

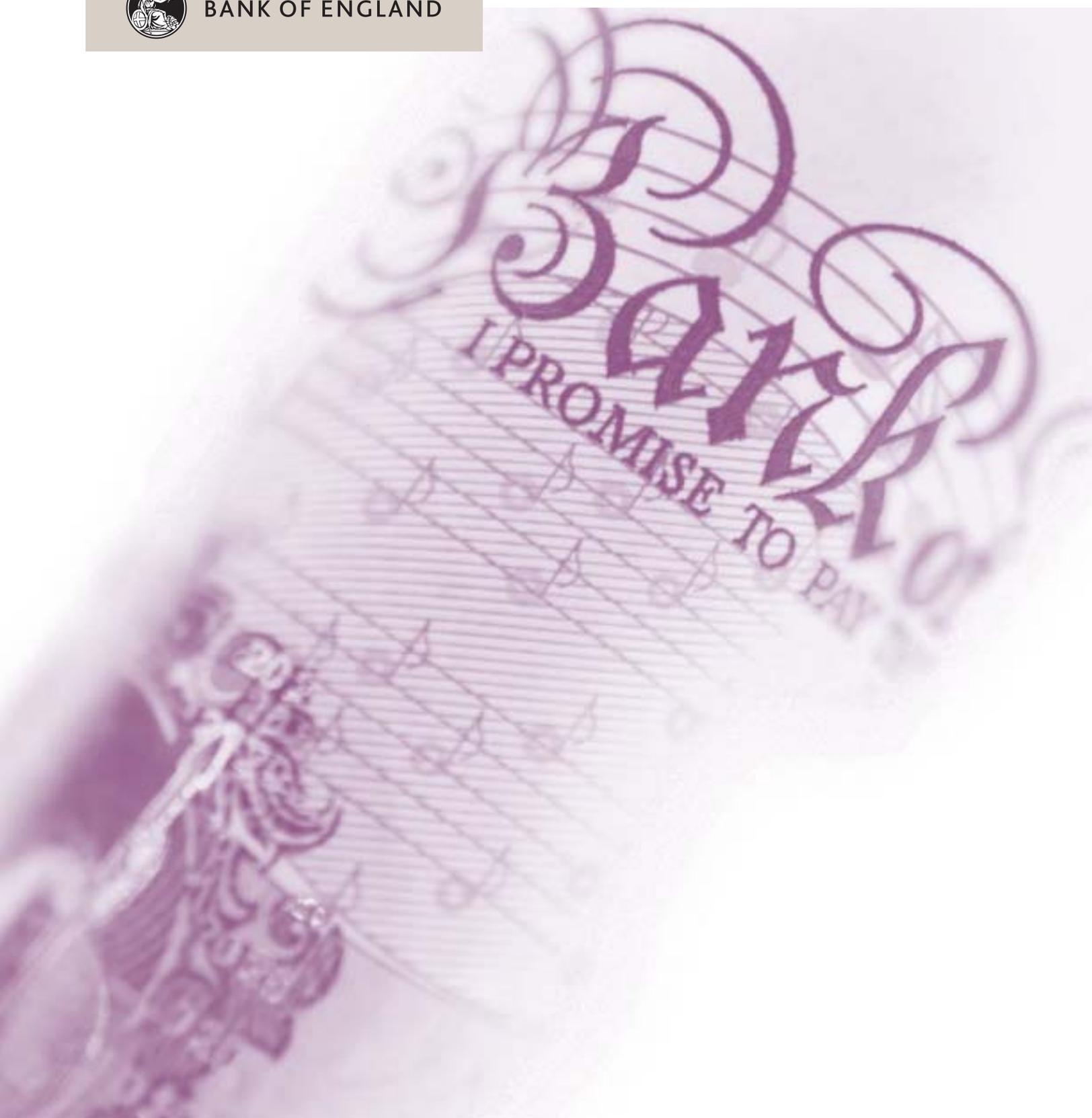
Financial Stability Paper No. 4 – April 2008

# Reforming the IMF's lending-into-arrears framework

Paul Bedford and Gregor Irwin



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# Reforming the IMF's lending-into-arrears framework

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Episodes of sovereign default are typically associated with significant economic costs. The International Monetary Fund can help to mitigate these costs in a variety of ways, including by lending into arrears. Careful design of the broad policy framework governing the Fund's involvement can help to ensure it has the maximum beneficial impact, without distorting the incentives of either the defaulting country or its creditors. This paper aims to identify some of the issues that are relevant to the design of such a framework, and which might helpfully be considered as part of the forthcoming review of the Fund's lending-into-arrears policy.

Sovereign debt crises have been rare in recent years. Strong growth and generally favourable financing conditions in emerging markets have reduced external financing pressures. Moreover, several emerging countries have taken the opportunity to strengthen their macroeconomic policy frameworks. This should reduce the risk of new crises occurring if there is a prolonged deterioration in the global financing environment. Recent reforms to International Monetary Fund (IMF) surveillance over its member countries should also help to reduce the incidence of crises.<sup>(1)</sup>

Despite these positive developments, sovereign debt crises may occur from time to time. When they do, the IMF can play an important role in helping to reduce the costs of macroeconomic adjustment and to prevent the effects from spreading across national borders.

The challenge facing the IMF is particularly difficult in the special case of crises which involve a country defaulting on some or all of its debts to private and/or official creditors. In this situation IMF lending to the sovereign is known as 'lending into arrears' (LIA). The IMF can help mitigate the economic costs of crises once a sovereign has defaulted both by lending and through different forms of non-financial assistance. Careful design of the broad policy framework governing the Fund's response following a default can help to ensure that it has the maximum beneficial impact, without distorting the incentives of either the defaulting country or its creditors. This paper aims to identify some of the issues that are relevant to the design of such a framework and which might helpfully be considered as part of the forthcoming review of the Fund's LIA policy.

## 1 Sovereign default and the role of the IMF

Sovereign default can be defined in a variety of ways, but is most commonly understood to mean the failure of a country to make interest or principal payments that are due to creditors under the terms of a debt contract.<sup>(2)</sup> Recent examples include Russia in 1998, Ecuador in 1999, and Argentina in 2001, with the latter widely recognised as the largest sovereign default and the most complex sovereign bond restructuring in history (Gelpern (2005)).

These are costly events. The crises in Russia, Ecuador and Argentina were associated with deep domestic recessions — real GDP fell by an average of 7.5% during the year of greatest disruption (Finger and Mecagni (2007)). De Paoli *et al* (2006) examine 45 crises in which the sovereign either defaulted or completed a debt restructuring, finding that, for this sample, the median crisis length was eight years and the median output loss, relative to a counterfactual estimate for output in the absence of a crisis, was close to 7% per year. The scale of these effects can be partly explained by the regularity with which sovereign default coincides with a domestic banking and/or currency crisis — only four of the crises studied by De Paoli *et al* (2006) could be classed as 'default only' cases. Moreover, defaulting countries often face severe constraints on external borrowing, including through the restricted availability of trade credit, which may undermine prospects for an export-led recovery (IMF (2003a)).<sup>(3)</sup>

(1) In June 2007, the IMF Executive Board adopted a new policy framework for bilateral surveillance. For further details see IMF (2007).  
 (2) A slightly wider definition, used by De Paoli *et al* (2006), interprets the completion of a debt restructuring as an episode of default.  
 (3) Sovereign defaults are typically associated with a sharp nominal and real exchange rate depreciation, which should improve international competitiveness and allow the defaulting country to expand its exports.

A defaulting country typically faces a number of significant economic challenges. Once default has occurred, the priority is to re-establish macroeconomic stability and to contain the costs of the crisis as far as possible. The disruption can be reduced by taking appropriate steps to restore debt sustainability, including through a restructuring of the defaulted debt. Box A describes in more detail some of the practical steps that are likely to be necessary following a sovereign default.

Sovereign defaults also impose significant costs on creditors. As well as experiencing a period of non-payment, creditors are typically required to accept a reduction in the value of their claims in order to allow debt sustainability to be restored. Sturzenegger and Zettelmeyer (2006) provide detailed estimates of the losses incurred by private creditors as a result of several recent sovereign debt restructurings. They estimate the average reduction in the net present value of external creditors' claims to have been 28.6% in Ecuador, between 52.6% and 63.2% in Russia, and 75% in Argentina. The scale of these losses, or equivalently the amount of debt relief provided to the defaulting country, is significantly higher than in recent cases of pre-emptive debt restructuring undertaken before the sovereign is actually in arrears (Bedford *et al* (2005)).<sup>(1)</sup>

A defaulting country and its creditors have a shared interest in minimising the economic costs that are associated with a default. The IMF can potentially help in a variety of ways. The Fund can, for example, provide policy advice to the defaulting country, drawing on its macroeconomic expertise and experience in working with other countries that have faced similar problems. In some cases it can offer a seal of approval on the efforts by a country to address its economic problems.<sup>(2)</sup>

The most visible way in which the Fund can contribute, though, is to provide short-term financial support to a defaulting country by 'lending into arrears'.

There are at least two potential channels through which LIA can help to reduce the economic cost of default. First, in some cases financing from the IMF can be used by the national authorities to support their efforts to prevent a systemic banking crisis.<sup>(3)</sup> Second, LIA can be used to substitute partially for reduced access to trade credit and prevent export opportunities from being lost.

More generally, LIA by the IMF is broadly analogous to private investors providing working capital to bankrupt commercial borrowers. This type of lending, sometimes known as debtor-in-possession (DIP) financing, aims to preserve or enhance the asset value of the borrower while a corporate restructuring is carried out. LIA has a similar objective, namely to reduce the economic costs associated with a default and in

so doing support the payment capacity of the debtor. This outcome should be beneficial for all parties.

Chapter 11 of the US Bankruptcy Code recognises DIP financing as senior to other forms of debt contracted before bankruptcy is declared. Potential lenders to corporates in financial distress can therefore be assured that their loans will not be included in a future debt restructuring. For the Fund to be able to lend into arrears to sovereigns, it requires similar assurances. As described by Buchheit and Lastra (2007), the Fund's preferred creditor status (PCS) provides the necessary guarantee.

The Fund should only lend where the expected benefits are commensurate with the risks involved. One particular risk is that the incentives of the defaulting country will be distorted in a way that prolongs the crisis resolution process. All other things being equal, the receipt of financial assistance from the Fund will reduce the need to regain access to international capital markets, which may in turn encourage the country to delay entering into restructuring negotiations with its creditors.<sup>(4)</sup> The Fund should also ensure that risks to its own balance sheet, PCS notwithstanding, are suitably controlled.

These considerations imply that lending into arrears should be subject to certain conditions. Since 1989, these conditions have been set out in the Fund's LIA policy.<sup>(5)</sup>

## 2 The lending-into-arrears policy

The LIA policy plays a central role in governing the IMF's response to episodes of sovereign default. It imposes two significant conditions on the availability of financial support to a country that has defaulted on some or all of its obligations to private creditors:

- provision of Fund support must be considered essential to the success of the defaulting country's adjustment programme; and
- the defaulting country must be pursuing appropriate policies and making a 'good faith effort' to reach a collaborative agreement with its creditors.

The first of these conditions (and also the requirement to pursue appropriate policies) is standard for all types of IMF

(1) Recent examples of pre-emptive debt restructurings include Uruguay in 2003, the Dominican Republic in 2005, and Belize in 2007.

(2) This seal of approval can come in the form of an agreed IMF programme usually, but not always, tied to IMF lending. Creditors sometimes value this as a signal that adequate policies are in place. For example, the Paris Club of sovereign creditors requires debtor countries to agree a programme with the IMF before they conclude a debt restructuring.

(3) Although not a default case, the example of Uruguay in 2002 is illustrative of the way in which the Fund can assist the efforts to prevent or resolve a systemic banking crisis.

(4) An expectation that the IMF will lend into arrears could also create moral hazard and increase the likelihood of sovereign defaults occurring in the first place. However, the large costs typically associated with default (see above) suggest that this problem is unlikely to be significant.

(5) The LIA policy has been revised several times since its introduction in 1989. For an overview, see IMF (2002a) or Buchheit and Lastra (2007).

## Box A

### Challenges for the sovereign following a default

A defaulting country is likely to face many economic challenges. Over the medium term, key objectives include normalising relations with creditors, restoring debt sustainability, and regaining access to private capital markets.<sup>(1)</sup> In the immediate aftermath of default, however, the most urgent task is to re-establish macroeconomic stability.

Experience in Russia, Ecuador and Argentina demonstrates how a default is often associated with some or all of the following: rapid capital flight; a sharp depreciation of the exchange rate; a domestic banking crisis; and severe constraints on external borrowing, including trade credit. Argentina and Ecuador also experienced social and political unrest, in both cases leading to a change of government.<sup>(2)</sup>

One key step towards restoring stability is the introduction of a new macroeconomic policy framework that is consistent and credible. The framework should specify factors such as the exchange rate regime and the objectives of monetary policy, for example in the form of an inflation target. At the same time, it may be necessary to impose (on a temporary basis) administrative controls on capital flows in order to contain the effects of the crisis.

Once a basic level of macroeconomic stability has been achieved, the next priority is likely to involve devising a strategy for restoring debt sustainability. The burden of adjustment will typically be shared between the defaulting country and its creditors. The latter contribute by providing some level of debt relief under the terms of a restructuring

agreement. At the same time, the defaulting country would normally be expected to increase its repayment capacity by tightening fiscal policy.

In the absence of an international bankruptcy court, the terms of a debt restructuring must be determined through negotiation rather than adjudication.

For debt owed to other governments, the Paris Club provides a proven forum for conducting the necessary negotiations. The Paris Club has traditionally required the sovereign debtor to seek a comparable outcome with private creditors, as a condition for agreeing to restructure and write down its debt. In cases where other governments hold the majority of debt and where the Paris Club agrees to a restructuring before private creditors, this may expedite negotiations with private creditors. However, it is increasingly the case that the majority of emerging market debt is controlled by private creditors and often the debtor chooses to restructure private debt first, before turning to the Paris Club, as was the case in Argentina.

For this and many other reasons restructuring negotiations will inevitably take some time to complete. There are, however, benefits to all parties from completing the process as promptly as is practicable. For the defaulting country, regaining access to international capital markets is unlikely to be possible until a restructuring is complete. Similarly, private creditors will face an implicit cost from holding distressed debt for an extended period. The legal and administrative costs incurred, by both sides, during a prolonged restructuring negotiation may also be significant.

(1) Access to private capital markets is important as it allows the country concerned to respond to economic shocks and smooth consumption over time.

(2) For further details, see the case studies in Sturzenegger and Zettelmeyer (2006).

lending arrangement, irrespective of whether a default has occurred. The so-called 'good-faith criterion', by contrast, is unique to the LIA policy and therefore applies only in default cases.

The role of the good-faith criterion is to ensure that the defaulting country retains a strong incentive to negotiate with creditors, even after receiving financial support from the Fund. Without the criterion, it is argued, the process of completing a restructuring deal may be delayed, with the result that additional economic costs are incurred while the crisis remains unresolved. A large element of subjective judgement is, however, involved in assessing whether a defaulting country is negotiating in good faith.

Some flexibility in interpreting the good-faith criterion is necessary to allow the IMF to respond to episodes of sovereign

default according to the specific circumstances to hand. But it is also possible that uncertainty surrounding the conditions under which financial support will be available can complicate the crisis resolution process. For example, Macklem (2006) highlights the way in which necessary actions, including debt restructuring negotiations, can be delayed while all parties 'wait to see whether the Fund will put new money on the table'.

The IMF has sought to identify a suitable balance between these competing considerations by elaborating a set of principles intended to guide defaulting countries in the conduct of their negotiations with private creditors (IMF (2002b)). Specifically, a country seeking support from the Fund is expected to demonstrate that it is negotiating in good faith by:

- engaging in early dialogue with creditors, which should continue until the restructuring is complete;
- sharing relevant, non-confidential information with all creditors on a timely basis; and
- providing creditors with an opportunity to give input on the design of restructuring strategies and the design of individual instruments.

Nevertheless, the practical effectiveness of the good-faith criterion has continued to be the subject of debate. Critics such as Lerrick (2005) typically highlight the qualitative nature of the principles set out in 2002, the result of which is to leave considerable scope for differing interpretations and to admit the possibility of inconsistent policy application. Along similar lines, Gelper (2005) observes that, for all its expertise in designing macroeconomic adjustment programmes, the IMF is not well-equipped to evaluate the quality of dialogue between a defaulting country and private creditors.

Furthermore, it is often argued that the financial packages provided by the IMF to Ecuador in 2000 and Argentina in 2002/03 failed to respect the LIA policy and the good-faith criterion in particular (see, for example, Weber (2005) or Wolf (2004)). These episodes appear to have undermined the credibility of the policy. It is therefore welcome that the IMF intends to conduct a review of the LIA policy as part of its Medium-Term Strategy set out by former Managing Director Rodrigo de Rato (IMF (2005b, 2006)).

In principle, concerns surrounding the interpretation of the good-faith criterion could be addressed through further refinement of the 2002 principles. However, elaborating more detailed expectations for the behaviour of defaulting countries may inevitably come into conflict with the need to preserve an element of policy flexibility. In this spirit, Simpson (2006) argues that the IMF should retain some 'margin for manoeuvre' in the way it applies the LIA policy.

An additional, if less widely discussed, source of tension arises from the amount of time required to assess compliance with the good-faith criterion. The case for lending into arrears is likely to be strongest in the months immediately following a default, when the ensuing economic disruption is at its greatest. But modern debt restructurings are complex (Box A) and it can require several months to organise substantive dialogue between the defaulting country and private creditors. Before this dialogue takes place, however, it is difficult for the Fund to establish whether the country is genuinely negotiating in good faith.

These considerations suggest that incremental reforms are unlikely to be sufficient to overcome current concerns regarding the LIA policy. It may be worthwhile, therefore, for

the forthcoming review to consider alternative approaches to the design of a policy framework governing lending into arrears by the IMF.

A suitable policy framework ought to achieve two key objectives. First, it should maintain adequate safeguards for the IMF and avoid exposing its balance sheet to excessive risk. The Fund should be confident that the loans it provides to a defaulting country will be repaid in full and on schedule. Box B describes some practical steps that can contribute towards this objective. Second, the policy framework should allow the Fund to provide timely financial support, while ensuring that the incentive for the defaulting country to negotiate with its creditors is preserved.

One possible approach, contemplated by Lerrick (2005), could be to adopt a model based around financial incentives.

### 3 Financial incentives and lending into arrears

Lerrick (2005) proposes a model for lending into arrears that would require a defaulting country to repay, ahead of schedule, a percentage of its outstanding loans from the IMF each month until a debt restructuring is completed successfully. In the likely absence of alternative sources of financing, the repayments would need to be financed using scarce international reserves and/or tax receipts. The defaulting country should therefore have an incentive to enter into constructive negotiations with private creditors, with a view towards completing a debt restructuring as promptly as possible and avoiding a requirement to make further early repayments to the Fund.

The Lerrick proposal could well help to influence the incentives that defaulting countries have to negotiate with private creditors and is worth considering by the IMF as part of its review. However, an alternative, and perhaps simpler, method for achieving a similar outcome could be to attach interest surcharges to lending into arrears.

Interest surcharges increase the cost of IMF borrowing in absolute terms and relative to the market alternative.<sup>(1)</sup> All other things being equal, a higher cost of borrowing increases the incentive to repay ahead of schedule where this is possible. Box C offers evidence in support of this hypothesis, drawing in particular on the Fund's experience in applying surcharges to loans extended under its Supplemental Reserve Facility.

Applying this logic to lending into arrears, interest surcharges should encourage the defaulting country to take the necessary steps to repay the Fund as promptly as possible. These steps

(1) For a country that has defaulted, market borrowing is unlikely to be possible until a debt restructuring has been completed and relations with private creditors normalised. The relevant comparison, therefore, is with the 'shadow' interest rate that could potentially be obtained following a restructuring.

## Box B

### Managing risks to the IMF balance sheet

Lending to countries experiencing a financial crisis is inherently risky, even for the IMF. The future economic prospects of the borrowing country will be uncertain and the probability that loans will be repaid on schedule is therefore more difficult to assess. These concerns are likely to be particularly acute in the aftermath of a sovereign default. It is therefore important that the policy framework governing lending into arrears takes due account of the financial risks involved.<sup>(1)</sup> As noted elsewhere, the Fund's preferred creditor status is *sine qua non* for lending into arrears.

The potential benefits of lending into arrears are likely to be greatest in the period following soon after a sovereign default. At this stage, however, the degree of economic disruption and uncertainty is likely to be at its height. A prudent approach would be for the IMF to focus initially on providing advice to the defaulting country as it seeks to devise a new macroeconomic policy framework and begin the process of restoring debt sustainability. At the same time, the Fund could produce a debt sustainability analysis (DSA) that describes the extent of policy adjustment and debt relief required to resolve the crisis. Once the new policy framework is in place and the DSA completed, the Fund would be better placed to determine

will include regaining access to private capital markets, which in turn requires the completion of a suitable debt restructuring. The result should be a stronger incentive for the defaulting country to enter into constructive negotiations with private creditors. If interest surcharges do encourage a faster conclusion to restructuring negotiations, this will also be in the interests of private creditors.

The financial incentive for a defaulting country to negotiate could be further strengthened in at least two ways. First, LIA could be conducted at relatively short maturities, as a means of emphasising that IMF support will be available for a limited time only. The defaulting country would therefore need to move more quickly to regain market access before the original loans are due for repayment. However, this incentive would be diminished if the IMF still left open the possibility of rolling over short-maturity loans. Second, and perhaps more effectively, it may be possible to adopt a lending model under which interest surcharges are removed once a suitable restructuring has been completed.

An essential element of any policy governing LIA is a set of criteria for determining when a country has 'exited' from default.<sup>(1)</sup> Prior to the introduction of the LIA policy in 1989, the Fund employed a convention that required 90% of bank creditors to accept restructuring terms before arrears could be

whether it is appropriate to lend into arrears. The amount of time required to reach this point will vary from case to case, but could be of the order of three to six months.

An additional way in which the IMF can protect its balance sheet is to attach conditions to its loans. In an LIA context it is important to ensure that provision of financial support is not unnecessarily delayed by protracted negotiations over the associated conditionality. It will often be appropriate, therefore, for the conditions attached to an LIA package to focus primarily on the near-term policy adjustments required to restore (and maintain) macroeconomic stability and contribute towards restoring debt sustainability. A requirement for the defaulting country to consent to publication of the Fund's DSA could also be included. These measures could normally be agreed within a short period of time. Other types of conditionality, for example relating to structural reforms, typically involve more extensive discussion and so would generally not be appropriate in a lending-into-arrears context.<sup>(2)</sup>

(1) The current LIA policy requires all loan disbursements to be supported by a financing-assurances review, the role of which is to verify that progress is being made towards eliminating arrears and that the defaulting country will have sufficient capacity to repay the Fund on schedule.

(2) In cases where a 'legacy' programme is in place at the point of default, any structural measures included in that programme could be retained if the economic rationale remains valid.

considered cleared.<sup>(2)</sup> A quantitative benchmark of this kind has the advantage of being predictable and transparent. On the other hand, it provides limited scope for discretion and may not be suitable in every case. In order to balance these considerations, a combination of quantitative and qualitative criteria could be considered, perhaps by combining a guideline for the minimum acceptable participation rate with a requirement for the debtor to devise and publish a credible strategy for clearing residual arrears.

## 4 The Fund's non-financial role

Addressing concerns surrounding the good-faith criterion, for example through the introduction of financial incentives, would strengthen the credibility of the LIA policy and help to ensure that lending into arrears by the IMF makes a valuable contribution to reducing the economic costs associated with sovereign default. But the provision of financial support is not the only way in which the Fund can assist defaulting countries; it can help in a number of non-financial ways as well.

(1) The gradual introduction of collective action clauses into sovereign bond contracts may ultimately allow defaulting countries to secure 100% creditor participation in a debt restructuring. At present, however, it is unrealistic to expect complete participation, because there will often be some creditors that opt to 'hold-out' in the hope of securing more favourable treatment. The role of collective action clauses in facilitating creditor co-ordination is discussed further below.

(2) Lerrick (2005) proposes a quantitative approach that would require a defaulting country to achieve a creditor participation rate of at least 70%.

## Box C

### The impact of interest surcharges

Most IMF loans are extended at a standard interest rate — commonly referred to as the 'rate of charge' — derived from short-term rates in the major international money markets. For a majority of potential borrowers, the rate of charge is typically significantly lower than that which can be obtained from private capital markets. But not all loans are extended at this rate, because some forms of IMF lending attract a surcharge.

Useful insights into the impact of interest surcharges on the behaviour of borrowing countries can be derived from experience with the Supplemental Reserve Facility (SRF). The SRF was introduced in 1997 as a vehicle for providing exceptional access to the Fund's resources in the face of a capital account crisis. Loans extended under the SRF attract an interest surcharge of at least 300 basis points over the rate of charge, and are therefore appreciably more expensive than standard IMF loans.<sup>(1)</sup>

Between January 1996 and March 2005 seven borrowers from the IMF repaid some or all of their loans ahead of schedule.<sup>(2)</sup> In two cases these were essentially 'roll-over' operations, in which one type of loan was replaced by another, without

significant net repayments being made. Among the other cases three stand out — Brazil, Korea and Russia — because the stock of outstanding credit at the time of the initial repayment consisted of a 'blend' of standard borrowing and SRF loans. All three countries elected to repay their SRF loans in the first instance. More striking, though, is that only Korea subsequently made an advance repayment during the period against its remaining credit outstanding, and then not until a full two years after the initial SRF repayment. Although not conclusive, the early repayment of the SRF loans is at least consistent with the notion that interest surcharges can significantly influence the behaviour of borrowing countries.

Similar evidence is provided by more recent early repayments of IMF loans. Since March 2005, several countries (including Brazil, Indonesia and Uruguay) have repaid the Fund ahead of schedule. To a large extent, these repayments reflect a narrowing of the cost differential between IMF credit and market borrowing, following a sustained period of favourable external financing conditions. The introduction of interest surcharges would have a similar effect on the cost differential.

(1) The surcharge rises over time — 50 basis points every six months — up to a maximum of 500 basis points. SRF loans also carry shorter maturities than other forms of IMF financing.

(2) The information reported here is drawn from IMF (2005a).

One obvious way in which the IMF can (and does) contribute to efficient crisis recovery is by offering expert policy advice to the defaulting country. To a large extent, this activity is a natural extension of the Fund's regular surveillance activities. Beyond this role, the Fund could, in principle, also perform three distinct tasks:

- publishing a debt sustainability analysis (DSA);
- helping to co-ordinate private creditors; and
- setting the 'resource envelope' for a debt restructuring.

Following the sovereign defaults involving Argentina, Ecuador and Russia, the IMF's DSA was not published and the Fund did not make extensive efforts to co-ordinate private creditors.<sup>(1)</sup> Its stance on setting the resource envelope has been more flexible, with different approaches employed in, for example, Ecuador and Argentina.

An assessment of whether the IMF should perform some or all of these three non-financial tasks is not dependent on the design of the policy framework for lending into arrears. Nevertheless, the forthcoming review of the LIA policy might also provide a convenient opportunity to conduct a thorough analysis of the non-financial aspects of the Fund's response to a sovereign default.

In recent years the international community has consistently promoted a market-based approach to resolving sovereign debt crises. Significant progress has been made in a number of areas (Bedford *et al* (2005)). Even so, there remains a potentially important role for the IMF in responding to market failures which may obstruct efficient crisis resolution.<sup>(2)</sup> The case for or against the Fund assuming a particular non-financial role, such as the three tasks highlighted above, should be based upon the existence or otherwise of a market failure.

### Publishing debt sustainability analysis

Following a sovereign default, a priority is to restore debt sustainability through an appropriate combination of policy adjustment by the defaulting country and debt relief granted by private and official creditors (Box A). There is, however, an obvious tension between the interests of the country and its creditors, given that the former will tend to prefer more debt relief, while the latter favour more policy adjustment, other things being equal. In the absence of an international

(1) Under current IMF transparency policies, a debt sustainability analysis cannot be published without the consent of the country concerned.

(2) Lending into arrears can be interpreted as a response to a market failure, in the sense that the absence of a legally enforceable seniority structure for sovereign debt serves to prevent defaulting countries from securing new loans from market sources, even where these loans would be value-enhancing.

bankruptcy regime that can impose a settlement, negotiation is necessary to reach an acceptable compromise.

Debt restructuring negotiations face a number of logistical challenges. One particular problem could be the lack of common sources of information on the future economic prospects and repayment capacity of the defaulting country. These prospects are likely to be highly uncertain in the months immediately following a sovereign default and so the parties involved in the negotiations will often form markedly different assessments of the steps required to restore sustainability and successfully resolve the crisis. To the extent that these different views reflect informational asymmetries, they are a clear example of a market failure (see, for example, Rubenstein (1985)). This can delay agreement and impose avoidable costs on the defaulting country and its creditors.

The IMF could seek to 'bridge' the information gap between a defaulting country and private creditors by providing an independent analysis of the combinations of policy adjustment and the amount of debt relief required to restore sustainability.<sup>(1)</sup> The Fund could achieve this objective by publishing a debt sustainability analysis (DSA) for the defaulting country.

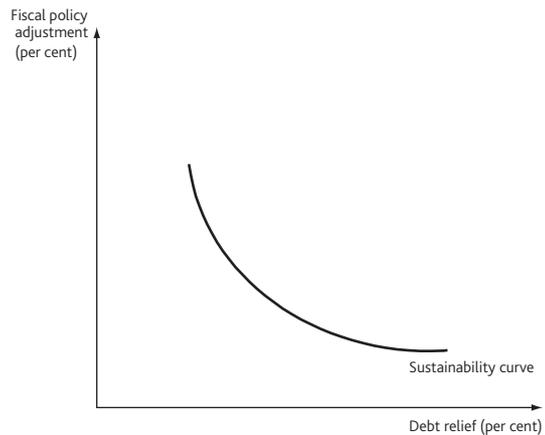
DSA is conceptually straightforward, but computationally demanding.<sup>(2)</sup> The main output from the analysis is a forecast for the future path of the debt to GDP ratio, usually expressed as a function of certain key input variables (including, in a sovereign context, the fiscal surplus or deficit, both now and projected into the future). Provided this ratio does not follow an upwardly explosive path, the debt stock is judged to be sustainable over the medium term.<sup>(3)</sup>

The IMF has considerable experience in conducting DSA, as part of its regular surveillance activities and also as an input to its lending decisions in circumstances where a country has not defaulted.<sup>(4)</sup> However, less attention has been devoted to the potential role of DSA in facilitating an efficient debt restructuring following a default.

One possibility is that the analysis could be used to 'map' the alternative combinations of fiscal policy adjustment and debt relief that would be required to restore sustainability. **Figure 1** provides a stylised illustration.

The 'sustainability curve' shown in **Figure 1** depicts combinations of fiscal policy adjustment and debt relief that would be sufficient to restore sustainability under a simplifying assumption of no uncertainty regarding the key input variables to the DSA. The curve is downward sloping because a smaller amount of policy adjustment must be offset by a higher amount of debt relief, other things being equal, if the debt stock is to remain sustainable.<sup>(5)</sup>

**Figure 1** Deterministic DSA

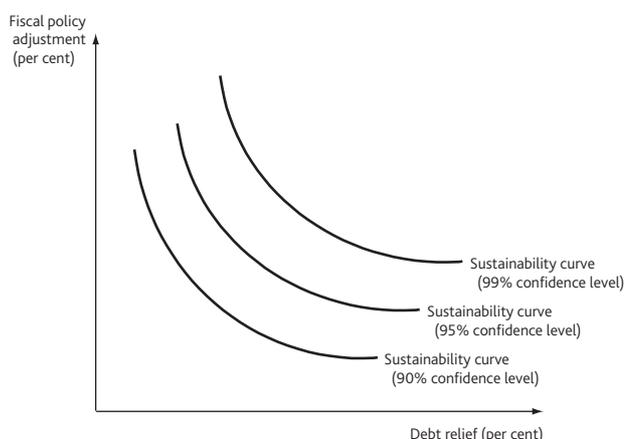


By publishing an output similar to **Figure 1**, the IMF could help to establish a consensus between the defaulting country and its creditors around the possible combinations of fiscal policy adjustment and debt relief that are necessary to restore sustainability.

In practice this type of analysis will be subject to considerable uncertainty. One way of incorporating uncertainty into the analysis is to use stress tests. For example, the IMF's current approach to DSA involves applying a set of standardised stress tests to a benchmark projection for the debt to GDP ratio. Under many circumstances, scenario analysis of this kind can be useful in identifying specific sources of vulnerability. Following a sovereign default, however, the key objective is to obtain a quantitative measure of the probability that sustainability will be restored. Stress tests alone are unlikely to be sufficient to provide this level of granularity. A suitable method of producing an explicitly probabilistic DSA would therefore be preferable.<sup>(6)</sup>

The ultimate objective of probabilistic DSA is to identify alternative combinations of fiscal policy adjustment and debt relief that are equally likely to restore sustainability. A family of sustainability curves can then be constructed, with each describing a different 'confidence level'. For example, sustainability curves could be produced for 90%, 95% or 99% likelihood that sustainability will be restored. **Figure 2** provides a stylised illustration.

- (1) Macklem (2006) and Simpson (2006) present similar arguments.
- (2) For further discussion on the mechanics of DSA, see IMF (2002c).
- (3) Alternatively, the debt stock can be described as sustainable if the borrower is expected to be able to continue making contracted debt-servicing payments without an unrealistically large future correction to the balance of income and expenditure (IMF (2002c)).
- (4) Under the Fund's exceptional access framework, for example, large-scale lending packages should not be provided unless a DSA demonstrates there is a high probability that the debt burden of the borrowing country will remain sustainable (IMF (2003b)).
- (5) The convexity of the curve is intended to capture the way in which very tight fiscal policy might negatively impact on the productive potential of the debtor country, perhaps because infrastructure investment is restricted or as a result of a disincentive to work arising from high taxation.
- (6) There is a small but growing literature on the practicalities of probabilistic DSA. Notable contributions include Celasun *et al* (2006), Ferrucci and Penalver (2003), and Hostland and Karam (2005).

**Figure 2** Probabilistic DSA

The sovereign debtor and its creditors will both benefit from a higher confidence level, other things being equal. For the sovereign, this will reduce the likelihood that a further, costly restructuring is needed in the future. For creditors, this will in turn increase the market value of their debt holdings. Note that, to the extent LIA is used productively to reduce the economic cost of default, this will push the sustainability curve for each given confidence level towards the origin, as combinations of lower fiscal adjustment and debt relief can obtain the same level of confidence. This illustrates how LIA has the potential to benefit both the sovereign debtor and creditors.

Producing a probabilistic DSA is difficult due to data limitations and computational challenges. The outputs will therefore be subject to a significant margin of error. The key requirement, though, is that the methodology employed by the IMF is considered fair, credible and unbiased by all parties. If these conditions are satisfied, the Fund's analysis could act as a public good, bridging information and analytical gaps between the defaulting country and its creditors and providing a natural focus for restructuring negotiations. The alternative, whereby the negotiating parties produce their own (explicit or implicit) debt sustainability assessments, using different information sets, assumptions and/or models, and with different levels of sophistication, would be less likely to deliver an efficient outcome.

### Facilitating creditor co-ordination

A second potential obstacle to the efficient completion of restructuring negotiations arises from a structural feature of the modern international financial system. During the 1980s a large majority of emerging market sovereign external debt was held in the form of syndicated loans by a small number of global banks. Since then external bond financing has become much more important, so that by 2005 the stock of long-term external debt owed by emerging market sovereigns in the form of bonds was over three times as large as their external bank borrowing (De Alessi Gracio *et al* (2005)). As a result, the

creditor base for emerging market sovereign borrowing is now considerably larger and more diverse than in the past.

Some observers argue that practical obstacles to co-ordinating thousands of creditors spread across many countries and legal jurisdictions can delay the completion of restructuring negotiations (Krueger (2001); Thomas (2004)). In principle, the absence of suitable creditor co-ordination mechanisms could constitute a market failure which might potentially justify a further role for the IMF.

One obstacle to the IMF performing this role might be that it is itself a creditor. This could raise questions as to whether it could ever be perceived by private creditors to be an entirely impartial facilitator.

Moreover, it is in this area that the market-based approach to crisis resolution has made most progress over recent years. Following a precedent set by Mexico in 2003, it is now standard practice for emerging market countries to include collective action clauses in bonds issued under both English and New York law. These clauses facilitate creditor co-ordination by limiting the ability of individual bondholders to obstruct the completion of a restructuring in the hope of securing more favourable terms for themselves through litigation (Dixon and Wall (2000); Drage and Hovaguimian (2004)).

Alongside these useful innovations in the design of sovereign bond contracts, leading market participants and key emerging market countries have developed a set of voluntary guidelines — the *Principles for Stable Capital Flows and Fair Debt Restructurings in Emerging Markets* — designed to provide a framework for dialogue and co-operation between private creditors and sovereign borrowers.<sup>(1)</sup> Among other things, the *Principles* identify the potential role that a committee of creditors can play in co-ordinating different creditor groups during a restructuring.

The effectiveness of collective action clauses and the *Principles* has yet to be fully tested by a large-scale crisis that involves a sovereign default. Nevertheless, these two initiatives could make a valuable contribution to ensuring future sovereign debt restructurings are not hindered by inadequate creditor co-ordination. Further contractual innovations or refinements to the *Principles* may be necessary in the light of experience — a process that should be encouraged by the broader international community.<sup>(2)</sup>

The forthcoming review of the LIA policy might usefully consider whether there are additional ways in which it could

(1) Additional information on the *Principles* and their implementation can be found on the Institute for International Finance website at: [www.iif.com/emp/principles](http://www.iif.com/emp/principles).

(2) See Bedford (2005) for a discussion of areas in which further innovation in the design of sovereign bond contracts could be worthwhile.

help to co-ordinate creditors, in order to facilitate more orderly restructurings. However, in the light of these other initiatives, the *prima facie* case for the IMF to assume an extensive role in co-ordinating creditors appears to be weak.

### Setting the 'resource envelope' for a restructuring

Better debt sustainability analysis and creditor co-ordination should allow restructuring negotiations to be concluded in a more orderly and timely manner. Even so, it is possible that the final terms of the restructuring agreement might not be 'optimal' when viewed from the perspective of third parties. For example, if confidence in the sustainability of the debt stock remains low, even after the restructuring, other countries might be concerned that a renewed crisis could have spillover effects which will impact on them. For similar reasons, a low confidence level is likely to expose the IMF itself to greater financial risk and compromise its ability to lend into arrears.

Neither the defaulting country nor private creditors might be expected to consider the impact on third parties when negotiating the terms of a restructuring. This is a further example of market failure. The IMF could, potentially, help to ensure third-party effects are adequately acknowledged by seeking to influence the outcome of restructuring negotiations directly. This form of intervention by the Fund is often described as 'setting the resource envelope' for a restructuring.

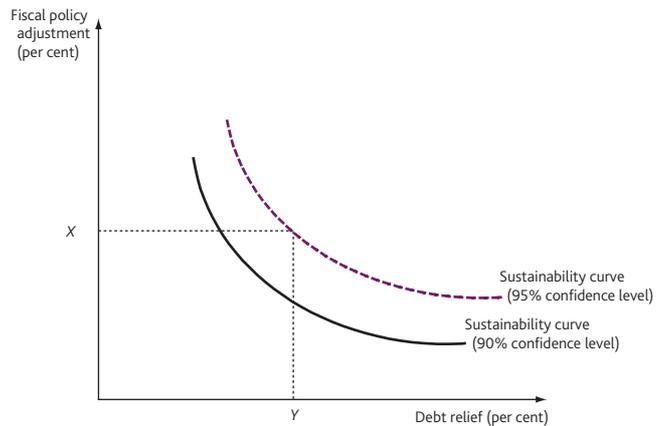
Following a sovereign default, it is neither feasible nor desirable for the IMF to dictate the precise terms of a debt restructuring agreement. There are, however, at least two ways in which the IMF could seek to influence these terms. First, it could require the defaulting country to implement a particular level of fiscal policy adjustment as part of the conditions attached to its lending into arrears. Second, publishing a probabilistic DSA would provide the Fund with a basis to express a view on the most appropriate confidence level for restoring sustainability. It is therefore possible to distinguish four alternative models for IMF influence over debt restructuring negotiations:

- (a) specify both the level of policy adjustment and the confidence level;
- (b) specify the level of policy adjustment only;
- (c) specify the confidence level only; and
- (d) no involvement.

Figure 3 offers a stylised illustration of model (a). The IMF could require a level of fiscal policy adjustment given by  $X$ . If the Fund were also to determine that the appropriate confidence level is 95%, the amount of debt relief required must then equal  $Y$  — and so the Fund effectively defines the amount of resources available to make payments to creditors.

In cases where the IMF defines the resource envelope in this way, there would be little or no scope for substantive

Figure 3 Setting the resource envelope



negotiation over the terms of a restructuring. The absence of any negotiation might mean that a restructuring is concluded more quickly, but only if both parties are willing to accept the outcome that is sanctioned by the Fund. Tensions could emerge if one party doubted the impartiality of the Fund. For example, private creditors may believe (rightly or wrongly) that the IMF favours the interests of the defaulting country, not least because of the financial exposures incurred as a result of lending into arrears. This could delay the restructuring. Moreover, the perceived independence of the DSA published by the IMF could also be undermined.

At the opposite end of the spectrum, model (d) would allow the defaulting country and private creditors to negotiate freely over the appropriate combination of policy adjustment and debt relief. The parties would also need to agree the appropriate confidence level, either explicitly or implicitly. Reaching agreement may take somewhat longer than in cases where the IMF specifies (in full or in part) the resource envelope. But recent experience involving Belize suggests that an orderly debt restructuring can be achieved without significant IMF involvement, along the lines of model (d).<sup>(1)</sup>

Models (b) and (c) represent intermediate approaches, with the former perhaps the closest to the model most often used by the IMF at present. Under this model the IMF does not define the resource envelope in full, at least not explicitly, as the amount of debt relief can still vary with the confidence level, even if the amount of policy adjustment is fixed.

A potential advantage of model (c) is that it can address directly the third-party effects described above, which the sovereign and its creditors might otherwise fail to take into account. This model allows the IMF to ensure that the

(1) Belize completed a pre-emptive debt restructuring in February 2007. An unusual feature of this episode is that Belize opted not to seek financial support from the IMF. Accordingly, the Fund exerted very little influence over the restructuring, although it did publish both a DSA (as part of its surveillance activities) and a 'comfort letter' intended to assure private creditors that the restructuring was necessary.

confidence level, after a restructuring, is sufficiently high to reduce the risks posed to these third parties.

The relative merits of the different approaches are likely to vary from case to case. It may therefore be appropriate for the IMF to maintain some flexibility in its approach. The Fund could, for example, assume a more extensive role in circumstances where the risks to third parties are judged to be significant. Where these risks appear less acute, by contrast, the case for the IMF seeking to influence the envelope for the restructuring appears to be weaker.

## 5 Conclusion

The IMF can help mitigate the economic costs typically associated with sovereign default through a variety of channels, both financial and non-financial. By lending into arrears, for example, it can help to smooth the macroeconomic adjustment process and in so doing enhance the repayment capacity of a defaulting country.

It is important, though, that the Fund maintains adequate safeguards and ensures that its lending into arrears does not undermine incentives to negotiate a debt restructuring. The forthcoming review of the LIA policy provides a good opportunity to consider whether these objectives are being

achieved, or whether an alternative approach might be desirable, such as one involving financial incentives.

The policy review might also helpfully clarify the IMF's non-financial role in facilitating efficient crisis resolution. Although computationally challenging, there are potentially significant benefits from publishing a probabilistic DSA for a defaulting country. By contrast, the case for the Fund assuming a more extensive role in co-ordinating private creditors appears weak. The arguments for and against the Fund setting the resource envelope for a restructuring are more finely balanced, and warrant further consideration. A case-by-case approach may ultimately be most appropriate, applied under a general presumption that the IMF should intervene only to the extent that market failures can be identified.

Experience demonstrates that adjusting IMF policies during a crisis to fit the specific circumstances to hand typically leads to less good outcomes. The relative rarity of sovereign crisis in recent years therefore provides a good backdrop for the IMF to move forward now to develop a robust and comprehensive policy framework governing its role in crisis recovery, encompassing both arrangements for lending into arrears and the potential non-financial roles the IMF can play.

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