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DEFINITIONAL ISSUES IN THE IMF DEBT SUSTAINABILITY ANALYSIS FRAMEWORK

A PROPOSAL

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Key Points

- The definition of public debt sustainability in the International Monetary Fund (IMF) debt sustainability analysis (DSA) framework refers to fiscal adjustment and primary balance as the central elements of the policy course that is most likely to ensure debt sustainability; the induced policy approach is not contributing to the recovery of economies in distress, and instead it is contributing to delays in sovereign debt restructuring, as well as to insufficient debt relief (when the restructuring occurs) for distressed sovereign debtors.
- The definition needs to be revised to be in tune with macroeconomic theory that is overwhelmingly supported by evidence. A reform in the definition of debt sustainability that refers to consistent macroeconomic policies instead of fiscal adjustment would be better aligned with sound economic theory, and would improve debt policies.
- This reform would not only improve the quality of the Fund's sustainability judgments, but would also enhance debt sustainability itself. Such a reform would also reduce the inter-creditor inequities created by the lending-into-arrears policy in the current framework.

Introduction

It is efficient that insolvent debtors restructure their liabilities. A timely and efficient process of debt restructuring is in the best interest of the aggregate. Conversely, delaying the restoration of debt sustainability may aggravate the economic situation of the debtor. This is inefficient: the prolongation of a recession decreases the amount of resources to be shared by the debtor and its creditors. The costs can be enormous for societies, as deep depressions are usually accompanied by high and persistent unemployment (generally unevenly distributed among the different cohorts and segments of the labour force), inequality and poverty.

In this respect, the IMF plays a crucial role, as its DSA framework is a critical element of the architecture of sovereign debt markets. The IMF's sustainability judgments have a decisive influence on the timing of sovereign debt restructuring of countries in distress, and on the IMF lending policies toward those countries.

This policy brief assesses a set of the DSA framework's key aspects. The analysis concludes that the definition of public debt sustainability and the economic models that the IMF uses in its debt sustainability assessments need to be revised. In particular, the *definition* of sustainability is not aligned with sound economic theory, and is logically *inconsistent*. Importantly, the economic theory embedded into the DSA is not in tune with cutting-edge research produced by the IMF research department.

The flawed DSA performance has implications on multiple fronts. First, it is contributing to the so-called "too little, too late" syndrome — according to which debt relief is generally inefficiently delayed and, when it occurs, often insufficient to restore the conditions for economic recovery. Second, it creates inter-creditor inequities. The reason is that the lack of recognition of the need for debt restructuring permits the IMF to lend into arrears, a policy that generally comes with conditionalities (as fiscal austerity) that aggravate recessions, decreasing the expected value of the claims of creditors that do not benefit from that lending, while benefiting the creditors that get repaid with the "rescue funds" that the distressed debtor receives. Third, and as a by-product of the previous implication, it makes it more difficult to achieve the necessary reforms to the international legal architecture that governs sovereign debt restructuring. Delays in restructuring lead to a negative sum game. But it is not a game where everyone loses (if this were the case, reforms would be win-win, and everyone would be incentivized to foster them). Instead, the induced inter-creditor inequities create some winners, and those who win from the current state of affairs are more likely to oppose any attempt to reform the system.

The changes to the definition of public debt sustainability proposed in this brief would realign it with sound macroeconomic theory, and would also give it logical consistency. Definitional issues are particularly important in this case because they convey information on what is the relevant economic theory for addressing debt crises — which, in turn, has a direct effect on the chosen policy approach.

While the DSA framework refers to *fiscal adjustment* and the evolution of the *primary balance* as the elements of the policy course of action that will determine whether a debt trajectory is sustainable in the best-case scenario, this brief takes a different perspective: it suggests judging whether a trajectory is sustainable if debt can be stabilized when the government follows *consistent macroeconomic policies*, under non-extreme realistic shock scenarios. By referring to *macroeconomic policies* in general, the path of policies that, in the view of the IMF, was conducive to the restoration of sustainability would not necessarily have fiscal adjustment as the central element, but would also contemplate the possibility of running expansionary fiscal policies in times of recession, as macroeconomic theory suggests (a brief review of this literature is offered in the section "A Simple Reform Proposal"). By referring to *consistent* policies, it would rule out paths that do not satisfy economic feasibility constraints. Finally, by reducing the domain of shocks to *non-extreme* scenarios, the new definition would resolve a problem of inconsistency in the current definition, which requires sovereigns to satisfy a condition that is only consistent with non-zero "country risk" spread in contexts where the contractual interest rate generally incorporates a strictly positive risk of default.

Influential voices have raised concerns on the unmet challenges of the IMF to serve its core functions (see Eichengreen and Woods 2015). This policy brief will argue that this simple change in the definition of sustainability will contribute to resolving one of its unmet challenges — namely, the resolution of sovereign debt problems.

The Elements of DSA

DSA requires defining the state of the economy in the period of analysis, as well as projecting how that state will evolve over time. Projections may refer to different scenarios with their associated probabilities.[1]

The exercise of projecting the behaviour of the economy requires the use of an economic model that captures the analyst's theoretical standpoint and understanding of the economy under review — and possibly the "political" constraints that it faces given the sensitive nature of the exercise. The stage of projections is an essential phase of the DSA, as sustainability judgments will mostly depend on its outcome.

Recent DSA Performance

The recent performance of the IMF DSA has been relatively poor. The IMF projections have generally been over-optimistic for economies in debt distress. The projections were not only flawed at the beginning of the recession, but large mistakes have been repeated period after period; that is, large forecast errors remain even after the revelation of information on the performance of the economy under analysis. Figure 1 describes this pattern for Greece. The same pattern applies to the other European economies in distress (see Guzman and Heymann [forthcoming 2016] for a full description). Some of these issues have been acknowledged by the Independent Evaluation Office of the IMF (2014).

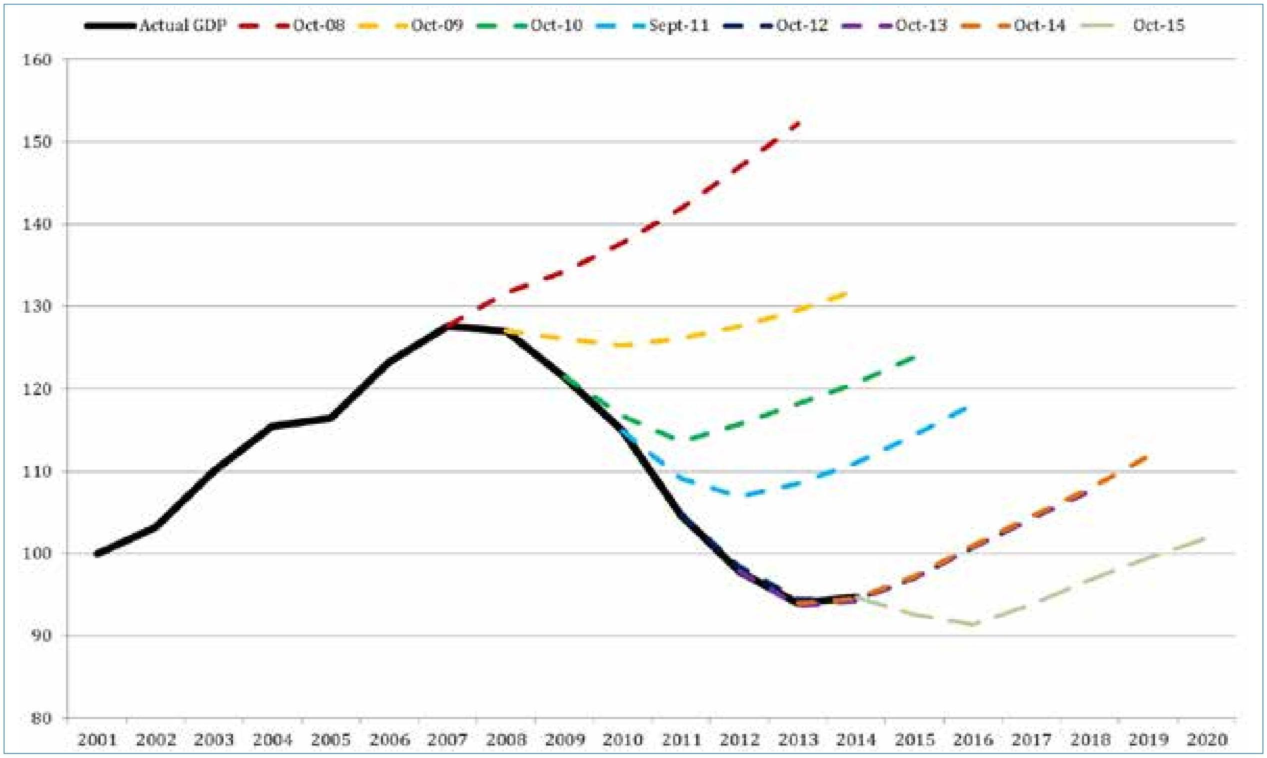
Over-optimistic GDP forecasts lead to an underestimation of the need for debt restructuring. This contributes to the too little, too late syndrome in sovereign debt restructuring, that is, inefficient delays in the initiation of restructuring processes and insufficient debt relief when the restructuring is finally carried out — an issue that is receiving increasing attention in the literature and that has also been recognized by the IMF (2014) (see also Guzman and Stiglitz [forthcoming 2016], and the various chapters in Guzman, Ocampo and Stiglitz [forthcoming 2016]). These unsatisfactory results are, to a large extent, the consequence of the theoretical standpoint that determines the policy approach that the distressed country is encouraged (by the IMF) to follow.

The Definition of Sustainability and Policy Implications

Debt sustainability is an ambiguous concept. If the interest rate on debt were higher than the risk-free interest rate, a definition of sustainability that requires full repayment with certainty would

1 Consiglio and Zenios (2015) argue that obtaining distributions of projections for each year and calculating risk metrics would improve DSAs.

Figure 1: Greece — Actual GDP and IMF's World Economic Outlook Forecasts (Index: 2001 = 100)



Data source: World Economic Outlook Database, www.imf.org/external/ns/cs.aspx?id=28.

be inconsistent, as it would demand repayment in every state, even when the contracted interest rate was incorporating the possibility of no repayment in some of those states. A consistent definition of sustainability must take into account that there are tail events in which full debt service will not occur.

The definition of debt sustainability may also refer to the capacity of debt repayment as an outcome that will depend on the policy actions of the sovereign debtor. Such a definition would attempt to establish whether debt could be regarded as sustainable in the scenario where the capacity of repayment is the maximum. But there may be different views on what set of policies would maximize the capacity of repayment in a *sustainable* way (that is, not only in the short term, but also in the long term).

In fact, for every level of initial debt there are infinite paths of primary balance trajectories that would be consistent with the satisfaction of a transversality condition or, even less restrictively, with stabilization of the debt over GDP ratio — some of them implying increasing ratios of public debt over output in the short term. Which ones of those are feasible will depend on the size of fiscal multipliers in practice.

The IMF DSA definition of sustainability can be analyzed on both fronts — that is, regarding its consistency and the policy approach considered as the one that would achieve sustainability with the largest probability. This definition has evolved over time, but both aspects still remain controversial. The IMF (2011, 5) defines *unsustainability* as follows: "The fiscal policy stance can be regarded as unsustainable if, in the absence of adjustment, sooner or later the government would not be able to service its debt. If no realistic fiscal adjustment can prevent this situation from arising, not only fiscal policy, but also public debt would be unsustainable."

More recently, the IMF (2013a, 4) defines public debt *sustainability* (and conversely, unsustainability) as follows: "Public debt can be regarded as sustainable when the primary balance needed to at least stabilize debt under both the baseline and realistic shock scenarios is economically and politically feasible, such that the level of debt is consistent with an acceptable low rollover risk and with preserving potential growth at a satisfactory level. Conversely, if no realistic adjustment in the primary balance — i.e., one that is both economically and politically feasible — can bring debt to that state, public debt would be considered unsustainable."

A sovereign that satisfies either of those conditions would be unduly burdened with a non-zero "country risk" spread. But more importantly, the definitions select **fiscal adjustment** as the policy course that would most likely maximize the capacity of debt repayment "sooner or later."

Although the IMF debt sustainability analysis considers many different policy *instruments* for restoring or ensuring debt service capacity, the definition of sustainability has implications for the policy *strategy* to be adopted. The connection between this conception of sustainability and the overestimation of the economic recovery for countries in distress is clear. The idea that fiscal adjustments could somehow restore solvency in an already depressed economy, in times in which the private sector is also deleveraging, without contemplating the possibility of deviation-amplifying contractionary spirals, is ill conceived and not aligned with sound macroeconomic theory or evidence.[2] Besides, in many cases, occasional improvements in primary fiscal results are not associated with economic recovery or long-term debt sustainability (Jayadev and Konczal 2010; 2015). This approach is also not aligned with cutting-edge research produced by members of the IMF Research Department that recognizes the non-linear real activity responses to fiscal policies and, specifically, the potentially large multipliers of fiscal contractions in already-depressed economies, with the consequent danger of destabilizing effects (see Blanchard and Leigh 2013).[3]

Inter-creditor Inequities

The IMF can only provide funding to countries whose debts are deemed sustainable.[4] When the IMF lends into arrears in a situation in which debt is not sustainable, the country will not go through the necessary process of restructuring and the recovery will be delayed, hurting not only the debtor but also the creditors, which will experience a decrease in the expected value of their claims (as a country that produces less will be less able to service debt in the future). This is a serious inter-creditor inequity, as it creates an unlevel field, in which some creditors (the ones that get repaid with these loans) benefit from the inefficient delays in debt restructuring.[5]

The Consequences for the Frameworks for Sovereign Debt Restructuring

There is overwhelming consensus on the need for reforming the frameworks that govern sovereign debt restructuring. Academic economists, lawyers, practitioners, policy makers, major institutions (such as the United Nations, the IMF, the US Treasury and the International Capital Market Association) and several non-governmental organizations share the view that the current gaps in the international financial and legal architecture are leading to major inefficiencies and inequities that harm the prospects of the societies that suffer sovereign debt crises and the majority of their creditors.[6]

If all creditors were to win from a reform, its implementation would be simpler. But the inter-creditor inequities implied by the IMF lending policies in times of distress change the nature of the field. The winners of these policies will naturally have fewer incentives to engage in reforms that weaken their position, even if those reforms improve the functioning of the system.

A simple reform to the DSA framework, such as the one presented in the next section, could simultaneously address the different problems that were described in this section.

A Simple Reform Proposal

This policy brief proposes a simple change to the definition of debt sustainability that would help to reconcile the IMF approach for DSA with sound economic theory.

An alternative definition for sustainability: Public debt can be considered as sustainable if the *macroeconomic policies* needed to at least stabilize debt under both the baseline and realistic (non-extreme[7]) shock scenarios are *economically consistent* and politically feasible.

Economic consistency refers to the satisfaction of a transversality or solvency condition for the public sector, such that the macroeconomic policies implied satisfy an intertemporal budget constraint according to which the present values of revenues and expenses are equal.

An alternative definition for unsustainability: Conversely, if no consistent and politically feasible macroeconomic policies can lead to debt stabilization under non-extreme realistic shock scenarios, public debt would be considered unsustainable.

Referring to non-extreme shock scenarios within the domain of realistic scenarios recognizes that there are situations already contemplated in the contracted interest rate in which full debt service is unfeasible, giving consistency to the definition. (To be fully consistent, the definition should refer to a domain of

2 See, for example, Auerbach and Gorodnichenko (2012a; 2012b; 2012c); Eggertsson and Krugman (2012); Herndon, Ash and Pollin (2014), Jordà and Taylor (2013); Dosi et al. (2015); see also the commentaries by Krugman (2010; 2013; 2015) and Stiglitz (2010).

3 See also Baum, Poplawski-Ribeiro and Weber (2012), Eyraud and Weber (2013). See IMF (2013b) on the management of the Greek debt crisis.

4 Although the IMF amended its "exceptional access" lending framework to deal with the Greek crisis (see Schadler 2014).

5 This issue is aggravated by the de facto senior creditor status of the IMF (Brooks et al. 2015).

6 See, for instance, Brooks and Lombardi (2015; forthcoming 2016); Chodos (forthcoming 2016); Conn (forthcoming 2016); Gelpern (2015), Gelpern, Heller and Setser (forthcoming 2016); Gitlin and House (2014); Guzman and Stiglitz (2015; forthcoming 2016); International Capital Market Association (2014); IMF (2014); Mooney (2015); Ocampo (forthcoming 2016); Raffer (forthcoming 2016) and Schwarcz (2015), among many other papers that point in the same direction of the need to reform the current non-system for sovereign debt restructuring.

7 "Non-extreme" refers to non-extreme scenarios within the domain of realistic scenarios.

the distribution of shocks in which full payment is not feasible that is equal to the one implicitly incorporated in the contracted interest rate.)

However, referring to *consistent macroeconomic policies* instead of *fiscal adjustment* increases the spectrum of policy options that could be considered for restoring debt sustainability — and, in particular, it includes counter-cyclical macroeconomic policies as an option for dealing with recessions, recognizing the importance of positive and potentially large fiscal multipliers in those times.[8]

Conclusion

Delays in sovereign debt restructuring can impose large costs on distressed debtors and most of their creditors. The IMF has an important role to play in fostering better-performing sovereign lending markets. The DSA framework has been improving over time, but there is still space for further improvements.

The simple reform to the definition of debt sustainability proposed in this policy brief could help resolve some of the deficiencies observed in sovereign debt crises resolution.

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8 Auerbach and Gorodnichenko (2012b), using US data, find that fiscal multipliers associated with government spending can fluctuate from being near zero in normal times to about 2.5 during recessions. Anja Baum, Marcos Poplawski-Ribeiro and Anke Weber (2012) show the existence of large multipliers during economic downturns for other advanced economies (the Group of Seven economies excluding Italy).

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