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An International Debt Facility?

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Abstract

A common proposal designed to deal with the developing countries' debt problem is that there be set up some kind of "international debt facility" which would buy up debt at a discount and then write down its contractual value, hence providing debt relief. There are three main parties to the proposed transaction, namely the debtor governments, the creditor banks, and the owners of the facility. The paper analyzes the central question of how each of the parties would be affected and, specifically, to what extent there would be some redistribution between them as a result of the arrangement.

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* I am indebted to Michael Dooley and Ken Rogoff for comments; the paper (especially the discussion of the "market price effect") builds on Dooley (1987). The views expressed are purely my own.

Table of Contents

Summary

A common proposal designed to deal with the developing countries' debt problem is to set up an "international debt facility" that would buy debt at a discount and, by writing down its contractual value, provide debt relief. There are three main parties to the proposed transaction, namely, the debtor governments, the creditor banks, and the owners of the facility. The paper analyzes the central question of how each of the parties would be affected and specifically how costs and benefits would accrue to various parties. Is there an element of foreign aid or of a bank bailout? Might there be some net gain for the world system as a whole?

The paper analyzes the basic case in which the expected capacity to pay of the debtors and the probability distribution around it remain unchanged and in which there is no subordination of debt unsold to the facility to debt acquired by it.

The banks will then gain at the expense of the facility because of the "market price effect": the discount on unsold debt will fall (the market price will rise) as a result of the buyback; this will require the purchase price to be higher than if the discount remained unchanged. The debtor countries will gain at the expense of the facility because of the "ceiling effect": the reduction in the contractual value of the debt lowers the ceiling on what the debtor pays to the facility.

If debt unsold to the facility is subordinated to the written-down debt acquired by it, there might be no gain to the banks at the expense of the facility. If the operation of the facility is combined with conditionality or other arrangements that reduce the risk of a low payout, a loss to the facility to the benefit of the debtors would also be reduced or even avoided.

There is a problem of moral hazard. Debtors have an interest in reducing as much as possible the price at which the facility purchases debt (and hence the extent to which the contractual value is written down). This problem can be overcome by fixing the purchase price above the market price, at a price at some cutoff date before the facility is implemented.

The paper analyzes several reasons why a new institution might be appropriate. It notes that there would be no compulsion for banks or debtor countries to join the scheme. The establishment of such a facility is conceivable if it is on a modest scale, but seems hardly conceivable at present if it would involve the purchase of a significant part of the commercial debt of all the developing countries that currently have problems. A vast international transfer of risk from private banks to governments or multilateral institutions would then take place.

I. Introduction

A common proposal designed to deal with the developing countries' debt problem is that there be set up an "international debt facility" which would buy debt at a discount and then write down its contractual value, hence providing debt relief. This could be envisaged either as a major scheme which would, over a period, deal with most or all outstanding commercial debt owed or guaranteed by governments, or alternatively as a more modest arrangement dealing with only small portions of debt, possibly only that which is owed by the governments of relatively poorer countries.

Many such proposals have been advanced and they vary in their details. 1/ At the moment they do not have strong support in official circles of industrial countries. There are many difficulties, some of a major kind. Nevertheless, since the proposal is made frequently it is worth examining carefully in its many permutations.

II. The Main Issues

There are three main parties to the proposed transaction, namely the debtor governments, the creditor banks, and the "owners" of the facility. The first, and perhaps central, question is how each of the parties would be affected and, specifically, how the costs and benefits would accrue to various parties. Is there an element of "foreign aid" or of a "bank bail-out"? Alternatively, would the banks give up something? The second question is whether there might be some net gain for the system as a whole. Could all three parties gain or, at least, could some gain without the others losing significantly, if at all? In other words, is there some systemic benefit?

The proximate redistributive effects--and possibly also the "system" effects--will depend crucially on three prices: the price at which the debt is bought, the price or value to which it is written down, and the price or perceived value to which remaining debt that is retained in the private sector moves as a result of the whole operation. Of course, the full economic effects will depend on how the various parties react to or deal with the proximate gains or losses.

In considering the details of such a scheme there are many choices to be made.

1/ See the Appendix for the U.S. Senate proposal. As far as I am aware the first proposals of this general kind were advanced by Mr. Felix Rohatyn in Business Week, February 28, 1983 and by Professor Peter Kenen in the New York Times, March 6, 1983. Most recently the proposal was made by Professor Jeffrey Sachs in the New York Times, August 9, 1987, and by Mr. Percy Mistry (formerly of the World Bank) in The Banker, September 1987. There is also an analysis in Feldstein et al. (1987).

(1) The debt might be bought by the facility at current market prices; it might be bought at the market prices that existed at some earlier "cut-off" date; or it might be bought at some other set of prices representing discounts on the contractual value. Conceivably it might even be bought at its contractual value.

(2) It might be written down to the cost at which the facility bought the debt, or to a higher or lower value.

(3) The debt that is not sold by banks might maintain its present contractual status; it might be subordinated to the debt that the debtor countries will now incur to the facility; or it might be written down by the debtors to an extent that would force the banks to sell all their debt to the facility.

A crucial question is how the facility would be financed. Here there are also differences among the various proposals and the possibilities will be discussed shortly.

III. A Simple Scheme

Let us suppose that the scheme applies to any one debtor country. The facility goes into the market and offers to buy given amounts of debt. Of course, debt is not homogeneous so that various decisions would have to be made on which debt to buy. It is quite likely that it would have to pay more than the initial market price, but we can assume it would buy it at a discount from the contractual value. We shall have to return to the important question of what would determine the price and in which direction it would move.

The facility pays for the purchased debt with bonds guaranteed by its owners. The banks would thus have the opportunity of exchanging debt with the original contractual value that is subject to default risk for debt of a lower contractual value that is subject to much lower, possibly zero, default risk. One's first thought is that those that sell could not be worse off as a result. After all, selling is voluntary; there is no compulsion in this scheme. This conclusion is not necessarily true, and will have to be looked at again in Section V.

The facility would then write down the contractual value of the debt it has acquired to its cost price and would issue bonds of this value to the banks. No funds are thus required from the owners of the facility. But, of course, its new assets are somewhat risky and, because of the guarantees on the bonds it has issued, this risk has been taken over by the facility's owners. Given this risk, there will be a potential need for funds from the governments that have underwritten the facility. They may actually wish to finance contingency reserves specifically to allow for the risk. A question to be discussed below is whether this risk can be reduced or eliminated.

The debtor country apparently benefits since the contractual value of its debt has been reduced. But the gain to it will not necessarily be as great as seems at first sight. One possible view is that the market's perception of default risk, which led to the initial discount, was justified in the sense that this represented the true probability of default. In other words, there was a good chance in any case that the country would not repay the full contractual value of its debt. Reducing the contractual value as a result of the operation of the facility would not necessarily reduce actual payments (or the probability of actual payments expected to be made) to the same extent. Indeed, one might ask whether there is likely to be any gain to the debtor country at all.

IV. More Analysis: How Debtor and Banks Gain

This matter of the possible gain to the debtor, and also to the banks, can be analyzed more precisely if we introduce the concept of the debtor's "capacity to pay" which depends, among other things, on the terms of trade and the real interest rate. Of course "capacity to pay" cannot really be given a very precise meaning, but it will be supposed at this stage that it depends purely on various exogenous uncertain events such as terms of trade developments. It does not depend on the policies of the debtor country itself. It will also be assumed for the moment that expectations about capacity to pay are the same among market participants, debtor countries and the decisionmakers of the facility. These two assumptions of "exogeneity" and "uniformity of expectations" are important for the analysis of gains and losses from the establishment of a facility and therefore will be reconsidered in Section X.

There are two steps in the analysis. First we show why the banks might gain at the expense of the facility, and then we show why the debtors might do so. The second effect depends crucially on uncertainty.

(1) To begin with, there is the "market price effect." It can be shown that the banks will gain at the expense of the facility provided the debt that they retain is not subordinated to the written-down debt which the facility now holds. The reason is that the market price of the debt will rise (the discount will fall). The argument is quite simple when there is complete certainty about capacity to pay (or repay).

Let us suppose that the contractual debt is $1,000 and capacity to pay is $600. We assume at this stage that the latter is fixed. Hence the debtor country will neither gain nor lose; whatever happens it pays $600. Given the initial contractual debt, default or debt relief is then inevitable. The "default ratio" would be 40 percent.

The facility buys half of the debt from the banks at a discounted price, say 80 cents (when the contractual price is $1), hence paying $400 and writing it down to that extent. The contractual value of the total debt owed by the debtor country will then be reduced to $900. With the

same capacity to pay as before the "default ratio" becomes 33.3 percent. The facility will finally get 66.7 percent repayment of the debt it holds, thus making a loss of $133. The banks will get $333 for the debt they have retained (with a contractual value of $500), and when this is combined with the $400 they received from the facility they end up with $733, which is an improvement of $133 on what they would have received if the facility had not bought and written down some of the debt. The discount on debt held by the banks has fallen from 40 percent to 33.3 percent. 1/

There has been a pure transfer from the facility to the banks. All this will be reflected in the market price rising (discount falling) when the facility enters the market. It has to pay a higher price than the initial price to induce the banks to sell any debt to it. The banks will foresee that debt not sold would rise in value when some writing down takes place, and hence they will only sell at a sufficiently higher price. The price would not necessarily rise to its equilibrium value immediately, and could also overshoot, since banks and others in the market would not be able to predict this equilibrium in advance; the account given here, with its impression of precision, just indicates likely tendencies.

1/ In this example the facility's purchase price is 80 cents but the market price has risen only from 60 cents to 67 cents. This means that the purchase price could be reduced, leading to a bigger decline in the contractual value and hence a further rise in the market price. The equilibrium price (where purchase and market prices are equal) would actually be 0.705 when the facility buys half the debt. If it bought a greater proportion the price would be higher. These results can be derived as follows.

C_1 = initial contractual value,
C_2 = contractual value after debt relief,
q = proportion of debt bought by facility,
R = capacity to pay, and
p = purchase price (equal to market price after purchase) as proportion of initial contractual price.

$$C_2 = C_1(1-q) + C_1qp \qquad (1)$$

$$p = R/C_2 \qquad (2)$$

From (1) and (2)

$$R/C_1 = (1-q)p + qp^2 \qquad (3)$$

From (3)

$$p = \frac{-(1-q) + \sqrt{(1-q)^2 + 4qR/C_1}}{2q}$$

The essential point can be restated as follows: When the contractual value of the total debt is reduced while total capacity to pay stays constant, each dollar's worth of contractual debt must be worth more in the market than before, at least provided all dollars of contractual debt would be treated equally if there were some default.

(2) Uncertainty about capacity to pay and the "ceiling effect" can now be introduced. 1/ The mean expected repayment might be $600, but it could also be greater, up to a ceiling of complete repayment of $1,000, and it could be less, with a floor of zero. Thus there is both upside and downside risk and this will be taken into account in the market price. If the contractual value of the debt is reduced, say, to $900, the ceiling will be lowered to $900. If the terms of trade, for example, turn out very favorable so that capacity to pay is actually $950 the actual payment will be $50 less than if the contractual value had stayed at its initial level. Thus the debtor gains at the expense of the creditor from a write-down of the contractual value because the downside risk remains as before while the offsetting upside risk (or gain) becomes less.

In our example this "ceiling effect" affects the facility and not the banks. The latter have maintained the contractual value of the debt they retain, so if the capacity to pay outcome turns out very favorable they will get their full value as before. But the facility has written down its debt and cannot get more than $400. Of course it can get less. It has acquired an asset that cost $400 and is nominally worth $400, which could yield less but not more. Thus it has lost.

To summarize, the banks gain at the expense of the facility because the discount falls, and the debtor countries gain at the expense of the facility because of the "ceiling effect"--essentially the downside risk taken on by the facility not offset by upside risk. 2/

1/ In several papers Paul Krugman has discussed the uncertainty aspects. See especially Krugman (1985).

2/ The example that has been used here is very simplified, though sufficient to make the main points. Repayment is thought of as a single sum ($600, when there is certainty) paid in a single future period, the sum consisting of principal and interest combined. The analysis could be elaborated to allow for a stream of interest and amortization payments over time, in which case the sum should be thought of as the present value. There is then scope for changes in the time profile of payments. In that case a distinction between interest and principal would have to be made. Debt relief may have an immediate effect in reducing interest payments, even though, if capacity to pay in total is really fixed, this implies more interest or amortization payments later. Changes in the time profile of either interest or amortization payments which do not alter the present value leave the analysis presented above unchanged.

This relates to the observation that the market discount is caused not only by the probability of default or forced debt relief as usually

V. Subordination: Can a Gain to the Banks Be Avoided?

It is an interesting question whether a gain to the banks at the expense of the facility--i.e., a "bank bail-out"--can be avoided. The key here is subordination of the debt retained by the banks relative to the debt now owned by the facility.

It should be noted here that when one talks about a gain to the banks one means a gain relative to the initial situation when there was already a discount in the market. Earlier, of course, the banks incurred a loss once the probability of some default or forced debt relief was perceived by them or the market. Presumably, as long as the banks get less than $1,000 they will have incurred some loss as normally defined, even though the margin above LIBOR they charged originally must have taken into account the possibility of some default or heavy pressure to provide some relief.

Suppose that, again, the facility buys half the debt and writes it down at cost. It buys it at 80 cents per dollar and so pays $400, total contractual debt being thus written down to $900. Furthermore, let us assume that there is no doubt at all that capacity to pay will be at least $400.

If it could be firmly established that, whatever is the capacity to pay outcome above $400, the debt held by the facility would always be paid first--i.e., would be senior debt--then the facility could not make a loss and so its owners would run no risk. But the banks would lose potentially and the debtors gain because the "ceiling payment" has been reduced. Previously the maximum payment the banks could have received was $1,000, while now it is $500 for the debt they have retained plus the $400 they have already received from the facility. If capacity to pay turned out to be less than $900, say $850, the loss would be borne wholly by the banks. The facility would first get all its $400 and the banks would be repaid $450 of the $500 debt they have retained.

Subordinating debt retained by the banks to facility-held debt thus ensures that the facility neither loses nor gains, taking on no risk, while the debtor countries gain potentially at the expense of the banks. The expected loss to the banks would be reflected in a decline in the market price. 1/

2/ (Cont'd from p. 5) understood but also by the probability of forced rescheduling, pressures to participate in new money packages and so on. These are all ways of changing the time profile and reducing the present value of repayments.

1/ An issue not discussed here, but clearly important for the various proposals, is whether it would be legally possible for existing debt that is retained by the banks to be subordinated to that acquired by the facility. Of course there would be no difficulty if it were done with the agreement of the banks.

If there were some possibility that even debt given senior status would not be fully repaid--i.e., that capacity to pay might fall below $400--risk for the facility would not be completely eliminated. The conclusion that subordination of old debt to the debt owned by the facility would eliminate all risk for the facility hinges completely on the assumption that some minimum total payment equal to the value of the debt that the facility has bought ($400 in our example) is utterly assured. But the larger the proportion of the initial total debt that the facility takes over and writes down the less likely it is that all risk for the facility would be eliminated by giving the debt it holds senior status. If the facility had bought up all the debt no one but the facility could assume the risk.

If it were desired for some of the loss to the banks to be shared with the facility, the latter could write down the debt by more than the discounted purchase price, hence making a clear loss now. Alternatively, only part of its debt might be given seniority. Here there is scope for many variations in the details of such a scheme, and these may have significant effects in affecting the gains or losses for the banks. The key point is that either the banks or the facility, or both, must make a potential loss--namely the foregoing of the benefits of a very favorable capacity to pay outcome. The risk of an unfavorable outcome has not been eliminated, but the possibility of a very favorable return (above $900) has.

VI. Reduction of Uncertainty

Another possibility can now be considered. It is worth exploring carefully because it is implicit in some proposals. The suggestion is that the Fund or World Bank may be able to increase or assure certainty of payment at the new written-down value. Thus we now depart from the assumption maintained so far that the actual repayment outcome depends only on exogenously determined capacity to pay subject to the "ceiling" imposed by the contractual value. It can depend also on policies.

Suppose that initially the mean expected capacity to pay was $600, with a probability of the creditors getting more or less. If the total debt were written down to $600 there would then be a $600 ceiling to the repayment. In addition, suppose that the Fund or World Bank were able to ensure that $600 also became the minimum repayment. This assurance might have been obtained with the aid of conditionality. Given this, there is no longer a necessary loss to the banks or the facility combined from the imposition of a reduced ceiling because it is associated with the imposition of a raised floor. Upside and downside risk have both been eliminated. Certainty has been obtained, or at least uncertainty has been reduced.

Certainty represents a net gain for the banks and the facility combined, given that they are risk averse. With subordination the whole of this gain from certainty will go to the banks unless the facility had so much debt that it had also carried some of the risk previously. In the absence of subordination the gain would go partly to the facility.

It is often implied in debt relief proposals that the written-down value would have no more risk attached to it (or very little risk) because it would be close to expected capacity to pay. It is a matter of judgment whether this is realistic. The implication is that willingness to repay--resolve to make the necessary adjustments--is not exogenous but rather can be made more "certain" in return for debt relief. Perhaps a commitment that would successfully eliminate perceived default risk could be obtained from the debtor country in some way or other. Debtor governments could make certain policy commitments. No doubt the Fund's conditionality procedures can play a role here. Conditionality can conceivably reduce uncertainty and default risk though it can surely not eliminate them.

A reduction in uncertainty of repayment without necessarily any net change in the mean expected repayment is clearly a gain to the banks and the facility. But it is not necessarily a gain for the system as a whole. If uncertainty in capacity to pay could be reduced--e.g., uncertainty in terms of trade movements--that would be a net gain. But if uncertainty in capacity to pay continues while repayment becomes more certain owing to conditionality, there has simply been a transfer in the burden of uncertainty toward the debtor country. For example, if the terms of trade turned out particularly adverse the country would have to bear the whole burden instead of sharing it with the banks or the facility through some degree of default or debt relief.

VII. Various Ways of Financing the Facility

Financing the facility by issuing bonds to the banks--hence, in effect, engaging in a swap operation with the banks--appears an obvious approach. An alternative would be for the facility to finance itself by issuing bonds in the market. If in both cases the bonds are risk-free, being guaranteed by the facility's owner governments, this comes to much the same thing. A difference would only arise if some element of risk were perceived. Yet another alternative would be for some or all of the owner governments to finance the facility directly. They could, of course, in turn finance themselves in the market. Again, given that the guarantees are watertight--as one would expect them to be--the net result would be much the same as in the other cases.

One proposal is fundamentally different. The suggestion is that for each debtor country there be issued separate bonds in the market, each country's bond being backed not by a guarantee from the facility's owners but rather by the written-down debt of that country held by the facility.

All the risk is then carried in the market, not by the facility. The facility literally only "facilitates" the process of consolidating, restructuring, and writing down contractual debt. It has been suggested that this activity should be combined with conditionality, and that bonds only be issued to the extent that countries reach agreements with the Fund and World Bank about policies. But it would be important to avoid any misunderstandings about whether there is an implicit guarantee. The question then arises as to what inducement there would be for the banks to exchange their existing debts for the new bonds.

VIII. The Interests of the Debtor Countries

There are a number of ways in which the debtor country might gain from the arrangement. Some have already been referred to, but they will now be brought together.

(1) A gain that seems very obvious at first sight but turns out to be primarily cosmetic is the reduction in the "default ratio." The default ratio, D, equals 1 - R/C, where R is the actual repayment made--i.e., the resource transfer--and C is the contractual value. D is reduced when the contractual value of the debt is written down even though the actual payment (which has been assumed exogenous so far) does not change.

Does it really matter if this "default ratio" falls, possibly to zero, when the resource transfer remains unchanged? One might say that the effect is purely cosmetic. If an emperor has few clothes, is it really necessary to proclaim the fact? Against this it can be argued convincingly that debt relief voluntarily provided by the creditors is always better than default.

There would clearly be a preference on the part of the debtor country for debt relief over default if penalties were associated with default. Even in the absence of current penalties, reputation--and hence future creditworthiness--may be influenced by whether there has been formal default rather than debt relief. It is worth noting that it has been assumed here that default depends purely on exogenous capacity to pay; hence penalties related to the default ratio would seem less likely or reasonable. Since capacity to pay completely determines actual repayments, there would be no point in the creditors imposing penalties.

(2) The debtor country gains owing to the "ceiling effect." As has been pointed out, if capacity to pay turns out particularly favorable--above the new contractual value--the gain would go to the debtor rather than to the creditors. We have seen that, if there were subordination of bank debt to facility debt, this effect could be a source of actual loss to the banks. Otherwise the loss is borne by the facility. This benefit

to the debtor might disappear (and could even be turned into a loss) if conditionality manages also to raise the floor for the repayment, shifting more of the risk toward the debtor country. 1/

(3) The facility might write the debt down by more than the cost price to it--possibly much more--and the contractual value might then fall below capacity to pay in more than "very best" circumstances. At the limit the debt might be written down to zero. This would represent a straightforward transfer from the owners of the facility to the debtor countries--a case of foreign assistance. It is equivalent to the owner countries donating funds to the debtor country to buy back its debt.

(4) A fourth kind of gain has not been referred to so far but is implicit in much advocacy of debt relief and could be very important. The markets, or specifically the banks, may be pessimistic and believe that there is some probability of default, this explaining the market discount on the debt. But the government of the debtor country has no intention of defaulting. There are "asymmetric expectations." Capacity to pay, after all, is not something clear cut. The government foresees difficulties and adjustment problems and seeks debt relief but--possibly for fear of penalties--does not intend ever to default, even though it has not succeeded in convincing the market of this. This issue of "asymmetric expectations" will be returned to below. But here it can be noted that if the government of the debtor country has no intention at all of defaulting, the whole of the fall in the contractual value of the debt brought about by debt relief through the operation of the facility or some other way would represent a clear cut gain to the debtor country in reduced prospective resource transfers. 2/

1/ Incidentally, it could be argued that there is a touch of perversity in the "ceiling effect" brought about by debt relief. Whenever capacity to pay improves exogenously owing, for example, to a terms of trade improvement, some of the gains inevitably go to the debtor even before debt relief, i.e., when the ceiling is high. Similarly, some of the losses from a deterioration would be borne by the debtor, and not wholly by the creditors. In that case, lowering the ceiling as a result of debt relief increases the gains for the debtor when events, such as the terms of trade, turn out well but does not help when events turn out badly.

2/ There is an important qualification to this argument. If the debtor country's government takes the long view it will realize that debt relief through the facility or otherwise, even though entirely voluntary on the part of the creditors and in no way associated with actual default, could still have an adverse effect on its country's future creditworthiness. After all, when investors look back they will see that a $1,000 loan finally turned out to be worth less, for whatever reason. The government will never have the opportunity to show that it would have paid the full initial contractual value.

The creditors, on the other hand, having different expectations, do not perceive this reduction in the contractual value--or all of it--as a loss to them. They may expect to lose through the "ceiling effect" but also see some virtue in an explicit recognition of what they believe to be realities--that the country has limited capacity or willingness to pay, the emperor having fewer clothes than the initial contract specified.

IX. Moral Hazard and the Purchase Price of Debt

For three of the four reasons given here (other than reason (3)), the debtor country would want the price at which the facility buys debt from the banks to be as low as possible. The lower the price the greater the decline in the contractual value, hence the lower the default ratio, the lower the ceiling applying when events turn out favorably, and the lower actual repayments if default is never intended.

If this purchase price is equal to or closely related to the market price, the debtor country therefore has an incentive to get the market price down. This can be done by making "default noises"--just a hint here, and a threat there--and the banks will be glad to sell at a low price, in the extreme case at any price above zero. This is the familiar moral hazard problem.

A possible solution seems to be for the facility's purchase price not to be determined by the market price, or at least by the market price ruling once the likelihood of such a facility being established has become serious. Market prices at some earlier "cut-off date" might be taken. If the banks are to sell voluntarily the purchase price will have to be no lower than the current market price. But it could be higher.

The problem is to fix a price which does not give a gain, or an undue gain, to the banks; otherwise there would be a "bail-out." But what is a gain? Given the expectations created by their anticipation of the debtor country's capacity to pay, combined with the "default noises" made by the debtor government or others in that country, a sale of the debt to the facility at a very low price may still seem to be a gain to the banks. This is true even though the price is likely to represent a loss relative to the expectations at the time the loans were originally made. Presumably the facility should aim to avoid either gain or loss to the banks relative to the situation at some "pre-discussion-of-facility" date, i.e., an appropriately early cut-off date.

X. Two Assumptions Reconsidered

At the beginning of this paper the two crucial assumptions were made that the debtor's capacity to pay was exogenously determined--for example, by the terms of trade--and that expectations about capacity to pay were

the same among all the relevant parties. Given these assumptions, a fairly straightforward analysis followed which showed that a facility would yield a gain to the banks because of the market price effect and a gain to the debtor because of the ceiling effect. These gains would be at the expense of the facility which would be taking over a risk. This assumed that debt owed to the facility would not be given seniority over debt retained by the banks. If the latter were subordinated, a gain to the banks and loss to the facility might be avoided.

Subsequently, the two initial assumptions have been removed in particular ways. In Section VI, the possibility was explored that the facility (or the World Bank or Fund acting on its behalf) could actually affect the debtor's policies so that capacity to pay would be improved to ensure certainty of repayment of the written-down value of the debt. In other words, capacity to pay might no longer be exogenous. In Section VIII, one case of "asymmetric expectations" was noted. The debtor government may have no intention of defaulting but the market may not be convinced. Finally, in Section IX moral hazard was introduced. Prospective repayment may depend not just on capacity to pay but also on willingness to pay (for given capacity) and threats of reduced "willingness" would affect the market price.

These complications to the initial approach are really special cases, but there are further cases that analysts of these issues sometimes have in mind. A more systematic approach is therefore needed.

First of all, the concept of expected capacity to pay determined by exogenous factors could be redefined as "expected total repayment" determined both by expected capacity to pay and by expected willingness to pay. 1/ Both would be influenced by, or even determined by, policies. When the original concept of capacity to pay is broadened in this way, it becomes more plausible. If the redefined concept is to apply to the initial analysis in this paper, it has to be assumed that expected policies are exogenous in the sense of not being expected to change as a result of the establishment of the facility or of its activities.

The next step is to allow for endogenous policies affecting capacity and willingness to pay. The endogeneity of policies is central to many debt strategy proposals. As noted in Section VI, the basic idea is that the benefit to the debtor from debt relief provided through the intermediation of the facility would be reciprocated by improvements in the debtor's policies, and that some kind of assurance about these policies can be obtained perhaps with the help of conditionality. In this way, more certainty of repayment can be ensured.

1/ All this should be thought of in present value terms. See footnote 2 on page 5.

With regard to endogenous willingness to pay, two points are usually made. The first, as noted above, is the moral hazard problem: threats of reduced willingness to pay can get the market price down. A second idea not mentioned so far is that, when the contractual value of the debt is partially forgiven so that it is brought down to a more realistic level, the debtor government may have a greater willingness to repay the remainder. If the contractual debt was $1,000 and capacity to pay was $600, some default would be inevitable. It has then been argued that a large default is as bad--and incurs similar penalties--as a more modest default, so that willingness to pay in that case might fall to zero. On the other hand, if the contractual debt were written down to $600, there would be a good chance that default could be avoided and willingness to pay might become 100 percent.

Turning now to asymmetric expectations about capacity-cum-willingness to pay, there are a number of possibilities which should at least be noted. Firstly, as already mentioned, the debtor may not intend, and hence, not expect default while the market believes that there is a positive probability of default, this explaining the market discount. In that case, the debtor government will believe it would gain from any debt relief while the creditors--selling their debt voluntarily on the market (and assuming no subordination)--will not expect to lose. If the facility paid the banks a price above the initial market price--still with a discount--the banks may believe that they would actually gain, even though, if the debtor government's expectations were correct, the banks would actually have lost by selling.

A scheme could be worked out where the facility pays, for example, $400 for debt with a contractual value of $500 while it writes it down to only $450, the margin of $50 adequately compensating it for the risk it incurs so that it neither gains nor loses. In this case, the creditors believe they gain through the market price effect, the debtor government believes it gains since there is some reduction in the contractual price, and the facility neither gains nor loses.

This leads into the second possibility where the facility actually makes a profit or at least is expected to do so by its owners or managers. The market may have an unduly pessimistic view of the debtor's prospects and hence there may be a large market discount. But the facility only writes down the debt a little, so that the contractual value of the written-down debt it holds stays well above the cost price and there is a high degree of certainty that there will be low or zero default. All this depends on belief in the ability to get the debtor's policies improved sufficiently to falsify the pessimistic market expectations.

Finally, it has been argued in the main analysis here that the market price effect represents a benefit for the banks, at least relative to the situation after the debt crisis and the discount developed. But there may be some holders of debt who do not sell to the facility because--contrary

to the expectations of marginal holders--they do not believe that the probability of default is high at all. They may value the debt they hold at the contractual value, not near the market price. They may have made a more optimistic assessment of capacity or willingness to pay. If they feel assured that there will be full repayment in any case, it would make no difference to them if the total contractual claims are reduced through the operation of the facility. But, if they really believed that the debt is worth more than its market price, the question then arises why they did not buy up the debt held by others and so bring the price up to their optimistic expectations. The argument assumes that the market is, in some sense, imperfect.

XI. Would New Investment Increase as a Result of the Facility?

There are three parts to the answer to this question. If the debt of the facility is given senior rights the answer is not clear; it is possible that new investment would actually be discouraged.

(1) We have seen that for various reasons there may be an actual reduction in resource transfer from the debtor country as a result of the facility--i.e., the debtor country may actually gain something. Indeed, in the view of some this is the primary objective of the exercise. An expectation of such a gain would lead also to an expectation of lower taxation than otherwise--including taxation of profits and capital--and this may well encourage new investment.

(2) If the debt held by the facility does not acquire senior rights, so that the discount in the market falls as described earlier, there should indeed be a tendency for investment inflows to resume or increase. The facility will have assumed some of the burden of potential default on the existing debt, and this means that new investors will have a lesser burden than before to bear.

(3) The matter is not so simple if the existing debt is subordinated to the facility's debt. The question taken is whether new debt incurred in the market would also be subordinated or whether, alternatively, it would acquire seniority over the facility's debt. The reasonable assumption is that the facility would enjoy complete seniority. As noted above, in the absence of increased certainty, subordination would actually reduce the market price (raise the discount) owing to the "ceiling effect," and hence new investment would be further discouraged. If all old debt had been sold to the facility, then, in effect, new debt would be subordinated to old debt completely.

XII. Is There Really Need for an International Facility?

A central question remains. One might grant the desirability of debt relief but still wonder why an intermediary in the form of the facility should be needed.

While banks can sell the developing countries' debts in the market at a discount, managements may not feel free to grant outright relief in the form of reduction of the contractual value, possibly because of legal obstacles. But, in practice, relief in the form of long-term rescheduling and various debt transformations can be and has been granted--though this is different from reducing the contractual value. One could also argue that there is no incentive for any private holder to grant relief owing to the "ceiling effect." There is always the possibility that the full contractual value will be repaid, so why forego this possibility? On the other hand, the incentive may be created by the threat of more severe default.

One can think of three arguments in favor of the establishment of a facility, at least from the points of view of the banks and the debtor countries involved.

(1) The most obvious argument from the point of view of both parties is that the facility could act as a channel for the transfer of current resources (i.e., aid) from the countries that underwrite it, or alternatively for the possible transfer of future resources if risk without current transfers is assumed.

If foreign aid to the debtor countries is indeed intended, one alternative could be for the parties to negotiate debt relief contracts bilaterally and then for some or all of the industrial countries to guarantee partly or wholly the written-down debts. This would give particular industrial countries an opportunity to help those debtors that are of special interest to them. The familiar difficulty here is that the banks are not a single "party," as the problems of organizing concerted lending have shown.

For the debtor countries the other alternative is to receive direct bilateral aid. The aid could be used by the debtor country to buy back some of its own debt. Again, there would be an opportunity for industrial countries to discriminate in favor of particular debtor countries. But the fundamental question is highlighted in that case whether funds received in aid are best spent in buying back debt. They could be used to finance extra investment.

(2) It could be argued that, if world economic conditions turn adverse, the alternative to the operation of such a facility is a decentralized process of debt restructuring with relief. In that situation numerous bilateral arrangements--with the banks represented by committees

that have difficulty in getting support from sufficient banks--could get rather disorderly. The facility would be an intermediary that brings more orderliness to the process. An element of automaticity and consistency across countries and kinds of debt in the choice of purchase prices, the extent of relief, and so on, could smooth the restructuring and debt relief process. It might avoid default crises that could lead to political difficulties and disruption of trade flows.

(3) A key feature of the proposal is that very uncertain obligations with contractual values well above what is expected to be paid on a probability basis would be replaced by more realistically valued debt that (in the view of its proponents) would be more certain and, ideally, free of serious default risk.

It might be argued that the increase in certainty (if it could be obtained) is generally desirable even though it does, to an extent at least, shift the burden of exogenous uncertainty (e.g., in the terms of trade) back toward the debtor countries. This is possibly a gain, because some uncertainty is believed to be endogenous--resulting from the lack of firm will by debtor governments rather than capacity-to-pay uncertainty. Then there is a role for conditionality and hence the Fund and the World Bank. On the other hand, this does not necessarily mean that the two institutions, or their owners, should, through the facility, take on the remaining risks.

One negative point should also be noted. If the banks and the debtor countries believe that there is some chance that an institution such as the facility might be established to take over some of the risks, they will have less incentive to arrive at debt relief agreements directly or without disruption. The threat of disruption, particularly of trade flows, could be an inducement leading the international community to establish such a facility. But if such an institution were never seen as being even a possiblility the parties directly involved would have an incentive to arrive at agreements. They would try to avoid prolonged uncertainty and disruption because it is damaging to them all.

XIII. Is Any Compulsion Involved?

A good deal of voluntariness could be preserved in such a scheme.

(1) If conditionality were not involved a debtor country would have nothing to lose in the short run from debt relief through the medium of the facility. But in the long run it might lose some creditworthiness since future creditors may well think that what has happened once can happen again. Therefore a debtor government, which is confident that it will be able to repay the full contractual value of its debt and wants to take a long view, may benefit from staying out of the scheme. This is true even though there may be a market discount on its debt which suggests that, so far, it has not been able to convey its confidence to the market.

(2) If conditionality is part of the scheme, then each debtor country can decide whether it prefers to accept the burdens of conditionality and then get debt relief through the facility, or whether it prefers to stay out. There is no compulsion.

(3) Each bank would be free to sell or to keep as much as it likes of the debt it holds at present. Sales of debt will not be compulsory. The facility will operate in the market. But this freedom could be somewhat illusory since the willingness to sell will be influenced by the debtors' actions. A decision by the debtor government to subordinate debt that is not sold would lower the market price, as would threats of, or actual default.

XIV. Conclusion

The establishment of such a facility seems hardly conceivable at present if it would involve the purchase of a significant part of the commercial debt of all the developing countries that currently have problems. A vast transfer of risk internationally from private banks to governments or multilateral institutions would probably take place. The extent of the transfers would depend on the detailed arrangements as discussed here. A crucial consideration is the extent to which debt not sold to the facility is subordinated to facility-held debt. On the other hand, one can imagine a facility beginning on a relatively small scale, buying up a small proportion of debt of many countries or, alternatively, confining itself to the debt of the poorer countries. But in these cases it might not make a significant impact on the world debt situation.

Appendix: The U.S. Senate Proposal

The U.S. Senate's Trade Bill includes a provision for the Secretary of the Treasury to "study the feasibility and advisability" of an "International Debt Management Authority" being established.

The Secretary should proceed to initiate multilateral discussions with the intent of establishing such an authority unless he determines that initiating negotiations would increase the discount, increase the probability of default, or increase the likelihood of debt service failure or disruption.

The "multilateral financial authority" envisaged would (among other things) purchase sovereign debt of developing countries from private creditors at a discount and enter into negotiations with the debtor countries for the purpose of restructuring the debt in order to ease the current debt service burden.

Senator Bradley argued that the provision was needed in order to push the Administration to try a new approach to resolving the international debt problem. In the view of supporters of the provision (1) the bill did not mandate specific action, only discussion, (2) the facility was intended to be "self-supporting," and (3) no money was authorized.

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