INTERNATIONAL MONETARY FUND

THE FUND'S LENDING FRAMEWORK AND SOVEREIGN DEBT—FURTHER CONSIDERATIONS

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EXECUTIVE SUMMARY

Background. In discussing the June 2014 paper, Executive Directors broadly supported staff's proposal to introduce more flexibility into the Fund's exceptional access framework to reduce unnecessary costs for the member, its creditors, and the overall system. Directors' views varied on staff's proposal to eliminate the systemic exemption introduced in 2010. Many Directors favored removing the exemption but some others preferred to retain it and requested staff to consult further with relevant stakeholders on possible approaches to managing contagion. This paper offers specific proposals on how the Fund's policy framework could be changed, presents staff's analysis on the specific issue of managing contagion, and addresses some implementation issues. No Board decision is proposed at this stage. The paper is consistent with the Executive Board's May 2013 endorsement of a work program focused on strengthening market-based approaches to resolving sovereign debt crises.

Increasing flexibility. Staff proposes changes to the exceptional access framework for cases where, although the member's debt is considered to be sustainable, this determination cannot be made with high probability (i.e., uncertain or "gray zone" cases). The proposed changes would allow the Fund to lend in such cases with a less definitive debt restructuring (i.e., reprofiling) than required under the current framework if it improves debt sustainability and sufficiently enhances safeguards for Fund resources. First, the reprofiling may give breathing space to a liquidity-constrained sovereign and allow for a less constraining adjustment path, thus supporting growth and improving debt sustainability. Second, it could help catalyze domestic support for the program. Third, the maintenance of non-senior creditor exposure would provide safeguards for the member and the Fund in the form of the option to implement a more definitive debt restructuring later if needed, such as, in the event downside risks materialized. A reprofiling would also normally reduce the level of access to Fund resources needed by the member. Fourth, relative to a bail-out, a reprofiling would support market re-access prospects: creditors are more likely to re-engage when a larger share of the debt is non-senior claims since it reduces the risk of subordination to official sector claims in the event of a subsequent debt restructuring. A reprofiling would not be required if, notwithstanding the gray zone or uncertain assessment of sustainability, the member retains market access, or creditor exposure is maintained in other ways (including through new financing).

Dealing with spillovers from a sovereign debt crisis. Staff analysis consists of two parts:

- **Understanding the nature and type of spillovers.** The primary source of spillovers in a sovereign debt crisis episode is market concerns over the member's solvency. Thus, a restructuring decision that is anticipated and seen as credibly addressing debt vulnerabilities may be less contagious than a bail-out that leaves the member's debt problems unresolved and raises the default risk on the remaining private claims.

- **Managing spillovers from a reprofiling.** Spillovers from a reprofiling would be—and have been in previous cases—much smaller than those arising from a debt reduction operation involving principal haircuts. Also, some spillovers, insofar as they reflect a realignment of risk pricing with fundamentals, would be desirable and should be allowed to play out. Thus, an optimal approach would combine a debt operation, where needed, with policy interventions aimed at resisting market fluctuations not rooted in fundamentals. In this context, staff's analysis of past crises reveals several options to prevent and manage spillovers: *ex-ante systemic measures* (clear "rules" of the game, including the Fund's own policy frameworks for exceptional access and debt sustainability assessments, bank resolution frameworks that minimize taxpayer subsidies, and regional financing/support arrangements); *measures in the crisis country* (careful calibration of the scope of sovereign debt included in the reprofiling operation, backstops for the financial system, including from central bank); and *defensive measures outside the crisis country* (the standard menu of policy tools for mitigating capital flow and financial market volatility in affected countries, backed by supra-national firewalls and safety nets, such as swap lines, Fund resources, and regional financing arrangements).

Removing the systemic exemption and addressing "tail events." Staff recognizes that there may be rare cases where policymakers conclude that cross-border spillover risks are so severe that defensive measures would be inadequate and hence any restructuring of private claims must be avoided. Resorting to the systemic exemption and an ensuing bail-out, however, is not an effective remedy in such circumstances. It may fail to limit contagion, since it does not address the source of the problem, namely the underlying market concerns about debt vulnerabilities. The systemic exemption also reduces safeguards for Fund resources since, if a debt restructuring is eventually needed, a smaller pool of private sector claims would be available to absorb losses. More broadly, by severing the link between underlying debtor risk and yields, the exemption encourages moral hazard and over-borrowing ex-ante, and exacerbates market uncertainty in periods of sovereign stress, as traders bet on whether the exemption will be activated, rather than focusing on underlying sustainability fundamentals. In an extreme tail-risk event, an alternative would be for the Fund to make exceptional access available provided that other official bilateral creditors are willing to provide financing on terms sufficiently favorable to address sustainability

concerns. Though it, too, would create moral hazard, this approach would be more effective than the systemic exemption in helping members address their problems (as Fund policy requires), mitigating contagion, and safeguarding Fund resources. The approach could be implemented flexibly and Fund lending could proceed on the basis of political commitments to backstop debt sustainability without necessarily requiring the specifics to be spelt out. Overall, given the proposed increased flexibility of the exceptional access policy, and the options to deal with spillovers and "tail events" within that framework, staff sees a compelling case for the removal of the systemic exemption.

Conclusion. The two proposals (i.e., increased flexibility and removal of systemic exemption) are a coherent package that, in staff's view, should be adopted together.

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I. BACKGROUND

1. As a follow up to the June 2014 Board discussion of the staff paper *The Fund's Lending Framework and Sovereign Debt—Preliminary Considerations,* this paper provides specific proposals for the modification of the exceptional access framework. The June 2014 Board paper (henceforth the "2014 paper") focused on the relationship between the Fund's lending framework and sovereign debt vulnerabilities and provided possible avenues for reform. It identified key limitations of the Fund's 2002 exceptional access framework: namely, the exceptional access policy embodied rigidities that contributed to the introduction of a systemic exemption in May 2010, a modification that does not provide a coherent solution to the rigidity in the underlying framework. As endorsed by the Executive Board in May 2013, the 2014 paper focused on a market-based approach to resolve sovereign debt crises. This approach continues to inform the Fund's current work program.

2. The preliminary proposals in the 2014 paper sought to provide more flexibility in the general framework and reduce costs to the member, its creditors, and the overall system. In particular, in cases where market access has been lost and debt is assessed to be sustainable but not with high probability, exceptional access would be conditional on a more limited form of debt restructuring ("reprofiling") that maintains the exposure of creditors during the program but does not require that the test of "high probability" of debt sustainability be met.[1] The paper also proposed to eliminate the systemic exemption in light of both the flexibility being introduced in the framework and concerns that the exemption compromises the distressed member's prospects for returning to external viability and hence does not actually achieve its objective of mitigating international systemic spillovers. The exemption also aggravates moral hazard.

3. Most Executive Directors supported increasing the flexibility in the general framework but expressed a range of views on removing the systemic exemption. Most Directors agreed with staff analysis on the underlying rigidity in the 2002 exceptional access framework and saw merit in broadening the range of available policy responses, including through the ability to rely on a debt operation (reprofiling) that will not necessarily restore debt sustainability with high probability. Many Directors favored removing the systemic exemption. Some others preferred to retain it as, in their view, it was a pragmatic way to safeguard financial stability and its abolition might create the perception of a lack of evenhandedness. These Directors called on staff to consult further with relevant stakeholders on possible approaches to managing contagion before making concrete proposals regarding the systemic exemption. Directors also asked staff to clarify a number of design and implementation issues related to reprofiling in the follow-up staff paper.

4. This paper addresses the issues raised in the June 2014 Board discussion. The paper (a) presents specific proposals regarding the objectives and design of the new flexibility that would

[1]Where debt is considered unsustainable, a definitive debt restructuring, rather than a reprofiling (which is a less definitive form), would be appropriate.

be added to the exceptional access framework with respect to debt sustainability; (b) discusses how risks of financial cross-border spillovers associated with debt restructuring would be addressed in the absence of the systemic exemption; and (c) provides further analysis on a number of design and implementation issues. This paper does not include proposed decisions. If warranted by Directors' input, a final paper would be prepared that would present proposed decisions. The final paper would also discuss the implications, if any, of the proposed changes for the other exceptional access criteria.

II. INCREASING FLEXIBILITY IN THE EXCEPTIONAL ACCESS FRAMEWORK

5. The criteria that guide the use of exceptional access were first established in 2002 to strengthen the policy for lending above normal limits. As discussed in the 2014 paper, these criteria impose more stringent conditions for Fund lending than those that are applied in the context of normal access and are designed to take into account the additional risks that arise for the Fund as a result of significant financial exposure to the member. Prior to the introduction of the 2002 framework, the Fund was able to grant exceptional access on the basis of an "exceptional circumstances" clause that did not include any substantive criteria. The 2002 criteria were introduced out of a concern that the Fund had been excessively permissive in providing financing in circumstances where there were concerns regarding the sustainability of a member's external debt situation.[2]

6. A critical criterion in the existing exceptional access framework is the requirement that "a rigorous and systematic analysis indicates that there is a high probability that the member's public debt is sustainable in the medium term." This criterion was designed to address concerns that Fund lending under the exceptional circumstances clause was delaying restructurings that, because of underlying sustainability problems, had become inevitable. As discussed in the 2014 paper, such delays create costs to the sovereign debtor, its creditors and the system more generally. At the same time, the June 2014 paper pointed out that the 2002 framework created costs of its own, by requiring a definitive—and potentially disruptive—debt restructuring even in circumstances where the assessment of debt sustainability is not clear cut at the outset. These costs could be reduced if the existing criterion were modified to provide some additional flexibility—allowing more graduated responses, tailored to the severity of the initial debt situation. The design and implications of this flexibility are outlined below.

[2]For a discussion of how the Fund's framework for exceptional access has evolved, see Annex I in *The Fund's Lending Framework and Sovereign Debt—Annexes*, IMF Policy Paper, June, 2014.

A. The Existing Text

7. The existing text of the relevant exceptional access criterion that addresses debt sustainability reads as follows:

"A rigorous and systematic analysis indicates that there is a high probability that the member's public debt is sustainable in the medium term. However, in instances where there are significant uncertainties that make it difficult to state categorically that there is a high probability that the debt is sustainable over this period, exceptional access would be justified if there is a high risk of international systemic spillovers. Debt sustainability for these purposes will be evaluated on a forward-looking basis and may take into account, inter alia, the intended restructuring of debt to restore sustainability. This criterion applies only to public (domestic and external) debt. However, the analysis of such public debt sustainability will incorporate any potential contingent liabilities of the government, including those potentially arising from private external indebtedness."

8. Although the above-quoted "high probability" criterion establishes a single standard, it effectively creates two categories. Members falling under the first category are those whose debt is judged to be sustainable with high probability in the absence of any debt restructuring, that is, on the basis of the adjustment and financing considered feasible under the program. Members falling into the second category are those where high probability could only be achieved through a debt restructuring. More specifically:

- ***If a member fell into the first category,*** the Fund would be in a position to provide financing in accordance with its catalytic function; namely, although the member might have lost market access, the Fund was confident that the underlying debt dynamics were sound, the loss of market access was temporary, and that, accordingly, it would be appropriate for the program to allow for the payment of outstanding obligations as they fall due.

- ***If, on the other hand, a member fell into the latter category,*** the type of debt restructuring needed would have to be sufficiently definitive to re-establish debt sustainability with high probability.[3] Under the 2002 Framework, a member's debt can be considered sustainable with high probability even though it needs to be restructured because, as is made explicit in the above text, the debt sustainability evaluation is made on a forward-looking basis and may take into account the *intended* restructuring that will restore sustainability.

9. The systemic exemption created in 2010 effectively established a third category of members. Under the 2010 decision, the 2002 framework was modified to permit exceptional access in cases where there are "significant uncertainties that make it difficult to state categorically that there is a high probability that the debt is sustainable in the medium term" and where there is "a high risk of international systemic spillovers." It is important to emphasize that this category is

[3]In this latter category of cases, the Fund could provide regular (instead of exceptional) access if public debt was considered sustainable though not with high probability.

limited to those cases of "significant uncertainties." If a judgment is reached that the member's debt is clearly ***un***sustainable (i.e., where there is relatively little uncertainty on this question), the Fund would be precluded from providing financing without steps being taken to address the situation.

10. The above text recognizes that a debt restructuring may not be the only means of restoring debt sustainability with high probability. Specifically, the use of the term "inter alia" in the third sentence takes into account the possibility that this standard could be met, for instance, through the provision of financing from sources other than the Fund if the terms of that financing were sufficiently favorable to address the underlying sustainability concerns.

B. The Proposed Text

11. Taking into account the above analysis and the considerations set forth in the 2014 paper regarding the benefits of introducing greater flexibility, the revised text of the relevant sustainability criterion could be formulated as follows:

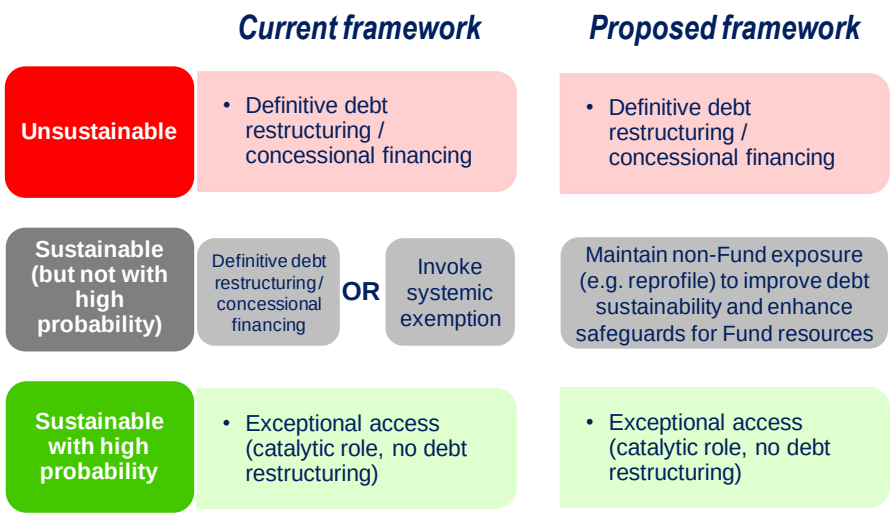
"A rigorous and systematic analysis indicates that there is high probability that the member's public debt is sustainable in the medium term. Where the member's debt is assessed to be unsustainable ex ante, exceptional access will only be made available where the financing being provided from sources other than the Fund restores debt sustainability with a high probability. Where the member's debt is considered sustainable but not with a high probability, exceptional access would be justified if financing provided from sources other than the Fund, although it may not restore sustainability with high probability, improves debt sustainability and sufficiently enhances the safeguards for Fund resources. For purposes of this criterion, financing provided from sources other than the Fund may include, inter alia, financing obtained through any intended debt restructuring. This criterion applies only to public (domestic and external) debt. However, the analysis of such public debt sustainability will incorporate any potential contingent liabilities of the government, including those potentially arising from private external indebtedness."

12. Under the revised text, the first sentence would cover those cases where debt is considered sustainable with high probability in the absence of any debt restructuring. These cases would include those where, although a member may have lost market access, the Fund is confident that this loss is temporary and that underlying debt dynamics are sound. As discussed in the 2014 paper, in these circumstances, the approach that is least costly to all stakeholders is for the Fund to provide financing in support of a strong adjustment program that envisages payments being made to creditors in accordance with their original terms. Accordingly, for this category of members, no change is proposed.

13. The second sentence would explicitly cover those cases where debt is assessed to be clearly unsustainable. Again, relative to the existing framework, no substantive change is being proposed for this category. Exceptional access would be provided in such circumstances only where

action is taken that is sufficiently definitive to restore debt sustainability with high probability.[4] The new text makes explicit that such action could involve up-front debt restructuring, but also recognizes—consistent with the existing text—an alternative remedy whereby financing is obtained from sources other than the Fund that is on terms sufficiently favorable to achieve the same objective: *"For purposes of this criterion, financing provided from sources other than the Fund may include, inter alia, financing obtained through any intended debt restructuring."*[5]

Figure 1. Comparison of Current and Proposed Frameworks for Exceptional Access



14. The third sentence would introduce the key substantive modification to the existing exceptional access framework (Figure 1). It would cover those cases where, although the member's debt is considered to be sustainable, this determination cannot be made with high probability, that is, there is a considerable uncertainty on this question.[6] These are cases that are not covered by the first two sentences. Unlike the systemic exemption introduced in 2010, however, this category would cover all members where there is uncertainty—irrespective of whether or not there is a high risk of international systemic spillovers. In terms of the treatment of these cases, exceptional access would only be made available *"if the financing provided from sources other than the Fund, although it may not restore sustainability with high probability, improves debt sustainability and sufficiently enhances the safeguards for Fund resources."*

[4]In rare cases where debt is assessed to be clearly unsustainable but the member, notwithstanding, continues to have market access, a restructuring would still be required. Market access under such circumstances is unlikely to be durable and may, in fact, reflect market expectations of a bailout.

[5]In so far as a debt restructuring (debt reduction or reprofiling) reduces the refinancing needs of the member, it constitutes new financing.

[6]Henceforth, circumstances where debt is considered sustainable but not with high probability are referred to as cases of "uncertainty" or "uncertain cases" with regard to debt sustainability.

15. The fact that, in these uncertain cases, external financing does not have to be sufficient to restore debt sustainability with high probability is designed to introduce greater flexibility into the exceptional access framework established in 2002. As discussed in detail in the 2014 paper, where there is uncertainty as to whether a member's debt is sustainable or unsustainable, requiring a debt restructuring that is sufficiently definitive to restore debt sustainability with high probability may impose unnecessary costs on the member, its creditors, and the system given the fact that the debt reduction involved in these types of restructuring can have a disruptive effect.

16. Under the proposed modification, a less definitive debt restructuring would be acceptable provided that it satisfies two inter-related requirements: (a) it improves debt sustainability and (b) it sufficiently enhances the safeguards for Fund resources. A restructuring that involves a "reprofiling" of debt obligations (i.e., a relatively short extension of maturities that would normally not involve a reduction of principal or interest) would typically be sufficient to meet these criteria for the following reasons:

- **First, while a reprofiling would not reduce the nominal level of debt and may not restore debt sustainability with high probability, it would generally improve debt sustainability prospects.** For a sovereign that is liquidity-constrained, reprofiling would tend to ease the burden of a given stock of debt by smoothing repayments, or shifting them to a period where capacity to pay is expected to be greater. Moreover, relative to a program that envisages maturing obligations being paid in full with official resources, a reprofiling would positively affect sustainability by facilitating a restoration of market access: creditors are more likely to re-engage if a larger portion of the debt stock consists of private claims (as would be the case following a reprofiling), since it reduces the risk that they would be subordinated to official sector claims in the event of a subsequent debt restructuring.[7] In addition, a reprofiling may enhance the prospects of securing sustainability, since the financing it provides would facilitate a less constraining adjustment path, where appropriate. Finally, the fact that creditors are contributing to the resolution of the crisis through a reprofiling may help the member catalyze domestic support for the implementation of the program.

- **Second, a reprofiling enhances the safeguards for Fund resources by effectively providing a form of insurance against the possibility that, ultimately, a more definitive debt restructuring may be needed.** In the event that downside risks materialize and a subsequent and deeper restructuring is needed, the key benefit of a reprofiling—relative to a bailout—is that there would be a larger pool of non-senior creditor exposures that can absorb the burden of such an operation. Indeed, from the perspective of the member's capacity to repay the Fund, it is this feature that enables the Fund to accept a lower degree of certainty with regard to debt sustainability. For these purposes, it would be important that a reprofiling broadly maintains the

[7]This subordination risk would be mitigated insofar as official sector financing is provided on very long maturities.

exposure of non-Fund creditors over the course of the program.[8] The insurance provided by the reprofiling would also be beneficial to private creditors holding longer maturities: relative to a bail-out where a significant portion of the private claims may be substituted by senior official claims, the burden of a subsequent restructuring will fall on a broader group of creditors, thereby reducing the amount that each creditor will need to contribute.

- **Third, the financing provided by the reprofiling should enhance safeguards for Fund resources since it will normally reduce the level of access that will be needed.** As noted above, there may be cases where the additional financing provided by the reprofiling will be used to ease an adjustment path that would otherwise be excessively constrained. In many—if not most—cases, however, a primary benefit of this financing is that it will reduce the level of access that will be needed.

17. Consistent with the flexibility in the current criterion, it is possible that external financing in uncertain cases will not always involve a debt restructuring. The proposed formulation is designed to take into account two different possibilities that may arise in uncertain cases. First, there may be circumstances where, notwithstanding concerns regarding debt sustainability, the member continues to have market access. In this case, private creditors would continue to contribute to the financing of the program without the need for a debt operation.[9] Second, where market access has been lost, there may be situations where the repayment profile of the member's debt is such that, even in the absence of a debt restructuring, sufficient private or non-Fund official sector exposure is maintained during the period of the program to mitigate the type of risks being addressed. Moreover, in some circumstances, official bilateral creditors may prefer to make their contribution in the form of new financing commitments.

18. As discussed at length in the 2014 paper, the above approach is based on an assessment that, in circumstances of uncertainty, a reprofiling is less costly than a deep debt operation aimed at restoring debt sustainability with high probability. This assessment takes into account the Fund's own experience with reprofilings in the past (the case of Uruguay, 2003, being a notable example) as well as extensive consultation with market participants. Although a debt reprofiling is a form of debt restructuring that will likely result in a credit rating downgrade to selective default, a sovereign is likely to return to capital markets more quickly following a reprofiling than after an operation that results in debt reduction (see the past experience reviewed in the 2014 paper). Since reprofilings, by design, will have a smaller impact on the net present value of creditors' claims, they will be less disruptive both for the financial institutions of the member that hold these claims and for the foreign holders of such claims. At the same time, it will be important

[8]This would generally apply to both private and bilateral official creditors. As ¶17 notes, official bilateral exposure can be maintained by providing new financing rather than a reprofiling. If the bilateral official creditors provide financing through a reprofiling, it can be undertaken in the Paris Club context or, in the context of non Paris Club claims or creditors, the Fund would approach the group of creditors directly.

[9]Subsequently, if market access was lost and the sovereign did not meet the high probability criterion, a debt operation would be required.

to ensure that reprofilings are not relied upon in circumstances where a more definitive debt restructuring is needed. Where it has become clear that a member's debt is, in fact, unsustainable, it is in the interest of all stakeholders—the debtor, creditors, the system and the Fund—for there to be a debt restructuring that is sufficiently definitive to resolve the underlying problem; that is, one that restores debt sustainability with high probability.[10]

19. The precise modalities of the restructuring will be determined by the sovereign debtor, in consultation with its creditors. While the Fund's assessment of where the member falls on the sustainability continuum would determine how much debt relief is needed, the way in which this debt relief is delivered may vary. Where there are uncertainties regarding the member's sustainability and, accordingly, a less intrusive debt restructuring is needed, the design of the restructuring may vary depending on the circumstances of the member. For example, while a reprofiling would generally imply a relatively short extension of maturities, its actual length may vary depending on the structure of the member's debt. Conversely, for members that need significant debt relief (because it is relatively clear that the debt is unsustainable), the restructuring would normally involve an explicit write-down of principal. There may be circumstances, however, where, as part of a menu of options, creditors are offered instruments that involve reschedulings of sufficiently long duration that they effectively deliver the same amount of debt relief as upfront debt reduction—and far more debt relief than provided by the type of reprofiling envisaged in circumstances of uncertainty. As discussed in the next section, the scope of debt to be covered would also take into account the impact of any operation on financial stability.

20. Under the proposed approach, the systemic exemption would be eliminated. As discussed in the following section (Section III), staff is of the view that such an exemption does not achieve the objective of limiting contagion and risks increasing costs for the sovereign debtor and its creditors. Nevertheless, in very rare cases ("tail" events) it is recognized that the official sector may wish to avoid any form of debt restructuring because of contagion concerns. In these tail events, it is proposed that, as an alternative to the systemic exemption, Fund support would be made conditional upon financing from official bilateral sources that meets the criteria under the revised general framework discussed above. This proposal is outlined in Section III.C.

21. It is important to highlight that, in staff's view; the proposals to (i) increase the flexibility of the general framework, and (ii) remove the systemic exemption should be seen as a "package." Consistent with the views expressed by a number of Directors during the 2014 discussions, increasing the flexibility of the general framework, while at the same time retaining the systemic exemption, would create a framework that is excessively permissive.

[10]Accordingly, and in line with most Directors' views during the discussion on the 2014 paper, repeat reprofilings would generally be considered inappropriate, as this would indicate deeper solvency issues, which would not be solved through further maturity extensions.

III. ADDRESSING SPILLOVER EFFECTS FROM DEBT RESTRUCTURING

22. While the Fund's lending policy must be designed to address the problems of the distressed member, in a world of interconnected financial systems it should also take into account the impact on other members. At the same time, Fund policy cannot have the effect of hampering a country's efforts to return to financial viability in order to mitigate spillover concerns. This is the central problem with the systemic exemption: by not conditioning exceptional access on a debt operation that would otherwise be warranted, it leaves the distressed member laboring under a debt burden that will likely impede its economic recovery and delay the return to market access. An alternative approach to address spillover concerns is therefore needed. This section begins by describing the nature of the spillover effects that can arise in a sovereign debt crisis, including from debt restructuring. To the extent that such effects are an essential part of the adjustment to a new equilibrium, they should be accommodated. At the same time, policy interventions may be called for to manage the adjustment process, avoid overshooting, and preserve macroeconomic stability. Section B discusses the wide range of tools that can be used for this purpose. Such measures are likely to be sufficient to maintain stability and allow a debt restructuring to proceed in all but the most extreme cases of systemic risk. In the rare event where policymakers conclude that the potential fallout from a restructuring of private claims would be unmanageable, section C describes an alternative approach in which debt sustainability is instead restored through the provision of bilateral official sector support on sufficiently favorable terms.

A. Understanding the Nature and Types of Spillovers

23. Situations of sovereign debt distress have the potential, in general, to trigger financial spillover effects both domestically and across borders. Experience shows that such effects build up progressively as confidence in the sustainability of the sovereign's debt deteriorates. As a crisis point approaches, market behavior is increasingly influenced by expectations about how policymakers will act to resolve the crisis, including the possibility that debt may need to be restructured. Once a plan for addressing the crisis is announced and associated actions taken, further market shifts and spillovers may occur, in particular if the policy decisions differ from priced-in expectations. If, at that stage, the risks to debt sustainability are perceived to have been credibly addressed, market volatility and spillover risks then typically subside as the uncertainties diminish.

24. The possible spillovers from a debt restructuring operation have to be considered in this broader context. In particular:

- The channels through which debt restructuring may trigger spillover effects are at work throughout an episode of sovereign debt distress, whether or not the episode culminates in a restructuring: these channels are discussed further below.

- The nature, intensity, and timing of the spillover effects associated with a restructuring decision will depend on the extent to which the decision is anticipated by markets, which in turn will

depend in part on the clarity of the policy framework governing such decisions; market uncertainty regarding the policy framework will tend to aggravate volatility and spillovers before and after the decision is announced.

- A decision to restructure debt that is widely anticipated and viewed as credibly resolving the crisis country's debt vulnerabilities is more likely to settle than to disrupt financial markets; conversely, a decision not to restructure debt may lead to market pressures and spillovers if the alternative policy approach is not viewed as adequate to restore debt sustainability, leaving markets concerned about default risk on remaining maturities (see Section C).

25. Spillover channels are numerous and complex. Broadly speaking, they can be grouped under four broad headings:[11]

- *Financial channels*. In this category, spillovers operate through banks or other financial intermediaries abroad. They can result from direct exposure to the sovereign—through these institutions' holdings of the affected debt, the provision of protection through credit default swaps (CDS) on that debt, or where the debt is used as collateral—or from indirect exposure. An example of the latter would be where financial institutions in the crisis country are funded in international markets; to the extent that the local institutions are impaired by a sovereign debt operation, the losses inflicted on foreign funding institutions may cause those foreign funding institutions to reduce the supply of credit in other countries. Such spillovers may be especially severe if the debt shock (and, possibly, related currency depreciation) leaves domestic banks undercapitalized, or triggers deposit runs.

- *Risk aversion and confidence channels*. When a sovereign debt crisis hits, or when a restructuring is launched, it is often unclear where the exposures lie, how severe the fall-out will be, and who else might be affected. This and other informational asymmetries could lead to more generalized "risk off" behavior in which investors sell assets across countries and retrench to safe havens. Investors may also be prompted to re-evaluate countries that have similar economic characteristics or are perceived to share common vulnerabilities with the crisis country (the "wake-up call" phenomenon), probing for vulnerabilities that they may not have been aware of—or concerned about—during calmer market conditions. Less discriminating investors may decide to re-price the entire asset class to which the crisis country belongs, with the result that even countries with solid fundamentals are adversely affected.

- *Portfolio reallocation channels*. Significant losses on exposure to a particular sovereign may force exposed institutional investors to liquidate assets in other countries to meet margin calls or cash requirements, or to rebalance their portfolios (in some cases, as required by their mandates). The trade strategies employed by institutional investors also often attempt to exploit assumed correlations among different assets or asset classes ("cross-market hedging"). Again, this can

[11]This categorization draws on Annex I, "Channels of International Financial Contagion," which reviews how spillovers have played out in past crisis episodes and summarizes the findings from the academic literature on this topic.

mean that sudden losses on holdings of one sovereign's debt precipitate a broader sell-off of other assets. More broadly, as investors seek to rebalance their portfolios, secondary market trading may result in debt instruments migrating from investors who hold relatively high-rated sovereign claims toward investors who have a greater tolerance for risk. This is likely to be associated with a shift in the pattern of yields, and possibly market volatility as the rebalancing plays out.

- *Policy channels*. A country engaged in restructuring its debt may have to take other complementary policy measures that, in turn, create cross-border spillovers. To shore up impaired domestic banks, for example, the authorities may need to extend guarantees on bank liabilities, at least temporarily, and this may put pressure on other countries that have close banking relationships with the crisis country (e.g., in a currency union) to follow suit. Alternatively, the response (or lack of response) of policymakers, including at supra-national levels, can generate uncertainty that, in turn, can trigger panic-selling in other markets. For instance, the Deauville declaration (in the aftermath of the May 2010 Greece bail-out) that proposed that private creditors share the burden in future defaults sent Irish spreads soaring as investors interpreted it as signaling a change in the "rules of the game." However, the subsequent decision not to bail in the creditors of Irish banks generated more speculation about the same "rules of the game."

26. Not all cross-border spillovers induced by an actual or expected debt restructuring are unhealthy. Indeed, to the extent that the ensuing adjustments in capital flows, prices, and balance sheets reflect a proper repricing of risk—in line with economic fundamentals—they are beneficial and should be allowed to play out. At the same time, efficiency considerations suggest a role for policy intervention, depending on the circumstances, to moderate the pace of adjustment, avoid overshooting, and resist those adjustments not related to fundamentals (e.g., fluctuations driven by herd behavior or imperfect information), to the extent that these can be distinguished. The next section discusses the forms that such policy action might take.

B. Managing Spillovers and Stability Risks

27. Experience from past crises suggests a wide range of measures that policymakers can deploy in the face of sovereign debt distress to maintain stability and minimize costs, while allowing the necessary adjustments to run their course. Some of these measures are systemic in nature and are best put in place preemptively. Some are steps that can be taken by the crisis country, with a view to ensuring that its own adjustment process (including the design of any debt operation) is as orderly as possible—thereby avoiding unnecessary spillovers to others. Some can be taken by those countries that are (or may be) affected by spillovers in order to safeguard the stability of their economies.

Systemic measures

28. The policy frameworks that guide decisions on debt restructuring, and the resolution of financial distress more broadly, should be articulated as clearly as possible ex ante. As

noted in the previous section, when debt sustainability concerns arise, investor uncertainty regarding the circumstances under which a restructuring of debt will be called for will tend to aggravate market volatility and spillovers. Such uncertainty cannot be eliminated, but it can be mitigated. The Fund has an important role in this regard, since its lending decisions often determine whether and when a country in distress decides to restructure its debt. The adoption of the exceptional access policy in 2002 was an important step forward in clarifying the criteria governing Fund lending decisions. While the policy needs to retain room for case-by-case judgments, the further reforms now being proposed would help make the current framework more transparent, as will ongoing efforts to improve and disseminate the tools the Fund uses to inform judgments on debt sustainability. In a similar vein, since in many cases sovereign debt restructuring operations have to be accompanied by measures to recapitalize banks, market responses are likely to be more orderly if policies regarding the bail-in of bank creditors are specified clearly in advance. Major reforms in the US and Europe since the global financial crisis have made the "rules of the game" significantly clearer in this area, and should help mitigate volatility in future stress episodes.

29. Financial safety nets at the global and regional level also have a crucial role to play in managing spillovers. In recognition of this fact, important steps have been taken in the wake of the global financial crisis, on several fronts. The Fund's resources have been scaled up substantially and its facilities overhauled to provide an expanded range of actual and precautionary support to members facing cross-border spillover risks. In the eurozone—among the segments of the global economy most prone to systemic financial spillovers, given its large size and highly interconnected markets—the establishment of the European Stability Mechanism (ESM), together with the demonstrated commitment of the European Central Bank (ECB) to provide large-scale liquidity support when needed, have created credible firewalls to help member states preserve financial stability and manage spillovers in times of severe stress. The development of other regional financial arrangements (RFAs) and networks of bilateral swap lines—notably in Asia and Latin America, and most recently by Brazil, Russia, India, China and South Africa (BRICS)—has likewise intensified since the crisis, and there is scope to strengthen these safety net mechanisms further to guard against future adverse spillovers.[12]

Measures in the crisis country

30. In a situation of sovereign debt distress, prompt action by the country to address its debt problems will limit their severity and the resulting fallout, not only for its own economy but also internationally. Policy adjustment should begin early, if necessary with financial support from the Fund and other partners—preferably well before concerns about debt sustainability trigger a loss of market access. In situations where adjustment alone is considered unlikely to ensure debt

[12]See *Analytics of Systemic Crises and the Role of Global Financial Safety Nets*, IMF Policy Paper, May 31, 2011; and *Review of the Flexible Credit Line, the Precautionary and Liquidity Line, and the Rapid Financing Instrument*, IMF Policy Paper, January 27, 2014.

sustainability, taking steps to restructure debt sooner rather than later will result in lower costs and more limited market disruption at home and abroad.[13]

31. If and when a decision is made to restructure the sovereign's debt, there are ways to design the operation that can mitigate its impact on domestic financial stability and hence limit broader spillover risks. First, if action is taken early, it is more likely that the operation can take the more limited form of a reprofiling, rather than a significant up-front debt reduction. For the reasons discussed extensively in the 2014 paper, and recapped above, reprofilings tend to be less disruptive and hence any spillover effects will be more muted. Second, past experience has shown that the debtor and its creditors can exercise considerable discretion over the scope of debt to be treated and can establish backstops, with a view to avoiding undue financial disruption. Indeed, in general, it makes sense to apply cost-benefit principles to these decisions. On the one hand, a broad coverage of debt instruments has benefits in terms of the associated improvements in debt sustainability and the likely willingness of creditors to participate (haircuts, if needed, will tend to be smaller, and inter-creditor equity problems will be less severe). On the other hand, various potential costs need to be set against these benefits. This could lead to the conclusion that, on a case-by-case basis, some categories of debt should be excluded from a particular debt operation or that explicit protection for some classes of debt holder needs to be adopted.[14] For example:

- *Short-term debt instruments (by original maturity).* These are not only difficult to capture in practice but they also often play an essential role in the functioning of interbank markets, and hence in maintaining financial stability. They have generally been excluded from past restructurings, with a few exceptions.[15]

- *Trade credits, guarantees, and complex instruments of limited size.* These types of obligation tend to be either hard to restructure or yield benefits that are too modest to justify the disruption involved.

- *Domestic currency-denominated debt.* In a typical adjustment program, the real value of these instruments may be reduced through currency devaluation or ongoing inflation and hence may not warrant the same treatment as foreign exchange denominated debt. They also tend to be held disproportionately by domestic financial institutions, implying a limited net contribution to the country's financing needs in a crisis context and possible adverse financial stability effects.[16]

32. Ultimately, the design of a particular debt operation, including its scope, will depend very much on country circumstances and prevailing market conditions. There is no standard

[13]See *Sovereign Debt Restructuring—Recent Developments and Implications for the Fund's Legal and Policy Framework*, IMF Policy Paper, April 26, 2013.

[14]See Annex II "Analytical Note on the Scope of Sovereign Debt for Reprofiling" for a detailed discussion.

[15]Russia (1998); Ukraine (1998); and Côte d'Ivoire (2011).

[16]In a sample of 16 debt restructurings since 1998 (excluding currency union cases), only five included domestic currency debt.

blueprint. On the contrary: where there are significant stability and spillover concerns, the parties involved have considerable leeway to tailor the scope of debt restructuring operations, taking these concerns into account case-by-case, and to deploy supporting measures as necessary to limit any adverse effects. Cyprus and Jamaica are two recent examples of reprofilings where careful choices around the scope of debt, informed by country and market conditions, preserved financial stability.

Measures in countries affected by spillovers

33. Any economy that is integrated into international capital markets has to be prepared to manage externally induced volatility from time to time. As should be apparent from the preceding discussion of spillover channels, the types of shock a country may face as a result of a foreign sovereign debt crisis or restructuring are not qualitatively different from others it has to contend with as international capital ebbs and flows, asset prices fluctuate, and the cost of credit rises and falls. Possible policy responses to preserve macroeconomic and financial stability would include central bank liquidity support, foreign exchange market intervention, steps to ensure domestic financial institutions remain adequately capitalized, and (when stresses are severe) temporary use of regulatory forbearance and of capital flow management measures.

34. If necessary, countries facing actual or potential large-scale spillovers can also draw on various sources of cross-border financial support. Such recourse has been a common feature of past systemically significant crises—from the Mexican and Asian crises of the 1990s to the recent global financial crisis. As described above, the main components of the global financial safety net (bilateral swap lines, RFAs, and Fund facilities) have been progressively strengthened.

C. Addressing 'Tail' Events

35. Despite the abundance of possible containment measures, there may be cases where any type of restructuring (even a reprofiling) is considered too costly. In particular, in a rare tail-risk event, policymakers may conclude that contagion and financial stability risks are so severe that defensive measures would be inadequate—or would take time to put in place—and a restructuring of private claims must be avoided. In this context, some have argued that the existence of the systemic exemption acts as an implicit guarantee and, by doing so, creates some constructive ambiguity about how "other" cases in similar circumstances to the crisis country could be treated. The exemption, by facilitating a bail-out of the crisis country, may be perceived as reducing the likelihood of debt treatment in "other" similar cases. This dynamic may offer a channel through which contagion can be mitigated, to the extent that the markets' fears regarding "other" countries' vulnerabilities are misplaced. However, staff's view is that even in such cases, the systemic exemption and the ensuing bail-out do not constitute an appropriate solution.

36. The principal problem with the systemic exemption is that it impairs the program country's prospects for success. When a distressed member faces significant debt vulnerabilities—notwithstanding the adjustment efforts it is committed to making under a Fund-supported program—it is in the member's interest to address those vulnerabilities sooner rather than later in an appropriately calibrated way. If the systemic exemption is invoked, and a debt reprofiling that

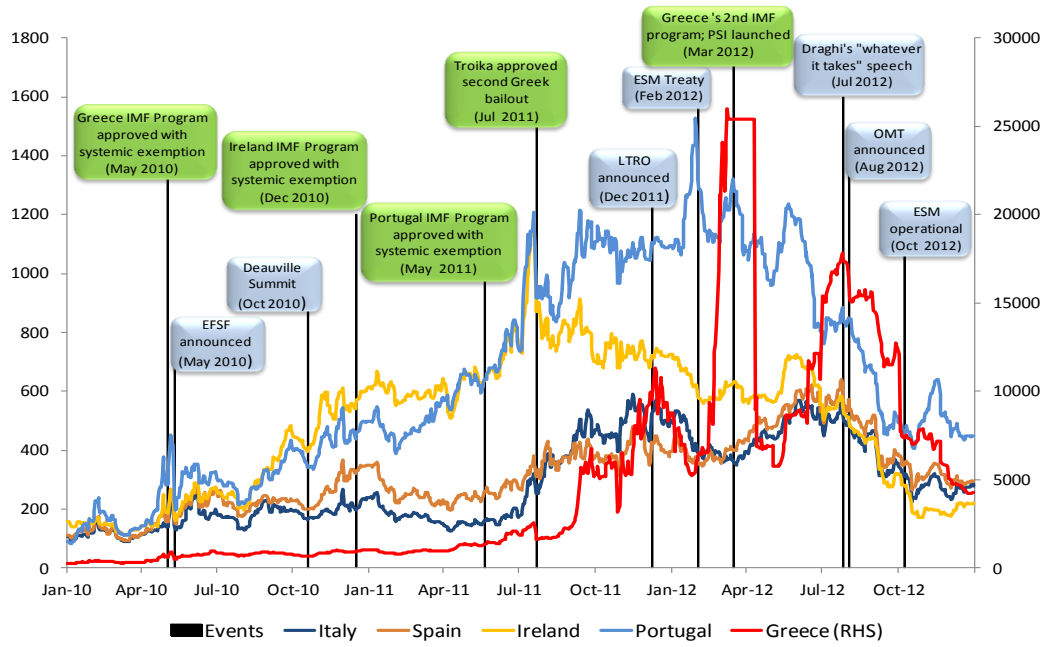
would otherwise be called for under the reformed exceptional access policy is ruled out, the various benefits from that reprofiling (as described above) are foregone and the prospects for a successful outcome to the member's program are correspondingly diminished. Specifically, in the absence of the financing provided by the reprofiling, significantly more official sector resources would be required to accommodate a less stringent adjustment path. Moreover, the effective replacement of private claims with public debt will result in greater subordination of remaining (and future) private creditors, thereby further hampering the member's re-access to capital markets. While it is appropriate for the Fund to take due account of spillover effects from policies it supports, it should not do so in a way that imposes an undue burden on a distressed member.

37. Second, it is far from clear that the systemic exemption can be relied upon to mitigate contagion. As discussed above, staff's analysis suggests that contagion in a sovereign debt crisis is driven primarily by market concerns regarding the crisis country's underlying vulnerabilities, and uncertainties about how those vulnerabilities will ultimately be addressed. Lending in the context of a systemic exemption will not address these concerns or uncertainties. A close examination of the 2010–12 euro area crisis, which could certainly be seen as a tail event, illustrates this point (Figure 2). When the Greek situation came to a head in early 2010, neither the institutional arrangements in the euro area, nor expectations in global financial markets were ready for a sovereign debt restructuring in a currency union of closely-linked advanced economies. In this context, the systemic exemption and associated bailout bought time to build the necessary firewalls. But the effectiveness of the bailout in mitigating contagion was impaired, as concerns lingered about Greece's solvency.[17] In particular, the bailout was not seen as averting the likelihood of a subsequent debt restructuring, in the context of broader market concerns about the euro zone's policy framework and the prospects of the euro itself. It was only after European institutions, most notably the ECB, made commitments in mid-2012 that were perceived as constituting credible firewalls that sovereigns and bank spreads began to abate throughout the euro zone. By this stage, euro area policymakers had also come to accept that the terms of the financing provided by official creditors would need to be improved to bolster Greece's debt sustainability. Below (¶39 et seq.), we set out an alternative approach that could have addressed concerns about debt sustainability even without a debt operation.

[17] This is consistent with the media and market commentary at the time, where the prevailing assessment was that the Fund-supported program in Greece was unlikely to avert the need for an eventual restructuring of Greece's sovereign debt.

Figure 2. Sovereign CDS Spreads in Italy, Spain, Ireland, Portugal, and Greece (2010–12)

(basis points)



38. Third, the systemic exemption aggravates moral hazard in the international financial system and may exacerbate market uncertainty in periods of sovereign stress. The lessons policymakers have drawn from the crisis with regard to taxpayer-funded bail-outs of banks, and the subsequent shift to frameworks that prescribe creditor bail-in, apply also to Fund lending in a sovereign context.[18] Specifically, the perception of insurance against downside risk fueled by implicit bail-out guarantees can encourage excessive debt accumulation, as creditors' decisions become disconnected from underlying fundamentals.[19] The retention of the exemption could be seen as the perpetuation of such a guarantee on sovereign debt, and lead to an ex-ante under-pricing of sovereign risk. Ex-post, that is, in periods of sovereign stress, the exemption has the potential to distort market prices (and thus, to contribute to uncertainty) as market participants may bet on whether the exemption will be activated, rather than focusing on underlying sustainability.

[18]The financial crisis exposed significant weaknesses in the architecture of the financial system—not least the perception by creditors that some too-big-to-fail banks could not be resolved without causing significant economic disruption. The realization that this feature of the system had to change led to an ambitious program of reform, including the adoption of bail-in rules for banks in the aftermath of the crisis. Leaders pledged to *"develop resolution tools and frameworks for the effective resolution of financial groups to help mitigate the disruption of financial institution failures and reduce moral hazard in the future."* (G20 Leader's Statement, September 2009).

[19]See "Revisiting Sovereign Bankruptcy," Committee on International Economic Policy and Reform (CEIPR), Brookings Institution, October 2013.

39. As suggested in the 2014 paper, in an extreme tail-risk event where rescheduling of private claims is considered too hazardous, Fund support could be warranted if accompanied by assurances from other official creditors of support on terms sufficiently favorable to address sustainability concerns. This approach would be more effective than invoking the systemic exemption because it would address the source of the member's vulnerabilities. It would not avoid the moral hazard problem, but this concern is allayed by the expectation that this approach would be called upon only very rarely.

40. The Fund has extensive experience with catalyzing supplementary support from other official sources. Box 1 looks at a sample of arrangements with exceptional access—from the 1990s to the global financial crisis—where the official sector provided large-scale financing as part of, or as a backstop to, Fund-supported programs. The review shows that official creditors have often committed a large share of past rescue packages, with some stakeholders moving rapidly to provide support. There are also precedents for tailoring the terms of such support in light of the financial situation of the borrower, including the euro area programs and Jordan (2012).

41. This approach would fit within the proposed general framework described in Section II, thereby avoiding the need for any exemption. Specifically:

- ***First, in circumstances of uncertainty,*** a restructuring could be avoided if other official bilateral creditors were willing to provide or maintain financing during the period of the program on terms that "*improve debt sustainability and sufficiently enhance the safeguards for Fund resources*": namely, official creditors would need to provide assurances that they would be willing to change the terms of their claims in the event that the Fund assesses that the outlook for debt sustainability has deteriorated and a subsequent restructuring is needed. This commitment would provide the type of "insurance" that would normally be provided through a reprofiling of private claims. If, however, official creditors are unwilling to provide such assurances, the terms of the financing would need to be sufficiently generous, upfront, to restore debt sustainability with high probability.

- ***Second, in circumstances where debt is clearly unsustainable,*** the terms of the financing provided by other bilateral creditors would need to be sufficiently favorable to restore debt sustainability with high probability. This could take the form of loans with long tenors and concessional rates, grants, or other instruments.

42. It should be emphasized that the tail event approach described above could be implemented with considerable flexibility and with sufficient speed. First, where debt is unsustainable, the provision of financing on "favorable terms" need not necessarily require the creditor to lend below its own cost of funds: the key is that the terms are better than the debtor could get elsewhere, including from the Fund—how much better will depend on the severity of the member's debt problems. Second, it would not be necessary to hold up Fund support until there is complete clarity regarding the nature or the terms of the financing. In circumstances of uncertainty, creditors would provide assurances that they would be prepared to modify the terms of their loans in the future in the event a more definitive debt restructuring is needed. Where debt is clearly

unsustainable, the Fund could rely on a credible political commitment from official creditors that they will do whatever it takes to provide financing on terms that are sufficiently favorable to restore sustainability with high probability. Third, the form of the eventual financing package could vary. Possibilities include concessional rescheduling of existing claims, new money on favorable terms, or guarantees that allow the member to borrow cheaply from other lenders.

43. This approach would not involve the Fund "stepping back" from the central role it plays in crisis resolution. On the contrary, this approach would enable the Fund to step forward with financial assistance with a degree of confidence that the program will actually work. To the extent that the financing provided by official creditors, when coupled with the adjustment program, addresses underlying sustainability concerns, Fund support will enable the member to effectively address its underlying balance of payments problems, and will contribute durably to global financial stability. Moreover, the Fund would continue to play its traditional role in coordinating the provision of bilateral official financing in support of a member's adjustment program.

44. Staff has engaged in informal outreach with market participants on the perceived costs and benefits of the elimination of the systemic exemption. A number of market participants emphasized the subordination problems that arise with a reliance on the systemic exemption: if, in the end, the exemption is relied upon to defer a restructuring that is very likely to take place, the replacement of private claims with more senior official claims adversely affects those private creditors who are not able to exit because of the maturity structure of their claims. These participants also took the view that, as a general matter, concerns regarding contagion are overstated and, in those rare cases where it is an issue, it will not be addressed unless and until there is a credible financing and adjustment package in place. Finally, they noted that the exemption undermines the predictability of the Fund's lending framework since it introduces a variable that is unrelated to sustainability and is subject to potential abuse; for example, it could be invoked for geopolitical rather than systemic reasons. Some market participants, however, observed that, even if the systemic exemption is removed, the Executive Board can, by a majority of votes, re-introduce an escape clause, if it deems it necessary. It was noted that while the possibility of such an option being exercised *in extremis* may weaken market discipline to some degree, it is likely to be less damaging from that perspective than retaining an exemption as a standard part of the framework.

IV. IMPLEMENTATION ISSUES

This section addresses a number of practical issues relevant to the application of the modified exceptional access policy, if it were adopted.

A. Assessing Market Access

45. As noted in the 2014 paper, reprofiling would only be appropriate in cases where a member has already lost market access, and where debt is considered sustainable though not with high probability. In those cases, the inability to borrow would suggest that markets have significant doubts about the country's ability to meet its debt obligations. Conversely, if market

access is preserved, the Fund would be willing to lend without a debt operation so long as debt is deemed sustainable even if the "high probability" threshold is not met.[20]

46. The assessment of market access would therefore play an important part in the revised policy.[21] This assessment would need to determine whether a member has the *"ability to tap international capital on a sustained basis through the contracting of loans and/or issuance of securities across a range of maturities, regardless of the currency denomination of the instruments, and at reasonable interest rates."*[22] As is currently the case, this would require the exercise of judgment on a case-by-case basis.

47. This judgment, however, would need to be guided by an analysis of indicators that have performed well in signaling market access loss in previous cases. The 2014 paper summarized the types of indicators that could be used to assess whether market access has been lost or its loss is imminent. Further staff work since the 2014 paper shows that a number of indicators have been particularly useful in signaling loss of market access (see Box 2 and Annex III) including, among others, spreads, credit ratings, nonresident holdings of debt, and changes in maturity and currency composition of sovereign debt and/or borrowing. Staff would assess whether these indicators have deteriorated significantly and the extent to which they signal high risk relative to historical norms. While ex-post testing of the signaling power of the indicators was limited by data availability, in future cases, other market indicators could also be considered, including CDS spreads, country risk premia, market positioning, option-implied volatility and skewness, and the shape of the yield curve.

B. Securing Creditor Participation

48. Although recent experience indicates that the contractual market-based approach has worked reasonably well in securing creditor participation, there is a broader concern that hold-out problems may become more severe in future restructurings. Most international sovereign bonds now incorporate collective action clauses (CACs), which allow the key financial terms of a bond to be modified upon receipt of support of a qualified majority of bondholders holding a requisite percentage (typically 75 percent) of the outstanding principal of a given series. Although the contractual approach has worked reasonably well, recent developments—in particular the Argentine litigation in the US courts—have underscored the importance of strengthening the

[20] In cases where debt is assessed to be sustainable with high probability but the member has lost market access, a reprofiling would not be required for Fund lending as such loss is likely to temporary when the underlying solvency is considered secure.

[21] As described above, in those cases where market access has been temporarily lost (including because contagion has hit an "innocent bystander" with sound fundamentals) but debt is considered sustainable with high probability, the Fund would play its catalytic role and lend without requiring any debt restructuring, as under the existing framework.

[22] See *Sovereign Debt Restructuring—Recent Developments and Implications for the Fund's Legal and Policy Framework*, IMF, April 26, 2013.

existing framework; the Executive Board recently endorsed key features of strengthened CACs and modified *pari passu* clauses.[23] While the recent adoption of these enhanced clauses is encouraging, it also needs to be recognized that these reforms do not resolve the problems arising from the substantial stock of existing debt carrying weaker legal provisions.

49. As suggested in the 2014 paper, consideration could be given as to whether the Fund should play a more active role in providing additional incentives for creditors to participate in a reprofiling. In the late 1980s and 1990s, the Fund had policies that allowed its resources to be used to collateralize interest payments, thereby providing security to creditors and inducing them to participate in a debt exchange. In the current low-interest environment, it is doubtful that the provision of such enhancements would make a material difference to the incentives for creditors to participate in a debt operation. Moreover, given the increasing complexity of sovereigns' interactions with private capital markets, it may be difficult to provide such incentives without triggering negative pledge clauses in other agreements.

50. Nevertheless, there may be limited circumstances in which the provision of incentives might be helpful from the perspective of securing adequate creditor participation. For example, ensuring that all creditors have received the cash payment of accrued interest up to a common point may help resolve inter-creditor equity issues in cases where creditors are asked to provide substantial debt reduction. Similarly, in a reprofiling operation, it may be helpful to provide incentives for investors holding claims with relatively short residual maturities to participate, as these are likely to be least willing to extend their maturities. While the design of such incentives would depend on the specific circumstances of the case and consultation with market participants, it could include understandings that, in the event a definitive debt restructuring were subsequently required, the Fund and the sovereign would exclude a limited portion of the principal of shorter-maturity claims that had voluntarily participated in the initial reprofiling operation. Such incentives could be structured so as to provide creditors with incentives to participate in both the reprofiling and a possible, more definitive, subsequent restructuring, if such a restructuring is ultimately needed.

C. Conditionality on the Implementation of a Restructuring

51. As noted in the 2014 paper, the implementation of a reprofiling operation would not delay provision of Fund support. The policies guiding program design and the setting of conditionality for debt reprofiling are not different from those guiding deeper restructurings. The legal framework is the same and conditionality would be guided by the same general guidelines that currently apply in restructuring cases. In particular, the policies should retain the flexibility to handle different members' circumstances, subject to some general guiding principles.

52. As with all restructurings, Fund policy should seek to ensure an orderly debt operation, taking into account several considerations:

[23]See *Strengthening the Contractual Framework to Address Collective Action Problems in Sovereign Debt Restructuring*, IMF Policy Paper, October, 2014.

- In principle, a restructuring should be undertaken in a timely manner once a judgment has been made that it is needed. Prompt implementation has the advantage of (i) reducing the financial risk to the Fund; (ii) strengthening incentives for creditors' participation and minimizing the risk of a bail-out of private creditors; (iii) easing the program financing requirement and the required adjustment, hence enhancing the prospects for program success; and (iv) reducing uncertainty for creditors and investors. The completion of any needed debt reprofiling before approval of a Fund arrangement should therefore always be considered, if feasible.[24]

- However, as in past cases, there may be circumstances under which more flexibility is warranted. Time can be of the essence in a debt crisis, and the member's maturity profile may be such that delaying the first disbursement until a reprofiling is put in place would cause a disorderly default. In such cases, it may be advisable for the completion of debt restructuring (including a reprofiling) to be contemplated by the time of the completion of, say, the first review. There may also be other country-specific circumstances warranting a more extended time line for the reprofiling, including situations where complementary measures need to be put in place to preserve financial sector stability.

53. While high creditor participation in a debt restructuring—whether such participation is secured before or during a program—should be a central objective of the program, existing policy provides the Fund with sufficient flexibility to enable it to continue to provide support even in the absence of such participation. In the event that there is inadequate creditor participation, and taking into account the financial parameters underpinning the program, it is unlikely that the debtor will have sufficient resources to continue servicing its unrestructured debt obligations as they fall due. In the event that this results in the member incurring arrears to private creditors, the Fund's lending into arrears policy enables the Fund to continue to provide support, provided that the member is "making a good faith effort to reach a collaborative agreement with its creditors." Indeed, the existence of the lending into arrears policy provides private creditors with an important incentive to participate in the restructuring. Specifically, in considering whether to participate, creditors would need to be aware that, if they held out, there would be a serious risk of default (since the member would not have the resources to repay on the original terms) and that, in this event, the Fund would be in a position to continue to provide support provided that the conditions of the lending into arrears policy are satisfied. As agreed in 2013, the Fund's work program envisages a review of the lending into arrears policy, including the operational implications of the "good faith" criterion. It is envisaged that this discussion will take place after the Board concludes its deliberations on possible modifications of the exceptional access framework.

54. The Fund's flexible application of conditionality on debt restructuring, confirmed by a review of past cases, would continue.[25] Completion of a debt operation has not always been a

[24]The decision to restructure sovereign debt lies solely with the member. Hence, a requirement to restructure debt can only be established after an announcement by the authorities of their intention to do so.

[25]See Annex IV "Reprofiling and Program Conditionality."

pre-requisite for the Fund to begin disbursing. For example, under appropriate circumstances, flexibility was exercised in pre-default cases when there were urgent financing needs that could not be postponed until the completion of the reprofiling. In such cases, conditionality has been set on intermediate steps towards the completion of the debt operation.

V. NEXT STEPS AND ISSUES FOR DISCUSSION

55. This paper elaborates on the June 2014 proposals to introduce greater flexibility in the general exceptional access framework and remove the systemic exemption. It provides an analysis of the nature and channels of spillovers in a sovereign debt crisis, and describes how spillovers could be better managed in the absence of the systemic exemption. For extreme cases where any restructuring of private claims is considered too risky ("tail events"), the paper presents a better approach in which Fund lending would be complemented with official bilateral support on appropriate terms and thereby address underlying concerns about debt sustainability. Staff views these proposals as essential for the Fund to fulfill its mandate and responsibilities for its members and the system in a manner that also safeguards Fund resources.

56. If the Board supports the proposals in this paper, staff intends to complete the work stream on the Fund's exceptional access framework by fall 2015. Thus, staff will circulate a paper with proposed decisions in fall 2015 for Board consideration. In addition to proposing changes to the second exceptional access criterion, as discussed above, this paper would also discuss possible complementary modifications to the third exceptional access criterion on market access, as foreshadowed in the June 2014 paper.

57. Staff will also commence work on the remaining two items on the sovereign debt-related work program endorsed by the Board in May 2013. Following the October 2014 Board paper on strengthening the contractual framework for sovereign debt, and the anticipated completion of work on the lending framework, staff will commence analysis of the two remaining sovereign debt issues on the Board-endorsed work program.[26] The first relates to clarifying the framework for **official sector involvement** in light of the growing role and changing composition of bilateral official lending. The second is a review of the Fund's **Lending-Into-Arrears** policy in light of the recent experience and increased complexity of the creditor base. Staff expects to bring papers addressing these issues to the Board in late-2015/early 2016.

58. At this stage, Directors may wish to share their views on the following:

- Do Directors agree that the proposed changes to the second criterion of the Fund's exceptional access policy (¶11) strike the right balance between flexibility and preserving adequate safeguards?

[26] See Public Information Notice (PIN) No. 13/61 on the Executive Board discussion of the May 2013 paper.

- Do Directors support staff's view that spillovers can only be effectively managed if the underlying source of market concerns—including about debt sustainability—are addressed, and complementary defensive measures put in place (¶22–34)?
- Do Directors agree that the systemic exemption is not a coherent solution to addressing contagion concerns, does not address debt sustainability concerns, and should be eliminated (¶35–38)?
- Do Directors agree that, in rare "tail event" situations, where any restructuring of private claims is considered too risky, a more effective approach to resolving the crisis would combine Fund lending with official bilateral support on appropriate terms as described in ¶39–43?
- Do Directors agree with the timing of the remaining work program on sovereign debt restructuring issues?

Box 1. Earlier Crisis Episodes with Official Sector Financing

This box reviews Fund experience with official financing in earlier crisis episodes. The analysis shows that the Fund has a wide range of experience catalyzing official support, particularly in cases where there was a potential for significant cross-border spillovers. Official creditors have often contributed a large share of rescue packages, with one large member at times moving swiftly to provide support.

This box examines exceptional access Fund programs with official financing between 1994 and 2012. The analysis focuses on cases where non-multilateral creditors provided sufficient financing to form a firewall or backstop to the crisis (i.e., the share of non-multilateral financing exceeded one-third of total financing needs). These include Mexico (1995), Thailand (1997), Indonesia (1997), Korea (1997), and Brazil (1998) as well as programs launched since the global financial crisis: Iceland (2008), Latvia (2008), Greece (2010, 2012), Ireland (2010), Portugal (2011), and Jordan (2012). These countries were selected due to the importance of financing from non-international financial institutions (IFI) in the program packages. In addition, they are regionally diverse, including countries from Asia, Latin America, Europe, and the Middle East, and were supported by a range of official bilateral creditors (US, EU, G7, and the Gulf Cooperation Council). They also include both systemic and nonsystemic countries.

A number of common themes emerge from the analysis:

- **The official sector contribution in the earlier crisis episodes was as large as in the euro area crisis** countries. The Fund's share of the financing package ranged from ¼ to ½ at the time of the program requests.
- In Korea, **some of the financing was contingent,** and was provided as a second line of defense. So while the *ex-ante* Fund share was small, the *de facto* share was significantly larger, as these contingent bilateral lines were not activated. In contrast, in the 1998 Brazil program bilateral financing was provided as a first line of defense.
- A key factor that separates Mexico and Thailand from subsequent cases was the **presence of a large member willing to move rapidly to mobilize financing.** The Clinton administration's efforts to mobilize resources for Mexico were initiated long before the approval of the Stand-By Arrangement (SBA). Similarly, in Thailand, although this was not a sovereign debt crisis, the Japanese moved to assemble a package. In subsequent cases, with financing fatigue setting in and growing concerns about bail-outs, there was no equivalent champion to lead the fundraising efforts, and broader coalitions had to be assembled.
- In the earlier crisis programs, the **terms of the financing package were tied to creditor funding costs.**
  - The U.S. loan in the Mexican crisis was provided on terms equal to US funding costs (91-day treasury bills), that is, much lower than Mexico's market rates at the time. With the resolution of the crisis, the Mexican authorities repaid the loans three years ahead of schedule.
  - In Thailand, the bilateral loans were provided as six-month swaps, disbursed in conjunction with Fund disbursements.
  - Information on the terms of other official financing packages is unavailable but they were likely also tied to funding rates (e.g., LIBOR).
  - In Iceland, the bulk of the financing was provided at a spread of about 300 bps over mid-swaps.
- Lending in **euro-area programs,** especially Greece, was provided at low interest rates (creditor funding cost plus small margin, as above), and maturities were subsequently extended by up to 30–40 years, with long grace periods (e.g., 10 years in Greece).

Box 1. Earlier Crisis Episodes with Official Sector Financing (concluded)

- **In non-euro-area programs, concessionality took on different forms.** In Jordan, for example, the GCC provided grants and the U.S. provided large Eurobond guarantees.

Crisis Episodes with Official Sector Financing[1]
(billions of US$)

Program	Total	IMF	IFIs	Bilateral and EU	Other	IMF share	Non-IFI share
Earlier crisis episode							
Mexico SBA (Mar 1995)	51.8	17.8		31.0	3.0 3/	34.4	65.6
Thailand SBA (Aug 1997)	16.0	4.0	3.0	9.0		25.0	56.3
Indonesia SBA(Nov 1997)	33.0	10.0	8.0	15.0		30.3	45.5
Korea SBA (Dec 1997)	55.0	21.0	14.0	20.0		38.2	36.4
Brazil SBA (Nov 1998)	42.0	18.0	9.0	15.0		42.9	35.7
Recent crisis episodes							
Iceland SBA (Nov 2008)	10.2	2.0		-	8.2 4/	19.6	80.4
Latvia SBA (Dec 2008) 2/	7.5	1.7	0.5	5.3		22.7	70.7
Greece SBA (May 2010) 2/	110.0	30.0		80.0		27.3	72.7
Ireland EFF (Dec 2010) 2/	67.5	22.5		45.0		33.3	66.7
Portugal EFF (May 2011)2/	78.0	26.0		52.0		33.3	66.7
Greece EFF (Mar 2012) 2/	172.7	28.0		144.7		16.2	83.8
Jordan SBA (Aug 2012)	4.2	2.0	0.4	1.8		47.6	42.9

Source: IMF staff reports.
1/ All amounts are as foreseen at the time of the IMF arrangement request and may differ from actual disbursements.
2/ Billions of Euros.
3/ Financing provided by banking consortium.
4/ Financing earmarked for payments in relation to the foreign branch deposits of the Icelandic banks.
SBA = Stand-By Arrangement. EFF = Extended Fund Facility. IFI = International Financial Institution.

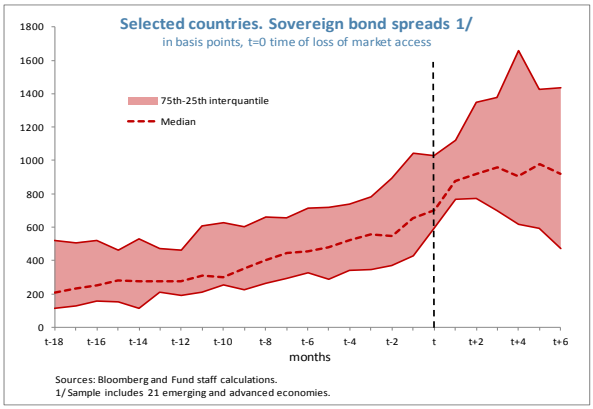
Box 2. Assessing Market Access Loss

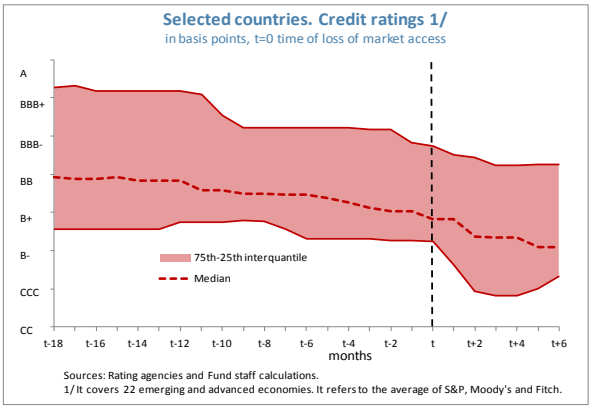
This box reviews past cases of market access loss.[1] The analysis suggests several indicators were useful in signaling market access loss. Spreads and credit ratings had particularly high signaling power in the period leading up to market access loss. In real time, staff would also have access to additional data to make an assessment of access to markets. Such historical analysis is subject to caveats, the most important one being that market access is a forward-looking concept. Hence, judgments cannot be based mechanically on the indicators analyzed in this note, however robust their historical empirical properties are.

Market access was judged to have been lost in a number of recent Fund-supported programs that involved debt restructuring, as well as in all recent euro area programs that invoked the systemic exemption. An analysis of the staff reports supporting the arrangement / review requests shows that the following indicators, amongst others, were cited to signal loss of market access: widening spreads, rating downgrades, lack of investors' interest in government bonds, cancelations of planned bond issuances, and at times the falling participation of foreign investors in domestic markets.

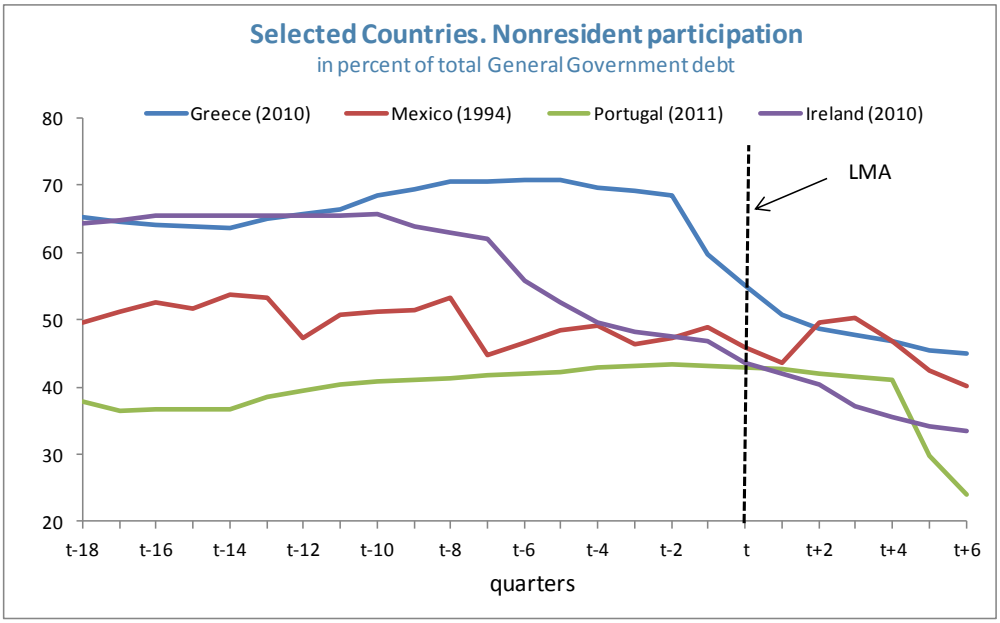
Analytical work was undertaken to examine the behavior of various indicators prior to loss of market access (LMA). The empirical exercise was conducted on a sample of 45 frontier, emerging and advanced markets between 1990 and 2013 using the signaling approach and a risk zone classification approach. Following the May 2013 Board paper, market access is defined as '*the ability to tap international capital on a sustained basis through the contracting of loans and/or issuance of securities across a range of maturities, regardless of the currency denomination of the instruments, and at reasonable interest rates*'. Following the literature, the analysis assumes market access is lost when sovereigns default or stop issuing bonds controlling for financing needs and previous pattern of issuance. Out of 45 countries in the sample, 31 had lost market access at least once over the observation period, out of which 14 lost market access more than once.

The results suggest that spreads, credit ratings, nonresident holdings of debt, and changes in maturity and currency composition of sovereign debt and /or borrowing have performed well in signaling LMA (Figures). Spreads start to rise faster 10 months prior to LMA for the median country in the sample—with the steepest increase occurring 2 months prior. Credit ratings show evidence of a decline starting around 6 months prior to LMA, with the decline becoming abruptly steeper after the initial LMA. Nonresident debt holdings also decline prior to LMA. And finally, the share and maturity of local currency debt also falls prior to LMA as sovereigns found it difficult to place longer term local currency instruments even in the domestic market. While the focus in this analysis was on these four key indicators of market access due to data availability constraints, a broader range of indicators could be considered in future cases. Results from the broader sample were also road-tested on selected case studies of Argentina, Mexico, Brazil, Portugal, and Greece, and proved encouraging.





Box 2. Assessing Market Access Loss (concluded)



Sources: Arslanalp, Serkan and Tsuda, Takahiro, 2012, "Tracking Global Demand for Advanced Economy Sovereign Debt," IMF Working Papers 12/184, (Washington DC: International Monetary Fund); Arslanalp, Serkan and Tsuda, Takahiro, 2014, "Tracking Global Demand for Emerging Market Sovereign Debt," IMF Working Papers 14/39, (Washington DC: International Monetary Fund); and Fund staff calculations.

The behavior of the identified market access indicators in previous cases of LMA could helpfully guide staff judgment in future cases. The results of the empirical work suggest that a number of the market access indicators performed well in signaling past episodes of LMA. However, it is important to emphasize that they can only inform but not substitute for staff's judgment. Depending on the type of country, some indicators may be more relevant than others. While this analysis focused on testing the signaling power of the four key indicators due to data availability constraints, a broader range of indicators could be considered in future cases, such as CDS spreads, country risk premia, market positioning, option-implied volatility and skewness, and the shape of the yield curve.

[1]This box summarizes the analysis in Annex III "Assessing Loss of Market Access."

INTERNATIONAL MONETARY FUND

January 6, 2016

THE FUND'S LENDING FRAMEWORK AND SOVEREIGN DEBT—FURTHER CONSIDERATIONS—SUPPLEMENTARY INFORMATION AND PROPOSED DECISION

This paper supplements the Board paper "The Fund's Lending Framework and Sovereign Debt—Further Considerations", issued to the Board on April 13, 2015 (the "2015 Paper"). The first part discusses issues related to the "third criterion" on market access under the Fund's Exceptional Access Policy ("EAP") that were raised in the 2013 and 2014 papers on sovereign debt restructuring and the Fund's lending framework (the "2013 Paper" and the "2014 Paper").[1] In light of this further analysis, staff is proposing a clarification to the third criterion. The second part includes a draft proposed decision to modify the EAP with respect to the "second criterion" on debt sustainability (in line with the text in paragraph 11 of the 2015 Paper); as well as the "third criterion" (in line with the discussion in this supplement).

ANALYSIS OF THE 'MARKET ACCESS' CRITERION UNDER THE FUND'S EXCEPTIONAL ACCESS POLICY

A. Background and Motivation

1. The criterion for "market access" is the third of four criteria under the EAP and reads as follows: "(c) The member has prospects of gaining or regaining access to private capital markets within the timeframe when Fund resources are outstanding."[2]

2. The intent of the criterion is to help achieve the two objectives of Fund financing as set forth in Article V, Section 3(a). These are: (i) "assisting members to solve their balance of payments problems" and (ii) providing "adequate safeguards for the temporary use of the general resources of the Fund."

3. In the context of the 2013 and 2014 Papers, two issues were raised about the assessment of the third criterion. The first issue pertained to situations where official lenders offer commitments of support that extend into the post-program period, when the member would generally be expected to have regained market access. Specifically, the Fund's experience with

[1] *Sovereign Debt Restructuring—Recent Developments and Implications for the Fund's Legal and Policy Framework* and *The Fund's Lending Framework and Sovereign Debt—Preliminary Considerations*, respectively.

[2] Decision No. 14064-(08/18), February 2, 2008, as amended.

euro area programs prompted the following question: If official lenders provided or assured financing that was sufficient to repay the Fund, would there remain a need for a separate criterion on market access to be assessed at arrangement approval and subsequent reviews?

4. The second issue—pertaining to the timeframe in which market access needs to be established—was also raised in the context of open-ended commitments by official lenders (2014 Paper, paragraph 56), but applies more generally in the context of any Fund-supported program. On a literal reading, the third criterion could be interpreted as only requiring the member to regain market access by the time that the last repurchase is made, which would not assure that earlier repayments could be made. More generally, this could allow for market access to be delayed for an unreasonably long timeframe: in the case of an Extended Fund Facility (EFF), this could be 10 years after the approval of the arrangement.

5. This supplement offers further analysis of these two issues. Specifically, staff argues that the third criterion cannot be dispensed with when there are open-ended commitments of support from the official sector (the first issue); and proposes to clarify the ambiguity on timeframe (the second issue).

B. Staff's Analysis of the Issues Raised

6. With regard to the first issue, staff recognizes that commitments of official support extending into the post-program period could help strengthen safeguards for Fund resources, an important motivation for having the third criterion. Insofar as such commitments are credible, they boost the member's ability to meet its obligations to the Fund, and could thus mitigate risks to Fund resources.

7. However, such commitments would not address the first objective of Fund financing, which is to assist a member to resolve its balance of payments problem. This is because a member's balance of payments problem can only be considered "resolved" if a member is able to finance its balance of payments deficit without the need for exceptional financing; i.e., where it has achieved "medium term external viability".[3] The ability to regain market access is central to this determination. Reliance on financing from other official creditors well into the post-program period would not be consistent with this standard. Importantly, what is germane for external viability is not the "need," but the "ability" to tap private capital markets: while official commitments of support could reduce a member's *need* to tap private capital markets, a member could not be considered to have achieved external viability until it has the *ability* to do so.

8. Because a member's ability to access private capital markets is inherent to the resolution of a member's balance of payments problem, staff's view is that official financing

[3]Guidelines on Conditionality, Decision No. 12864–(02/102), September 25, 2002, as amended.

commitments do *not* render the market access criterion moot. This is not to say that commitments of official support are irrelevant when assessing whether the market access criterion is met.[4] There may be circumstances where the availability of official financing on favorable terms in the post-program period has the effect of moderating rollover needs or reducing "tail" risks, and this could make private capital markets more willing to lend, if they were called upon to do so. Conversely, if the member is expected to draw on substantial amounts of official sector support in the post-program period, this could deter private investors from lending to the sovereign, owing to fears that their claims would be subordinated to the mounting stock of senior official claims. These considerations would need to be weighed, case-by-case, alongside other factors—such as debt levels and growth prospects—that may affect market access and external viability.

9. With regard to the second issue (of timeframe), notwithstanding the ambiguity of the language, the Fund has generally required that the member regain market access within a timeframe that facilitates the repayment of all of its obligations—not just the last one that is due (Table 1 sets out the market re-access timeframes observed in a selection of recent exceptional access programs). Thus, in the case of the typical 3-year extended arrangement under the EFF, where repayments to the Fund commence around 4½ years after the first disbursement, the member would be expected to achieve market access (external viability) no later than the fifth year from the start of the program.[5]

Table 1. Market re-access in selected recent EA cases 1/

		Arrangement 2/		Percent of	Date of	
Country	Type	Start	End	quota 2/	re-access 3/	Comments 3/
Sri Lanka	SBA	Jul 2009	Jul 2012	400	Oct 2010	$500 million, 5-year bond, with a coupon of 7.4 percent
Ukraine	SBA	Jul 2010	Dec 2012	729	Sep 2010	Dealogic reports issuances throughout 2010-12
Ireland	EFF	Dec 2010	Dec 2013	2322	Jul 2012	Return to the Tbill market. Dealogic reports a bond issuance in Jan 2012
Portugal	EFF	May 2011	May 2014	2306	Jan 2013	Re-opening of a 5-year bond at about 5 percent yield
Greece	EFF	Mar 2012	Mar 2016	2159	Apr 2014	Access was not long-lasting
Jordan	SBA	Aug 2012	Aug 2015	800	Nov 2015	Issuance of eurobond without guarantees

1/ The selected sample excludes precautionary arrangements (precautionary SBAs, FCLs, PLLs).
2/ Information from SPR database "Fund Arrangements Since 1952".
3/ First international issuance in the post-program period, from Dealogic and/or staff reports.

[4]Official support here connotes direct policy lending to a member by the official sector. It excludes project lending, monetary policy support mechanisms (including in the context of currency unions), and other credible signals from policy makers aimed at anchoring market expectations (e.g., Mario Draghi's "whatever it takes" pledge, in the context of the euro area crisis), which may nonetheless be important for supporting market access prospects.

[5]Market access may need to be restored sooner if there are Fund obligations coming due at the beginning of the post-program period because of purchases made under an earlier arrangement.

C. Staff's Proposal

10. In view of the analysis presented, staff proposes to retain the third criterion on market access under the EAP for cases involving open-ended commitments of official support.

11. To remove any unintended ambiguity in the language with regard to the "timeframe" within which market access should be gained/regained, staff proposes a clarification to the third criterion under the EAP as set out in the draft proposed decision below and in redline in the Annex below.

Proposed Decision

Based on the analysis set out in the main paper[6] and this supplement, staff proposes to modify the second and third criteria under the EAP. Accordingly, the following decision, which may be adopted by a majority of votes cast, is proposed for adoption by the Executive Board:

Paragraphs 3(b) and (c) of Decision No. 14064-(08/18), February 22, 2008, as amended, shall be amended to read as follows:

"(b) A rigorous and systematic analysis indicates that there is a high probability that the member's public debt is sustainable in the medium term. Where the member's debt is assessed to be unsustainable ex ante, exceptional access will only be made available where the financing being provided from sources other than the Fund restores debt sustainability with a high probability. Where the member's debt is considered sustainable but not with a high probability, exceptional access would be justified if financing provided from sources other than the Fund, although it may not restore sustainability with high probability, improves debt sustainability and sufficiently enhances the safeguards for Fund resources. For purposes of this criterion, financing provided from sources other than the Fund may include, inter alia, financing obtained through any intended debt restructuring. This criterion applies only to public (domestic and external) debt. However, the analysis of such public debt sustainability will incorporate any relevant contingent liabilities, including those potentially arising from private external indebtedness.

(c) The member has prospects of gaining or regaining access to private capital markets within a timeframe and on a scale that would enable the member to meet its obligations falling due to the Fund."

[6]Further to the modifications in the main paper, staff proposes a clarification to the last sentence of the second criterion to align the concepts of government and public debt.

Annex: Redline of Paragraphs 3(a), 3(b), 3(c) and 3(d) of Decision No. 14064-(08/18), February 22, 2008, as Amended:

"(a) The member is experiencing or has the potential to experience exceptional balance of payments pressures on the current account or the capital account, resulting in a need for Fund financing that cannot be met within the normal limits;

(b) A rigorous and systematic analysis indicates that there is a high probability that the member's public debt is sustainable in the medium term. Where the member's debt is assessed to be unsustainable ex ante, exceptional access will only be made available where the financing being provided from sources other than the Fund restores debt sustainability with a high probability. Where the member's debt is considered sustainable but not with a high probability, exceptional access would be justified if financing provided from sources other than the Fund, although it may not restore sustainability with high probability, improves debt sustainability and sufficiently enhances the safeguards for Fund resources. For purposes of this criterion, financing provided from sources other than the Fund may include, inter alia, financing obtained through any intended debt restructuring. ~~However, in instances where there are significant uncertainties that make it difficult to state categorically that there is a high probability that the debt is sustainable over this period, exceptional access would be justified if there is a high risk of international systemic spillovers. Debt sustainability for these purposes will be evaluated on a forward-looking basis and may take into account, inter alia, the intended restructuring of debt to restore sustainability.~~ This criterion applies only to public (domestic and external) debt. However, the analysis of such public debt sustainability will incorporate any ~~potential~~ relevant contingent liabilities ~~of the government~~, including those potentially arising from private external indebtedness.

(c) The member has prospects of gaining or regaining access to private capital markets within ~~the~~ a timeframe ~~when Fund resources are outstanding~~ and on a scale that would enable the member to meet its obligations falling due to the Fund.

(d) The policy program of the member provides a reasonably strong prospect of success, including not only the member's adjustment plans but also its institutional and political capacity to deliver that adjustment."

INTERNATIONAL MONETARY FUND

COMMUNICATIONS DEPARTMENT

Press Release No. 16/XX
FOR IMMEDIATE RELEASE
[January 28, 2016]

International Monetary Fund
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Washington, D. C. 20431 USA

IMF Executive Board Approves Exceptional Access Lending Framework Reforms

The Executive Board of the International Monetary Fund (IMF) has approved reforms to the IMF's exceptional access lending framework, which governs access above the Fund's normal financing limits, to make it more calibrated to members' debt situations, while avoiding unnecessary costs for the members, creditors, and the financial system as a whole. These reforms were put forward in a 2015 staff paper "The Fund's Lending Framework and Sovereign Debt – Further Considerations." The Board's January 20, 2016 decision follows a preliminary Board discussion on this topic in June 2014 (Press Release No. 14/ 294).

The approved reforms include the elimination of the "systemic exemption" introduced in 2010, an increase in flexibility for members where debt is assessed to be sustainable but not with high probability, and a clarification to the criterion related to market access. IMF staff consulted with numerous stakeholders, including market participants, in the course of its work on the reforms.

In May 2013, the Executive Board endorsed a four-pronged work program and asked staff to present options for reform (see Public Information Notice No. 13/61). Two of the four components were concluded earlier. These are: (i) strengthening the contractual framework to address collective actions problems (see Press Release No. 14/459); and, (ii) reforming the IMF's policy on the non-toleration of arrears to official creditors (see Press Release No. 15/555). Additional work related to private sector involvement in debt restructurings, including the lending-into-arrears policy, will begin shortly.

Executive Board Assessment[1]

Executive Directors welcomed today's discussion of proposed reforms to the Fund's exceptional access framework, one of the issues under the sovereign debt restructuring work program that was endorsed by the Executive Board in May 2013. Directors supported the broad objectives underlying the proposed reforms. They agreed that, by modifying this framework to allow responses that are better calibrated to a member's debt vulnerabilities, the reforms would

[1]An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

help promote more efficient resolution of sovereign debt problems and avoid unnecessary costs for the member, its creditors, and the overall system. At the same time, they would enable the Fund—consistent with its mandate—to continue providing financing to assist members in resolving their balance of payments problems, including in the presence of spillover and contagion risks.

In this context, Directors generally favored the removal of the systemic exemption. It was recognized that the removal of the systemic exemption is critical for several reasons. First, to the extent that a member faces significant debt vulnerabilities despite its planned adjustment efforts, the use of the systemic exemption to delay remedial measures risks impairing the member's prospects for success and undermining safeguards for the Fund's resources. Second, from the perspective of creditors, the replacement of maturing private sector claims with official claims, in particular Fund credit, will effectively result in the subordination of remaining private sector claims in the event of a restructuring. Third, the systemic exemption aggravates moral hazard in the international financial system and may exacerbate market uncertainty in periods of sovereign stress. Finally, it is far from clear that invoking the systemic exemption to defer necessary measures on debt can be relied upon to limit contagion, since the source of the problem—namely, market concerns about underlying debt vulnerabilities—is left unaddressed.

Directors agreed that staff's proposed approach addresses more robustly the rigidities in the exceptional access framework, while ensuring that debt vulnerabilities are addressed in an appropriately calibrated way. Specifically:

- When the Fund is confident that debt is sustainable with high probability, it would continue to provide financing in support of a strong adjustment program that envisages payment of outstanding obligations as they fall due. These cases would include those where, although a member may have lost market access, the Fund is confident that this loss is temporary and that debt is sustainable.

- By contrast, when debt is clearly unsustainable, prompt and definitive action to restructure debt and restore debt sustainability with high probability remains the least-cost approach.

- However, when a member's debt is assessed to be sustainable but not with high probability, requiring a definitive debt restructuring could incur unnecessary costs. In such situations, it would be appropriate for the Fund to grant exceptional access so long as the member also receives financing from other sources during the program on a scale and terms such that the policies implemented with program support and associated financing, although they may not restore projected debt sustainability with a high probability, improve debt sustainability and sufficiently enhance the safeguards for Fund resources.

Directors noted that, in applying this more flexible standard in circumstances where debt is assessed to be sustainable but not with high probability, there would be a range of options that

could meet the prescribed requirements. There would be no presumption that any particular option would apply. Rather, the choice would depend on the circumstances of the particular case, and would need to be justified accordingly. In particular:

- In situations where the member retains market access, or where the volume of private claims falling due during the program is small, sufficient private exposure could be maintained without the need for a restructuring of their claims.

- If the member has lost market access and private claims falling due during the program would constitute a significant drain on available resources, a reprofiling of existing claims (that is, a short extension of maturities falling due during the program, with normally no reduction in principal or coupons) would typically be appropriate. This could allow a somewhat less stringent adjustment path while also reducing the needed level of access. Although a reprofiling is a form of debt restructuring, it was recognized that, in these circumstances, it will likely be less costly to the debtor, the creditors, and the system than a definitive debt restructuring. In this context, the scope of debt to be reprofiled would be determined on a case-by-case basis, recognizing that it would not be advisable to reprofile a particular category of debt if the costs for the member of doing so—including risks to domestic financial stability—outweighed the potential benefits. Notably, short-term debt instruments (by original maturity), trade credits, and local currency-denominated debt had not been included in most past restructurings.

- Similarly, financing from official bilateral creditors, where necessary, could be provided either through an extension of maturities on existing claims and/or in the form of new financing commitments.

As is the case with all debt restructurings under Fund-supported programs, a reprofiling, where it is needed, should ideally be undertaken before the approval of the Fund arrangement. However, there may be circumstances under which more flexibility is warranted, so that the conclusion of the debt operation is contemplated at a later date. Against this background, it would not be necessary to hold up Fund support until there is complete clarity regarding the terms of this financing.

Directors broadly concurred with staff's analysis on the nature and type of cross-border spillovers that could result from a debt restructuring. They recognized that some spillovers, insofar as they reflect a repricing of risk in line with fundamentals, should be accommodated and complementary policy actions should be taken if necessary to counter market fluctuations that are not rooted in fundamentals.

Nevertheless, Directors took note of the fact that, if a rare tail-event case were to arise where any restructuring of private claims, even a reprofiling, is judged to pose unmanageable risks, either for domestic financial stability or in terms of possible cross-border spillovers, the reformed framework creates the flexibility for the Fund to approve exceptional access to Fund resources without such a restructuring so long as official sector partners are willing to provide

the necessary financing. Such financing would need to be on terms sufficiently favorable to improve sustainability and enhance safeguards for Fund resources, and, accordingly, the Fund would need assurances that the terms could be modified in future if the outlook for debt sustainability were to deteriorate significantly. If official creditors were unwilling to provide such assurances, the terms of the financing would need to be sufficiently generous upfront to restore debt sustainability with high probability. In circumstances where debt is unsustainable, the terms of the financing provided by official bilateral creditors would similarly need to be sufficiently favorable to restore debt sustainability with high probability. This could take the form of loans with long tenors and concessional rates, grants, or other instruments. Directors noted that these requirements would be implemented flexibly. The Fund could proceed on the basis of political commitments to backstop debt sustainability without necessarily requiring all the specific modalities to be spelt out. Directors concurred that, while this alternative approach for rare tail-risk cases does not allay moral hazard concerns, it would be more effective than the systemic exemption, as it would help the member address its debt problems, mitigate contagion at its source, and provide safeguards for Fund resources. Some Directors noted the expectation that the approach would be used only rarely and emphasized that the decision to resort to this approach should be made in an evenhanded manner. A few Directors expressed the view that the approach described in this paragraph could be feasible even in less extreme circumstances rather than just in rare tail-events characterized by unmanageable risks.

Directors observed that the Fund's assessment of debt sustainability will continue to play a central role in the exceptional access framework. In this regard, they emphasized that, notwithstanding continued improvements in the Fund's toolkit for making debt sustainability assessments, the determination of where a country's debt prospects lie on the spectrum of probabilities will continue to involve a significant element of judgment. Specifically, the determination, which is inherently forward-looking, would take into account all relevant information, including country-specific information on prospects for policy implementation, growth opportunities, contingent liabilities, the nature of the creditor base and indicators of investor confidence; as well as the outlook for the global economic environment. Directors noted that, taking these considerations into account, the levels of debt that are consistent with sustainability could vary significantly across programs.

With regard to the third criterion under the exceptional access framework, namely the condition related to market access, Directors supported staff's view that this condition needs to be met even in cases involving open-ended commitments of official support beyond the program period. They agreed that the resolution of a member's balance of payments problem and the achievement of medium-term external viability is a key objective of Fund lending, and a member's ability (as distinct from its need) to access private capital markets is inherent to this resolution. While official financing commitments can provide a useful backstop against downside risk, they do not render the market access criterion moot. Directors emphasized, nonetheless, that staff should take into account the positive impact that commitments of official support may have on a member's ability to access markets, on a case-by-case basis, when assessing whether the third criterion is met.

Directors also broadly supported staff's clarification on the timeframe within which to establish market access. Specifically, they noted that the Fund has generally expected that a

member gain or regain market access within a timeframe that facilitates the repayment of all of its obligations to the Fund—not just the last one that is due, as the current wording of the third criterion might suggest.

The changes to the Fund's exceptional access framework will enter into effect immediately and will apply to all future completion of reviews under existing arrangements or approval of new Fund arrangements.

Looking ahead, Directors called on staff to continue its work on ensuring that the Fund's lending toolkit is effective in addressing systemic crises and contagion. They looked forward to the upcoming review of issues relating to debtor-creditor engagement, including the Fund's lending into arrears policy. This would complete the program of work aimed at facilitating the timely and orderly resolution of sovereign debt problems.

INTERNATIONAL MONETARY FUND

April 9, 2015

THE FUND'S LENDING FRAMEWORK AND SOVEREIGN DEBT—FURTHER CONSIDERATIONS—ANNEXES

Approved By
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ANNEX I. CHANNELS OF INTERNATIONAL FINANCIAL CONTAGION[1]

This annex describes the different channels of financial contagion, discusses the role of contagion in sovereign debt crises, and reviews the contagion impact of select major crisis episodes over the past two decades. The taxonomy of contagion channels is consistent with both Fund experience and the academic literature. The analysis suggests that (i) the most pervasive type of contagion has stemmed from the risk aversion and confidence channel, in which contagion is triggered by a reassessment of risks and a general increase in uncertainty in the context of a crisis; and (ii) the policy uncertainty channel seemed most important for the euro area crisis. Policy responses to handle contagion included both domestic actions—forex intervention, monetary tightening and fiscal consolidation, banking firewalls and prudential measures—as well as contributions from the international community, often in the form of a Fund arrangement. The analysis also finds that to the extent that the systemic exemption clause in the Fund's lending framework may act to dull market incentives (as a result of an implicit bail-out subsidy associated with it), removing this clause may actually reduce the risk from the risk-aversion and confidence channel of contagion.

A. A Taxonomy of the Channels of Financial Contagion

1. **This annex describes the different channels of financial contagion and reviews the contagion impact of select major crisis episodes over the past two decades.**[2] The taxonomy of contagion channels described below is consistent with both Fund experience and the academic literature. The focus is on international financial contagion. Domestic spillovers, including those that impact domestic financial stability (such as bank bailouts or sovereign downgrades), are not considered. The case studies are: Mexico (1995), Thailand (1997), Russia (1998), Brazil (1999), Argentina (2001) and Greece (2010).[3] These cases have been recognized as significant contagion events by both the financial press and the academic community.

2. **There exist different approaches to classifying channels of financial contagion.** Contagion is most commonly defined as "spillovers across markets from extreme events." Contagion

[1]Prepared by Luc Laeven (lead, RES); Tamon Asonuma, Alex Pienkowski, Nelson Sobrinho, Chad Steinberg (all SPR); and Alberto Martin (RES).

[2]The taxonomy focuses on financial contagion and abstracts from real spillovers such as those arising through trade. Trade can cause contagion through bilateral trade or competition in other markets. A crisis in one country can reduce income and demand for imports, negatively affecting exports from other countries. In addition, if a country suffers a crisis and devalues its currency, it may improve the relative competitiveness of its exports in foreign markets. Most academic papers find that trade channels are significant and play an important role in transmitting crises.

[3]Of these cases, Mexico, Russia, Argentina and Greece were also sovereign debt crises.

can operate through various real and financial channels. The literature has proposed several ways of classifying different types of contagion.

3. **One way is to classify contagion depending on whether the underlying cause is based on fundamental or non-fundamental changes.** "Fundamentals-based contagion" emphasizes spillovers resulting from the normal interdependence among market economies. This interdependence means that shocks, whether of a global or local nature, can be transmitted across countries because of their real and financial linkages (Kaminsky and Reinhart, 2000). When these comovements occur during a period of crisis and their effect is adverse, they can be considered as contagion. Much of the empirical work on contagion seeks to explain the degree of comovements and the mechanisms for transmitting them (for example, how and under what conditions a financial crisis in one country is spread to other countries on the basis of various fundamental relationships). "Non-fundamental" contagion arises when economic variables co-move despite the absence of common shocks or interdependence among fundamental factors (Dornbusch and others, 2000). This type of contagion occurs in the absence of observed changes in macroeconomic or other fundamentals, but is solely the result of changes in the behavior of investors or other financial agents. This can trigger financial panics, herd behavior, loss of confidence, and increased risk aversion. A crisis in one country may, for example, lead investors to withdraw their investments from many markets without taking account of differences in economic fundamentals.[4]

4. **For practical purposes, a more useful way of classifying contagion is by the major underlying channels through which it spreads**:[5] Four main channels are identified. First, the *financial* channel, driven by cross-border bank exposures, offers the most direct mechanism for stress transmission across jurisdictions. Second, the *risk aversion and confidence* channel is associated with a sudden drop in risk appetite/confidence that can result in a general re-assessment of risk across economies or entire asset classes, independent of the actual financial or portfolio linkages between them. Third, the *portfolio reallocation* channel could be triggered by factors such as rating downgrades, causing institutional investors to move out of asset classes which no longer meet their investment mandates. Fourth, the *policy uncertainty* channel can serve as a powerful driver of contagion—for example, the bail-in of bank creditors in one country could be interpreted by creditors as a change in the rules of the game in other similarly vulnerable economies. International policy uncertainty over how to deal with a distressed economy (say in the context of a currency union) can also be an important contagion channel, as it can bring into focus other distressed economies in the union. Although these channels are difficult to unpack in crisis periods, as they feed off each other, they are amenable to a closer examination, including with a view to linking to country examples of contagion. Each of these four channels is explored in more detail below.

[4]Note that non-fundamental contagion may very well arise in response to investors' rational behavior, although it can be justified by invoking irrational behavior as well.

[5]This taxonomy is based on Forbes (2012) and Fund experience.

5. **The financial channel operates directly through exposures to financial assets or indirectly through banks or other financial intermediaries.** For instance, a negative shock to one country can cause banks to reduce the supply of credit in other countries, reducing liquidity and raising the cost of credit. This could occur in a number of different ways. For example, a debt restructuring operation may impose losses on foreign banks holding sovereign bonds. To restore capital adequacy, meet other regulations, or adjust exposures, these banks may in turn reduce domestic credit supply, possibly triggering an economic downturn and financial instability.

6. **The risk aversion and confidence channel refers to a reassessment of the risks in other countries based on new information or a reappraisal of a country's fundamentals.** These so called "wake-up calls" can happen because investors are not focused on or aware of certain vulnerabilities, or because fundamentals only become problematic during a crisis—thereby generating multiple equilibria (Bekaert and others, 2011). The risk of wake-up calls is greater when there is more uncertainty, especially about economic fundamentals or financial institutions in the country. This channel involves many forms of reassessment including the macroeconomic, financial or political characteristics of the country. For example, if a shock to one country increases uncertainty about the ability of major financial institutions to trade assets or provide liquidity, financial markets could freeze up. Any such reassessment of the functioning of financial markets could cause investors to sell assets across countries, thereby causing contagion.

7. **The portfolio reallocation channel arises from the behavior of portfolio investors.** An idiosyncratic shock to one country reduces the value of investors' portfolios, forcing them to sell assets in other countries to meet margin calls or cash requirements or to rebalance portfolios. The empirical literature finds strong support for such an asset substitution channel. For instance, Kaminsky and others (2004), studying emerging market mutual fund flows during emerging market crisis, starting with the Mexican tequila crisis of 1994, find that mutual fund managers engage in "contagion trading", selling assets in other countries when asset prices collapse in a given country. More complicated models show how increased risk aversion after a negative shock or informational asymmetries and other forms of imperfect information can cause investors to sell assets across countries and "overreact." For example, investors may find it less costly to "herd" and follow other investors, especially if they are unable to differentiate between idiosyncratic shocks and informed trading by others, or if they are evaluated relative to an index. These models can be further complicated in situations of self-fulfilling expectations and multiple equilibria. Several papers use detailed fund-level information to document contagion through portfolio investors and find that these effects can be substantial (e.g., Fratzscher (2009) and Raddatz and Schmukler (2012)). Such effects are found for a broad range of investors, including mutual funds, institutional investors, and hedge funds. For instance, Boyson, Stahel, and Stulz (2010) study contagion across hedge funds, and find that liquidity shocks are important drivers of contagion in hedge funds, over and above changes in fundamentals.

8. **The policy channel is a form of contagion arising from uncertainty over the existing policy framework or a sudden shift in policy.** This might arise, for example, when there is uncertainty over whether or not a sovereign may be supported with a financial package during a

crisis; and the terms of such support with respect to private creditors. Prior to the sovereign debt crisis of Greece there was an implicit assumption by markets that sovereigns in the European Union would not default on their debt, despite the explicit "no bailout" clause of the Maastricht Treaty. When political statements following the Greek program cast doubt on this assumption, this triggered contagion to other euro area countries with similar fundamentals as the news made investors update their beliefs about the possibility of a debt restructuring in these countries. In addition, any sudden shift in domestic or international policy (be it financial, fiscal, monetary, or real) can lead to a reassessment of risks by investors and trigger contagion. For instance, the decision by policymakers in a distressed economy to (temporarily) guarantee domestic bank liabilities could put pressure on policymakers in other/similar economies to do the same. Alternatively, the decision to bail-in banks in one jurisdiction can be interpreted by creditors as signaling a change in the rules of the game, and possibly generate panic exits. Chen (1999) shows that generous financial support for one country could even be interpreted as evidence that other countries might receive less instead of more support if a package depletes a limited supply of funds.

9. **Some argue that the possibility for financial contagion has increased over time as economies have become increasingly integrated financially.** Forbes (2012) argues that the risk of contagion has increased since the 1980s because of increased financial integration, reinforcing the links between countries in both good and bad times. Global interdependence has increased over time, even after controlling for global shocks and changes in volatility, especially within the euro area.[6]

10. **At the same time, research shows that the potential for contagion depends greatly on country circumstances.** Empirical work shows that a country is more vulnerable to contagion if it has a more levered banking system, greater trade exposure, weaker macroeconomic fundamentals, and larger international portfolio investment liabilities. Countries are less vulnerable, however, if they have larger international portfolio investment assets (which can provide a buffer against shocks) and are less reliant on debt (versus equity) for international financing (Forbes, 2012).

B. Financial Contagion and Sovereign Debt Restructuring

11. **The different financial contagion channels can all be at work in a sovereign debt crisis, especially when foreign portfolio investors and financial institutions hold the country's sovereign debt.** Beyond this general observation there has not been much research on financial contagion in the context of a sovereign debt crisis or sovereign debt restructurings. This section briefly reviews the main findings of the literature in this area.

12. **Sovereign debt restructurings tend to occur in clusters.** This phenomenon has been illustrated using historical data on sovereign debt restructurings (Reinhart and Rogoff, 2011). Recently, the quantitative sovereign debt literature has begun to develop models that capture this

[6]See Annex II "Analytical Note on the Scope of Sovereign Debt for Reprofiling" for more details.

phenomenon. Lizarazo (2009) builds a multicountry model in which default in one country raises the likelihood of default in other countries. Countries are linked to one another through common investors. Thus, when the risk of default in one country increases, investors suffer a negative wealth shock and they become more risk averse. Moreover, they are led to rebalance their portfolios. Both effects lead to contagion as they influence investors' demand for the assets of other countries. In a similar vein, Arellano and Bai (2014) also develop a multicountry model in which countries are linked to one another by borrowing from and renegotiating with common lenders. Countries default together because by doing so they can renegotiate the debt simultaneously and pay lower recoveries. Defaulting is also attractive in response to foreign defaults because the cost of rolling over the debt is higher when other countries default. Arellano and Bai show that such forces generate a positive correlation of spreads and joint incidence of default, as observed in the real world.

13. **Historically, contagion effects through direct exposures from sovereign debt crises have tended to be modest for foreign investors and banks.** The empirical literature on contagion from sovereign debt crises shows that foreign investors and banks tend to be negatively affected by international financial contagion from sovereign debt crises and positively affected by official sector bailouts. However, the contagion effects tend to be modest in most cases. For instance, Huizinga and Sachs (1987) find that markets priced in sovereign debt defaults during the developing country debt crisis of the 1980s, as reflected in the discounts observed in the secondary market prices for developing country debt, and in the discounts in the stock market pricing of banks with exposure to debt in the developing countries. Lee and others (2000) investigates the impact of emerging market currency crises and bailouts on bank stock prices. They find that banks with exposures to a crisis country are affected adversely by currency events and positively by bailouts. Other banks are mostly unaffected by events in countries experiencing a crisis. They use the impact of the Long-Term Capital Management (LTCM) crisis on bank stock prices to put the emerging market events in perspective. The LTCM crisis had no significant contagion effects in the banking sector either, but banks that participated in the LTCM rescue experienced negative stock returns when the rescue was announced. Finally, there is also strong evidence to suggest that sovereign debt reprofilings tend to be much less damaging to banks than upfront debt haircuts (Box 3, IMF 2014)

14. **Recently, the eurozone crisis has revived interest in international financial contagion and has motivated a series of empirical studies, with conflicting findings on the adverse spillovers from the crisis.** Brutti and Saure (2011), for instance, study the effects of financial news during the eurozone crisis and find evidence in favor of financial contagion. In particular, they use financial news to identify structural shocks in a vector autoregressive model of sovereign CDS premia for eleven European countries. To estimate how these shocks transmit across borders, they use data on cross-country bank exposures to sovereign debt. Their results suggest that cross-border financial exposures were important transmission channels of negative news. They also find that it was exposures to sovereign risk that accounted for most of the transmission, whereas there seemed to be little transmission through interbank lending. Mink and De Haan (2013) perform a related analysis but reach a somewhat different conclusion. They examine the impact of news about Greece and news about a Greek bailout on bank stock prices in 2010, using data for 48 banks included in

the European stress tests. They find that news about Greece does not lead to abnormal returns while news about a bailout does, even for banks without any exposure to Greece or other highly-indebted euro countries. While this finding suggests that markets consider news regarding bailouts as signals of European governments' general willingness to use public funds to combat the financial crisis, CDS spreads around the approval of the eurozone programs were unaffected or even worsened further. Finally, Beirne and Fratzscher (2013) find that contagion in the euro area during the sovereign debt crisis of 2008–11 was mainly driven by deterioration in economic fundamentals. According to their findings, most of the rise in measures of sovereign risk can be explained by deterioration in countries' own fundamentals rather than by regional contagion from an intensification of spillovers of sovereign risk across countries or by herding contagion due to a temporary overreaction of financial markets that is clustered across countries.

C. Country Experiences with Financial Contagion

15. **This section summarizes the contagion impact of six major crisis episodes over the past two decades.** The case studies are: Mexico (1995), Thailand (1997), Russia (1998), Brazil (1999), Argentina (2001), and Greece (2010). These cases have been recognized as significant contagion events by both the financial press and the academic literature.[7] For illustrative purposes, these crises are assumed to be distinct episodes, despite the fact that some were clearly inter-linked in reality. For instance, the Russian crisis was amongst the events that contributed to trigger the devaluation of the Brazilian *real* in January 1999. In turn, the Brazilian crisis further weakened fundamentals in Argentina in the run-up to the Argentine debt default in 2001. Furthermore, the analysis also seeks to abstract from ongoing events in the world economy, which could also have played a role in exacerbating or containing contagion. Events with potential global implications that coincided with some of the crises considered include the U.S. monetary policy tightening in 1994–95; the collapse of the LTCM in 1998 and the ensuing squeeze in global liquidity; and the burst of the dot com bubble in 2000–01.

16. **Each of the channels of contagion mentioned above is explored in turn for the six major crises listed above,** including what policies were deployed to help contain these contagion channels. Table AI1 provides details on each case including which countries were affected by contagion.

D. Channels of Contagion

17. **In most cases, financial contagion through direct exposures were not an important source of cross-country contagion.** In a few instances, some countries had large exposures to the crisis source country—for instance Latvia to Russia, Uruguay to Argentina, and Cyprus to Greece. But these tended to be small neighboring countries, and this link does not explain the wider contagion

[7] See, for instance, Dornbusch and others (2000); Rigobon (2002); Kaminsky and others (2003); Forbes (2012); and Beirne and Fratzscher (2013).

from these crises. In general, cross-holding of sovereign bonds are less common in emerging markets, although this is not the case for advanced economies, as illustrated by the large exposures of euro area countries to Greece (e.g., Cyprus).

18. **In some cases, indirect financial channels of contagion were more important.** For example, once the crisis in Europe had spread to Ireland and Portugal, and also threatened Italy and Spain, the financial links to the rest of Europe became very large—bank exposure in non-stressed countries to sovereign and private debt of stressed countries reached around 30 percent of GDP (Constâncio, 2013). This put significant strain on some core European sovereigns and banks. Similarly, no single country had large exposures to Thailand, but once the crisis had spread to other East Asian economies, the combined exposure of countries outside the region was more substantial.

19. **Across the case-studies, it is difficult to find individual countries which were particularly affected by "contagion trading" through the portfolio reallocation channel.** Some evidence suggests that emerging markets like Brazil, Mexico, and Hong Kong SAR were particularly hit by the Russian crisis because they were the most liquid and accounted for large shares of mutual fund and hedge fund holdings. Overall, however, it appears that this channel had a relatively modest, but widespread impact across many countries. For instance, market access for emerging market borrowers, including Brazil, was negatively affected by losses suffered by retail investors in Europe and Japan holding significant amounts of Argentine defaulted debt.

20. **The risk aversion and confidence channel is critical in explaining contagion in the cases analyzed.** This channel, whereby investors lose confidence in countries with similar fundamentals due to a reassessment of risks, played an important role in Mexico, Thailand and Greece; and to a lesser extent in Russia, Brazil and Argentina (which arguably were "victims" of wake-up call contagion). The Mexico crisis triggered large outflows of capital in Latin America, especially Argentina and Brazil, where stock markets and (Brady) bonds prices fell significantly. In East Asia, countries with a fixed exchange rate and high private sector indebtedness (often with large maturity and currency mismatches) suffered currency crises. In the euro area, countries with competitiveness issues and high debt and/or fiscal deficits came under increased market pressure. This increased market differentiation between countries applied to both sovereigns and banks. In fact, evidence suggests that the deterioration in euro area countries' own fundamentals played a key role in the pricing of risk by market participants (Beirne and Fratzscher, 2013). For instance, uncertainty around the Greek crisis led to a selloff of sovereign bonds of other euro area countries, including of Italy and Spain, in a self-fulfilling fashion.

21. **The evidence suggests that the policy uncertainty channel was only significant for the euro area crisis.** Despite the fact that 'bail-outs' were prohibited in the Maastricht Treaty, there was an implicit assumption by markets that sovereigns would not be allowed to default on their debt prior to the crisis. However, statements following the Greek program—for instance at the Deauville Summit—cast doubt on this assumption, which triggered contagion to other euro area countries with similar fundamentals. This policy uncertainty was resolved with Mr Draghi's "whatever it takes" speech and the accompanying OMT facility. It was only when policy actions that diminished uncertainty were undertaken that contagion risks in the euro area decreased.

E. Policy Responses to Contagion

22. **In order to help shed light on how these contagion channels may be contained, this section explores the policy response in each of the crisis episodes.** Domestic policies, in particular financial sector capital and liquidity support, played an important role in preventing or containing contagion. Moreover, given the focus on the Fund's lending framework, this section also discusses the role of international policies that were deployed to complement IMF support.

23. **Country authorities used domestic policy instruments to respond to the crises they faced.** Interventions in the foreign exchange market to defend the peg and protect balance sheets carrying foreign-currency liabilities appeared to have been the first line of defense in countries with fixed exchange rate regimes (e.g., East Asian countries in 1997 and Brazil in 1998). However, foreign exchange interventions were often unsuccessful and did not prevent the exchange rate from overshooting in several countries. Significant monetary policy tightening was also used to defend the peg and contain contagion especially during the East Asian, Russian and Argentine crises. As expected from countries in a currency union, fiscal consolidation was the prevalent domestic response in the euro area, and to a lesser extent, during the Mexican and Asian crises. The use of measures to enhance competitiveness (e.g., tax relief, lower tariffs) was limited and restricted to episodes in which trade was the most important channel of contagion (e.g., Argentina and Uruguay in response to the Brazilian devaluation). In addition, existing banking sector firewalls in Argentina (1999) successfully averted a deposit run and induced local banks to build strong liquidity buffers. Similarly, strong buffers and low exposure to Argentine clients shielded the Chilean financial system against contagion from Argentina in 2001. In some cases, prudential measures were developed as the crisis unfolded (e.g., liquidity provision in foreign currency—Korea 1997; higher bank capital and liquidity requirements to deal with market risk—Argentina 1999; liquidity provision to systemically important banks—Uruguay 2002). However, domestic financial policies appeared to have been more effective when combined with international support (e.g., Uruguay 2002).

24. **The international community also contributed to the policy response.** For each crisis episode, Fund-supported programs were deployed in the countries worst hit by contagion. In some cases, these were deployed in conjunction with resources from other sources. In the East Asian crisis, particularly in the case of Korea and Indonesia, the World Bank and Asia Development Bank also provided resources. Several bilateral donors (the U.S., Japan, and OECD countries) committed resources as a "second line of defense", that is, they would provide supplemental financing (roughly similar to the total amount disbursed by the Fund in case the first line of defense—that is, financing from multilateral creditors—failed to stop the run on the currency. In the end, these contingent lines were not activated. The official sector also sought to coordinate financial institutions to rollover their private debt exposures in Korea. With the success of the rollover and maturity extension together with the authorities' implementation of the financial and corporate reform program, the market's view of Korea improved dramatically. Only Ukraine required IMF support following the Russia crisis, suggesting that the fall-out was less severe in this case. While Fund-supported programs were required in several countries following the Brazil and Argentine crises, there was no systematic

support from other donor sources. The World Bank and Inter-American Development Bank did, however, help to fund the recapitalization of Uruguayan banks in 2002.

25. **The euro area crisis required significant intervention by European authorities.** Initially, the IMF/European support packages agreed for Greece, Ireland and Portugal appeared insufficient to stem contagion to other countries in the region. Additional policies which focused on the banking sector—such as the LTRO and the Target 2 system—helped limit negative feedback between banks and sovereigns. But the resources designated for future rescue packages—mainly through the EFSF and SMP—were generally viewed as insufficient to support larger euro area countries. It was only when the ECB offered resources from its substantial balance sheet, via the OMT facility, that contagion was contained. This facility targeted the tail-risk associated with the perception that a disorderly break-up of the euro area was possible. In this sense, the facility went beyond simply providing a larger bail-out fund for sovereigns.

26. **In contrast, the timing and magnitude of policy commitments in the Mexican and Asian crises provided a stronger defense against contagion.** The United States initiated efforts to mobilize resources for Mexico long before the SBA approval and then committed resources that exceeded the amount of Fund financing. Japan also moved to assemble a financing package for Thailand and called bilateral donors' coordination for the second line of defense in the case of Korea and Indonesia. Thus the presence of a large member willing to move rapidly to mobilize financing to the source country may have helped to reduce the intensity and the duration of contagion effects in the affected countries.

27. **Perhaps not surprisingly, the degree of international policy support increased in proportion to the severity of the contagion episodes.** A simple comparison of the size of official sector lending against staffs' assessment of the severity of the crisis illustrates this point (Table AI1). The East Asian crisis and euro area crisis triggered, at the time, unprecedented levels of international support. The crises in Brazil and Argentina, which generated less contagion, received more orthodox treatment by policymakers. However, the size of the international policy response did not seem to vary systemically in regard to the *type* of crisis (i.e., sovereign debt, banking/financial or balance of payment crises) experienced by the source or recipient countries. As discussed above, the *severity* of the contagion was a more important determinant here. The form of international and domestic policy response did, however, vary with the *type* of crisis. Sovereign debt crises tended to be supported by (often very large) traditional Fund-supported programs, such as for Greece and Russia. Banking/financial crises tended to require additional measures, such as coordinating the roll-over of private debt (Korea) or large-scale central bank liquidity support (Ireland).

28. **The case studies also suggest a weak link between sovereign debt levels in the affected countries prior to the crisis and the mobilization of international support.** Initial debt levels in the affected emerging countries were low to moderate in the run-up to most crisis episodes, though many experienced sharp debt increases as a result of currency devaluations (e.g., Indonesia 1997–98, Ukraine 1998–2000, and Uruguay 2001–02). There was also variance in the initial debt levels in many advanced euro area countries affected by the Greek contagion. Some were low to moderate (e.g., Cyprus, Spain and Ireland), while others were higher (e.g., Portugal and Italy). Therefore, besides

sovereign debt sustainability, international support was also driven by other considerations, including preventing a disruption of the policy framework (e.g., Argentina in 1994–95), containing a bank run (e.g., Uruguay in 2001–02), and dealing with spillovers from private sector leverage (e.g., Korea in 1997).

F. Lessons from the Case Studies

29. **While recognizing that contagion is unlikely to ever be fully contained, some lessons can be drawn from these case studies.** The most pervasive of the contagion channels identified from these case studies is the *risk aversion and confidence channel*, operating through 'wake-up call' shocks associated with a reassessment of risks and the general increase in uncertainty surrounding a crisis. Identifying policies to tackle such a channel is difficult, especially given that it is not necessarily associated with geographical proximity or trade and financial links. However, policies designed to reduce information asymmetries are likely to be useful. Governments can promote greater information disclosure, especially in the financial sector. But perhaps more importantly, markets need to be incentivized to better analyze and differentiate between sovereign fundamentals. To the extent that the systemic exemption clause in the Fund's lending framework may act to dull market incentives (as a result of an implicit bail-out subsidy associated with it), removing this clause may actually reduce the risk from this channel.

30. **The policy uncertainty channel only seemed to be important for the euro area crisis.** The crisis resolution regime at the beginning of the crisis lacked credibility, and policymakers were slow to put in place a regime that could deal with the magnitude of sovereign and banking distress taking place. This suggests that policies need to be credible and robust to extreme states of the world.

31. **Direct financial linkages with the countries at the source of these case-study crises were often relatively modest.** But once the crisis spread through the contagion channels discussed above, financial exposures often multiplied in magnitude, compounding spillovers to bystander countries. This suggests that policies designed to stop the spread of contagion need to be rapid and decisive in order to keep them contained.

Table AI1. Severity of Contagion Episodes and Size of Official Sector Financing and Private Sector Involvement

(in US$ billion)

Crisis	Severity 1/	Countries "directly" affected	Total	IMF	Other Official	PSI 2/
Mexico (1995)	Moderate		52.0	18.0	34.0	0.0
		Argentina	5.0	2.4	2.6	0.0
		Brazil	0.0	0.0	0.0	0.0
		Total	**57.0**	**20.4**	**36.6**	**0.0**
Asia (1997)	High		16.0	4.0	12.0	0.0
		Korea	55.0	21.0	34.0	0.0
		Indonesia	33.0	10.0	23.0	0.0
		Philippines	2.1	1.4	0.7	0.0
		Total	**106.1**	**36.4**	**69.7**	**0.0**
Russia (1998)	Moderate		11.2	11.2		4.9
		Ukraine	3.1	2.2	0.9	0.7
		Poland	0.0	0.0	0.0	0.0
		Brazil	42.0	18.0	24.0	0.0
		Total	**56.3**	**31.4**	**24.9**	**5.6**
Brazil (1999) 3/	Low		0.0	0.0	0.0	0.0
		Argentina	0.0	0.0	0.0	0.0
		Uruguay	0.2	0.2	0.0	0.0
		Total	**0.2**	**0.2**	**0.0**	**0.0**
Argentina (2001)	Low		12.2	7.8	4.4	71.0
		Uruguay	2.6	1.5	1.1	5.4
		Total	**14.8**	**9.3**	**5.5**	**76.4**
Greece (2010)	High		283.0	58.0	225.0	260.0
		Ireland	67.5	22.5	45.0	0.0
		Portugal	78.0	26.0	52.0	0.0
		Cyprus	13.1	1.4	11.7	0.0
		Total	**441.6**	**107.9**	**333.7**	**260.0**

Sources: IMF Staff reports.

1/ Based upon staff assessment of the severity of sovereign/banking/BOP crisis in the source and affected countries, and number/importance of countries affected.

2/ Voluntary treatment of debt held by domestic and/or external private creditors. In the case of Argentina, it refers to the "mega swap" operation and "Phase 1 Exchange", both of which took place before the December 2001 outright default. In the case of Ukraine, it includes the reschedulings of 1998-99. In the case of Russia, it only includes the GKOs exchange in 1999.

3/ Brazil had an ongoing program with the Fund that started by the time of the Russian crisis in 1998.

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ANNEX II. ANALYTICAL NOTE ON THE SCOPE OF SOVEREIGN DEBT FOR REPROFILING[1]

The main objective of any treatment of sovereign debt in distress is to help improve sovereign debt sustainability. This requires distributing the burden of adjustment among various stakeholders in a way that best preserves or restores financial stability and economic growth. Neither past practice nor conceptual considerations establish a preferred fixed hierarchy among various types or holders of sovereign debt instruments to be included in restructurings. In any case, fixed rules could drive allocations to difficult-to-restructure instruments, and render solutions to sovereign distress more cumbersome. Hence, a case-by-case approach based on a comprehensive cost-benefit analysis should guide the choice of instruments to include in sovereign debt reprofiling and any mitigating policies. This note presents the underpinnings for this broad conclusion, along with some of the main characteristics of debt instruments in reprofilings, evidence of past practice, and major financial stability considerations in sovereign debt restructuring, especially under circumstances of increased interconnectedness and cross-border holdings of sovereign debt.

A. Dimensions of the Scope of Debt

1. **Debt may be divided along various dimensions, with potentially different implications for inclusion of debt instruments in reprofiling and the need for mitigating policies:**

- Maturity: The range of maturities to be included in a reprofiling would be guided by the objective of improving the outlook for debt sustainability. If the profile of debt is such that most maturities fall due during the program period, a reprofiling of this debt, in conjunction with adjustment measures could be sufficient to mitigate risks for the member country and the Fund. In cases where significant maturities fall due immediately after the program period, debt with maturity beyond the program horizon may need to be included. There could be reasons to exclude debt with very short original maturity, such as treasury bills (T-bills) as the continuing functioning of very short maturity debt markets may be important for successful adjustment. However, if the amount of such debt is too large to materially improve debt sustainability without its inclusion, its reprofiling or rollover arrangements may be necessary.

- Type of creditor: While there are different mechanisms to renegotiate the terms of private and bilateral official credit, there are good reasons to include bilateral official debt in reprofiling as it may encourage private sector participation. As noted in the Fund's June 2014 paper on sovereign debt restructuring,[2] the modalities for official involvement could vary, including

[1]Collective contribution from an MCM-RES-SPR team consisting of Kay Chung, Martin Cihak, Michaela Erbenova, Luc Everaert, Heiko Hesse, Alberto Martin, Michael Papaioannou, Alvaro Piris, and Gabriel Presciuttini.

[2]See IMF Policy Paper "The Fund's Lending Framework and Sovereign Debt-Preliminary Considerations", June, 2014.

provision of new lending instead of modifying the terms of existing loans. Similarly, there are different mechanisms to renegotiate the terms of bank loans and bonds, but they do not provide any a priori reason to exclude a particular instrument.

- Institutional status of the domestic debt holder: Reprofiling of sovereign holdings of financial institutions may have adverse implications for financial stability and in turn worsen the prospect of restoring sovereign debt sustainability. However, as shown in the June 2014 paper, the effect of reprofilings on domestic financial institutions has been small and not caused significant financial disruption. Nonfinancial institutions are likely to be able to better handle reprofiling without causing large negative externalities, especially when net present value losses are limited. Even so, indirect effects may need to be taken into account because of links to the financial system.

- Type of instrument: Sovereign liabilities come in many forms: loans, trade credit, guarantees, and bonds, all possibly state contingent (inflation or GDP-indexed, with GDP warrants) and possibly customized to the needs of the holder (e.g., 30-year maturity for pension funds).[3] Technically it should be possible to include all of these instruments in a reprofiling, but it may not be straightforward, especially for those instruments that do not have a well designated maturity. For example, it may not be practical to "suspend" guarantees during the period of reprofiling, especially deposit guarantee backstops or backstops to bank funding when the financial system is under stress. In general, inclusion of complex instruments of limited outstanding value could risk delaying reprofiling.

- Type of law: Sovereign debt may be issued under domestic law or foreign law and both could be included under reprofiling. From a legal standpoint, however, reprofiling of domestic law-governed debt could be easier since reprofiling debt under domestic law can be achieved through changes to domestic legislation. Reprofiling of foreign law-governed debt may be facilitated by the use of contractual provisions, such as collective action clauses (CACs). Strengthening these provisions as recently endorsed by the Board and inclusion of such provisions in international sovereign bonds will help reach a timely agreement amongst creditors in case a restructuring is needed.[4]

- Type of currency: Sovereign debt may be issued in local or foreign currency and both could be included in reprofiling. For debt issued in local currency, multiple options exist to reduce its real value. Aside from changing contract parameters, moral suasion and financial repression are alternative ways of securing refinancing. In addition, countries may reduce the real value of their

[3]Note that payment distress of publicly owned enterprises does not constitute sovereign distress. Claims on state owned enterprises (SOEs) are treated separately from those of the sovereign. Contingent SOE liabilities may end up on the books of the sovereign when guarantees are honored at which point they will become part of sovereign debt for the purpose of reprofiling or restructuring.

[4]See Press Release No.14/459. See also the staff paper on "Strengthening the Contractual Framework to Address Collective Action Problems in Sovereign Debt Restructuring", October, 2014.

obligations in domestic currency through higher inflation without formal restructuring (Reinhart and Rogoff, 2013). For debt issued in foreign currency or by countries that are part of a currency union, these tools are unavailable to the country itself, so all debt may need to be treated similarly. That said, such countries could have access to common backstops and facilities that may have been created by the currency union to help address debt distress in times of crises.

- Residency of the debt holder: Both resident and nonresident holders of debt may be covered in reprofiling. Including resident holders of sovereign debt in reprofilings amounts to a domestic redistribution of the adjustment burden from the sovereign to creditors but does not lower the overall adjustment a country needs to go through. Excluding residents from reprofiling is therefore tempting from a political economy and a domestic financial and economic stability perspective. However, consequences for future market access and reintegration into international capital markets may limit the actual benefits of excluding residents. Excluding residents may also lead to insufficient net present value gains, but this is less of a concern for reprofiling which is not meant to achieve significant NPV relief. Excluding nonresidents from reprofiling could be considered if there are high benefits from maintaining good relations with international financial markets. Note that the parallel between the residency of the holder and the type of law under which debt is issued appears to be fading (see Section E below).

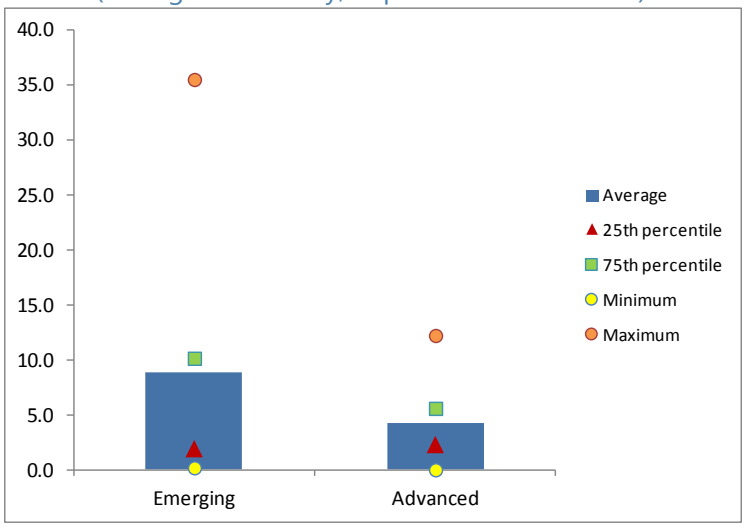
B. Stylized Facts on the Composition of Sovereign Debt

2. **Obtaining information on the various compositions of sovereign debt will need to occur in real time.** Along several dimensions (law, currency composition, type of instrument, maturity), information about the composition of sovereign debt is routinely known and publicly available. Along other dimensions, especially in terms of the holders of the debt such information is not readily available, in part because sovereign debt is actively and continuously traded in secondary markets. Broad compositions between foreign and domestic holdings and between financial and nonfinancial sectors can be indirectly obtained, for example, through custodian entities, for advanced economies (AEs) and many emerging markets (EMs). A few salient facts can be observed from available information:

- By original maturity, EM government debt with a maturity of less than 12 months amounted to an average of about 9 percent of total public debt as of Q3 2014, while for AEs the average share was about 4 percent (Figure AII1).[5] There is no theoretical prior on the optimal maturity composition of sovereign debt. Short-term sovereign debt is often used to manage cash and liquidity and conduct monetary policy operations.

[5]The reported figures refer to general government bonded debt, not including government guarantees, while the average shares mask wide variations of individual country shares.

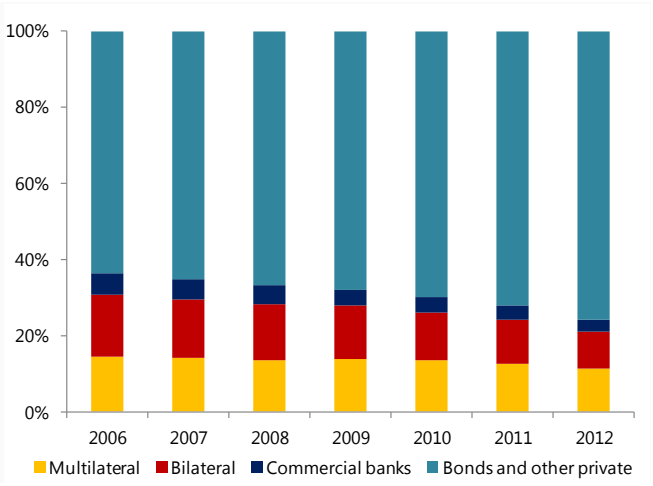
Figure AII1. Emerging and Advanced Economies Short-Term Sovereign Debt 1/
(at original maturity, in percent of total debt)



Sources: Bloomberg; IMF VEE; and Fund staff calculations.
1/ General government debt. As of Q3 2014.

- Sovereign debt owed to official creditors (multilateral and bilateral) is a small overall component of debt outstanding, generally declining, but with significant variation across countries (Figure AII2).

Figure AII2. Emerging and Low-income Countries
(in percent of total debt)

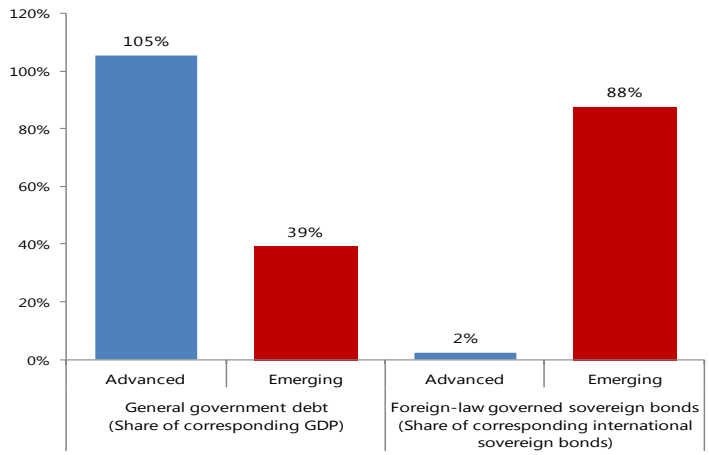


Sources: Global Development Finance; WEO; and Fund staff calculations.

- The bulk of sovereign debt has been issued under domestic law, reflecting the size of reserve currency countries. For EMs, the share of total sovereign bonded debt issued under foreign law is significant, at around 88 percent, with considerable cross-country variation (Figure AII3). Total

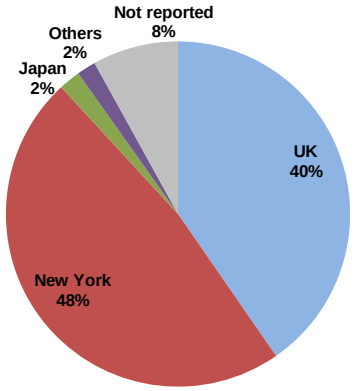
outstanding sovereign bonds under foreign law amounted to about US$900 billion in mid-2014, with the lion share issued under New York and English law (Figure AII4). Of these instruments the majority has been issued with CACs.[6]

Figure AII3. World Sovereign Debt 1/
(in percent)



Sources: WEO; and Fund staff calculations.
1/ General government debt. As of Q3 2014. Note. *World Sovereign debts* include multilateral/bilateral loans, trade credits, and SDR allocations, while *foreign-law governed sovereign debt* only shows bonds.

Figure AII4. Foreign-law Governed Sovereign Bonds: Jurisdictions
(as of July 2014)



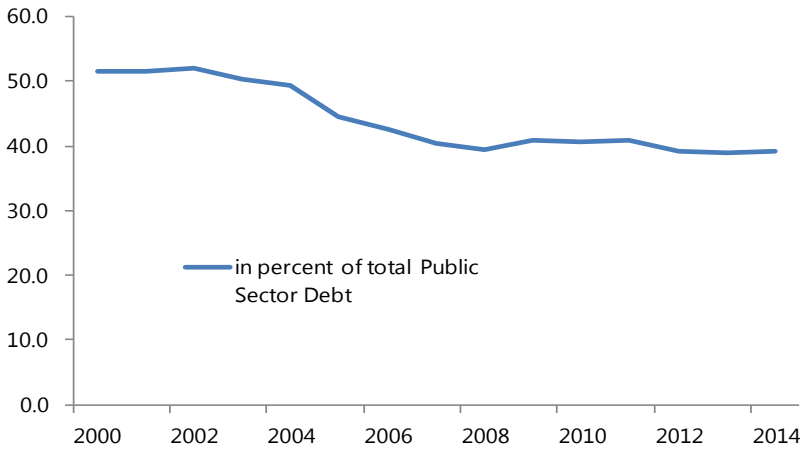
Source: Bloomberg.

- The share of foreign currency debt of EMs is about 40 percent of total (Figure AII5). It has been steadily diminishing, reflecting the greater confidence in these economies as well as increased

[6]See IMF Policy Paper "Strengthening the Contractual Framework to Address Collective Action Problems in Sovereign Debt Restructuring," October, 2014.

investor diversification. However, the share of foreign currency debt has been rising for a number of lower income countries, especially those that have been recent first time issuers in international markets.

Figure AII5. Emerging Market Economies: Public Sector Debt in Foreign Currency or Linked to the Exchange Rate



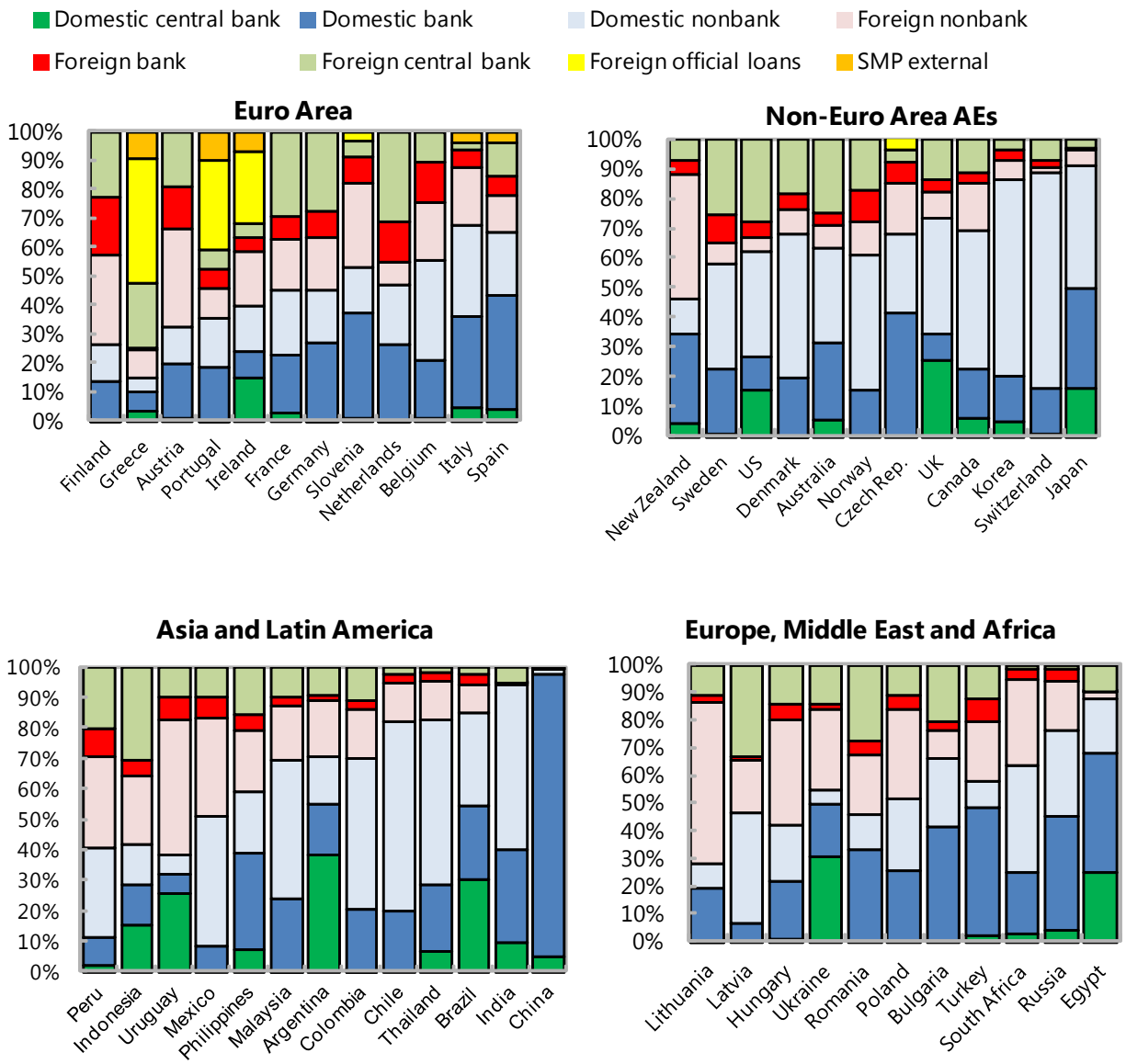
Source: IMF VEE.

- Domestic banks typically hold a substantial share of their own sovereign's debt, with variations depending inter alia on the size of the banking system in financial intermediation (Figure AII6). Domestic nonbank holders are an important investor category, representing the largest holder in most non-euro area AEs and many EMs. Foreign banks do not hold large amounts of sovereign debt from foreign countries, except for several countries in the European Union (the E.U.), Norway, Mexico, Peru, Turkey, and Uruguay. The share held by foreign nonbank private institutions displays considerable variation and is often the largest share for EMs and small AEs. Foreign official holdings (including central banks (CBs)) range from very little (e.g., Brazil, Chile, China, Italy, Japan, Russia, South Africa, and Thailand) to 30 percent (e.g., Greece, France, Indonesia, Latvia, Netherlands, Portugal, Romania, and the U.S.).

3. **Maintaining up-to-date information of holdings of sovereign debt will be helpful to ensure smooth and efficient sovereign debt operations.** For an effective and timely reprofiling, speed is of the essence. The more time it takes to collect information on the holders of sovereign debt instruments, the higher the probability that defaults cannot be avoided, with associated adverse consequences, such as selected default ratings and the operation of cross-default clauses. Governments, through their Debt Management Offices (DMOs), should regularly acquire information about their investor base, including via their custodian entities. Based on past experience, the time that a sovereign undertaking a reprofiling will remain in selective default is expected to be shorter than that when it undergoes a face-value cut restructuring.

Figure AII6. Holders of Government Debt, end-2013

(in percent of total)



Sources: Arslanalp and Tsuda (2012 and 2014). Fund staff calculations.

Note: Government debt indicates general government gross debt on a consolidated basis, which excludes intergovernmental holdings. Domestic banks are depository corporations residing in the country (IFS definition). Foreign banks are BIS reporting banks residing outside the country. Foreign CB indicates government debt holdings as foreign exchange reserves. SMP external indicates SMP holdings of foreign CBs. Foreign nonbanks and domestic nonbanks are imputed from external and total debt.

C. Evidence from Past Practice

4. **Past restructurings (including reprofilings and face-value cut reductions) reveal considerable variation in the scope of sovereign debt included.** As there is limited historical evidence of reprofilings, the remainder of this section is based on restructuring events that happened between 1998 and 2013 (see Table AII2).[7] The main consideration underlying the inclusion of instruments has been to minimize the disruption associated with the burden of adjustment necessary to restore sustainability. Reprofilings were also used in a preventive manner for anticipated liquidity problems or in response to liquidity problems that caused sovereigns to miss a few payments on their debt. Four main determinants of the scope of sovereign debt included in restructurings can be identified from past practice: a) amount of adjustment needed; b) currency denomination of the instrument; c) residency of the holders; and d) linkages between the sovereign and the domestic financial system. Pragmatic considerations, such as the relative ease of restructuring of instruments, and political economy considerations played a role as well. The type of debt which entered into restructuring varies across countries. Cases range from a single external bond, to several bonds and loans, to a large number of both external and domestic law instruments. In rare occasions governments defaulted on T-bills and short-term loans as well.

5. **When a sizeable reduction in the net present value of sovereign debt was needed, as many instruments as possible were included.** Argentina included a very broad range of instruments covering more than 90 percent of its outstanding debt. The restructuring of Argentina included foreign law instruments and domestic law instruments both in foreign currency, as well as in domestic currency. However, in cases where needed relief was limited, or other considerations played a role, only a couple of instruments were included. In 1999, Pakistan restructured instruments equivalent to only 2.8 percent of its total debt. Overall, for a selected sample of 25 restructurings (20 countries) during 1998–2013, the share of debt covered in total averaged 29.5 percent (see Table AII2).

6. **There is limited experience with the inclusion of guarantees and warrants, but a few cases exist.** Venezuela temporarily defaulted on its oil warrants due to delays in the official payment calculation (2005), Nigeria missed a couple of oil warrant payments (2004), and Ghana did not honor the government guarantee on Ashanti Gold. However, these were not part of a broader sovereign debt restructuring or reprofiling. Trade credits have generally been excluded, except in the post default case of bank loan restructuring of Pakistan (1998).

[7]Sample consists of (chronologically, see Moody's Sovereign Defaults Series Debt Compendium): Russia (1998), Ukraine (1998), Pakistan (1999), Ecuador (1999), Cote d'Ivoire (2000), Argentina (2001), Moldova (2002), Paraguay (2003), Uruguay (2003), Nicaragua (2003), Dominica (2003), Cameroon (2004), Grenada (2004), Argentina (2005), Dominican Republic (2005), Belize (2006), Seychelles (2008), Ecuador (2009), Jamaica (2010), Cote d'Ivoire (2011), St. Kitts and Nevis (2011), Greece (2012), Belize (2012), Jamaica (2013), and Cyprus (2013).

7. **Instruments with short-term original maturity tend to be excluded from restructurings.** While explicit motivations are difficult to find, the fact that short-term instruments were difficult to capture and essential for functioning of interbank markets may have played a role. There have been exceptions, such as Cote d'Ivoire (2011), Russia (1998), and Ukraine (1998), which included T-bills in restructuring, though again mostly post default. Dominica (2003) included short-term bank loans to the sovereign.

8. **The currency in which sovereign debt instruments are issued limits the possibility of reducing their real value.** A relevant distinction may therefore be between foreign currency and own currency. Of the 25 restructurings in our sample, the majority included foreign currency debt only (13), or common currency debt of currency union countries (7). Of the remaining five cases, three covered both domestic and foreign currency debt (Argentina, Russia, and Ukraine) and the two other cases involved domestic currency bonds only (Jamaica 2010 and 2013). For domestic currency instruments, it may be difficult to distinguish in practice potential restructurings from liability management operations (LMOs). LMOs are market-based and do not involve distress debt, thus not leading to credit events, though they may be accompanied by moral suasion and regulatory forbearance.

9. **The distinction in law of issuance matters in terms of process.** Restructurings of domestic and foreign law debt have often been done separately; with domestic law restructuring taking little time as consultation with creditors can be expedited under the threat of the sovereign's authority to impose new contract terms. Restructurings of foreign law debt have been relatively more drawn out processes.

Table AII1. Duration from Initial Default to Exchange Date
(Median; in Months)

	Duration
Foreign law-governed debt	11.2
Local law-governed debt	4.5

Sources: Moody's; and Fund staff calculations.
Note: Debt governed by both local and foreign laws are classified as foreign law-governed debt.

10. **The residency of the debt holder is an essential factor in the distribution of the adjustment burden.** Restructuring and reprofiling have tended not to discriminate by holder or by collateral, though there have been notable exceptions. For instance, domestic and foreign holders were offered different deals in Russia and Ukraine (Das and others, 2012). External holders may have been discriminated against in practice in the case of Belize (2007) and were clearly discriminated against in Ecuador's "odious" debt repudiation in 2008–09. Another recent case, Jamaica 2010, shows signs of discrimination against domestic creditors as Jamaica's restructuring explicitly excluded all Eurobonds issued in international markets. In terms of collateral, Ecuadorian Brady Bond holders fared no better than unsecured bond holders in Ecuador's 1999 restructuring.

11. **The nexus between the sovereign and the domestic and foreign financial system has shaped the approach to sovereign debt restructuring.** Financial institutions hold a considerable amount of domestic and foreign sovereign debt, with the highest cross-border holdings observed in the euro area. To avoid adverse impacts on the financial system, both at home and abroad, from a restructuring, a comprehensive approach was adopted in the case of Greece (2012), where the parameters of the restructuring, including various dimensions of the scope of debt had to be molded to ensure overall sustainability. In Cyprus (2013), sovereign reprofiling was part of an adjustment package that included the bail-in of bank creditors, thus limiting capital needs of banks and the potential increase in public debt (see Appendix for details). In Argentina (2001), bonds held by the banking system were converted into loans to keep them out of the restructuring. Similarly, in cases where contagion was not the issue but domestic financial stability could have been jeopardized, the scope of sovereign debt to be included in the voluntary reprofiling was the result of joint optimization with stability objectives. In Jamaica (2010 and 2013), only domestic debt was included and the parameters of its reprofiling designed to preserve financial stability (see Appendix for details).

D. Financial Stability Considerations

12. **Financial stability concerns may constrain the scope of sovereign debt included in the restructuring or necessitate mitigating measures.** Experience demonstrates that sovereigns and the domestic financial system are closely interlinked.[8] These links can be pernicious and have resulted in a set of recommendations that seek to limit the possible adverse feedback loop between the financial system and its sovereign. Preventive measures are clear: effective resolution regimes, including bail-in options, sufficient loss absorbency capacity of financial institutions, funded deposit guarantee and resolution funds, correct risk treatment of sovereign holding in the financial system, and limits to sovereign guarantees on certain (implicit or explicit) financial activities (e.g., mortgage finance). Crisis management measures may be included to jointly achieve the preservation of financial stability and sovereign sustainability (liquidity backstops to the banking system as in Jamaica, and freezing of deposits and capital controls as in Cyprus and Iceland) (see Appendix).

13. **In terms of assessing the financial stability implications of the inclusion of different instruments in sovereign debt restructuring, the following considerations may be taken into account:**

- Reprofiling of medium- or long-term instruments held outside the domestic and foreign financial system is least likely to cause financial instability, systemic risk, and contagion. The more concentrated the holdings, the more time-efficient will likely be the reprofiling, although concerns about fairness exist. Indirect effects will need to be taken into account: a default on widely held retail instruments perceived as close substitutes to cash or deposits could jeopardize debt servicing ability of economic agents with adverse repercussions on the financial system and its stability, as well as cause social unrest. Nonbank holdings of government securities may still

[8] See IMF Policy Paper "From Banking to Sovereign Stress—Implications for Public Debt," March, 2015.

impact the stability of the financial system. Insurance companies and other financial intermediaries may hold sovereign debt to satisfy regulatory or mandatory requirements or liquidity precautions. And various agents could have pledged government securities as collateral. Margin calls could have nonlinear adverse effects on the financial system.

- Reprofiling of instruments held by nonresidents shifts the initial adjustment burden abroad. This prima facie gain for the domestic economy must be traded off against the potential implications for international market access for the sovereign and repercussions for private sector balance sheets and costs of borrowing. The cost of funding of domestic banks could rise, especially when they were reliant on foreign wholesale funding, potentially affecting domestic financial stability. Although experience has shown that these effects have not been significant in past restructurings, they may potentially have adverse systemic and contagion effects if they materialize on a significant scale.

- Reprofiling of domestic currency short-term instruments, by original maturity, may have higher costs than benefits. These short-term instruments are close substitutes for cash and used throughout the financial system for liquidity management, benchmarks for the yield curve, and collateral for the interbank market, which must function effectively to keep domestic capital markets operating. In practice, most sovereigns have limited difficulties rolling over domestic currency debt with very short original maturities, even in the midst of distress. Thus there would not be a need for reprofiling them. At the same time, costs may rise and maturities shorten. On the other hand, domestic currency short-term instruments may be relatively quick and easy to reprofile (through moral suasion or similar means) or may need to be included in the scope of sovereign debt to be restructured in order to achieve critical mass to improve sustainability.

- Reprofiling of trade credit, guarantees, and hard-to-restructure instruments of limited size, may on balance have more drawbacks than advantages because of adverse effects on the real economy, limited benefits, and costly delays, respectively.

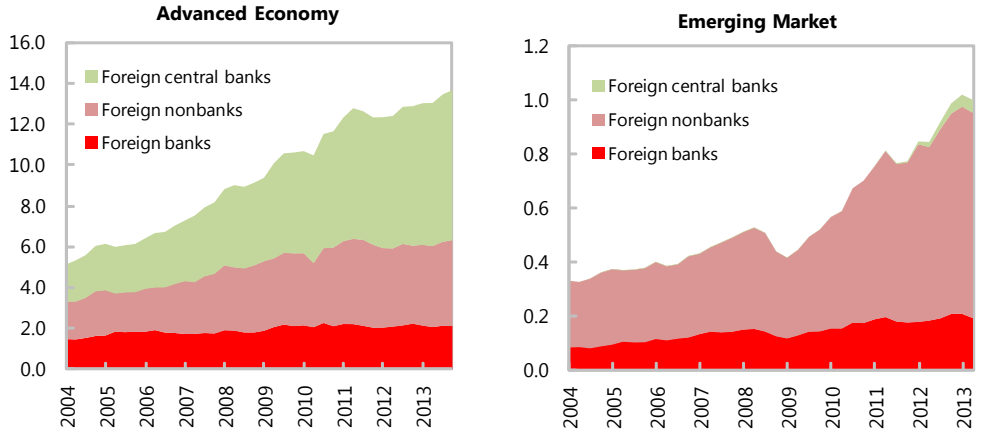
E. Changing Circumstances

14. **Interconnectedness has increased.** The type of law, the currency of issuance and the residency status of holders of sovereign debt instruments are no longer neatly aligned. Foreigners hold foreign currency and foreign law instruments as well as domestic currency and domestic law instruments. Conversely domestic agents also hold foreign currency and foreign law instruments. While this may make it more difficult to discriminate among different holders and instruments, it complicates the assessment of financial stability implications of restructuring options.

15. **Cross-border holdings of sovereign debt have been on a rising trend.** Foreign holdings of EM debt have more than doubled over the past decade, a trend only briefly interrupted in the immediate aftermath of the global financial crisis (Figure AII7). In terms of the holders, nonbanks have been the main driving force in EMs. By contrast, AEs' sovereign debt is held mostly by

foreign CBs, whose share has increased the most over the past decade. Foreign banks' holdings of AE sovereign debt have been stable.

Figure AII7. Foreign Holders of Sovereign Debt, 2004–13
(in trillions of U.S. dollars)

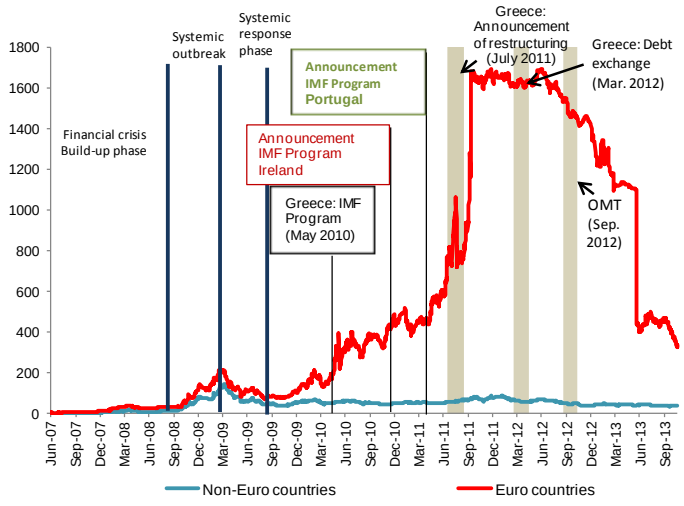


Source: Fund staff calculations.

16. **While the euro zone is a region with very strong cross-border connections, currency unions are not necessarily the most interconnected regions.** In the euro zone, the potential for contagion required the development of common policy tools to preserve financial stability. As such tools were put in place contagion diminished (Figure AII8). Countries highly interconnected with the euro zone but not sharing the same currency (Switzerland and the U.K.) experienced less contagion. In contrast, some other currency unions, such as the ECCU and CFA zones, experienced virtually no contagion from sovereign defaults of their members. The fact that CFA zone defaults were synchronized in 1994 had more to do with the large common CFA franc devaluation than with contagion from fellow CFA zone members.

17. **Central banks have been increasingly active in domestic currency sovereign bond markets.** The linkages between domestic debt management and monetary policy operations are well known. Recently, several CBs have stepped up their interventions in sovereign debt markets to achieve monetary policy objectives with implication for financial stability. They have also put in place liquidity facilities which use sovereign debt as collateral and other backstops (e.g., OMT by the ECB). These interventions have relieved stresses on the financial system and on sovereigns.

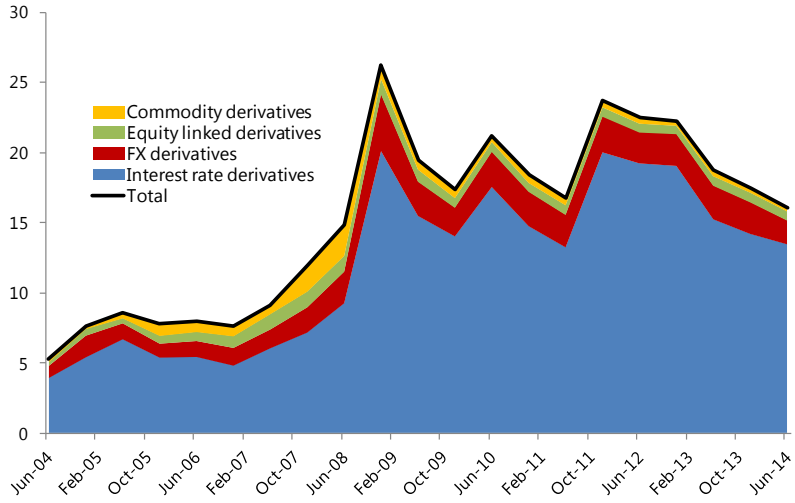
Figure AII8. Sovereign Credit Default Swap Spreads
(in basis points)



Sources: Bloomberg, Datastream; and Fund staff calculations.
Note: Core countries: Germany, France, Austria, Netherlands, and Belgium. Program countries: Ireland and Portugal. Non-Euro countries: U.S., U.K., Japan, Switzerland, and Sweden.

18. **Financial systems have become more sophisticated.** The gross market value of derivatives has sharply increased over the past 10 years, though its growth has slowed recently (Figure AII9). Many of these derivatives may be linked directly or indirectly to sovereign debt.

Figure AII9. OTC Derivatives. Gross Market Values
(in trillions of U.S. dollars)



Sources: BIS-OTC Derivatives Statistic.

19. **On balance, updated financial regulations tend to favor bank holdings of short-term domestic currency debt.** Sovereign debt is often the only qualifying asset to meet these regulations (e.g., the net stable funding ratio). The impact on long-term holdings of sovereign

debt will depend on the outcome of the ongoing regulatory debate on the leverage ratio and the debate on sovereign risk weights (though they are unlikely to overturn the relative attractiveness of sovereign debt as an asset).

F. Concluding Remarks

20. **The overarching consideration in selecting the instruments to include in a sovereign debt reprofiling must be the improvement in the sovereign's debt sustainability.** As also previously noted in the June 2014 paper, past experience demonstrates that reprofilings have not adversely affected financial stability. However, when domestic and cross-border financial linkages are complex, a sovereign debt reprofiling including all liabilities could potentially adversely impact the capitalization of financial institutions, domestically and abroad. If this were to be an issue and proper shareholders cannot be found to restore capital adequacy, the government will have to recapitalize these institutions either through fresh capital injections, divestiture of noncore assets, or through restructuring of the institutions' own liabilities, starting with unsecured debt and proceeding to uninsured deposits. Various backstops may need to be put in place. These feedback loops will need to be taken into account and their implications for sovereign debt fully incorporated in the debt sustainability analysis and decisions on the scope and extent of reprofiling to be applied. Past practice shows that these considerations have guided the approach to cases involving an apparent tradeoff between sovereign debt restructuring and financial stability.

Table AII2. Sovereign Debt Exchanges Since 1998

			Debt in Exchange						CACs		
Initial Default Date	Country	Debt Exchanged	Exchange Date	In US$bn	In % of total debt	In % of GDP	Governing Law (Main)	Creditor Structure	Included in Original Bonds?	Used in Exchange?	Currency Union?
Aug-1998	Russia	LC debt (GKO and OFZ)	May-1999	8.3	4.5	3.1	Local law	Dispersed	no	no	
	Russia	FC debt (MIN FIN III)	Feb-2000	1.3	0.7	0.7	Local law	Dispersed	no	no	
	Russia	FC debt (PRIN and IAN)	Aug-2000	29.1	16.4	16.3	English law	Dispersed	yes	no	
Sep-1998	Ukraine	LC T-bills held domestically	Sep-1998	4.5	30.0	9.0	Local law	Dispersed	no	no	
	Ukraine	LC T-bills held by non-residents	Sep-1998	0.4	2.8	0.8	Local law	Dispersed	no	no	
	Ukraine	FC Chase-Manhattan loan	Oct-1998	0.1	0.7	0.2		Concentrated	n.a.	no	
	Ukraine	FC ING bond and Merrill Lynch bond	Aug-1999	0.4	2.0	1.0		Conc. For ING bond; Disp. for other		no	
	Ukraine	FC Eurobonds	Mar-2000	1.6	8.3	5.1	Luxembourg and German law	Concentrated for majority of bonds	partly (depending on governing law)	yes	
Jul-1999	Pakistan	Eurobonds, Trade credits and arrears	Dec-1999	1.4	2.8	2.1	English law (bonds)	Concentrated	yes	no	
Aug-1999	Ecuador	External debt and FC domestic bonds	Aug-2000	7.0	49.5	41.5	NY law and local law	Concentrated	no	no	
Mar-2000	Cote d'Ivoire (NR)	Brady bonds	Apr-2010	2.8	18.7	12.4	NY law	Concentrated		no	
Nov-2001	Argentina	Domestic debt	Nov-2001	64.4	49.6	22.6	Local law	Dispersed	no	no	
Feb-2005	Argentina	External debt	Feb-2005	79.7	41.7	52.0	8 governing laws	Dispersed	partly (depending on governing law)	no	
Jun-2002	Moldova	Eurobond	Oct-2002	0.04	3.2	2.7	English law	Concentrated	yes	yes	
Jan-2003	Paraguay (NR)	Domestic debt due in 2003-06	Jul-2004	0.1	6.5	2.6	Local law	Dispersed	no	no	
May-2003	Uruguay	LT FC bonds (external and domestic)	May-2003	5.4	56.8	39.6	Local law most, NY law, English law, and Japanese law	Dispersed	partly (depending on governing law)	yes	
Jul-2003	Nicaragua	CENI bonds FC-denom. payable in LC	Jul-2003	0.3	6.1	8.2	Local law	Concentrated	no	no	
	Nicaragua	CENI bonds FC-denom. payable in LC	Jul-2008	0.3	12.5	5.4	Local law	Concentrated	no	no	
Jul-2003	Dominica (NR)	LC bonds (domestic and external)	Jun-2004	0.1	44.5	42.4	English law	Dispersed	partly (external bonds)	no	
H2-2004	Cameroon (NR)	Domestic debt	H1-2005	1.0	10.5	6.5	Local law	Dispersed	no	no	yes
Dec-2004	Grenada (NR)	Global bond and domestic debt	Nov-2005	0.3	65.1	48.9	NY law and local law	Concentrated	no	no	yes
Apr-2005	Dominican Rep.	International bonds	May-2005	1.1	16.7	5.1	NY law		no	no	
Dec-2006	Belize	Private external debt	Feb-2007	0.5	51.6	45.8	NY law	Concentrated	yes	yes	
Jul-2008	Seychelles (NR)	External debt	Jan-2010	0.3	29.6	36.8	English law	Dispersed	yes	yes	
Dec-2008	Ecuador	Global bonds	May-2009	3.2	25.3	5.9	NY law		no	no	
Feb-2010	Jamaica	Domestic debt	Feb-2010	7.9	56.5	63.7	Local law	Concentrated	no	no	
Jan-2011	Cote d'Ivoire (NR)	Treasury bills (short-term)	Dec-2011	1.3	8.5	5.4	Local law	Concentrated	no	no	
	Cote d'Ivoire (NR)	Eurobond coupon	Nov-2012	0.1	0.6	0.4	NY law		yes	yes	
Nov-2011	St. Kitts and Nevis (NR)	Domestic bonds and external debt	Mar-2012	0.1	12.8	19.7	Local law	Concentrated	yes	yes	yes
	St. Kitts and Nevis (NR)	Domestic loans (debt-land swap)	Apr-2012	0.3	30.3	46.6	Local law	Concentrated	n.a.	n.a.	yes
Mar-2012	Greece	Greek and foreign law bonds	Mar-2012	273.4	55.2	94.2	Local law and some Foreign law	Dispersed	Foreign law: yes. Local law: introduced through new legislation.	yes	yes
Sep-2012	Belize	2029 Superbond	Mar-2013	0.5	47.3	35.3	NY law	Concentrated	yes	yes	
Feb-2013	Jamaica	LC and FC domestic bonds	Feb-2013	9.1	53.8	63.0	Local law	Concentrated	no	no	
Jun-2013	Cyprus	Domestic bonds due Jul-2013 and Mar-2016	Jun-2013	1.2	5.3	5.5	Local law	Concentrated	no	no	yes
Country (N=20)					**29.7**	**31.4**					

Sources: Moody's; Sturzenegger and Zettelmeyer (2005); Diza-Cassou, Erce Dominguez and Vazquez-Zamora (2008); Andritzky (2006); and IMF country reports.

Appendix. Scope of Sovereign Debt Restructured: Cyprus and Jamaica Cases

Drawing on previous IMF staff work on sovereign debt restructuring (IMF, 2014a and 2014b), this short note examines the reprofiling cases of Cyprus and Jamaica, in particular, the bond exchange design, the scope of debt and financial stability implications. The bond exchanges included domestic bonds, and no nominal haircut was imposed. In the case of Cyprus, the prior bail-in of bank creditors closed the imminent capital hole of the main Cypriot banks due to their exposure to non-sovereign assets. The Jamaican restructurings (2010, 2013) were intentionally designed to be reprofilings so as to minimize the impact on the financial system.

Cyprus (2013): In June 2013 the Cypriot authorities conducted a voluntary sovereign bond exchange, amounting to €1 billion, of domestically-held (and governed by local law) bonds and exchanged them with new bonds with the same coupon, and extended maturities through 2019-23 (IMF, 2013c).[1] The intention was to exchange outstanding domestic government bonds with other similarly structured bonds of longer maturity. The approach in Cyprus was part of a broader program strategy which included the bail-in of bank creditors and a restructuring of Cypriot banks. The authorities also restructured a €2.5 billion Russian loan maturing in 2016 by extending repayments over 2018–21 and reducing the interest rate from 4.5 to 2.5 percent.

Cyprus faced a banking crisis in 2012–13 with the two largest banks Bank of Cyprus (BoC) and Laiki Bank economically insolvent. The joint assets of both banks comprised 400 percent of GDP, and actions by the Cypriot authorities to restructure and resolve BoC and Laiki Bank shrank the banking system by 200 percent of GDP. Specifically and following the passage of the bank resolution law in mid-March 2013, the Cypriot authorities sold the Greek branches of Cypriot banks to a Greek bank; intervened in Laiki Bank and transferred its insured deposits and ELA to the BoC, while uninsured deposits and other assets were left in a run-off unit. BoC was intervened and recapitalized with participation of bank creditors, including uninsured depositors, to attain regulatory limits, with a cushion in case of further balance sheet deterioration.[2] To safeguard financial stability, capital controls and restrictions on deposit withdrawals were also introduced (IMF, 2013a).

The exchanged domestic bonds were maturing from July 2013 through March 2016. No nominal haircut on domestic creditors was imposed, while the average coupon payment remained at around 5 percent (with the weighted average interest rate at 4.75 percent). The main reason Cypriot banks did not have to book losses during the bond exchange was that banks held the affected sovereign bonds as Hold-to-Maturity (HTM) and they assessed, with the consent of the regulator, that there

[1]The new issuance was absorbed by the three Cypriot banks The Cooperative Central Bank (€660 million), Bank of Cyprus (180 million), as well as Hellenic Bank (€160 million) in a private placement operation.

[2]In 2012, the authorities used a government bond of €1.9bn to inject capital into Laiki Bank. They rolled over the bond in 2013 and partially repaid it in 2014 with the proceeds from an international bond issuance.

was no impairment event.[3] The initial market reaction following the announcement was limited with shorter-term domestic bond yields increasing by about 300bps and with some deposit outflows but then yields and deposits stabilized.[4] Following the debt exchange announcement, Cypriot sovereign debt was temporarily downgraded by credit rating agencies to selective/restricted default. The downgrade was reversed after the conclusion of the operation.

Jamaica (2010, 2013): The 2010 Jamaica Debt Exchange (JDX) was widely seen as a quick and orderly debt restructuring (Grigorian and others, 2012). The exchange exemplified how a distressed sovereign may tackle the trade-off between debt sustainability and financial sector stability. The restructuring implied substantial debt relief, but limited losses for the domestic financial sector, which held much of the affected debt. The main aim of Jamaica's debt exchange was to reduce the government's heavy debt service burden, as annual interest payments had reached 60 percent of fiscal revenue, or 16 percent of GDP. In addition, the country faced large borrowing needs in the years 2010 to 2014. However, 65 percent of direct government debt was held by domestic financial intermediaries, including commercial banks, security dealers, pension funds, and insurance companies. Large creditor losses may have thus threatened financial stability and, possibly, triggered the failure of individual institutions. With these constraints in mind, the government adopted several contingency plans, including the establishment of the Financial Sector Support Fund (FSSF) and the conduct of stress tests to identify bank vulnerabilities and tailor the debt exchange proposal accordingly (Das and others, 2012). The JDX involved an exchange of all domestically issued sovereign bonds (local currency, USD-indexed, and USD-denominated) for newly issued bonds with reduced coupons and extended maturities. Externally issued bonds were excluded from the transaction.

The 2013 National Debt Exchange (NDX) faced the same considerations and followed the same approach. The NDX included local currency (including fixed, variable and CPI-indexed bonds), as well as locally-issued USD-denominated bonds amounting to approximately J$876bn, or 64 percent of GDP. The main features of NDX were to exchange locally issued bonds into new longer-maturity and lower-coupon bonds of the same type (e.g., fixed rate for fixed rate), or into one of two other types of options in certain cases, for example, a 2040 CPI bond with a stepped coupon (1–3 percent).[5] The exchange did not include bonds issued in foreign jurisdictions or held by nonresidents.

The reasons cited for excluding foreign law bonds from both the 2010 and 2013 restructurings were: (1) to maintain access to international markets (which however did not prevent Jamaica from

[3]This allowed Cypriot banks to maintain the newly exchanged bonds as HTM and not move them to the Available for Sale (AFS) portfolio, where fair value measurement would have been required (as market prices were well below par). The temporary SD assessment of the rating agencies did not bind Cypriot banks to book losses with the affected sovereign bond holdings as the sovereign did not default on its payments and issued new bonds with the same face value and other terms.

[4]In addition, long-term yields and sovereign CDS spreads were not affected.

[5]Almost all maturities were included with a few minor exceptions. Treasury bills were excluded given the likely adverse financial stability implications.

receiving a selective default (SD) rating from restructuring the domestic law bonds); and (2) without CACs and good knowledge of who is holding the bonds, getting a good enough participation was not seen as feasible (making the potential savings not worth the action). In addition, as 40 percent of the foreign law bonds were held domestically, restructuring of foreign debt would have required further recapitalization and would have hit domestic creditors even harder. Furthermore, in the 2010 exchange, terms of the foreign law bonds in terms of maturity and interest were seen to be unproblematic.

In both bond exchanges, the FSSF was also meant to help with liquidity (with new bonds as collateral) and solvency support for financial institutions that exchanged the majority of their sovereign holdings. For instance in the 2010 exchange, the FSSF was established to provide liquidity in case of external funding or deposits withdrawals, or if assets under management were affected by the debt reprofiling (Grigorian and others, 2012).[6] In the end, no Jamaican bank drew on the FSSF liquidity support (IMF, 2013b).[7] Overall, the Jamaican case illustrates how a restructuring can be designed to ensure a limited impact on the financial system.

[6]Financial institutions qualified to access the FSSF if they at least exchanged 90 percent of their old bonds. Banks also had access to the Bank of Jamaica temporary discount window subject to liquid collateral. Affected banks were subject to a maximum liquidity maturity (6 months) or increased regulatory intervention.

[7]In both bond exchanges, most of the affected domestic debt was primarily held by banks as HTM, and as there was no impairment event, banks did not take any immediate additional provisioning or capital hit from the debt reprofiling exercise.

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ANNEX III. ASSESSING LOSS OF MARKET ACCESS[1]

Determining the loss of market access (LMA) of a sovereign necessitates judgment. In real time, it will require looking at all available information, inferring from fundamentals, as well as market pricing and market expectations what the reasons for LMA might be and establishing with some confidence that the behavior of indicators observed is consistent with an LMA. To determine this, one has to first evaluate to what extent a sovereign had market access in normal times, as measured by frequency of issuance, amounts issued relative to funding needs, and tenors, currency denomination and interest rates against benchmarks. This annex first proposes a practical definition of LMA for both regular and infrequent issuers. Second, it elaborates how the indicators described in the June 2014 staff paper on The Funds Lending Framework and Sovereign Debt—Preliminary Considerations could be used to assess LMA and reviews how these indicators have evolved in previous cases of LMA.[2] Such historical analysis is subject to caveats, the most important one being that market access is a forward-looking concept. Hence, judging LMA cannot be based mechanically on the indicators analyzed in this note, however robust their historical empirical properties are.

Summary

1. **Market access was judged to have been lost in a number of recent Fund-supported programs that involved debt restructuring or reprofiling, as well as in all recent euro area programs that invoked the systemic exemption.** The indicators cited in various Fund documents include cancelations of planned bond issuances, lack of investors' interest in government bonds, rating downgrades, widening spreads and at times the withdrawal of foreign investors from domestic markets.

2. **The analytical work described below looks at various market access indicators to evaluate whether there are systematic patterns in the behavior of these indicators prior to LMA.** The empirical exercise was conducted on a wide sample of emerging markets (EM) and advanced economies (AE) using the signaling approach and a risk zone classification approach. The results suggest that spreads, credit ratings, nonresident holdings of debt, and changes in maturity and currency composition of sovereign debt and/or borrowing have performed well in signaling LMA. While the focus was on these four key indicators of market access due to data availability constraints, a broader range of indicators could be considered in real time. Results obtained via road testing the four key indicators on selected case studies of Argentina, Mexico, Brazil, Portugal, and Greece, have proved encouraging.

[1]Prepared by Anastasia Guscina, Sheheryar Malik, Gabriel Presciuttini, Jeff Williams (all MCM); Marcos Chamon (RES); Heiko Hesse; and Xiong Yi (all SPR).

[2]See Box 6 of staff paper "The Fund's Lending Framework and Sovereign Debt—Preliminary Considerations", June 2014.

3. **The behavior of the identified market access indicators in previous cases of LMA may inform staff's judgment in future cases.** The results of the empirical work suggest that a number of the market access indicators performed well in signaling past episodes of LMA. However, it is crucial to emphasize that they will inform, but not substitute for staff's judgment. Staff would assess whether the identified indicators have crossed into a zone of elevated or high risk, how many of the indicators are showing signs of distress and where they stand compared with historical norms. This can facilitate a call as to whether market access loss has occurred. In real time, staff will have access to a wider information set, which will include, but not be limited to the identified indicators, including market intelligence.

A. Defining and Measuring Market Access Loss

> Market access was defined in the May 2013 staff paper on sovereign debt as *"the ability to tap international capital on a sustained basis through the contracting of loans and/or issuance of securities across a range of maturities, regardless of the currency denomination of the instruments, and at reasonable interest rates."*[3] [4]

4. **A sovereign may lose market access due to both global and domestic shocks.** LMA can happen due to changes in global financial conditions, high sensitivity to external shocks, as well as perceived deterioration in domestic fundamentals (e.g., deterioration of debt/fiscal fundamentals, low growth or also balance sheet problems of domestic financial institutions).

5. **Practical assessment of LMA depends on the extent to which a country had market access in normal times.** In order to determine when a sovereign has lost market access, one has to first evaluate to what extent and in what context it had market access in the first place, as measured by frequency of issuance, amounts issued relative to its funding needs, tenors, currency denomination and interest rates. These initial conditions (that are quite different for regular vs. infrequent issuers) would then be used in determining whether and when the LMA occurs. For the timing of LMA, the following criteria could be used:

- For governments that are regular issuers, LMA can be defined as an expected issuance (based on an auction calendar, previous patterns of issuance, or rollover and financing needs) of international or domestic securities; or a syndicated loan with long-term maturity that either did not happen or was cancelled;[5,6] or an announcement of a default or restructuring (whichever is sooner) and/or yield increases in primary/secondary markets resulting from a perceived

[3] See "Sovereign Debt Restructuring—Recent Development and Implications for the Fund's Legal and Policy Framework," IMF Policy Paper, April 26, 2013, paragraph 11.

[4] A sovereign might issue bonds at spreads much higher than its historical norm, as opposed to running down reserves or seeking nonmarket financing, but this situation is not sustainable.

[5] Definition has to be flexible enough to account for cases where countries can issue treasury bills with maturity of 18 months (longer than 1 year), and still be considered in a state of LMA (e.g., Portugal).

[6] Canceled auctions amid a period of rising risk aversion (international bonds spreads or local yields rising) could signal LMA.

deterioration in credit fundamentals and to such an extent that if permanent would render current patterns and amounts of borrowing unsustainable.

- For governments that are sporadic issuers, LMA can be defined as predicted issuance (based on rollover and financing needs) of a long-term security or a syndicated loan that did not happen; or an announcement of a default or restructuring (whichever is sooner); and/or yield increases in secondary markets resulting from a perceived deterioration in credit fundamentals, and to such an extent that, if permanent, would render borrowing programs unsustainable.

6. **As described in the June 2014 paper, staff judgment on whether market access has been lost may be informed by the deterioration in the indicators listed below:**[7]

- Significant adverse deviations in recent primary bond issuance practices (in terms of volume, frequency, maturity and financing terms) from what the sovereign would do in "normal" circumstances:
  - Volume: Compare with (i) total financing needs; and (ii) announced bond auction schedule;
  - Frequency: Compare with (i) average frequency of issuances; and (ii) bond auction schedule (e.g., if auctions are cancelled or delayed);
  - Maturity: Compare with recent average original maturity of instruments; and
  - Financing terms: Compare recent financing terms with past placements (e.g., if there is a shift from fixed interest rates to variable rates).
- Government bond rollover rates: Examine whether government bond rollover rates have fallen on a sustained basis, and whether this reduction in rollover rates cannot be attributed to reduced financing needs. As a corollary, assess the extent to which there is greater reliance on nontradable instruments (e.g., retail instruments) or on placements with public sector financial enterprises to meet financing needs.
- Government cash balances:[8] Examine whether there has been an abnormal decline in government cash balances or greater reliance on direct central bank financing.
- Nonresident holding of public debt: Examine whether there has been a significant and sustained fall in nonresident holdings of public debt.

[7]Only deterioration in these indicators is a source of concern—that is, if maturities are significantly shorter or spreads are significantly higher. If maturities are significantly higher and/or spreads are significantly lower, even if these are outside of "reasonable range from its prior pattern of issuance," this should not be a concern. While some changes in either maturity or financing terms are usually part of debt management strategies, a significant deterioration in the liability structure of the debt portfolio has been associated with past debt crises and loss of market access.

[8]One has to be careful with using cash balances as an indicator due to seasonal and idiosyncratic patterns.

- Sovereign credit ratings: Observe changes in ratings and assess whether the country has lost creditworthiness.

- Sovereign spreads: Observe changes in sovereign spreads that are well above the historical levels and, if they were to persist, are incompatible with debt sustainability.

- Bond trading activity: Assess the volume of recent bond trading in secondary markets and bid-ask spreads (e.g., if trading volumes are thinner and bid-ask spreads wider).

7. **In analyzing the performance of market access indicators in foreshadowing LMA, defining the dependent variable is nontrivial.** All the indicators of market access described in the June 2014 paper could be used in real time to assess whether a government has lost market access.[9] However, methodologically when assessing the historical performance of these indicators in prior episodes of LMA, one cannot define the dependent variable (LMA) in terms of the indicators listed above and then proceed to use the very same indicators to explain it.

8. **A possible solution is to define LMA as lack of primary debt issuance that could not be explained by other factors.** Defining market access in terms of primary issuances of bonds and loans is consistent with prior academic literature. For example, Gelos, Sahay, and Sandleris (2004) examine market access by looking at sovereign bond issuances and public syndicated bank loans. Kaminsky and Fostel (2007) capture countries' access to international markets by using primary gross issuance in international bond, equity and syndicated loan markets. Likewise, Cruces and Trebesch (2013) look at issuance of bonds and loans to measure the period of market exclusion.[10]

9. **We will be defining LMA as unexpected lack of issuance of bonds or loans or announcement of default/restructuring, whichever is earlier.**[11] Previous literature defined the LMA period from the time of default or restructuring and until the next bond issuance. We take a similar approach (described in Step 1 of the flow chart below), but augment it by identifying additional LMA episodes that are not associated with defaults and/or restructurings. This is important since some sovereigns that lost market access were able to avoid any type of debt restructuring operations (e.g., Brazil, Ireland, and Portugal).

10. **We followed a systematic approach in examining the previous issuance pattern, in identifying the suspect cases of LMA, and in clearing these suspects.** Expectations on issuances are formed based on previous issuance patterns or rollover needs. The deviation from previous issuance patterns has to be big enough and not be explainable by other factors

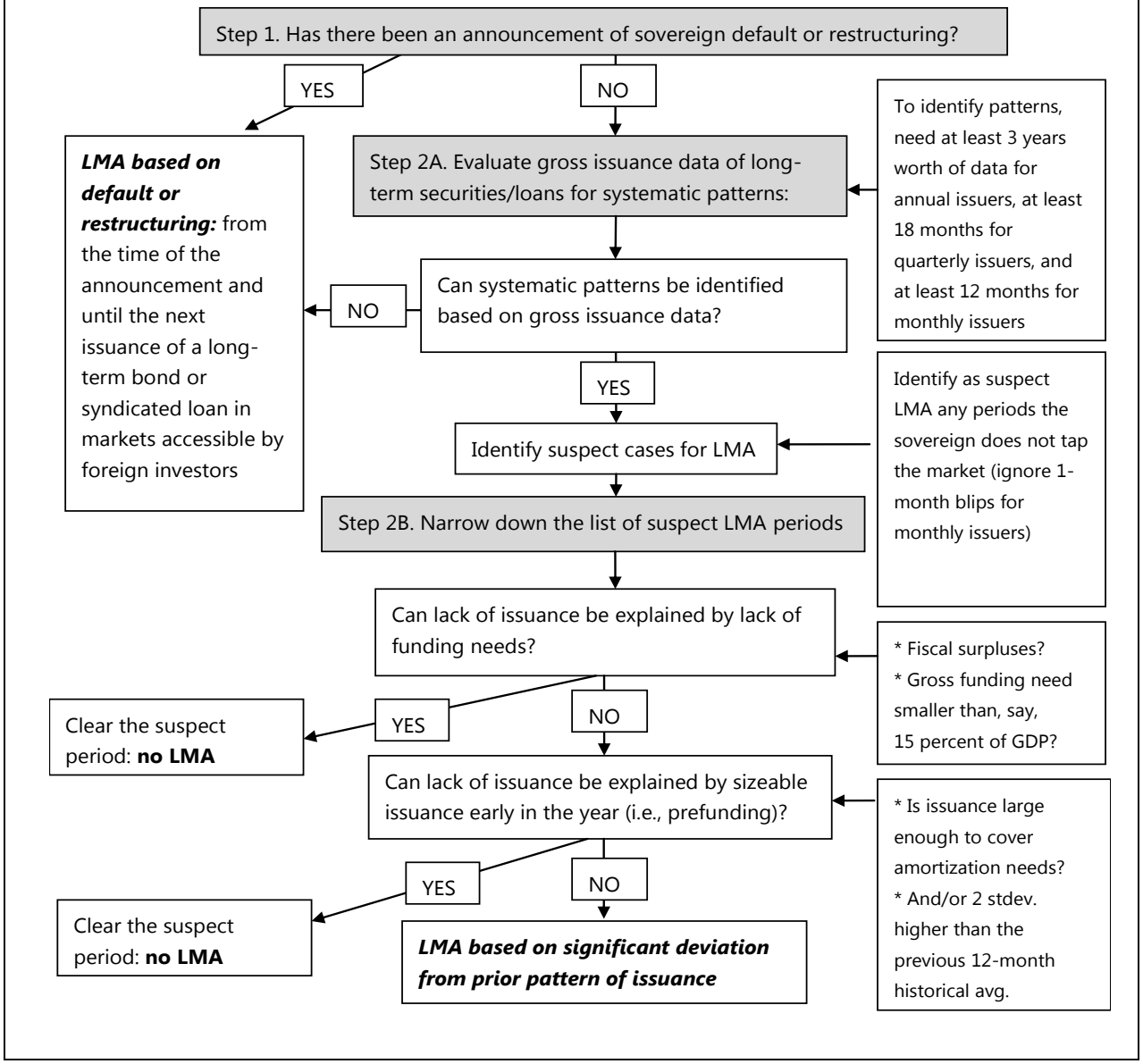
[9]See Box 6 in "The Fund's Lending Framework and Sovereign Debt – Preliminary Considerations," IMF Policy Paper, June, 2014.

[10]It should be noted, however, that all prior academic papers dealt with market access at annual frequency, and focused mostly on the question of reaccess and not on the initial point of market access loss.

[11]An alternative approach is to define LMA in terms of spreads and then use issuance activity as an explanatory variable. Regardless of the approach, it is important to clearly disentangle dependent variable from the explanatory variables.

(bunching of issuances earlier in the year to take advantage of favorable market conditions or lack of net funding needs due to fiscal surpluses). The methodology used in assessing LMA is summarized in Figure AIII1 below.

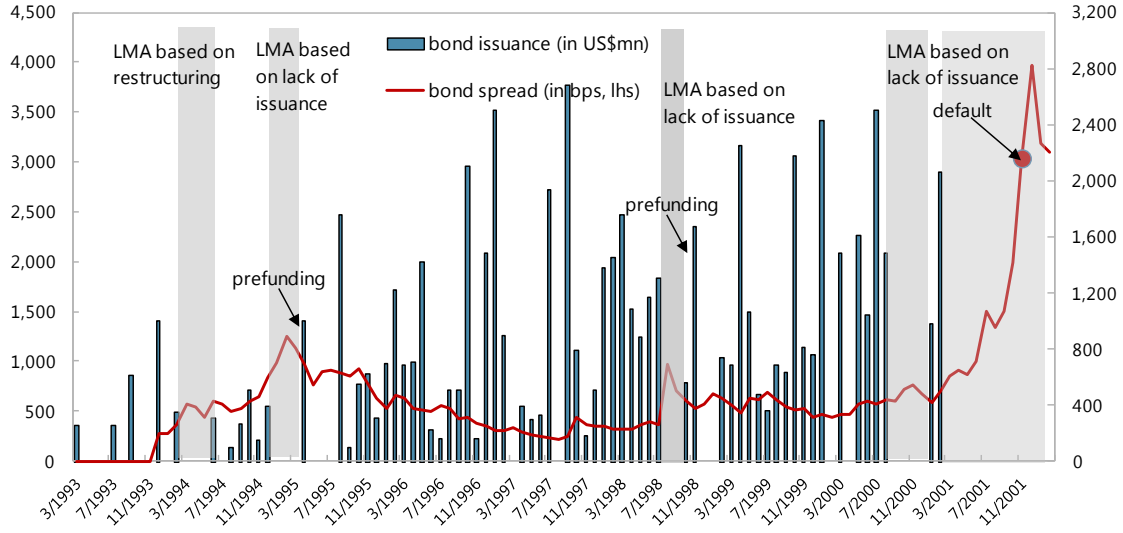
Figure AIII1. Decision Rule on Loss of Market Access



11. **Figure AIII2 illustrates the usefulness of augmenting the definition of LMA beyond the episodes of default or restructuring.** The Figure AIII2 shows an example of Argentina, where the shaded areas correspond with LMA periods (defined either based on restructuring or cessation of issuance). LMA based on the issuance criteria often precedes the time of default or restructuring. For example, by the time Argentina defaulted in November 2001, it had already

lost market access. The timing of LMA based on lack of issuance (March 2001) coincides with what is reported in the Fund documents at the time.[12]

Figure AIII2. Argentina: Loss of Market Access



Sources: Bloomberg, Bonds and Loans (BEL) database; and Fund staff calculations.

12. **Determining when LMA had occurred using historical series is complicated by a number of factors.** First, data on primary bond issuances were not available in some cases or for the whole sample period. Second, it is often hard to infer with 100 percent accuracy whether a significant deviation from prior issuance pattern cannot be explained by factors other than LMA.[13] In future cases, staff could more easily inquire from the authorities why certain auctions have been cancelled or postponed. Moreover, staff would have data on fiscal needs of a country at a higher frequency than the annual data we had available for the empirical exercise.

13. **Following the decision rule described above, we evaluate LMA on a sample of 45 advanced, emerging and frontier market economies using monthly data for 1990–2013.** The data on gross issuances and amortizations were taken from the BEL database and supplemented by the de Broeck-Guscina (2012) database on the euro area countries. Data on fiscal fundamentals were taken from WEO and VEE databases. Table AIII1 describes the summary statistics regarding the LMA variable. Out of 45 countries in the sample, 31 had lost market access at least once over the observation period, out of which 13 lost market access more than once. The average duration of market access loss was 39 months for countries that had one LMA episode, 26 months for countries that had two LMA episodes and 26 months that had three or more LMA episodes.

[12]See Argentina-Third Review under the Stand-By Arrangement-Letter of Intent and Memorandum of Economic Policies, May 2001.

[13]The pattern of issuance is not static. In most cases in our sample countries have moved from being sporadic issuers to more regular issuers. Ireland is an exception as it moved from being a regular issuer to a sporadic issuer after many years of running fiscal surpluses.

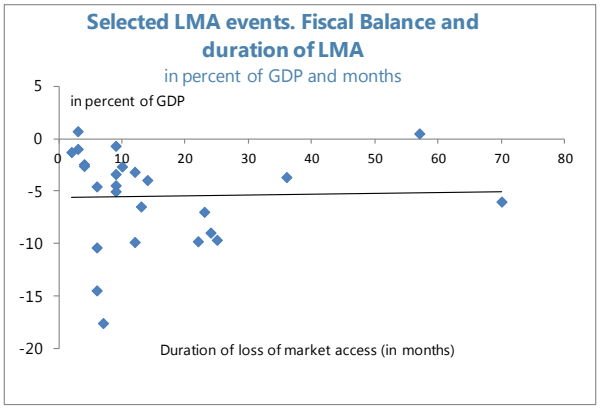
Table AIII1. Summary Statistics for the LMA Variable

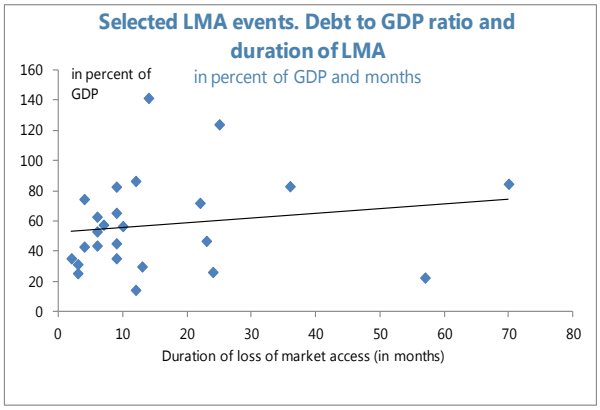
Country sample		
Total	LMA	Non-LMA
45	31	14
Number of LMA episodes in sample		
(=1)	(=2)	(>=3)
18	7	6
Average duration of LMA (months)		
39	26	26

Source: Fund staff estimates.

14. **LMA could be short-lived or of a more serious nature depending on its underlying reasons.** Duration of LMA would depend on the underlying causes behind it. For example, LMA episodes, which could be traced to contagion from other countries, typically lasted just a few months. Figure AIII2 above illustrated these very short-lived episodes for LMA in Argentina, where market access was lost for a few months only due to spillover from the Mexican crisis in 1994 and the Russia crisis in 1998. The LMA episodes due to concerns over fiscal fundamentals, debt sustainability or an outright default typically last a lot longer (Figure AIII3). Argentina is an outlier (not included in Figure AIII3), with post-default LMA lasting more than a decade.

Figure AIII3. Duration of LMA and Fiscal Fundamentals





Sources: WEO; and Fund staff calculations.

B. Evaluating the Signaling Power of LMA Indicators

Judgment on loss of market access is complicated in practice. Staff will be tasked with trying to analyze all the available market information and infer from it the possible causes of market stress. Staff would have to make a call as to whether the loss of market access is driven by the market worries about debt sustainability or financing strains, or is mostly a reaction to exogenous shocks. To help guide staff judgment on LMA, this section discusses the signaling power of various indicators in foreshadowing the LMA episodes already identified in section A.

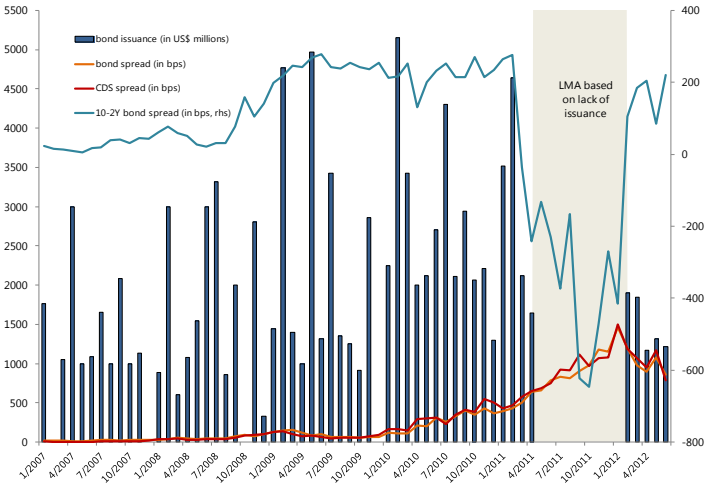
Selecting indicators for LMA

15. **Due to data availability constraints, the focus is on more readily available indicators.** While in real time country teams will be monitoring all the indicators mentioned above to spot rising vulnerabilities, historical data for many of the indicators are not available. Hence, the focus is on spreads, credit ratings, nonresident holdings of government debt, and composition of borrowing in terms of currency, maturity, and interest rate structure (fixed vs. floating).

16. **Other market indicators could also be considered, including CDS, country risk premia, market positioning, option implied volatility and skewness, and the shape of the yield curve.** Most of these market based indicators will agree with signals provided by simple spreads. Figure AIII4 illustrates that bond spreads and CDS were highly correlated and are rising around the time of LMA, while the yield curve inverts.[14] In future cases, staff can tap into such information.

Figure AIII4. Portugal: Behavior of Market Indicators Around LMA

(in bps and US$ millions)



Sources: BEL, Bloomberg, and Fund staff estimates.

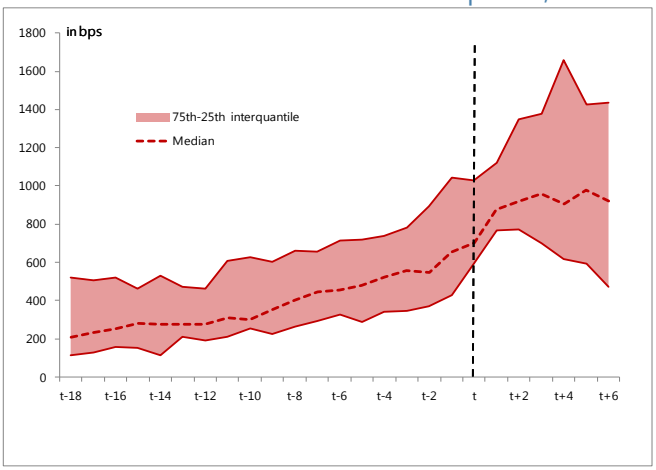
[14] As investors may buy CDS for a variety of reasons, some of which have little to do with sovereign credit, there may be a lot of noise associated with this indicator.

Stylized Facts of LMA Indicators

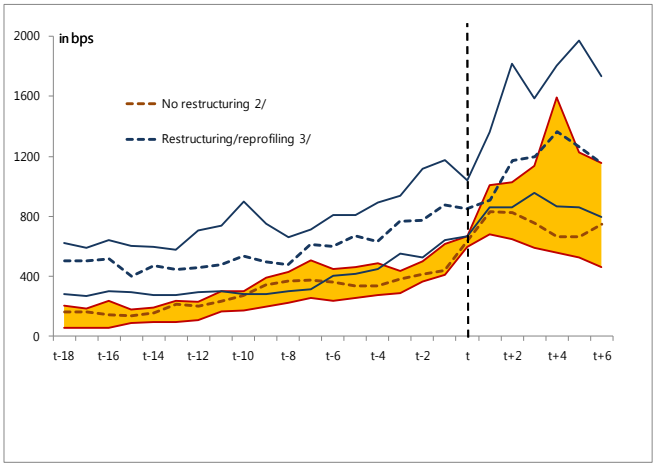
17. **The behavior of the indicators prior to LMA follows systematic patterns and is consistent with priors.** Spreads start to rise faster 10 months prior to LMA for the median country in the sample, with the steepest increase occurring 2 months prior (Figure AIII5). It is interesting to note that markets are pricing in the probability of restructuring or reprofiling prior to LMA, as spreads are generally higher for these countries compared to countries that were able to avoid any type of restructuring. The spreads of sovereigns that were able to avoid a restructuring/reprofiling are lower prior to LMA, and even though they tend to rise faster compared with the restructuring cases, they come down quicker.

Figure AIII5. Behavior of Sovereign Spreads Around LMA 1/

in basis points, t=0 time of loss of market access



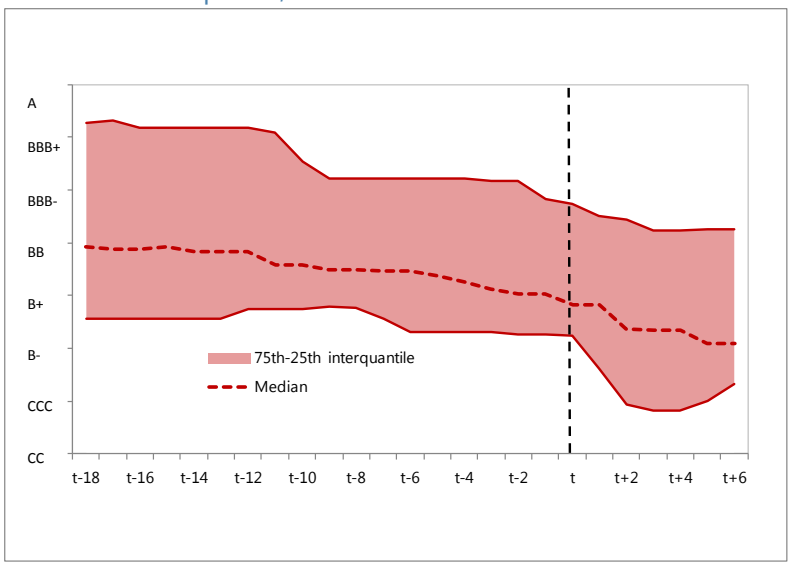
Sources: Bloomberg; and Fund staff calculations.
1/ Sample includes 21 emerging and advanced economies.



Sources: Bloomberg; and Fund staff calculations.
1/ It covers 22 emerging and advanced economies.
2/ Brazil (2001), Ireland (2012), Korea (1998), Malaysia (1998), Mexico (1995), Philippines (1998), Portugal (2012), Sri Lanka (1998), Thailand (1998), and Ukraine (2008).
3/ Restructuring: Argentina (2001), Ecuador (1999), Greece (2010), Russia (1997) and Seychelles (2008). Reprofiling: Belize (2006), Cyprus (2013), Dominican Rep. (2005), Jamaica (2009), Pakistan (1998) and Uruguay (2002).

18. **Credit ratings decline prior to LMA, but tend to operate with a lag.** Credit ratings show evidence of a decline starting around 6 months prior to LMA, however the decline becomes abruptly steeper after the initial LMA. This is consistent with past experiences of credit market downgrades (Figure AIII6).

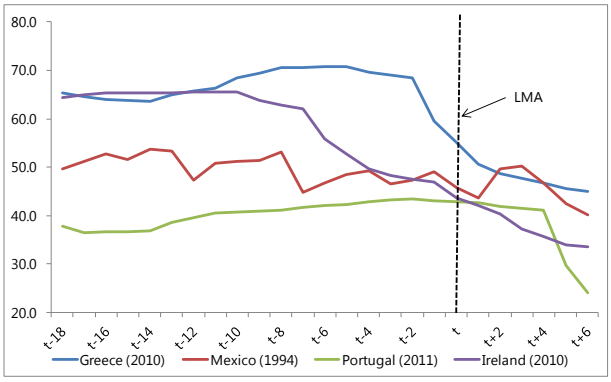
Figure AIII6. Behavior of Credit Ratings Around LMA 1/
in basis points, t=0 time of loss of market access

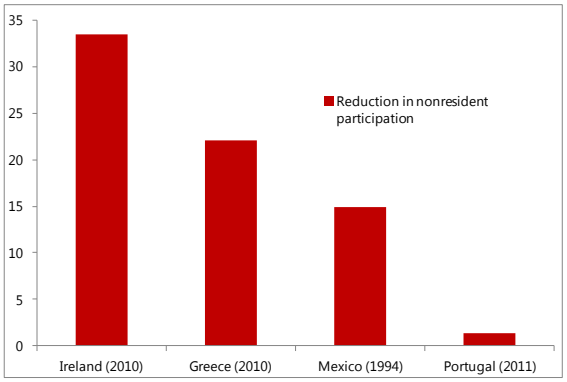


Sources: Rating agencies; and Fund staff calculations.
1/ It covers 22 emerging and advanced economies. It refers to the average of S&P, Moody's and Fitch.

19. **Nonresident shares decline prior to LMA.** Data on nonresident holdings of government debt came from Arslanalp and Tsuda (2013) database, which starts in 2004. This limited the analysis to only a subsample of countries, which lost market access in recent years. Nonresident share behaves as expected prior to LMA (Figure AIII7), although Portugal's very small decline appears to be an outlier.

Figure AIII7. Nonresident Holdings of Government Debt in Selected Countries

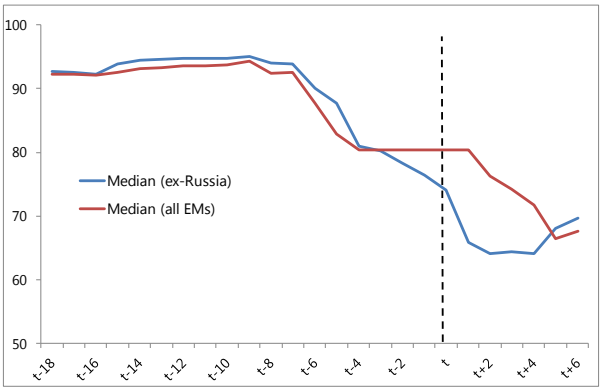




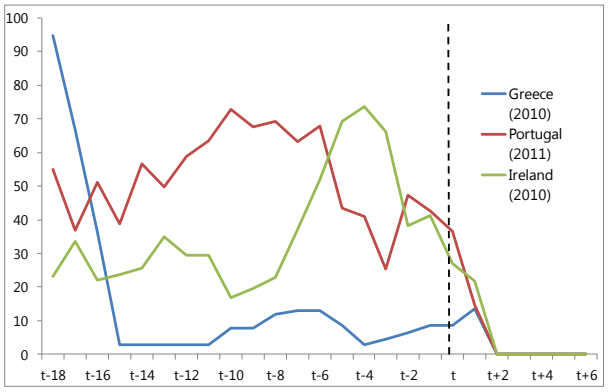
Sources: Arslanalp and Tsuda (2012, 2014); and Fund staff calculations.

20. **Changes in maturity and currency composition of debt and borrowing were also considered in the analysis.** Using data from the Jeanne-Guscina EM Debt database (2014) and the de Broeck-Guscina (2012) database on the composition of borrowing in the euro area, we looked at the evolution of local currency long-term debt prior to LMA. As expected, these shares showed a decline prior to LMA as sovereigns found it difficult to place longer term local currency instruments even in the domestic market (Figure AIII8).

Figure AIII8. Share of Local Currency Long-term Debt Prior to LMA in Selected Countries
(in percent)



Sources: Jeanne-Guscina EM Debt Database (2014); and Fund staff calculations.



Sources: Broeck-Guscina (2012); and Fund staff calculations.

Road-testing LMA indicators using the signaling and risk zone approaches

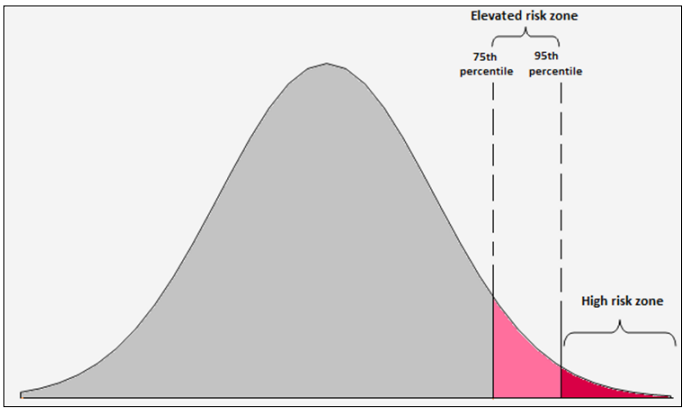
The charts above show that the selected LMA indicators behave as expected during the time of LMA. They do not however account for countries that never lost market access (false positives). In order to evaluate how well these indicators warn of LMA, we use the signaling approach. We then supplement it with the risk zone classification approach to account for country heterogeneity.

21. **The signaling approach has certain advantages over standard multivariate profit models.** It uses each variable individually to predict the dependent variable and minimizes the prediction errors. The advantages of a signaling approach over a standard multivariate probit model are that: data gaps are not a constraint; it is easy to understand and interpret; and it has better out-of-sample performance. One of the disadvantages is that individual predictive variables cannot be tested for their conditional statistical significance. In other words, feedback effects between the variables are not captured, so the signaling approach could potentially over- or underestimate the significance of individual factors. To alleviate such concerns, the below risk zone classification and road-testing of selected LMA countries cases serve as robustness tests for its findings. The signaling approach is described in more detail in Baldacci and others (2011).

22. **The indicators of market access were road-tested on a sample of 45 advanced and emerging market countries using a signaling approach.** The sample includes countries that had never lost market access, since it is important to control not only for missed cases but also for false alarms. As argued above, the determination of market access loss is separate from the

determination of debt sustainability. Such loss of market access may be temporary in nature and not necessarily involve a request for a Fund-supported program. Hence, limiting the sample to just more serious cases that ended up with Fund-supported programs when trying to identify systemic patterns may lead to a selection bias (i.e., false positives).[15] Results suggest that spreads, credit ratings, nonresident debt share, and changes in the composition of borrowing (in terms of currency and maturity) perform well in signaling LMA.

23. **The signaling approach can be usefully supplemented with the risk zone classification approach.** While the signaling approach sheds information on the predictive power of the indicators, it relies on aggregation among countries and provides little insight on how each indicator behaved prior to LMA. Hence, the signaling analysis can be usefully supplemented with another empirical approach, which attempts to describe the behavior of the indicators in terms of risk zones. Since the risk zone classification approach is implemented on a country-by-country basis, it can account for possible heterogeneity between countries. It tells us at what levels the indicators cross into different risk zones based on empirical distributions from which various percentiles of interest can be delineated. Using these percentiles—at each point in time—it can be flagged whether the indicator is in a zone of high, elevated, or low risk, relative to historical norms.[16] In most cases, the examined indicators were in the high or elevated risk zones at the time of LMA. Countries in an elevated risk zone at the time of LMA had been within this zone for a minimum period of 3 months prior to LMA.[17] There have been no instances of LMA in our sample where the indicators were in the low risk zone and only a handful of instances where the indicators were in the depressed risk zone at the time of LMA.[18]



[15]The signaling power of spreads in levels is found to be the highest whereas monthly changes in spreads display very low power. This is not surprising given the latter series will be characterized by relatively more volatility, thus reducing its signal to noise ratio. Hence, for all the empirical exercises we use only spreads in levels.

[16]By pooling this type of information across all considered indicators and countries the ultimate aim is to back-out a generalized configuration of risks/rule which is optimal from the perspective of signaling LMA.

[17]The maximum period of staying within the elevated risk zone before LMA was six months across all countries.

[18]Depressed risk zone refers to a range between 5th–25th percentile, while low risk zone refers to below 5th percentile.

Additional indicators that could be considered in real time

While significant data limitations narrowed the scope of the empirical analysis to 4 indicators, other potential indicators of LMA exist and could be used in real time.[19]

24. **For instance, information pertaining to market-based expectations about future macroeconomic conditions is embedded in the slope of a yield curve.** A typical yield curve is usually upward sloping with longer-term yields being greater than shorter-term yields. Higher long-term yields reflect the compensation for risk investors require for holding longer-duration bonds and the uncertainty in the behavior of economic indicators over the forecast horizon. If for instance investors expect an economic downturn in the near term (for a given level of credit risk) or a distress event that increases uncertainty about the future income streams then they will aim to hedge this risk by increasing their holdings of shorter-maturity bonds.[20] For the examples of Portugal and Greece (see Figure AIII9), we show how the shape of the curve evolved over a span of a year prior to the month where LMA occurred. We consider maturities between 2 and 10 years (inclusive). These plots provide evidence of the curves being characterized initially by positive slopes (10-year yield minus 2-year yield), which graduated to a phase of flattening and then inverting.

25. **The implication of this would be an increase in short- and medium-maturity yields as corresponding bond prices in these regions of the curve become compressed.** First, the yield curve will display an upward shift and flattening as investors' price in increased risk across the maturity spectrum. Then, it may ultimately invert as selling pressure at the short end of the curve increases in addition to increased sensitivity of shorter maturity bond prices to yield movement. In view of the above, we propose regular monitoring of the shape of the yield curve as a leading indicator of sovereign debt problems and LMA.[21]

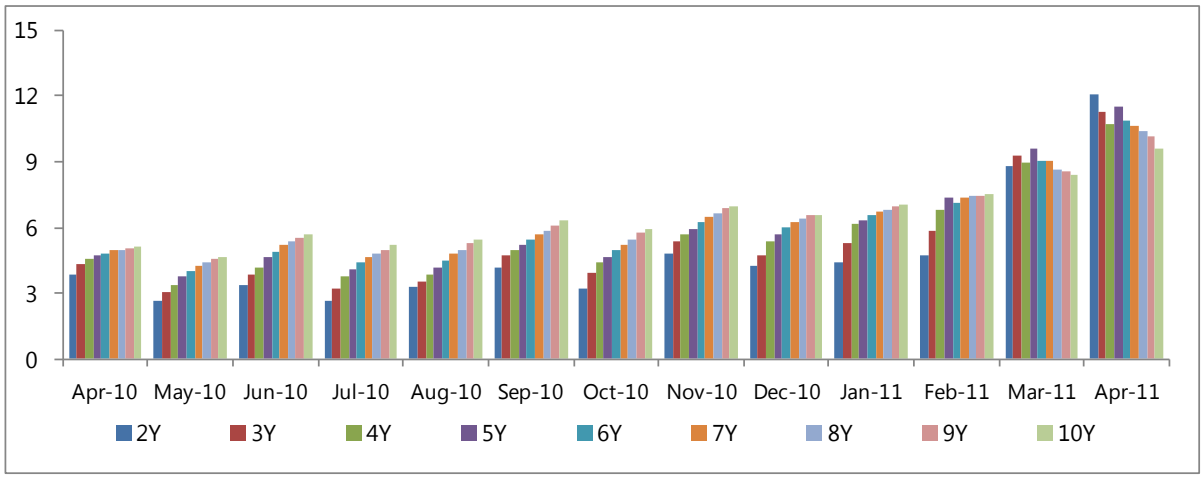
[19]These include, among others, CDS spreads; option implied volatility and skewness; expectations embedded in derivate contracts more generally.

[20]The reason is that when there is a nonnegligible probability of restructuring, market participants begin to assess credit risk in terms of expected recovery value. This situation makes short-term bond prices (which usually prices near par value) to fall relatively more than long-term bonds prices (which usually trade below par); in order to equalize all bond prices at the expected recovery value.

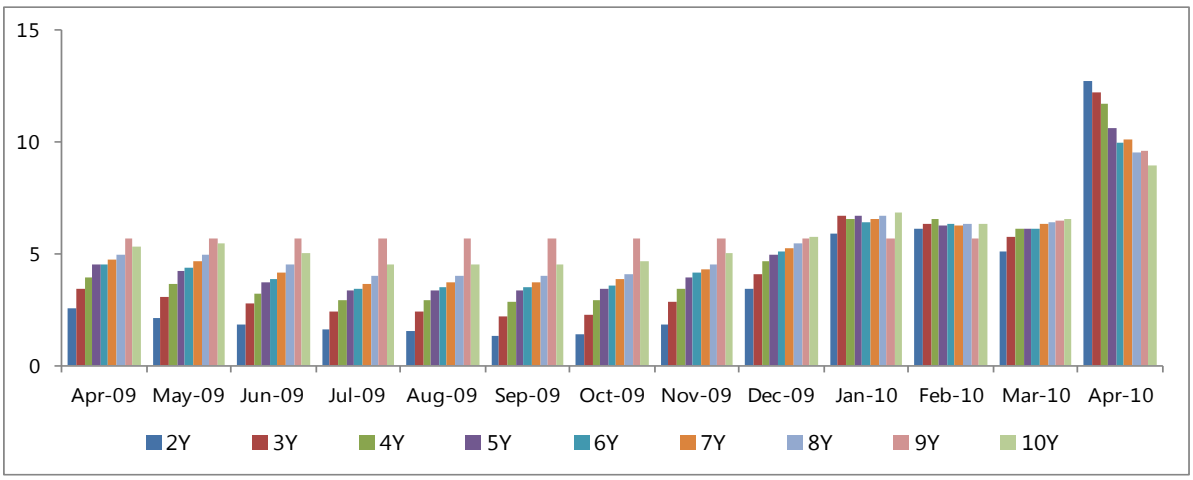
[21]When restructuring is anticipated, debt across all maturities trades like equity forcing a sharp inversion of the yield curve.

Figure AIII9. Yield Curves Behavior Prior to LMA in Selected Countries

Portugal



Greece



Sources: BEL, Bloomberg, and Fund staff estimates.

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ANNEX IV. REPROFILING AND PROGRAM CONDITIONALITY[1]

During the June 2014 Board meeting on the paper "The Fund's Lending Framework and Sovereign Debt—Preliminary Considerations," Directors raised questions on how the Fund would link the use of its resources to the successful completion of a reprofiling. This annex summarizes the Fund's legal and policy frameworks with respect to program conditionality in the context of a member's debt restructuring. It further provides an overview of the type of conditionality and program commitments with respect to debt restructurings used in past arrangements, with a focus on pre-default cases. As explained in the main paper, staff believes that current Fund policies could continue to guide program design and the use of conditionality in the context of reprofilings.

A. The Fund's Legal and Policy Framework[2]

1. **Under the Fund's Articles, the Fund is precluded from providing financing to a member if its debt is judged to be unsustainable.** In such cases, the Fund can provide financing only if it comes to a judgment that there are reasonable prospects that an anticipated restructuring would restore debt sustainability and close financing gaps within the macroeconomic parameters of the program, taking into account both official and private sector commitments. Under the current exceptional access policy such scrutiny is heightened and requires a "high probability" of debt remaining sustainable except in cases where there are high risks of international systemic spillovers.

2. **The decision to restructure sovereign debt rests solely with the member; if requested, the Fund's role is to help define the macroeconomic framework.** The Fund is precluded from requiring a member to restructure its debt and cannot set conditionality related to a debt restructuring until the member country has publicly announced its intention to restructure debt or committed to it. In Fund-supported programs that envisage a debt restructuring, the Fund's role is to work with the authorities to set achievable macro, financing, and policy parameters that are deemed adequate to restore debt sustainability in the medium term along an appropriate adjustment path. The Fund's DSA effectively identifies the financing requirements, which are crucial to anchor deliberations between the debtor and its creditors.

3. **The Fund does not get involved in negotiations between the debtor and its creditors.** The Fund always advises its members that, to the extent possible, they remain current on all debt obligations and avoid taking actions that could lead to a default (including suspension of payments) on any of the member's obligations. In general, the Fund encourages its members to engage in a

[1]This annex was prepared by Charlotte Lundgren (SPR), with input from Wolfgang Bergthaler and Chanda DeLong (LEG).

[2]This section describes the legal and policy framework in effect as of April 9, 2015.

collaborative process with their creditors when seeking a restructuring of their debt. Beyond that, the Fund leaves the specific details of the debt restructuring strategy to the debtor and its legal and financial advisors.

4. **In post-default cases, Fund lending is guided by its Lending into Arrears (LIA) policy.** Under the LIA policy, the Fund can provide financing to a member with sovereign arrears to external private creditors only if the following conditions are met:

- Prompt Fund support is considered essential for the successful implementation of the member's adjustment program.
- The member is pursuing appropriate policies and making good-faith efforts to reach a collaborative agreement with creditors.[3]
- Progress toward the elimination of arrears is monitored through financing assurances reviews by the Executive Board.

5. **The good faith criterion is assessed against several principles to strike a balance between clarity and flexibility in guiding the dialogue between debtors and their private external creditors.** First, a member, after having determined that a restructuring is necessary, should engage in an early dialogue with its creditors until the completion of the restructuring. Second, the member should share relevant, non confidential information with all creditors on a timely basis. Third, the member should provide creditors with an early opportunity to give input on the design of restructuring strategies and the design of individual instruments.

6. **The modalities of conditionality that the Fund may establish are governed by the Fund's Guidelines on Conditionality.**[4] There are two types of conditionality that may be established related to a debt restructuring:[5]

- Prior actions are those measures that a member may be expected to adopt prior to the Fund's approval of an arrangement or the completion of a review when it is "critical for the successful implementation of the program that such actions be taken to underpin the upfront implementation of important measures."

[3]Under the LIA policy, in cases in which an organized negotiating framework is warranted by the complexity of the case and by the fact that creditors have been able to form a representative committee on a timely basis, there would be an expectation that the member would enter into good faith negotiations with this committee, depending on the unique circumstances of each case. However, in determining whether "good faith" efforts have been made to negotiate, judgments would need to be made *inter alia* regarding the extent to which a creditor committee is sufficiently representative.

[4]Guidelines on Conditionality, Decision No. 12864–(02/102), September 25, 2002, as amended.

[5]Until 2009, the Fund could also set structural performance criteria (SPC), but no conditionality related to restructuring of debt was set as an SPC before 2009 for the cases reviewed.

- A structural benchmark may be established when a measure "cannot be specified in terms that may be objectively monitored or where its non-implementation would not, by itself, warrant an interruption of purchases or disbursements under an arrangement." Structural benchmarks are intended to serve as "clear markers" in assessing progress in implementation of critical structural reforms in the context of a program review.

7. **Under the Fund's financing assurances policy, to the extent that the Fund determines that a contribution from the private sector in the form of a debt restructuring will be needed to restore debt sustainability, it may provide financing only if it has adequate assurances that such a restructuring will be successful.** Such assurances are obtained by a judgment that a credible process for restructuring is underway and will result in sufficient creditor participation to restore debt sustainability and close financing gaps within the macroeconomic parameters of the program, after taking into account official sector commitments. Relevant considerations to form such judgment include the engagement of legal and financial advisors by the member, the launching of consultations with creditors, and the design of the debt restructuring strategy, including the terms of the new instruments and use of inducements for creditor participation.

8. **The decision whether to set specific conditionality measures related to debt restructuring depends on the circumstances of the member and the macro-criticality of the measure.** Under the Fund's Guidelines on Conditionality, conditionality and program design should "reflect the member's circumstances and the provisions of the facility under which the Fund's financing is being provided". The Guidelines also note that the specification and sequencing of policy adjustment and the time required to correct the problem may vary depending on what causes the balance of payments difficulties and other differences in circumstances and that the member's past performance in policy implementation should also be taken into account.[6] In sum, when deciding whether conditionality on debt restructuring should be proposed to be set, Fund staff should make a judgment based on the circumstances of the member, the macro-criticality of the measure, and an assessment of the member's commitment to complete the debt restructuring.

B. Past Practice

9. **This section reviews the practice regarding debt restructuring and associated conditionality in 17 Fund arrangements in 13 member countries during 1998–2014.**[7] [8] Seven of

[6]Guidelines on Conditionality, Decision No. 12864–(02/102), September 25, 2002, as amended.

[7]The case study includes: Argentina (2001 and 2005, three arrangements), Cyprus 2013, Dominican Republic (2005), Ecuador (2000), Greece (2011–12, two arrangements), Grenada (2014), Jamaica (2010 and 2013), Pakistan (1998–99), Russia (1998–2000), Seychelles (2010), St. Kitts and Nevis (2012), Ukraine (1998–2000); and Uruguay (2003). While some cases also involved other types of restructurings, all cases but Jamaica included a restructuring of international bonds.

[8]Two countries had two arrangements related to the same restructuring. Greece's restructuring was negotiated and agreed upon during Greece's 2011 SBA and concluded as a prior action for the approval of the second arrangement (i.e., the EFF arrangement). Argentina's January 2003 transitional SBA relied on a commitment to restructure debt, but the restructuring took place only after the second review of the subsequent September 2003 SBA.

these arrangements involved restructurings conducted on a *pre-default* basis, pre-default being defined as those cases where the member was not subject to the Fund's LIA policy.[9] Of the pre-default cases, four arrangements were approved subject to the Fund's exceptional access policy. About half of all cases included a debt reduction (face value cut).

10. **Of the 17 arrangements reviewed, 11 included conditionality related to the restructuring.** Four types of conditionality can be observed: (i) a prior action to finalize the debt restructuring; (ii) one or several prior actions to take intermediate measures towards a restructuring; (iii) structural benchmarks to finalize the restructuring; and (iv) structural benchmarks to take intermediate measures towards a restructuring (Table AIV1).

11. **Particular attention to the pre-default restructurings is warranted since they are the most relevant reference for future reprofiling cases.** First, the members that would be considered for reprofiling are expected to also be pre-default cases. Secondly, pre-default situations are typically associated with a higher urgency to move forward with the restructuring to avoid a default, which would strengthen the case for the use of conditionality to achieve quick completion of a debt operation. Thirdly, the LIA policy already imposes requirements in terms of dialogue with creditors regarding a restructuring, therefore guiding understandings reached on conditionality in such cases, and decreasing the need for conditionality aimed at prompting early action to finalize the debt operation. Despite these considerations, observations are also made about restructurings conducted on a post-default basis.

12. **A key observation from past practice is that the Fund used the flexibility under its policy, to adapt program design and conditionality to country-specific circumstances.** This is clearly illustrated in the overview that follows, as is the observation that pre-default cases tended to have stronger conditionality relative to post-default cases, generally requiring a more advanced stage of the restructuring to be completed.

Pre-Default Cases

13. **Most pre-default cases included conditionality on the completion of a debt restructuring.** In all but two arrangements (Argentina 2001 and Greece 2011) involving pre-default restructurings, conditionality was set requiring completion of the restructuring before either (i) the approval of the arrangement (Jamaica 2010 and 2013, Greece 2012) or (ii) completion of a subsequent review (Uruguay, Cyprus). Prior actions were the form of conditionality used in all arrangements but Cyprus, where a structural benchmark was set.

14. **In three pre-default cases (Jamaica 2010 and 2013; Greece 2012), prior actions were established requiring the authorities to finalize the debt restructuring before approval of the arrangement.** Important reasons to use prior actions in these cases were the need to ascertain the

[9]Among the LIA cases, the Dominican Republic and Pakistan had defaulted on bank debt, but were current on bond payments and are thus considered "post default" for purposes of this note.

authorities' commitment (Jamaica 2010 and 2013) and ensure creditors' participation (Jamaica 2010 and 2013, Greece 2012). The details of these cases are as follows:

- *Jamaica (normal access SBA, 2010):* Jamaica's debt exchange operation was deemed essential to close the member's financing gap. A prior action required Jamaica to "launch and complete a debt exchange operation that … achieves an estimated saving of over 3 percent of GDP in FY2010/11 and a reduction in the amount of debt maturing during 2010–12 by at least two thirds." The debt exchange was launched prior to the circulation of the staff report and closed a day before the Executive Board approved the arrangement on February 4, 2010.

- *Jamaica (normal access EFF, 2013):* Jamaica's debt exchange operation was described as necessary to place public debt on a sustainable path and to close the financing gap, while protecting financial system stability. Relative to the 2010 exchange, staff thus indicated clearer concerns about sustainability. A prior action required the government to "complete a debt exchange for domestic bonds consistent with a reduction in the public debt-to-GDP ratio by 2020 equivalent to at least 8.5 percent of GDP." The debt exchange was announced and launched before staff and the authorities reached an ad-referendum understanding on the arrangement, and was closed with a nearly universal participation rate prior to issuance of the staff report in April 2013.

- *Greece (exceptional access EFF, 2012):* The key targets of Greece's debt exchange were agreed at the October 2011 EU summit, prior to the fifth and last review of the preceding 2010 stand-by arrangement (SBA), and included (i) a 50 percent face value cut in privately held Greek bonded debt; (ii) incentives, financed by the official sector, capped at € 30bn; (iii) a target to bring Greek debt-to-GDP under 120 percent of GDP by 2020, all in all targeting a € 100bn debt reduction. These targets clearly reflected the recognition of Greece's debt problem being one of sustainability. However, besides program commitments by the authorities to work towards finalizing a debt exchange, the SBA did not include any conditionality to this end. A prior action was instead set in the subsequent request for an Extended Arrangement under the Extended Fund Facility (EFF) requiring Greece to "close a debt exchange with private bondholders prior to the approval of an arrangement, while euro area member states are committed to providing financing on highly concessional terms." While there was strong political commitment to implement the debt restructuring, the prior action was motivated by the need to secure creditor participation. The restructuring was launched in February 2012 and when the staff report was issued to the Executive Board the debt exchange had already attracted almost universal participation, although the exchange offer for foreign law governed bonds had been extended to March 24, with a view to increasing participation even further. The request for an Extended Arrangement under the EFF was approved on March 15, 2012.

15. **In Uruguay, a prior action was set requiring financing assurances to be met by the time of the second review of the SBA (exceptional access, 2003) after staff concerns arose following the first review.** The prior action set for Uruguay was less specific than those in Greece and Jamaica—requiring Uruguay to "Obtain and present to staff evidence of adequate financing assurances to meet the financing needs for the 2003 program." Although this was not stated in the

prior action itself, the staff report stated that the financing needs were to be met to a large extent through a debt exchange. This likely reflected the fact that the authorities were still in the process of working out the practical details of the debt exchange. Implicitly, this required Uruguay to be well advanced in finalizing the debt exchange and the use of a prior action was in this case motivated by the need to ascertain the authorities' commitment. A last supplement of the second review staff report that focused on progress made towards the debt exchange was issued to the Executive Board the day after the Uruguayan authorities had filed the necessary preliminary securities documentation for a voluntary debt exchange with the U.S. Securities and Exchange Commission. In an attached supplement MEFP, the authorities stated their intention to launch exchange offers in early April 2003 and that they expected to complete a debt exchange by early May 2003, aimed at fully eliminating the residual financing needs over the next few years and achieving a sustainable debt profile over the medium term. The Executive Board completed the review just a few days later.

16. **In Cyprus, the Fund set a structural benchmark, as opposed to a prior action, establishing the restructuring of domestic debt by end-June 2013, and prior to the first review.** For Cyprus, which had a normal access Extended Arrangement under the EFF, the largest upfront program issue was to address the banking crisis while protecting debt sustainability. Somewhat more time was instead allowed to deal with the debt restructuring. The authorities were given until the first review to roll over and restructure at least €1bn of domestic debt and roll over the €1.9bn recapitalization bond that had been injected in one of its troubled banks. Although not included in conditionality, the Cypriot authorities also made program commitments to reschedule and lower the interest rate of a Russian bond falling due in 2016.

17. **The lack of conditionality in the other two pre-default cases (Greece 2011) and Argentina (2001) reflected circumstances at the time.** Argentina's 2001 voluntary debt exchange was made for liquidity purposes and Argentina was at the time still assessed to be solvent. In the case of Greece's 2010 SBA, it was at its approval not foreseen that it would include a debt restructuring. However, at the time of the fourth review under the SBA, the need for private sector involvement was made explicit. Yet, the fourth review staff report only had commitments in the MEFP to seek financing commitments from the private sector and official sector (the respective contributions to financing yet to be specified), reflecting the still ongoing discussions within the official sector on the design and extent of the debt operation, which took place against the background of fears of contagion and spillover effects on other euro countries.

Table AIV1. Restructuring requirements in past Fund arrangements

	Required as prior action or structural benchmark				Exceptional access
	Prior action to finalize the debt restructuring	Prior action to take certain measures towards a restructuring	Structural benchmark to finalize the debt restructuring	Structural benchmark to take certain measures towards a restructuring	
Pre-default					
Argentina 2001 (SBA, March 2000)					X
Cyprus 2013 (EFF, May 2013)			X [1]		
Greece 2012 (SBA, May 2010)					X
Greece 2012 (EFF, March 2012)	X[2]				X
Jamaica 2010 (SBA, Feb 2010)	X				
Jamaica 2013 (EFF, May 2013)	X				
Uruguay 2003 (SBA, March 2002)	X[3]				X
Post-default					
Argentina 2005 (Trans. SBA, Jan 2003)				X	X
Argentina 2005 (SBA, Sep 2003)		X		X	X
Dominican Republic 2005 (SBA, Jan 2005)		X			
Ecuador 2000 (SBA, April 2000)					
Grenada 2014 (ECF, June 2014)		X			
Pakistan 1998-1999 [4] (ESAF/EFF, Oct 1997)		X			
Russia 1998-2000 (EFF, March 1996, augmented July 1998)[5]					
Seychelles 2010 (SBA, Nov 2008)					
St. Kitts and Nevis 2012 (SBA, July 2011)		X			X
Ukraine 1998-2000 (EFF, Sep 1998)					

Sources: IMF staff reports and staff briefs.

[1]SB on restructuring of domestic debt.

[2]SR states that this is a prior action and it is committed to in the MEFP, but it is not included in the prior actions table.

[3]Prior action to meet financing needs, which according to the SR was expected to me met primarly through a debt operation.

[4]Commercial bank loans. Restructuring of eurobonds took place in between Fund arrangements.

[5] The EFF was followed by an SBA in July 1999. The SBA did also not include any conditionality related to debt restructuring.

Post-Default Cases

18. **In post-default cases, programs allowed significantly more time for the restructuring to take place and conditionality focused on intermediate steps towards debt restructuring.** There was, however, a large variation in the time allowed from the approval of the arrangement until the completion of the debt restructuring. The case of Dominican Republic, with a prior action to complete the consultative phase of the restructuring as a requirement for the approval of the arrangement, contrasts with others that were given significantly more time before the restructuring took place. St. Kitts and Nevis and the Seychelles (both arrangements also having markedly frontloaded access to Fund resources, the former with exceptional access) had their first and third program reviews respectively approved before finalizing their debt exchange. The prior action for the approval of St. Kitts and Nevis' arrangement required only very initial intermediate steps to be taken: a public commitment to undertake a restructuring and to appoint legal advisors for the restructuring. Argentina's 2003 request for an SBA, included a structural benchmark to announce a restructuring offer with its intended content. Following delays due to extended discussions on the LIA policies and the need for a close dialogue with creditors, the second review of the arrangement included a prior action to publish the terms of engagement of banks to assist in the debt exchange offer and the presidential decree to ratify their appointment. The second review was the last to be completed and the debt exchange was finally completed more than a year later.

19. **Russia and Ukraine both had ongoing arrangements to deal with liquidity problems when unexpected defaults occurred, which explains why there were limited or no program commitments or conditionality related to debt restructuring in these cases.** This was reflected in the absence of conditionality, less importance of debt restructuring for financing of the program and less committal language in the MEFP. At the time, none of these cases was assessed to have a solvency problem.