also equilibria with indiscriminate lending to all governments in which the loan size satisfies $P^s \leq D \leq 1$.

There are a range of other, more exotic, less focal equilibria as well. For example, countries could bear no reputational cost for failure to repay loans issued on Mondays, but face penalty $\overline{P^r}$ for failure to repay loans issued on other days of the week. Under some conditions, there may exist a similar equilibrium in which countries face no reputational cost for failure to repay odious loans, but face penalty $\overline{P^r}$ for failure to pay legitimate loans. In this equilibrium, banks investigate governments before lending and condition lending on whether the regime is odious. However, as discussed in the appendix, this equilibrium requires an infinite sequence of costly investigations of regime type, and will only exist if the present discounted value of this

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amount of labor income (because of the efficiency wage assumption). In a discrete-period model, this approximates a more realistic continuous-time process in which an infinitesimal wage payment would precede the realization of labor income. Also note that $\underline{w}$ can be zero.

sequence of investigations is not too large. Moreover, an analogous equilibrium would also exist in which odious governments receive larger rather than smaller loans. Note also that given the cost of investigation, these equilibria are Pareto-dominated for the parties (existing governments and creditors) that draw up loan contracts, although the equilibrium with less lending to odious regimes may maximize the welfare of the population in a developing country. In the absence of some coordination device, this equilibrium therefore seems unlikely to arise, and it certainly does not seem to describe the status quo.

The equilibrium in the model that best describes the status quo is the following. Banks lend D=1, which is the loan size supported by the maximum penalty that a country would face if it defaulted, to both types of period-1 governments, and mining investment occurs. If the government is odious, workers are paid $w_1=\underline{w}$ and the government consumes A-$\underline{w}$. If the government is non-odious, workers are paid $w_1=A$. In period 2, after output is realized, an odious government consumes M, while a non-odious government transfers X=M to the population. After the new government is installed, labor income A is realized and $w_2=A-(R-1)$. The loan repayment is $b_2=R-1$. In periods $t>2$, labor income is A, $b_t=R-1$, and $w_t=A-(R-1)$.[16] Off the equilibrium path if $b_s<R-1$ for any $2\leq s\leq t$, the penalty P is imposed.

Under the status quo, creditors lend to a government as long as it is creditworthy, and successor governments typically accept responsibility for debt, even if the predecessor regime is regarded as odious. Looting does not seem to be a valid excuse for failure to repay. For example, banks lent to the South African apartheid regime and the Somoza regime in Nicaragua, and the successor governments have not repudiated the debt. In the few cases where a government has repudiated the debts of previous regimes as illegitimate, such as after the Russian revolution, the

[16] In the full model introduced in the appendix, the government also collects and transfers to the population taxes on FDI that we suppress here to simplify the presentation.

new government presumably had few plans to deal with foreigners and had few assets overseas subject to creditor countries' legal systems, so it had little to lose by defaulting.

We next examine the impact of an institution that truthfully announces regime type.

## 4. Impact of an Institution That Truthfully Identifies Odious Regimes

Section 4.1 argues that an institution that truthfully announces regime type may create a new equilibrium in which there is no loss of reputation for repudiating odious debt. However, this is only one of multiple reputational equilibria. Section 4.2 argues that if laws in creditor countries are modified to block seizure of assets for failing to repay odious debt, and if foreign aid is restricted to countries that are not repaying odious debt, then equilibria with odious debt may be eliminated. For example, seizure of a country's assets for non-repayment of odious debt could be blocked, and foreign aid could be restricted to countries not repaying odious debt. Section 4.3 argues that these policies would have several attractive features as an addition to the toolkit of international sanctions.

### *4.1 Announcements and no reputation loss for repudiation of odious debt*

If an institution investigates governments in period 1 (*ex ante*) or period 2 (*ex post*) and announces its judgment $J_t \in$ {odious, non-odious} where t=1 or 2, an equilibrium will exist in which the reputational penalty is 0 when $J_t$ = odious but is its maximum value, $\overline{P^r}$ otherwise. In this equilibrium, banks will limit lending to odious regimes to the level that can be supported by seizure of collateral, $P^s$.[17] Here, a country's reputation is not tarnished if it repudiates odious

[17]If the institution accurately judged period-1 regimes *ex post* (in period 2), then banks would be motivated to conduct their own investigations *ex ante* and not issue odious debt beyond $P^s$. The lending bank investigates the regime in all cases at cost C that it passes on to the government. The bank restricts

debt, but is tarnished if it defaults on legitimate debt. In the microfoundational model given in the appendix, firms stop doing business with a country if the country has behaved badly as a borrower, and repudiating odious debt is not considered bad behavior. Recall that for this type of reputational equilibrium to exist in the absence of the institution, creditors and investors would be required to coordinate on an infinite sequence of costly investigations. For a range of costs of investigation, equilibria in which reputation depends on the odiousness of debt will exist only if there is an institution that has incentives to truthfully assess and publicly announce regime type. These points are discussed further in the appendix.

If the international community, or even a few large creditor countries, coordinated, they could potentially shift the equilibrium of international lending to one in which odious debt would not be considered legitimate and there were no reputational penalty for failure to pay these debts. Suppose, for example, that the U.S. government, European Community, heads of several major international banks, IMF, World Bank, and UN had all declared in 1986 that they considered the apartheid government of South Africa as not representing the people and that they would not consider debts incurred by the apartheid government of South Africa as a legitimate obligation of the successor government. Or suppose a similar announcement had been made about the Tudjman regime in Croatia. It seems conceivable that banks would doubt whether successor regimes would repay any loans issued after the announcement, and in such circumstances, banks might be unwilling to lend.

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lending to odious governments and lends to non-odious governments. If lending occurs, the institution undertakes an *ex post* investigation and announces the government type truthfully. This equilibrium would have higher investigations costs than *ex ante* investigation since two investigations per government occur for non-odious governments.

*4.2 Enforcement powers and elimination of odious debt*

While public announcements of regime type could potentially lead to a shift in equilibrium, there is no guarantee that everyone would coordinate on the new equilibrium without some means of enforcement. Two enforcement mechanisms, though, could eliminate equilibria with lending to odious regimes. First, if creditor country law were changed to prevent seizure of a country's assets for non-repayment of odious debt, this would make $P^s=0$ for odious debt. Second, if donors tied their foreign aid to the institution's judgments and withheld foreign aid from countries repaying predecessors' odious debt and if the foreign aid were valuable enough, the country would face a larger loss from repaying the debt and foregoing aid than from repudiating the debt and possibly suffering a loss of reputation. In other words, if donors refused to give aid that the country would hand over to creditors who issued odious loans, banks would anticipate that the country would not repay the loans and hence would not issue loans in the first place. Thus, enforcement powers would not need to be exercised on the equilibrium path. Meanwhile, under such a policy a successor government would continue to repay legitimate debt that it inherits.[18]

We have considered the case in which the period-1 government has zero initial assets, but governments often start with some debt. It is therefore worth considering whether all borrowing should be blocked or whether the regime should be allowed to roll over existing loans but blocked from incurring new loans. Consider the case of an odious government that inherits debt

[18] One potential concern might be that if a regime is judged odious *ex ante*, banks simply would issue shorter-term loans at higher interest rates as long as they believed that the odious regime would be in power long enough to repay the loans. However, if the odious government must repay the short-term loans, it cannot loot the money, so it gets no benefit. On the other hand, if the odious government expects to lose power soon and seeks a short-term loan with the intention of bequeathing it to a successor regime, creditors should anticipate that the successor would not repay the debt and refuse to issue the loan. Furthermore, if the law in creditor countries disallowed seizure of assets for default as soon as a regime was declared odious rather than when the successor government came into power, then an odious regime

d and owes a repayment of d(R-1). First note that if the odious regime did not intend to take on new debt, it would default both under the status quo and in a new equilibrium in which odious governments are blocked from borrowing. In cases where the regime did intend to borrow, an odious government cannot be made worse off than when it expropriates d(R-1) by reneging on its debt repayment obligations. Thus, if the international community allowed an odious government to roll over the interest due on old debt, although the regime would continue to loot d(R-1) rather than repay creditors, this rollover would be less disruptive to the financial system than outright default. The people of the country are not made worse off since they would be expected to repay the legitimate debt and interest that the last non-odious government bequeathed, even if the odious regime did default.[19]

*4.3 Limiting debt as an economic sanction*

When the international community wishes to penalize a government without recourse to war, it often imposes economic sanctions. Limiting an odious regime's ability to borrow can be considered a new form of economic sanction that has several attractive features relative to existing sanctions. Like other sanctions, limiting borrowing may create desirable incentives for governments. Non-democratic regimes might cut back on their looting rather than risk being declared odious and losing the ability to borrow. If potential dictators expected to be spurned by creditors, there might be fewer violent coups and odious regimes in the first place.

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could not use those assets as collateral for its loans, and banks would extend less credit to the regime.

[19] This explanation differs from the real world in a few ways. The true repayment might be larger than d(R-1) if some of the principal is also due, so one would have to allow the odious regime to also rollover the principal. On the other hand, one could require the odious regime to make some repayment if there are other reasons it does not default besides preserving the country's reputation. Egomania and aversion to humiliation are plausible reasons a dictator might repay debts. For example, Nicolae Ceaucescu seemed so concerned about 'honor' that he starved the Romanian people to repay obligations. Also, there might be some direct sanction a foreign government can impose on an odious regime if it defaults, but cannot

Limiting borrowing also has advantages over trade sanctions. While third parties have incentives to break trade sanctions, banks would not have an incentive to lend to odious regimes, since the borrowing country would have little incentive to repay odious debt as long as non-repayment was not punished with reputation loss or seized assets. Banks cannot break this sanction unilaterally since they rely on others to enforce the reputational punishment. A few creditors and investors who are willing to lend to and invest in a country that has repudiated odious debt would give would-be issuers of odious debt the incentive to abide by the sanction. Programs to limit lending thus stand in sharp contrast to trade sanctions, which are eviscerated by one or a few defectors even if there are a large number of abiders.

Second, while trade sanctions are often thought to impoverish the population, preventing the regime from looting and saddling the country with debt likely makes the population of a country better off. In our model, odious governments are the residual claimants and fully loot the proceeds of any loans, but reasonably relaxing this assumption would not change the conclusion that cutting off lending to regimes that loot on a large scale will benefit the population. To see this, consider an extension of the model in which the mining sector uses labor and requires an efficiency wage of $\underline{w} + \varepsilon$, rather than simply $\underline{w}$. If the government is odious, workers are better off by $\varepsilon$ in the short run without a sanction on borrowing, since they earn a short-term surplus of $\varepsilon$ if mining occurs. On the other hand, borrowing to establish the mining industry will require the population in the long run to repay loans with current value of 1. Thus, even if the sanction on borrowing does not change the behavior of the regime at all, the population will still be better off with the sanction as long as $\varepsilon < 1$. In contrast, if workers get surplus $\varepsilon$ from, say, growing an export crop valued only outside the country (a luxury good demanded only in wealthier

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impose otherwise.

countries, for example), for a trade sanction to be in the interest of the population, it would need to either increase the odds that the regime is overthrown or increase the odds that it changes its behavior by enough to outweigh the loss of ε in wages. The sanction on borrowing would have these same positive effects on regime type in addition to its direct benefit of reducing the debt burden of the people.

If the population earns enough surplus from investment ($\varepsilon > 1$), then it may be better off without limits on borrowing. This surplus could be because of a high efficiency wage for workers on projects financed with borrowing or because the government is only moderately corrupt and steals a small amount from the country. If less than the full surplus from borrowing would be looted, then depending on how strong the incentive effects on regimes are, it may or may not be welfare-improving to block lending.[20]

More countries engage in foreign trade than in sovereign borrowing, so limits on borrowing could only be applied as a sanction in certain cases. Nonetheless, in these cases it could have a significant impact. For example, if major players in the international community had publicly declared Tudjman's regime in Croatia odious at the time of the IMF freeze in 1997, creditors might not have granted him the subsequent $2 billion in loans and the Croatian people would not bear the debt today.

[20] Also, a case could potentially be made that just as traditional sanctions are limited to certain types of trade, one should treat humanitarian loans as non-odious. Here odiousness is treated as a property of not a regime but of a particular loan. For example, one might consider the Iraqi government as lacking the consent of the people and spending against their interests in general, but still support loans in the form of medical supplies. On the other hand, it could be argued that these loans are fungible and should be blocked too.

## 5. Potential Biases and Truth-telling

The previous section examined the effect of a hypothetical perfectly truthful institution. We now address the key concern that the institution may have biases, and we consider when it nonetheless will announce truthfully. Section 5.1 shows that an institution that can rule on existing debt odious might make false rulings if it asymmetrically values the welfare of debtor countries and creditors, and that this time-consistency problem can be solved if the institution is empowered to declare odious only future loans. Section 5.2 discusses the impact of biases in favor of or against particular governments. We argue that if the institution can only rule on future debt, then an institution with biases in favor of particular governments is no worse than the status quo, while biases against particular governments could potentially lead to outcomes worse than the status quo, and show that an institution with a supermajoritarian voting rule to declare a regime odious could robustly improve on the status quo.

### *5.1 Preferences of the institution toward debtor countries and creditors*

There is clearly room for discretion in assessing whether loans to a particular regime are odious. Governments lie on a continuum in the extent to which they do or do not have the consent of the people and do or do not spend for their benefit. Someone could argue that Mexican debt incurred during the era of PRI domination, or debts incurred in the U.S. before the passage of the Voting Rights Act of 1965, qualify as odious debt. A leading legal scholar writes, "the concept of odious debts tends to be expanded as States seek a pretext for avoiding obligations which otherwise would be imposed upon them, and for this reason it is essential strictly to limit it" [O'Connell, 1967].

If creditors expected legitimate loans to be branded odious *ex post*, they would be reluctant to lend at all, and countries would be cut off from capital. An institution that valued the

welfare of people in poor countries more than the interest of creditors might declare existing legitimate debt odious as a way to redistribute resources from creditors to the debtor country. This creates a time-consistency problem, since sovereign lending would dry up if creditors anticipated that even legitimate loans would be branded odious. The population of a debtor country would always be better off if the institution could commit to tell the truth *ex post,* and if odious regimes are infrequent enough, the population would be better off in expectation with no institution and the ability to borrow than with an institution that could not commit to tell the truth. An institution with the opposite bias of favoring banks over debtor nations might also make false rulings; in this case it might fail to lift a country's odious debt burden in order to help the creditors.

Below, we model these considerations more formally, and argue that an institution empowered only to declare future debt illegitimate, that is, to identify regimes as odious *ex ante*, will be less subject to bias from placing asymmetric weights on debtor and creditor welfare. Suppose the institution, or more precisely, its decisive voter, puts weights $\lambda^p$, $\lambda^b \geq 0$ on the welfare of the population and banks, respectively, and it has a concern for the truth, reflecting either intrinsic honesty or a concern for reputation. The institution maximizes

$$U_t^i = \mathbf{1}(J_t = G_1) + \lambda^p U^p + \lambda^b U^b \ ,$$

where $\mathbf{1}(J_t = G_1)$ is an indicator function that is 1 if the judgment is truthful, and $U^p$ and $U^b$ are the utility of the population and of the creditors of banks, respectively. The institution faces incentive problems *ex post*; if it favors creditors or debtor countries it might make untruthful judgments. Suppose the institution learns that the government is odious. If it favors the bank, falsely announcing the government is non-odious will shift the debt burden from the bank to the population. The institution tells the truth if $1/R \geq \lambda^b - \lambda^p$. Similarly, if the institution learns that the

government is non-odious, it could help the population and hurt the bank by lying and freeing the country of its debt. The institution will tell the truth if $1/R \geq \lambda^p - \lambda^b$. Combining these two cases, the institution will report honestly *ex post* if it does not favor the population over banks too much or vice versa, or if $\left|\lambda^b - \lambda^p\right| \leq \frac{1}{R}$.

Next consider whether an institution empowered only to brand future debt illegitimate will tell the truth. First, suppose the government is non-odious. If the institution falsely declares that the government is odious, no lending will occur. Creditors make zero profit *ex ante* whether or not lending occurs, so the institution's preference for creditors does not affect its judgment, but the population is strictly worse off by (M-R)/R, the foregone surplus from investment. Thus, the institution will tell the truth regardless of the magnitudes of $\lambda^p$ and $\lambda^b$.

Second, suppose the government is odious. Again, a bank makes zero profit whether or not lending occurs. However, the population loses 1 if the institution lies and allows the odious regime to borrow. Thus, the institution always will prefer to tell the truth.

To recap, once a loan has been issued, liability for the loan is a zero-sum game between the creditor and borrower. If the institution displays sufficient favoritism for either the population of a debtor country or its creditor, it will make false judgments *ex post*. In contrast, *ex ante* judgments are immune to this problem since a false judgment cannot help a zero-profit creditor but always hurts the population.

*5.2 Biases of the institution toward governments*

We next consider institutional preferences in favor of or against the period-1 and period-2 government. The institution places weights $\lambda^{g1}$ and $\lambda^{g2}$ on the utility of the period-1 and period-2 governments that can take on positive and negative values. If the institution judges *ex ante* (t=1)

the relevant term is that toward the period-1 government, and if it judges *ex post*, the relevant term is toward the period-2 government.[21]

These biases should be thought of as applying to a particular government. A positive value of $\lambda^{gt}$ may arise if a government is an ally or an important trading partner of an institution member's home country or could threaten retaliation. For example, it is unlikely an institution would blacklist Saudi Arabia or China, regardless of any misdeeds. The value of $\lambda^{gt}$ might be negative if the institution opposes a particular government for ideological reasons. For example, the U.S. might wish to block loans to Cuba under Fidel Castro, independent of whether the regime satisfies the definition of odiousness.

These preferences could potentially lead to false rulings whether judgments are made *ex post* or *ex ante*. First, consider the case in which the institution assesses the loans *ex post*. If the borrowing regime was odious, but the institution dislikes the successor regime, it might announce that the regime was non-odious to hurt the successor regime. Similarly, if the borrowing regime was non-odious, but the institution favors the current regime, it might issue a ruling of "odious" to free the country from its debts. Thus, if rulings are made *ex post*, false negatives are induced by preferences against successor regimes, and false positives are induced by preferences in favor of successor regimes. Second, consider the case in which the institution assesses regimes *ex ante*. Here, a preference for the current regime might induce a false negative; an odious regime is allowed to borrow. A preference against the regime could lead the institution to deem the regime odious to block its borrowing.

Figure 2 summarizes the effect of different biases on truth-telling. If the institution favors the population sufficiently more than banks or vice versa, a truthful investigation will be feasible

[21] The proceeds from lending are looted or consumed by the population by the time the period-2

*ex ante* but not *ex post*, while preferences for or against governments do not provide reasons to generally prefer either *ex ante* or *ex post* rulings. Thus, on net, an *ex ante* investigation provide superior incentives for telling the truth, but will not prevent false judgments due to preferences for or against governments.[22]

Note that the two types of false judgments *ex ante* are not equally worrisome if the status quo of indiscriminate lending is used as a reference point. A lie in favor of a particular odious regime would move the outcome closer to the status quo. However, dishonest judgments due to bias against particular non-odious governments could yield outcomes worse than the status quo.[23]

We argued above that with *ex ante* investigations, if the institution favors the population or lenders, but has no biases toward governments, then it would judge fairly. If the institution favors a particular odious regime, it might dishonestly announce a "false negative" and clear the regime for loans. This is equivalent to the status quo.

To avoid outcomes worse than the status quo, the institution needs to be prevented from applying the odious label falsely to a regime it disfavored (e.g. for foreign policy reasons), thus depriving the country of beneficial loans. If the voting rule of the institution required a

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government takes office.

[22] When one considers the combination of preferences toward the population, creditors, and governments, *ex ante* investigations are more conducive to truth-telling than *ex post* investigations under most plausible assumptions. It is possible, though, to construct examples in which *ex post* investigations are better than *ex ante* investigations. For example, if the institution has strong biases against non-odious governments and strong preferences for the population, *ex post* decisions may be preferable. *Ex post*, a lie would cost the population the full value of the loan. *Ex ante*, the cost to the population is the surplus from investment. If investment is not too productive, a false ruling *ex post* hurts the population more, and hence the institution would have a stronger incentive to be truthful if it rules *ex post*. This example notwithstanding, the *ex ante* investigation has better overall properties since it is less sensitive to pro-bank or pro-population preferences and, in general, is no more sensitive to pro- or anti-government biases than *ex post* investigations.

[23] For example, if social welfare is a weighted sum of the linear utility of the population, creditors, and dictators, and the weight placed on dictators is less than R/M times the weight placed on the population, then blocking loans to odious regimes raises welfare. Creditors are assumed to be zero-profit.

supermajority among the members to judge a regime odious, the decisive voter would be less biased against the government than under a simple majority rule. Some illegitimate, self-serving regimes would continue to receive loans if this rule were adopted, but it would be an improvement on the status quo if even one such regime were denied loans. Another provision to safeguard against biased judgments is to have an institution composed of professional jurists with lengthy tenure. Such judges may be less beholden to the political agendas of their home countries; in effect, their expected $\lambda^g$'s have a smaller magnitude, so their decisions are less biased.

**6. Which Governments Should Be Blocked from Borrowing?**

The legal literature considers debt odious if it was incurred without the consent of the people and not for their benefit. Under this definition, for debts to be odious the borrowing government has to both be undemocratic and loot the funds or use them for repression. Clearly, these stringent conditions create a strong case for blocking borrowing, but one could also consider cases when the government is undemocratic but spends in the people's interest; is democratic but loots the proceeds from borrowing; or is democratic but spends incompetently so its borrowing does not benefit the people. In this last case, if the international community did not want to go so far as to block the government's ability to borrow, it might still want to make clear that it would not help rescue creditors who lend to the government.

To begin with, one might want to block non-democratic regimes from any borrowing that will be used in ways that do not benefit the people, even if the regime does not loot or repress but simply follows bad economic policies. For example, vanity projects like Mobutu's spending on a

barely operational nuclear reactor or the Muhammad Ali-Joe Frazier boxing match in Zaïre hurt the people just as outright theft does.[24]

One could also make a case for limiting the borrowing of non-democratic regimes regardless of how they spend the money since this would reduce incentives for coups. On the other hand, if loans are used to finance profitable investments and the surplus accrues to the people, then they may be better off without limits on borrowing. The international community would face the same tradeoff it faces in regard to trade sanctions: encouragement of democracy versus direct costs that the sanction imposes on the people.

Another potential standard for when to limit borrowing is that only the second of the legal scholars' conditions need hold: any government, even a democratic one, should be blocked from borrowing that will finance looting. In the model we have sketched, from a welfarist perspective, only the second condition is relevant. Why not shut down all loans that are not in the interests of the people? Nigeria and Pakistan, for example, were looted during democratic periods. One could go further and argue that any loan that does not help the people should be discouraged, even if the reason is unsound spending rather than looting.

There are three potential arguments against restricting the borrowing ability of democratic governments that loot or misspend. First, if the population of a country chooses to elect a misspending government, some would argue that it is their prerogative, and it would be a breach of sovereignty to block the government's ability to borrow. Second, requiring that an

[24] A more nuanced case is if the regime does not have the consent of the people and the investment is unproductive, but the people support the investment. On the one hand, one could argue that whether the spending is welfare-improving should be measured from the point of view of the people, so loans should continue. On the other hand, one might argue that in an undemocratic society that lacks a free press and other freedoms, people cannot hold the open debate needed to truly consent to the spending, so loans should be blocked. This discussion raises the more general point that one could assess "consent of the people" for each loan rather than each regime. See footnote 20 for a similar point about a loan-specific interpretation of "benefit of the people."

odious government be non-democratic and thereby narrowing the definition of odiousness makes it more difficult for the institution to issue "false positives." That is, biases the institution has against particular regimes will be kept in check by a presumption that democratic regimes are non-odious. Third, exempting democratic regimes from being labeled odious reduces the attractiveness of coups, since someone who assumes power through proper democratic means does not risk being declared odious.

While most would argue that a democratic country following inefficient policies should be able to spend as it pleases, many contend that the international community should not have to subsidize wasteful spending, and that it sometimes does so in the form of international aid packages to countries whose economies have collapsed. According to this moral hazard argument, the expectation of World Bank or IMF bailouts leads commercial banks and bondholders to make loans that governments could not reasonably repay on their own.

The following policy might help solve this problem. The IFIs could announce that, in their view, the policy a government is pursuing is likely to make it unable to fulfill its debt obligations and that they will not provide aid to help the country repay debt issued after the announcement. More specifically, a condition of IFI assistance could be that countries not be simultaneously repaying any loans taken after the IFI announcement. This would eliminate any incentive for commercial banks to lend solely in anticipation of IFI loans. By making such an announcement, the IFIs would avoid encouraging private lending to the country motivated by the expectation of a bailout. Unlike in the odious debt case, loans issued after the announcement would not be considered illegitimate and unenforceable; the IFIs would not be banning private loans to governments but rather issuing a disclaimer that private lenders are responsible for risky

loans they issue.[25] If creditors thought foreign aid would be unnecessary, they would continue to lend. With this approach, the IFIs would be able to continue to give aid packages to countries that followed good policies but suffered bad luck, but would not assist those that followed risky policies and to whom creditors opportunistically lent. IFIs may not be the appropriate institution to judge whether regimes have the consent of the people, but they would be able to assess regimes in this case on purely economic grounds.

## 7. Concluding Remarks

The international community sometimes imposes economic sanctions on governments that are non-democratic and abuse their people. This paper considers a new type of sanction. Preventing illegitimate regimes from borrowing to enrich their leaders is a self-enforcing sanction, since banks would have little incentive to lend to an odious regime if successor regimes could refuse to repay without hurting their reputation. This sanction also helps rather than hurts their population, since they would not be saddled with illegitimate debt that was not spent for their benefit.

We have shown that an institution that simply announced regime type could potentially deter lending to odious governments, such as that of apartheid South Africa. Equilibria with lending to governments deemed odious could be eliminated by withholding foreign aid if a successor does not repudiate debt declared odious by an institution and amending laws in creditor countries to block seizure of assets for odious debt. Favoritism towards debtor countries or creditors could be addressed by empowering the institution only to rule on the legitimacy of future loans. To prevent false rulings due to institutional bias against particular regimes, rules

[25] If creditors issued loans, successor governments repudiated them, and then, using the courts, the creditors seized the country's assets, there would be a potential inefficiency if the country faced

could constrain the institution to err on the side of assessing regimes as non-odious. Though some undesirable lending would still occur with such an institution, any deterrence of odious debt would raise welfare over the status quo.

Creditors could be better off under a system in which the "rules of the game" are known in advance. Currently, there is a movement to nullify some debt on the grounds of odiousness, but it is hard for creditors to anticipate which loans will be considered odious in the future. If odiousness were declared in advance, banks would avoid lending in the first place and suffer some foregone benefits, but they would not risk large losses if a successful *ex post* campaign nullifies some of their outstanding loans. Accordingly, interest rates could fall for legitimate governments. Legitimate governments, such as that of Nigeria, also would benefit from the creation of the institution because it would help protect them from potential future dictators. The system could even be voluntary for borrowing countries. This system is a sort of 'living will'; the people of a country entrust a third party to look out for their interests if circumstances change and they are unable to do so themselves, or, more precisely, if a new odious government is unwilling to do so. Endorsement of the system could take the form of amending domestic laws so that sovereign borrowing incurred by an unconstitutional authority is invalid. If existing governments were concerned that the institution could unfairly rule against them in the future, there could be a grandfather clause that prevented rulings against governments in power at the time of endorsement, as long as there was no unconstitutional change in their authority.

*Steps required for implementation*

To implement the ideas discussed in this paper, a next step would be to operationalize the definition of odiousness. Assessing whether a government has the "consent of the people" and

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transaction costs to replace the assets.

"benefit of the people" will always entail some subjectivity, but this subjectivity can be reduced if the institution is given concrete proxies for each criterion. For example, consent of the people could be equated with coming to power through a free and fair election, using criteria similar to those used by non-profits like the Center for Democracy which observes elections. Similarly, one would need to find objective measures of looting and repression.

In addition, an obviously important question to address is what institution would assess odiousness. An independent international institution composed of jurists who serve long terms and represent a number of countries would be one option. Bilateral lenders and the IFIs might be induced to lend to only legitimate regimes if odiousness were assessed by independent jurists. The IFIs are not supposed to consider politics, but loans to an odious regime would be imprudent strictly on the grounds of financial risk if it were expected that a successor government would repudiate the odious debt. However, support for international courts seems to be weakening, at least in the United States.

If major powers were resistant to creating a new institution and if they demanded a veto, decisions could be made by the United Nations Security Council. On the one hand, the Security Council currently imposes trade sanctions on some governments, and imposing limits on lending seems a closely related activity. On the other hand, some question the moral authority of the Security Council.

It is also conceivable that the U.S. carries sufficient weight in the international system that it could implement such a system on its own. For example, U.S. law could be amended to disallow seizure of a foreign government's assets when the government repudiates odious debt; a U.S. court could rule on the odiousness of debt; and the U.S. could announce that it would not

provide foreign assistance to countries that were repaying odious debt and would not support IMF or World Bank assistance to such countries.

Another option would be for a non-governmental organization (NGO) such as Transparency International, or a coalition of such organizations, to identify which regimes are odious. If a panel of prominent, well-respected individuals like former heads of states of debtor countries (e.g. Nelson Mandela), international lawyers, and human rights scholars promulgated a list of odious regimes, and announced that, in their judgment, successor regimes should not be responsible for debt incurred by these regimes, it seems likely that creditors would be reluctant to lend to governments on the list. Banks would face opprobrium in making such loans, and in any case, successor regimes would be likely to refuse to repay. If reputation is an important reason countries repay loans, this approach using a non-governmental institution without enforcement power could thwart most odious lending. Of course, some would object to an NGO taking on this role, and the prospect of competing certifying institutions could create confusion in lending markets.

An interesting hybrid approach would be to combine *ex ante* announcements by an NGO with *ex post* enforcement by domestic government institutions. For example, U.S. law could be changed so that if a bank makes a loan, knowing at the time that the borrowing government lacks the consent of the people and does not intend to spend in their interest, the loan is unenforceable. Alternatively, courts could begin judging in accord with this principle, without any statutory change occurring. Then when U.S. courts hear cases brought by creditors seeking to seize assets of a successor government as repayment for debts incurred by a putatively odious predecessor government, the courts could take into consideration whether the predecessor regime had been on the NGO list when the loan was made. Just as courts deciding whether an investment manager

is guilty of fiduciary negligence might use as evidence the Moody's ratings of the financial assets in the manager's portfolio, courts could use the NGO rating as evidence that the bank had foreknowledge that the borrower was odious and hence the loan is unenforceable. Similarly, donor countries might well decide not to provide foreign assistance or support IMF or World Bank assistance to countries repaying debt issued to regimes that had been identified by the NGO as odious.

## Appendix: Microfoundations for Reputational Penalty

As microfoundations for the reputational penalty $P^r$ used in the main text, here we lay out a model in which a country repays loans to protect its reputation. Bulow and Rogoff [1989] show that exclusion from the credit market will not deter a country from defaulting if it has access to a savings technology.[26] We therefore follow Cole and Kehoe [1996] who suggest that *linked* reputations make the sovereign debt market operable. In their model, default on loans tarnishes a country's general reputation and leads to its exclusion from other valuable markets (in which cash-in-advance contracts are not a substitute for a good reputation). Following this approach, we assume that firms' willingness to do business with the country may depend on the country's past behavior as a borrower, and the desire to attract firms gives a country the incentive to repay its sovereign debt.[27] We then show that this can generate a reputational penalty for loan default in which there is no reputational loss for repudiation of odious debt and hence odious debt is curtailed. However, we show that in the absence of an institution that has incentives to make truthful public announcements about which governments are odious, this equilibrium requires a costly infinite sequence of investigations of the period-1 regime, rendering it implausible. A creditor or investor doing business with a country has incentives to be untruthful when it assesses a regime unless future firms conduct follow-up investigations to verify the assessment.

[26] In most repeated-game reputation models of lending, the country will always be better off at some point saving the money it would have repaid and meeting its future financial needs with 'cash-in-advance' contracts.

[27] Cole and Kehoe [1996] instead link the labor market to the debt market; a government in default cannot hire workers since it cannot be trusted to pay them *ex post*. Also, we assume infinite periods, while Cole and Kehoe assume finite periods and an honest type that always repays loans.

*Microfoundational model*

In each period, a new technology is invented overseas, and a short-lived foreign firm can use this technology to build a factory in the country at cost F that then produces output Y in the next period. We assume $Y \geq RF > 0$, so it is efficient to build the factory. Once the factory produces output, the government of the country can extract revenues $\tau \leq Y$ through taxes, labor regulations, price regulations, public utility charges, etc.[28] If the country can commit, it will offer $\tau = Y - RF$, and the firm will build a factory. In a one-shot game without commitment, the government extracts $\tau = Y$ and the firm does not invest in the first place.[29]

Next we consider an infinitely repeated version of this game when the country and firms cannot commit. The 'country' is a series of short-lived governments who represent a population that lives for all periods t=1,2… In each period t the government promises to extract taxes $\tau_{t+1}$, and a firm chooses whether to build a factory. It receives Y, is taxed $\tau_t$, and then is replaced by a new firm. The history of taxes $\tau_t = \tau_2, \tau_3 \ldots, \tau_t$ is publicly observable. There may be many equilibria in the infinitely repeated game, and we now derive sufficient conditions for the existence of a first-best reputational equilibrium in which FDI occurs and in every period $\tau_t = Y - RF$.

Consider the following 'trigger' or 'Nash reversion' strategies: The government offers $\tau_{t+1} = Y - RF$ in all periods and always follows through.[30] The firm invests in period 1. Thereafter

[28] It has coercive power to do so.

[29] We assume that the firm cannot sell the project to the country, because it can also construct a fake factory at cost ε that produces no output. Under these assumptions, a firm would have the incentive to build a fake factory after receiving F from the country. The factory type is not verifiable so the country cannot prosecute the firm.

[30] For this timing the same government contracts with a foreign firm and then taxes it and has the opportunity to expropriate it. Some FDI has the property that odious regimes could, and therefore would, expropriate all the profits. These firms whose investments are stealable presumably ascertain odiousness and do not cooperate with odious regimes in period 1. However, odious regimes probably get some non-

firms invest if and only if $\tau_s \leq$ Y-RF for all s. We now consider when these strategies are incentive compatible. Firms (weakly) prefer to accept the contract since Y-$\tau \geq$ RF. Also, it is not a profitable deviation for a firm to build a factory for a country that has extracted extra taxes in the past. Since future firms deny the country FDI regardless of whether it cheats a second time, the country will indeed cheat again and the firm that deviated would earn negative profits.[31] The government (which is non-odious since t>1) compares the one-period gain from deviating to the future losses from its tarnished reputation: if it sets $\tau_t >$ Y-RF, it will have no access to FDI in future periods. The government will not renege if RF, the extra amount it can extract by cheating, is less than or equal to the present discounted value of the future benefits of taxes foreign investment, or

(A1) $$RF \leq \frac{Y - RF}{R - 1}.$$

(We assume that the government does not cheat if indifferent.) If this condition is satisfied, the reputational equilibrium sustaining optimal FDI (i.e., same as if there were full commitment) is feasible. We assume that condition (A1) holds.

We now link the FDI market to the sovereign debt market. Consider strategies as above except that firms also require of loan payments that $b_s \geq D(R-1)$ in order to build factories. That is, a country that missed a loan repayment is denied access to FDI. By the folk theorem, if the previous strategies (basic Nash reversion) are an equilibrium, the modified strategies (linked Nash reversion) are an equilibrium. If the period-t government is able to contract with a foreign

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stealable FDI, and some non-odious regimes do not get FDI if there are no opportunities or the governments are expected to expropriate to enrich the people. Thus, which countries are receiving FDI is not a fully informative signal of odiousness that could be used in the debt market.

[31] If firms were long-lived, then there is no equilibrium with denial of FDI to expropriators. After a government deviation, a firm would deviate and offer amnesty: it will build now and will continue to build as long as the country never extracts excessively again.

firm, it earns tax revenues Y-RF in the next period. Thus, at the loan repayment phase of a period, the cost of default is the foregone infinite steady stream of FDI tax revenues whose present value is $\frac{Y - RF}{R - 1}$, as before. However, in period 2, its incentive to default is now RF + RD, as it both extracts all revenue from the FDI firm and defaults on its bank loan, which has a present value RD. The requirement that the costs of cheating are less than or equal to the benefits of cheating give us the following:

(A2) $$D \leq \frac{Y - R^2 F}{R(R-1)} \equiv \overline{P^r}.$$

$\overline{P^r}$ is the value of the reputational penalty in this equilibrium.[32]

*Main results*

Next, we derive some results under the reputation-as-penalty view that were mentioned in the main text. Recall that C is the cost of the investigation, and M is the output returned in the next period for a capital investment of amount 1.

One important result is that in the absence of the institution, if and only if $C \leq \frac{(M-R)(R-1)}{R^2}$, there exists an equilibrium in which odious governments can borrow only up to $P^s$ and an infinite sequence of investigations occur. In this equilibrium firms invest as long a country has always met its loan payments and not extracted extra taxes from firms; and if a country has failed to make loan repayments, the firm investigates and still invests if it finds that $G_1$=odious. That is, a country's reputation is tarnished if it refuses to pay non-odious debt, but

[32] In the extensions with investigations, the period-2 loan repayment includes the cost of any *ex ante* bank investigation, and the payment to a firm that investigated is higher by C.

remains intact if it refuses to pay odious debt. Each firm investigates odiousness itself. Thus, for $t \geq 2$,

$$P_t^r = \begin{cases} 0 & \text{if} \quad J_t^f = Odious \\ \dfrac{Y - R^2 F}{R(R-1)} \equiv \overline{P^r} & \text{if} \quad J_t^f = Non-odious \end{cases}$$

Anticipating that debt might be repudiated without penalty, depending on $G_1$, banks investigate *ex ante* and choose whether to lend based on the results of the investigation.[33] If $J_1^b$ =*Non-odious* (the superscript denotes that a bank is the investigator), there are loans of size D=1 and repayments are made each period as above. However, if $J_1^b$ = *Odious*, the loan size is $P^s$. For $P^s$=0, there is no lending to odious governments. The equilibrium exists if investment remains profitable when the country must bear the cost $\frac{CR}{R-1}$ for the infinite sequence of investigations, or if $C \leq \frac{(M-R)(R-1)}{R^2}$.

A second result is that there is no equilibrium with a finite number of investigations in which odious regimes can borrow less than non-odious regimes. Consider, toward contradiction, a hypothetical equilibrium with truthful announcements in which a bank investigates *ex ante* in period 1 and in each of a finite number of subsequent periods a firm repeats the investigation and conditions whether it will build a factory on its finding. The last firm would always want to announce odious if the country had defaulted on debt, since then it would not have to withhold from building a factory as punishment. Anticipating this, earlier firms would always announce odious, too, since later firms would not contradict them; the government could default and still

[33] Investigation costs are paid upfront by the investigator. Banks recoup the cost from the country in period 2. In later periods, the country asks the firm to investigate and in return agrees to lower the amount of taxes by C. Only governments that know that the previous regime was odious will make such an offer. The occurrence of an investigation is observable, but the outcome is not. When a bank investigation occurs, $b_2$<D(R-1)+C is considered loan default.

expect firms to build factories; and the loan market equilibrium would unravel. It is not incentive compatible for the last investigating firm to deny FDI to a non-odious defaulter, so later non-investigating firms would not be able to trust previous firms' announcements.

Another result is if the institution investigates and makes announcements but there are no enforcement policies, there exists an equilibrium in which odious governments can borrow up to $P^s$ only. In an equilibrium in which the institution investigates every regime *ex ante* and truthfully announces the government's type, there is less lending to odious governments if reputation value is conditioned on the institution's public announcement such that non-repayment of loans is penalized in the FDI market if $J_1$ =*Non-odious* but not if $J_1$ =*Odious*, or

$$P^r = \begin{cases} 0 & \text{if} \quad J_1^c = Odious \\ \dfrac{Y - R^2 F}{R(R-1)} \equiv \overline{P^r} & \text{if} \quad J_1^c = Non-odious \end{cases}$$

This equilibrium is always incentive compatible for banks. A country whose previous government was declared odious would have no incentive to repay a loan whose size is larger than $P^s$ since it punishment would be smaller than its gain from non-repayment. Anticipating this, a bank strictly prefers to deny the government loans of $D>P^s$ in period 1. This equilibrium with curtailed odious debt that relies on an investigation by an institution is much less costly (and is more likely to exist) than one that relies on investigations by banks and firms since it requires one rather than infinitely many investigations.

**Figure 1: Timing of the Model**[1]

**t=1**

1. Banks, government, and population formed. [Institution formed.] Government type realized.
2. Government and bank write loan contract. [*Ex ante* investigation by institution.]
3. Government receives loan and invests in mining.
4. Labor income A realized and wage paid to population. Income consumed.

**t=2**

1. If investment in mining took place at t=1, amount M realized; government makes transfer X to population; population consumes X and government consumes remainder.
2. New non-odious government formed.
3. Labor income realized and wage paid to population. Income consumed.
4. [*Ex post* investigation by institution.]
5. Government makes loan repayment to bank.

**t>2**

1. New non-odious government formed.
2. Labor income A realized. Wages paid to population. Income consumed.
3. Government makes loan repayment to bank.

[1] Bracketed events are not applicable in Section 3 of the paper. The timing of FDI in the microfoundational model laid out in the appendix is as follows. The contracting of FDI occurs as the last event in period 1 and the penultimate event (immediately before loan repayment) in subsequent periods. The realization of FDI profits, taxation, and potential expropriation is the first event of each period (beginning with t=2).

**Figure 2: Potential False Rulings Caused by Biases**

| | *Ex ante* | *Ex post* |
|---|---|---|
| $\lambda^p - \lambda^b > 0$ | Truth-telling | False positives |
| $\lambda^p - \lambda^b < 0$ | Truth-telling | False negatives |
| $\lambda^{gt} > 0$ | False negatives | False positives |
| $\lambda^{gt} < 0$ | False positives | False negatives |

Note: False positive = falsely judging a non-odious government as odious
False negative = falsely judging an odious government as non-odious

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