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Multilateral Developing-Country Debt Rescheduling Negotiations: A Bargaining-Theoretic Framework

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Abstract

This paper employs a dynamic bargaining-theoretic framework to analyze multilateral sovereign debt rescheduling negotiations. The analysis illustrates how various factors, such as the debtor's gains from trade and the level of world interest rates, affect the relative bargaining power of various parties to a rescheduling agreement. If creditor-country taxpayers have a vested interest in maintaining normal levels of trade with debtor countries, then they can sometimes be bargained into making sidepayments. The benefits from unanticipated creditor-country sidepayments accrue to both lenders and borrowers. But the benefits from perfectly anticipated sidepayments accrue entirely to borrowers.

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I. Introduction and Summary

One of the most important features of sovereign debt contracts is that borrowers are unable to offer collateral in the traditional sense. A country which repudiates its foreign debts mainly risks losing its future access to world capital markets and also its ability to conduct trade efficiently. However, lenders do not gain any direct benefit by cutting a debtor off from world markets, and this severely limits their bargaining power. Moreover, in punishing a debtor who repudiates, lenders may also be inflicting damage on their compatriots. When a debtor is cut off from world goods markets, consumers and exporters in creditor countries also suffer. This "trading externality" gives creditor-country governments a strong vested economic interest in rescheduling negotiations. It also means that there can be a conflict of interest among creditor-country citizens, pitting investors who want to enforce repayment against consumers and exporters who want to maintain normal trade relations.

Though it is probably impossible to develop a formal model which captures all the complex elements of the developing-country debt rescheduling process, simple bargaining models may nevertheless yield some useful insights. The present paper is an attempt to extend the bargaining-theoretic framework developed in our earlier paper [Bulow and Rogoff (1988a)] to allow for multilateral bargaining among lenders, debtors, and creditor-country governments. Our analysis shows that if creditor-country taxpayers have a vested interest in the course of debt rescheduling negotiations, then they may indeed be gamed into making sidepayments to facilitate rescheduling agreements. They may be gamed into making sidepayments even though all parties have a common interest in avoiding interruptions in trade. But there is a fundamental difference between anticipated and unanticipated sidepayments. Unanticipated sidepayments benefit both debtors and bank stockholders. However, all the benefits of _perfectly_ _anticipated_ sidepayments go to the borrowing country if loan markets are competitive. In fact, a debtor country may be able to use bank loans to bargain more effectively with creditor countries over the gains from trade.

In Section II of the paper, we discuss the motivation underlying new bargaining-theoretic approaches to analyzing developing-country debt contracts. In Section III, we review recent work on bilateral debt rescheduling negotiations (between banks and borrowers), and in Section IV we present a model where multilateral bargaining can include creditor-country governments.

II. The Fundamental Difference Between Sovereign Debt Contracts and Domestic Debt Contracts: A Re-examination

In order to motivate our bargaining-theoretic approach to analyzing developing-country debt rescheduling negotiations, it is helpful to

review why sovereign debt contracts work somewhat differently from domestic lending contracts. 1/ What makes the bargaining process especially complex in the international context is the indirect nature of the punishments for default, and the large deadweight costs associated with these punishments.

If there existed a supranational legal authority, capable of enforcing contracts across borders then, of course, there really wouldn't be anything unique about international debt contracts. One could, in principle, include the same types of clauses and covenants in international loan contracts that are typically built into domestic contracts, and one could have international bankruptcy courts parallel to domestic ones. There might still be "frictions" in international capital markets; i.e., reasons for departure from the Arrow-Debreu world of complete (perfect) markets. Having a world legal authority does not eliminate adverse-selection and moral hazard problems. 2/ But with a viable system of cross-border contract enforcement, there would be no qualitative distinction between international and domestic lending.

In practice, of course, cross-border contract enforcement is generally limited. Indeed, the real question is why foreign investors are willing to trust sovereign debtors at all. If there were no costs to default (direct or indirect costs), then sovereigns would have no incentive to repay. Of course, since one actually observes sovereign loans, there must be some costs to sovereign default. But what are they? Abstracting from direct seizure of a debtor's productive resources, the most important costs probably have to do with a debtor's need to be able to trade freely in world goods and capital markets. Though foreign creditors may not always be successful in pressing their legal claims in debtor-country courts, sovereign debt contracts do typically provide lenders with meaningful legal (and political) rights within their own countries. These rights allow creditors to make it more difficult for a recalcitrant debtor country to hold assets abroad, to employ bank intermediaries in conducting trade, and even to export and import. 3/ True,

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1/ For an excellent survey of the early literature on sovereign debt contracts, see Eaton, Gersovitz and Stiglitz (1986). The present discussion primarily reviews the motivation underlying the more recent bargaining-theoretic approach developed in Bulow and Rogoff (1988a).

2/ The basic problem is that one cannot index legal contracts to variables which are only observed by one of the two contracting parties, or to variables which both parties observe but which are prohibitively expensive for a third party (e.g., a court) to verify.

3/ For a discussion of the empirical evidence on lenders' ability to punish borrowers, and of some of the underlying legal issues, see Bulow and Rogoff (1988a) and Alexander (1987). In the approach taken here, it is the legal overhang of existing debt that causes problems for any debtor which tries to repudiate its debt. Another view holds that debtors repay mainly to maintain their "reputation" in world capital markets. For a skeptical assessment of this view, see Bulow and Rogoff (1988b).

the immediate cost to the debtor country in lost gains from trade (in goods and financial assets) may be small at any given point in time. But when cumulated over long periods, the costs of reduced access to world goods and financial markets are likely to be quite substantial.

Though punishment by reduced access to world goods and financial markets may seem qualitatively equivalent to the kinds of punishments seen in domestic lending contracts, there are three key differences. These differences all significantly enhance the bargaining power of the borrower. 1/ First, a sovereign debtor has considerable scope to temporarily reduce its exposure to penalties while bargaining with its lenders. For example, a debtor country can use circuitous (and presumably more costly) trade routes and trade mechanisms to avoid seizure during negotiations. Or, it can simply delay some trades while negotiating. Second, most of the penalties which lenders have at their disposal involve large deadweight costs. Lenders receive no direct benefit if they force a country to adopt more circuitous trading routes, or if they prevent it from holding trading accounts abroad. Indeed, lenders may actually have to bear significant legal costs and political lobbying costs in order to punish a debtor country which repudiates. Whereas deadweight costs can also be a factor in domestic bankruptcy negotiations, they are more important in the international context because lenders cannot threaten to take over control of productive resources. Third, the punishments inflicted by lenders on debtors may also harm other lender-country citizens. For example, the debtor country is not the only one which enjoys gains from trade. If lenders are successful in stemming a debtor's trade flows, then exporters and importers in creditor countries also lose. This "externality" gives both lenders and debtors a certain amount of bargaining power vis-à-vis lender-country citizens. For all of the reasons discussed above, bargaining issues seem particularly central to developing-country debt contracts.

III. Bilateral Rescheduling Negotiations

We now present a simple analytical framework for analyzing the bargaining process underlying developing-country debt rescheduling negotiations. The formal model presented here is a multilateral bargaining extension of the bilateral model developed in Bulow and Rogoff (1988a). First, we briefly review a simple version of the bilateral model. 2/

1/ We are somewhat overstating the differences between domestic and international contracts here. All of the bargaining issues discussed below are, in fact, present in many domestic contract settings, though perhaps in less acute form.

2/ The model here is simplified in a number of dimensions. First of all, in Bulow and Rogoff (1988a), we consider an explicitly stochastic version of the model. Also, there the country has the option of consuming the exportable, and also has the option of trading while in default, though at a cost.

The model is one of a small country which faces an exogenously given world interest rate r. During each period of length h, the country produces yh units of an export good, "D". 1/ The country's utility function is given by

$$\Lambda_t = \sum_{i=0}^{\infty} c_{t+hi}^F / (1+\delta h)^i,$$ (1)

where c^F is domestic consumption of an imported good, "F". The world price of the domestically-produced good in terms of the imported good is given by P; we assume that in any period where the country stands in default on its reputation contract, it is unable to trade. 2/ It can, however, store the domestically-produced good indefinitely. In storage, the good does not deteriorate. 3/

The country's sole motive for borrowing in this simple model is that its discount rate, δ, is greater than r, the world interest rate. Combined with our assumption [embodied in (1)] that the country is risk neutral, this implies that the country would like to borrow as much as possible. Its only "collateral", however, is its future gains from trade. Loans are based on the knowledge that if the country reneges on its debt contract, it will have to negotiate for access to world goods markets. 4/ But the ability of creditors to cut a country off from trade does not mean that they can extract the country's full gains from trade in the event of default. The problem that lenders face is that they receive no direct benefit from such a cutoff. One can show, in fact, if the country has the lion's share of the bargaining power, it can force lenders to accept very small payments in return for being allowed to trade. In

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1/ It is convenient to allow the time interval to be of arbitrary length h, because later we will want to consider the case of continuous bargaining.

2/ As noted above, this assumption is unnecessarily extreme and is made in order to simplify the analysis. In Bulow and Rogoff (1988a), the country is able to trade when in default, but it enjoys lower gains from trade. However, the threat to trade without a rescheduling agreement is never actually carried out in equilibrium.

3/ Again, this assumption is relaxed in the more general model of our earlier paper. There, we consider the possibility of instantaneous depreciation as a limiting case.

4/ Default may also cost a country in terms of future access to world capital markets but that does not matter in this simple model because output is exogenous and the country is risk neutral. (The bargaining model developed here can in principle be extended to a more general setting.)

general, the amount the country can be bargained into paying (and there-
fore its maximum debt limit) will lie somewhere between the extreme case
where lenders can make "take-it-or-leave-it" offers, and the extreme case
where the debtor can make "take-it-or-leave-it" offers.

Although the bargaining process is governed by the knowledge of what
would happen if the debtor country were forced to delay shipping its goods,
one can show that under symmetric information an agreement will always
be reached immediately. 1/ Both sides lose by postponing an agreement
and both sides are able to calculate this cost of delay. These costs are
factored into the bargain, but deadweight losses are averted. Costly
delays and other inefficiencies can only occur if one of the two sides
has private information, say about its discount rate or about the costs
of default. With private information, there can be a delay in reaching
an agreement as part of a process whereby one side "signals" its patience
and its ability to hold out for a better bargain (rescheduling agreement).
Though such delays sometimes occur in practice they are the exception
rather than the rule in the history of international lending. Thus,
before introducing private information, it is useful to first consider
the simpler case of symmetric information.

The degree of coordination among lenders is also an important element
of the bargaining process. 2/ From the country's point of view, a key
question is how the aggregate bargaining power of the lenders varies with
their total number. 3/ Bargaining theory gives one only limited insight
into this question. The fact that it may be difficult to get a large
number of lenders to agree on a rescheduling agreement can actually allow
lenders (as a whole) to effectively take a tough bargaining stance. On
the other hand, it may be more difficult for a large number of lenders to
coordinate on punishing a debtor who repudiates, especially if it is
costly for lenders to inflict penalties. There is a potential free-rider
problem if lenders find it difficult to share the costs of enforcement.
Hence, it is unclear whether lenders have more bargaining power when their
number is large, or when their number is small. 4/

1/ See Bulow and Rogoff (1988a).

2/ In practice, banks are able to achieve some degree of coordination
through the use of cross-default clauses.

3/ The country does not care whether small lenders get paid more per
dollar of loans than large banks. All it cares about is the total payout.
Similar points would apply in the case where the country is composed of
pluralistic political parties.

4/ In the formal bargaining model of Bulow and Rogoff (1988a), the
lenders and the country make alternating offers in rescheduling negota-
tions as in Rubinstein (1982). Suppose now that there are two banks,
Bank A and Bank B, and consider two alternative ways to generalize the

Note that if loans are perfectly indexed to all possible shocks, then one need never observe rescheduling negotiations. However, the explicit contract could never call upon the debtor to pay more than it can be bargained into repaying.

IV.   Rescheduling Negotiations Involving Creditor-Country Taxpayers

The preceding analysis is based on the implicit assumption that creditor-country taxpayers can precommit to staying out of any rescheduling negotiations, whether or not they have a vested interest in maintaining an uninterrupted flow of trade with the debtor country. 1/ Here we will show that even if such a commitment were desirable, it is not necessarily credible. It may not be credible even if it is known that borrowers and lenders would come to an immediate agreement in the absence of creditor-country taxpayer participation.

Before proceeding, it is necessary to specify precisely why creditor-country citizens (other than bank shareholders) would have any interest

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4/ (Cont'd from p. 5) alternating offer analysis. First suppose that the parties alternate offers as follows. First Bank A makes an offer; the offer specifies how much the country will have to pay in return for being allowed to escape penalties. It also specifies how the payment is to be divided between Bank A and Bank B. If both the country and Bank B accept Bank A's offer, rescheduling negotiations are successfully terminated. If, however, either declines, then the country is given a turn to make an offer to the two banks. If either bank declines the offer, then Bank B is given a turn to make an offer. Then it is again the country's turn to make an offer. If still no agreement is reached, then it will again be Bank A's turn and a new sequence begins. One can easily show that in this case, the country will end up paying the same total amount to the two banks as if it were facing a single bank. (In Rubinstein-type bargaining models, the banks' aggregate bargaining power depends on the total percentage of offers they are allowed to make.) If, on the other hand, each bank is allowed to make one offer for every offer made by the country, then banks will be able to bargain for larger repayments, and therefore will be willing to make larger loans.

1/ Except, of course, that the creditor-country legal system plays a crucial role in contract enforcement. Here we treat the creditor-country legal system as constitutionally immutable and therefore not subject to manipulation by the legislative or executive branch of the government. The executive branch may have some control over intensity of enforcement. If so, then under the assumptions of the present model, it will always choose the minimum possible level of enforcement.

in the course of rescheduling negotiations. 1/ To maintain consistency
with the previous discussion, we seek a rationale consistent with our
assumption that the debtor country is small (a price taker) in both goods
markets and financial markets. (Obviously, the creditor country would
enjoy gains from if the debtor country were the sole supplier of some
strategic resource, but this rationale is not consistent with the assump-
tion that the debtor is a price taker in world markets.) We employ the
following device: Suppose that the creditor country is the sole consumer
of good D, the good produced by the debtor. Good D is not produced
domestically in the creditor country; however, the debtor is not the sole
supplier. The good can also be imported from a large number of other
competitive suppliers abroad. All the foreign producers, except the
debtor, have inelastic supply curves; their total supply per period of
length h is $(Q-y)h$. Moreover, there are no storage facilities in the
creditor country so that once good D is imported, it must be consumed
immediately (once picked, the produce ripens quickly).

Let $V(Q)$ denote total creditor-country consumer surplus (normalized
by h), and let $U(Q)$ denote the utility of the marginal creditor-country
consumer when aggregate consumption is Q. Then if the total supply to
the creditor country is Q, consumer surplus is given by

$$V(\overline{Q}) = \int_{0}^{\overline{Q}} U(Q)dQ - \overline{Q}U(\overline{Q}), \tag{2}$$

where we have made use of the market equilibrium condition $P = U(\overline{Q})$. A
small reduction in the amount of good D shipped to the United States
leads to a loss of consumer surplus given by

$$\frac{dV}{dQ} = - Q\frac{\partial U}{\partial Q} = zU(Q), \tag{3}$$

where $z = - (\partial U/\partial Q)(Q/U)$ is the inverse of the elasticity of the demand
for good D. Hence if the country is small, the creditor country will

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1/ In order to formally model the problem, we need to be very specific
about the creditor country's objective function. The rationale we choose
focuses on gains from trade. There are, of course, many other reasons
why the creditor country should care about the course of rescheduling
negotiations (e.g., political considerations, the stability of the world
financial system). The basic framework provided here can be extended to
incorporate these other considerations.

lose zPyh of consumer surplus per period if the debtor country's output is permanently withheld from the creditor-country market. 1/ This is our basic rationale for why the small country has bargaining power. We have assumed that the supply functions of other foreign producers are inelastic. If they are elastic, then the creditor country would get less consumer surplus from trading with the marginal producer; if the supply functions of the other foreign producers were perfectly elastic, the debtor would have no bargaining power at all.

Note that the debtor country would have no way to exploit its bargaining power were it not for the existence of the creditor-country government. It is only through the creditor-country government that the debtor can bargain with creditor-country consumers. A second essential feature of this example is our assumption that good D is not produced in the creditor country. Consider the other extreme case where all production (except the debtor country's) is based in the creditor country. Then, although a suspension of trade with the debtor country still implies a loss of surplus for creditor-country consumers, this loss is (approximately) cancelled out by a gain in producer surplus.

From equation (3), it is apparent that the debtor country's bargaining power is only of the same order of magniture as its debt repayments. Hence, if the country only produces two dollars worth of output per period, its bargaining power will be on the order of one dollar and not $100 million.

We will assume that the objective function of the creditor-country government is to maximize the present discounted value of current and expected future consumer surplus: 2/

$$\Psi_t = \sum_{i=0}^{\infty} [hzPT_{t+hi} - B_{t+hi}]/(1 + rh)^i, \qquad (4)$$

1/ We are assuming that the maximum amount of good D which the debtor country can export (out of current production and strorage) is sufficiently small so that the marginal gains from trade for the creditor country are approximately constant.

2/ If bank profits are taxed, then the creditor country also benefits from any payment the debtor country makes to its bank creditors. It is staightforward to show that the qualitative effect of introducing this consideration is to raise the sidepayments the creditor contry can be bargained into repaying. Note that we are assuming that the profits of bank investors do not enter into the creditor-country governments' objective function. This simplifying device has no qualitative effect on our conclusions; what matters is the existence of a pool of creditor-country citizens who enjoy gains from trade but do not own bank stock.

where T represents imports of good D from the debtor country and B
represents sidepayments by the creditor country government to the banks
(henceforth we refer to the lenders as "banks") or to the debtor country.
In (4), we have assumed that the creditor country government discounts
future costs and benefits at the world interest rate r; this assumption
seems natural but does not qualitatively affect our results.

To close the model, it is necessary to provide specific details about
the three-way bargaining process. We will assume that when bargaining
begins, the country owes lenders an infinite amount of debt so that no
trade can take place without a rescheduling agreement. Later, after we
have calculated banks' receipts, it will be possible to calculate the
debtor's initial loan limit. Any rescheduling contract must be signed by
both the banks and the debtor country. The creditor country government's
consent is only required if the agreement calls for it to make positive
sidepayments. Either the banks or the country can choose to bring the
creditor-country government into the rescheduling negotiations and, if
the creditor country is brought in, each of the three parties takes turns
making offers. In any given period t, the total surplus to be divided
up between the three parties is the creditor country's gains from trade,
$zPhy_t'$, plus the debtor country's gains from trade Phy_t', where hy_t'
denotes the debtor country's total output available for current trade
(current output plus storage). Our notation for describing the bargain-
ing process is as follows: When it is the banks' turn to make an offer
in period t, they offer the debtor country $100(1-q-w)$ percent of the
total gains from trade $(1 + z)Phy_t'$, and they offer the creditor country
$100w$ percent. Thus their offer to themselves is $q(1 + z)Phy_t'$. When
it is the debtor country's turn to make an offer, it offers banks $100q'$
percent of the surplus, and it offers the creditor country government
$100w'$. When it is the creditor country's turn to make an offer, it
offers the debtor country $100(1-q''-w'')$ percent of the surplus, and it
offers banks $100q''$ percent. When an agreement is reached, the debtor
country exports, the gains from trade are divided up according to the
agreement, and negotiation begins immediately on dividing up the gains
from trade for the debtor country's next export shipment. No trade takes
place without an agreement. During negotiations, production is placed
into storage.

The formal details of the bargaining analysis here are similar to
those given in Bulow and Rogoff (1988a), so we will not repeat them.
One can show that in any perfect equilibrium (with history-independent
strategies), 1/ the following conditions must hold for all s > 0 where
time zero is the initial bargaining period, and s is a multiple of three:

1/ For the bilateral bargaining game of Section III, the equilibrium
is unique even if bargaining can potentially go on forever. This is not
the case in the three-player gam considered in this section. However,
the equilibrium discussed in the text is the unique equilibrium of the
limiting finite-horizon game, and it is the unique equilibrium when
strategies are continuous in the history of the game. See Sutton (1986).

$$1 - q(s) - w(s) = \{1 - q'(s+1) - w'(s+1)\}/(1+\delta h) \tag{5a}$$

$$w(s) = \min \left[w'(s+1)/(1+rh), \frac{z}{1+z} \right] \tag{5b}$$

$$q'(s+1) = q''(s+2)/(1+rh) \tag{5c}$$

$$w'(s+1) = \min \left[w''(s+2)/(1+rh), \frac{z}{1+z} \right] \tag{5d}$$

$$1 - q''(s+2) - w''(s+2) = \{1 - q(s+3) - w(s+3)\}/(1+\delta h) \tag{5e}$$

$$q''(s+2) = q(s+3)/(1+rh). \tag{5f}$$

The interpretation of equations (5) is straightforward. Equation (5a), and (5b), for example, state that the banks will make offers to the debtor and creditor countries such that they are just indifferent between accepting the offer and waiting until the next round of offers (when it will be the debtor country's turn to make an offer). It does not pay the banks to offer the countries anything above the minimum acceptable offer. And (one can show), it does not pay for the banks to make an offer which will be refused, because agreement will be delayed. All of the other bargaining conditions above can be interpreted similarly. The offerer will always find it in its interest to make an offer such that the other two parties will be just indifferent between accepting and going on to the next round of offers. Equation (5b) embodies the constraint that the creditor country government will only be "invited" to the bargaining table if it is expected to make positive sidepayments. 1/ Equations (5) comprise a system of simultaneous first-order difference equations. As in Bulow and Rogoff (1988a), one can show that the equilibrium shares are unique. 2/ In the limit of continuous bargaining (as h → 0+), the equilibrium shares are given by

$$q = w = \frac{\delta}{2\delta + r} \tag{6a}$$

$$1 - q - w = \frac{r}{2\delta + r} \tag{6b}$$

1/ Obviously the creditor-country government would like to avoid making positive sidepayments. But it cannot realistically do so simply by refusing to send an agent to sit at the rescheduling negotiations. The other two parties can communicate their offers and counteroffers through other channels.

2/ One can easily show that all the roots of the system lie outside the unit circle. The only equilibrium is the path which begins at the steady state since other paths require at some other shares to become negative, which is infeasible.

As in the case of bilateral bargaining, an agreement is reached immediately. Note that each party's share depends inversely on its discount rate; the more patient the party, the better it does in the bargaining.

If the creditor country's share of the three-way bargain exceeds its gains from trade, it will be kept out of the bargaining process. If

$$zPy - \frac{(1+z)Py\delta}{2\delta + r} > 0, \tag{7}$$

so that the creditor country is making positive sidepayments in the three-way bargaining equilibrium, then it must also be true that

$$\frac{(1+z)Py\delta}{2\delta + r} - \frac{Py\delta}{\delta + r} > 0, \tag{8a}$$

$$\frac{(1+z)Pyr}{2\delta + r} - \frac{Pyr}{\delta + r} > 0, \tag{9a}$$

so that both the banks and the country get a larger payoff than in the absence of creditor-country participation. (The second term on the right hand side of (8a) is the banks' payoff under bilateral bargaining, and the second term on the right-hand side of (8b) is the debtor country's payoff under bilateral bargaining.) Thus there is no conflict between the banks and the debtor country about whether or not to bring in the third party.

If the creditor country's eventual involement in the bargaining process is anticipated, then the borrowing country will be able to get a larger loan. The size of the maximum loan the debtor country can get (R) depends, of course, on the present discounted value of the banks' share in any rescheduling agreement, or

$$R = q(1+z)Py/r. \tag{9}$$

One can easily show that this amount is larger than in the absence of anticipated creditor-country sidepayments.

There is a very important distinction between anticipated creditor-country sidepayments, and unanticipated creditor-country sidepayments. Unanticipated sidepayments benefit both the banks and the debtor country. But the benefits of fully anticipated sidepayments accrue entirely to the country. Lenders are competitive, and earn zero profits on the loan (if there are no surprises). Therefore, the anticipation of a creditor-country government (taxpayer) sidepayments just means that the debtor

country can take out a larger loan, with the creditor country effectively making the additional payments. As a detail, it should be noted that the amount by which (9) exceeds the loan attainable in the absence of creditor country sidepayments does not quite equal the full discounted value of the sidepayments. That is because banks anticipate that the country will have more bargaining power when the creditor-country government becomes involved in the negotiations.

How can creditor-country taxpayers be induced to make sidepayments, when they know that the banks and the debtor country will immediately arrive at a rescheduling agreement in the absence of their participation and, moreover, that this agreement will fully protect their gains from trade? The problem faced by creditor-country taxpayers is that when their gains from trade are on the same order of magnitude as the debtor country's, their impatience to reach an agreement can be exploited by the debtor country and the banks. If the creditor country taxpayers' stakes are large enough, they cannot credibly refuse to bargain. If the creditor country government wishes to avoid making sidepayments, it can tamper with its legal system, but this would presumably have large negative side effects. Note that if the creditor country desires to give foreign aid to the debtor country (aid in excess of the sidepayments it will have to make in any rescheduling negotiations), then the advent of debt merely converts a voluntary gift into a coerced contribution.

One might well ask why the borrowing country needs to use the banks to exploit its bargaining power in trade vis-à-vis the creditor country. One answer is that the creditor-country government will be unwilling to make sidepayments unless the "debtor" country can precommit not borrow from the banks. But a deeper answer is that the "debtor" country might actually be able to use the banks to its advantage in bargaining with the creditor country. To isolate this point, let us temporarily assume that both the "debtor" country and the "creditor" country have the same rate of discount; hence lump-sum loans are not necessary for efficiency. Suppose further that bank loans to the "debtor" country are impossible, because creditor-country courts will not enforce the contracts. The "debtor" country may still be able to extract a flow of sidepayments from the "creditor" country, by holding up exports at the border. 1/ The "debtor" country can simply refuse to export in any given period until it simultaneously receives a sidepayment from the "creditor" country. The "debtor" country is thereby able to achieve a fifty-fifty split of the total gains from trade. This share is larger than that given by (6b),

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1/ Note that this flow of sidepayments can go either way, depending on each side's gains from trade. If the large country (the "creditor") has lower gains from trade than the small country, then it may well be on the receiving end of the payments.

the share the "debtor" country gets in three-way bargaining with the banks and the large creditor-country government. But this does not mean that the "debtor" country is better off than in the equilibrium with bank loans, since any payment going to banks is simply a repayment (with interest) of funds the country borrowed earlier. Thus, in the equilibrium with bank loans, the "debtor" country gets roughly two-thirds of the total surplus instead of one half. From this perspective, we see that the "debtor" country might be able to bargain more effectively with the "creditor" country by bringing in the banks! This conclusion is in sharp contrast to the view that the banks and the creditor country usually team up against the debtor.

Finally, we note that the creditor-country sidepayments can take many forms other than cash payments: military assistance, changes in U.S. immigration and drug laws, a lowering of tariffs, and so on. Also, sidepayments to the banks can take the form of tax breaks.