

## Remarks on the IMF's new debt sustainability framework

In January, the Executive Board of the International Monetary Fund (IMF) discussed and [endorsed](#) a new framework for assessing the public debt sustainability of market access countries. This has now become the “Sovereign Risk and Debt Sustainability Framework for Market Access Countries” (MAC-SRDSF) following a “careful review over the past two and a half years.” The new framework will apply in surveillance and use of Fund resources cases from late-2021 or early-2022.

The [review](#) itself is only the latest of three since the introduction of debt sustainability analysis (DSA) as a formal tool at the IMF following the Argentina debacle in the early-2000s. The most recent review prior to this year, completed in 2013, came after the IMF-led post-GFC austerity-cum-depression. Every DSA update shares in a consistent lament about prior forecast failings while progressively adding bells and whistles—fan charts, traffic lights, thresholds, longer forecast horizons.

But no *fundamental rethink* has been initiated despite presumably thousands of staff hours devoted to the topic.

Indeed, there is a case to be made—a case we make here—that analytical shortcuts taken by the IMF in the early 2000s, in light of their failed Argentina engagement, legitimised a flawed DSA framework from which the Fund has yet to escape intellectually. These failings were on display in Greece and, yet again, in Argentina in recent years—allowing the institution to stumble from crisis to crisis without learning from their mistakes and analytical blind spots. And institutional inertia since the early 2000s keeps the Fund behind the curve on debt analysis despite the latest update. Hence the need for a fundamental reassessment of the debt sustainability framework.

What’s wrong with the DSA framework? And how then might we judge this latest MAC-SRDSF institutional innovation?

### Defining sustainability

Let’s start with the Executive Board-endorsed definition of public debt sustainability and ask where it comes from. As the latest document notes (¶6, p.6) and fails to challenge:

*In general terms, 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 acceptably low rollover risk and with preserving potential growth at a satisfactory level.*

So public debt sustainability is couched in terms of the feasible (general) government primary balance that “at least” stabilizes debt. Note, this does not imply surplus and could admit a deficit. In addition, there is no mention of other sectors of the economy. But why should there be? We’ll come back to this.

Consider where this definition comes from. Public debt-to-GDP ( $b_t = B_t/Y_t$ ) can be shown to evolve according to the following (standard) relation:

$$b_t = -s_t^P + \left( \frac{1 + i_t}{1 + g_t} \right) b_{t-1}$$

so, it is decreasing in the primary balance ( $s_t^P$ ) but increasing in the growth-adjusted interest on existing debt ( $i_t$ ). Solving this forward for the inter-temporal budget constraint, it turns out that indeed a primary surplus path that “at least” stabilizes debt-to-GDP in a steady-state achieves sustainability when  $i_t > g_t$ . This primary balance condition does not apply when  $i_t < g_t$ , yet the Board has carried it over to such cases—and this has gone unchallenged.

Given recent famous recognition  $i_t > g_t$  doesn’t hold at all times—and possibly won’t hold for many years yet—the Board’s definition of sustainability is stale, therefore. It might be said that when  $i_t < g_t$  a deficit is permitted. But such a policy configuration could be tighter than that needed for sustainability—*there is no theoretical justification for this*, and to duck this point is a huge failing at this time.

Perhaps it might be argued, though there is no discussion of this point in the document, that even if  $i_t < g_t$  in the baseline, an interest rate shock could reverse this inequality, still requiring an “economically and politically feasible” adjustment towards primary surplus which ought to be considered. However, there may be occasions where even a realistic interest rate shock won’t raise the average interest on public debt above the nominal growth rate, so the condition that public debt is “at least” stabilized remains problematic.

This is important. There are few issues of greater macroeconomic importance right now than using fiscal policy to the fullest for stabilization and growth. This needs careful consideration to avoid unduly restrictive fiscal policy at this time. The IMF Board ducked this responsibility in the revised MAC-SRDSF.

### **It’s the balance of payments, stupid!**

Another angle, first side-stepped in the seemingly innocuous decision to contemplate debt relative to nominal GDP in the early-2000s, is the balance of payments. External considerations don’t feature in the above “standard” public debt flow constraint. But this is only an artefact of using GDP as the denominator for public debt *regardless of who holds the debt*. For example, it is common to distinguish between domestic ( $B_t^D$ ) and external ( $B_t^E$ ) holders as likely having different attitudes towards rolling over debt. But it is seldom underlined that external holders of debt *cannot be serviced through the primary fiscal balance*, rather only with tradeable goods—and therefore the external balance. As such, the two need to be contemplated jointly.

Suppose we construct a metric for sustainability that instead combines domestic debt-to-GDP ( $b_t^D = B_t^D / Y_t$ ) with external debt-to-some measure of tradeables which we take as a constant share of GDP ( $b_t^E / \theta = B_t^E / \theta Y_t$  where  $\theta < 1$ ) on the grounds that external debt needs to be serviced with foreign exchange—or with tradeable products, whereas GDP has a large component of non-traded goods.

Defining  $\tilde{b}_t = b_t^D + b_t^E / \theta$  we can follow the standard steps to derive the flow constraint for this new metric as:

$$\tilde{b}_t - \left(\frac{1-\theta}{\theta}\right)r_t = -\left((s_t^P - tb_t) + \frac{tb_t}{\theta}\right) + \left(\frac{1+i_t}{1+g_t}\right)\tilde{b}_{t-1} - \left(\frac{1-\theta}{\theta}\right)\left(\frac{1+i_t^R}{1+g_t}\right)r_{t-1}$$

where  $tb_t$  is the external goods and service trade balance,  $i_t^R$  the interest earned on reserve assets,  $r_t$  the value of reserve assets-to-GDP held by the central bank. A simplified balance of payments relation has been used to derive this expression, where only government debt and reserves clear the financial account, there are no transfers, and interest on domestic and

external government debt is assumed equal. In other words:  $\Delta B_t^E = -TB_t + i_t B_{t-1}^E + \Delta R_t - i_t^R R_{t-1}$ . This is illustrative and incomplete. But it also illuminates.

Although somewhat messier, it is straightforward to see this expression contains as a special case the standard sustainability expression when  $\theta = 1$ , i.e., where GDP all is classified as “tradeable.” In this case there is no “transfer problem” and no need to be separately concerned with the trade balance and balance of payments when assessing public debt sustainability. The primary fiscal balance will do; any surplus generated from the domestic private sector is automatically in the form of traded goods.

However, more generally—and certainly more realistically—so long as  $\theta < 1$ , to *define* public debt sustainability *without reference to the balance of payments* is hugely and dangerously misleading—an artefact of an implicit assumption that all GDP is tradeable. Indeed, *both* the primary fiscal balance *and* external goods and service balance adjustment is necessary for sustainability. And this metric is non-linear; the smaller is  $\theta$  the more important are the BOP considerations.

As this expression shows, the primary surplus has to *exceed* the trade balance surplus,  $s_t^P - tb_t > 0$ , by some amount to service domestically held debt; the goods and service balance surplus, however, is a necessary counterpart for the sustainability of the externally held debt. In other words, part of the primary fiscal surplus is being used to service externally held debt, and absent a corresponding external balance surplus *generated by the private sector* to provide the foreign exchange, public debt sustainability is meaningless. Which is to say, public debt sustainability cannot be seen through the lens of the fiscal accounts alone.

Solving this expression forward, for the case where  $i_t > g_t$ , reasonable for program cases, we can solve for the external trade balance and primary fiscal balance in the steady state (dropping the t-subscript) consistent with intertemporal solvency:

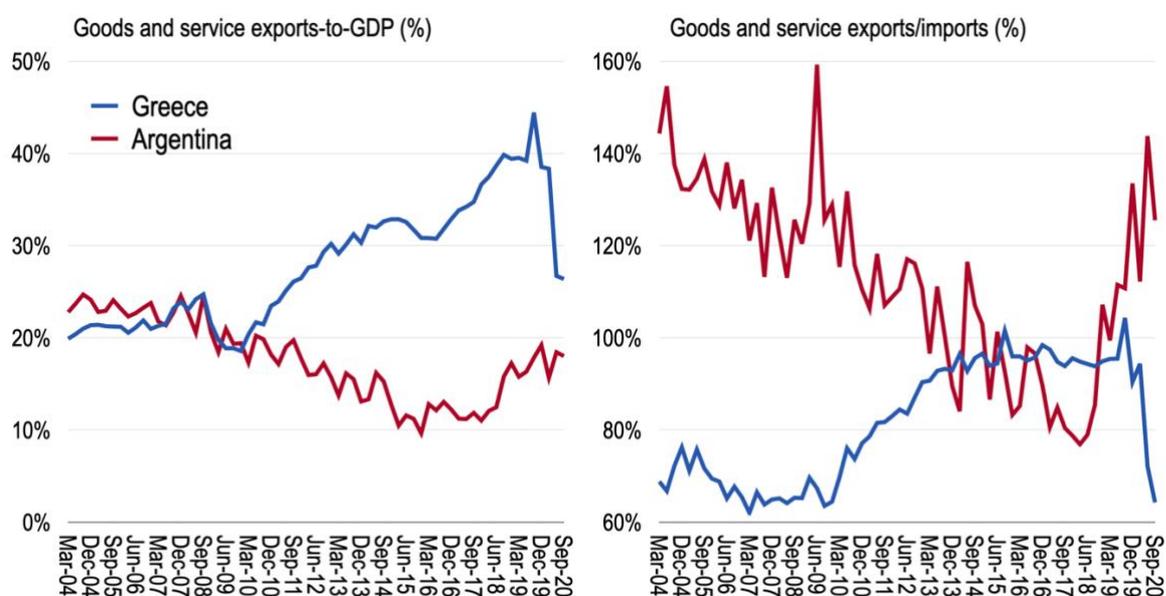
$$tb = \left( \frac{i - g}{1 + g} \right) (b_{t-1}^E - r_{t-1}) + \left( \frac{i - i^R}{1 + g} \right) r_{t-1}$$

$$s^P = tb + \left( \frac{i^R - g}{1 + g} \right) r_{t-1} + \left( \frac{i - g}{1 + g} \right) b_{t-1}^D = \left( \frac{i - g}{1 + g} \right) b_{t-1}$$

Curiously, the parameter  $\theta$  falls out. It’s not needed to derive the steady state solutions for macro variables—but it is useful to demonstrate the implicit assumptions about the transfer problem, or lack thereof, in the standard flow expression. In addition, government debt is needed to “carry” reserve assets, the cost being the spread between the interest paid on government debt and received on reserves ( $i - i^R$ ). This is just a simplification; it can happen through other channels, such as through central bank liabilities, but the quasi-fiscal cost will inevitably fall on the government. So, reserve asset holding in the steady state plays a role in any assessment of public debt despite not featuring on the government balance sheet.

If we were to go back and study the two major debt restructurings on the IMF’s watch in the past decade, Greece (2010) and Argentina (2018), defining characteristics for each included the low share of goods and service exports in GDP before the crisis; the large share of non-resident holdings of government debt; debt-to-GDP dynamics distorted by real exchange rate appreciation as a result of capital inflows; and large trade balance deficits that needed reversing as much as, or more than, the fiscal deficit.

Or, put another way: it's the balance of payments, stupid! The fact that the BOP is central to the Fund's mandate but plays only a bit part in public debt sustainability analysis still is deeply concerning.



Now, it cannot be claimed there is no reference at all to the external accounts in the MAC-SRDSF document. However, it can be claimed that external considerations are largely set aside—as any document search of key terms will reveal. Moreover, the first paragraph (p.4) contains a footnote that clarifies the external DSA “framework will be reviewed separately in the future,” reinforcing that the balance of payments is considered a separate concern and not deeply integrated with, or fulcrum of, any assessment of public debt sustainability.

As historical aside, the [original](#) debt sustainability proposal at the Fund in 2002 considered public and external debt simultaneously—in the same document. By the time the Fund came flail around in support of the failed intervention in Greece in 2010-12 and Argentina in 2018-20, balance of payments links to fiscal sustainability had been forgotten.

Curiously, the MAC-SRDSF document contains other clues as to the importance of external accounts to public debt sustainability—but shies away from carrying these observations to their logical conclusion. For example, amongst the indicators of debt vulnerability, it is noted (§18, p.10) that: “Debt profile indicators, notably those capturing external vulnerabilities, actually showed greater discriminatory power relative to debt and GFN [gross financing need].” In other words, and once more: it's the balance of payments, stupid! As such, the current account and real effective exchange rate are included as part of the “near-term risk analysis” (§47, p.28 and also Table A.VIII.1, p.62.) But the balance of payments projection is not needed for the baseline or shock analysis related to medium-term public debt sustainability. This allows challenges due to any shortage of foreign exchange impacting public sector sustainability to develop until they are only picked up as a “near-term risk.”

In summary, we might return to the Executive Board's definition of public debt sustainability and note that it only applies in very special cases—cases that are highly unlikely to obtain, when all GDP is tradeable—and their definition should more accurately read something like:

*In general terms, in circumstances when the average interest on public debt is higher than the nominal growth rate of the economy, public debt can be regarded as sustainable only when both the primary fiscal and external goods and service balance are sufficient to at least stabilize domestically and externally held debt, allowing for the cost of carrying reserve assets, under both the baseline and realistic shock scenarios.*

There are additional nuances for cases with more sophisticated external accounts, so this revised definition needs more work still. But this is more meaningful than the one endorsed by the Executive Board in 2013 and would avoid cases such as Greece (2010) when fiscal adjustment was emphasized alongside assumptions about external adjustment—and growth of exports of goods and services in particular—impossible for the Greeks to obtain.

The IMF *used to* have an analytical framework that relied upon the integration of sector analysis—formally, through an iterative process—into a consistent set of macro-financial accounts that would set policy targets (conditionality) and ensure congruence between policy choices and macroeconomic outcomes. This is what IMF *financial programming* originally meant. But following the Asia and then Argentina Crisis in the late 1990s and early 2000s, Fund staff concluded this framework was no longer applicable to financial account-led crises. This framework was quietly—though not officially—dropped. In its place, a simplistic DSA framework—focussed sector by sector, and not integrated—lent on the primary fiscal balance as fulcrum of sustainability—to the neglect of the transfer problem and the balance of payments. Alongside hand-waving in macroeconomic projections, this has set the tone for IMF interventions by halfwit potentates on Fund staff since.

### **Introducing the central bank**

A welcome development, long advocated on this blog, in the MAC-SRDSF update is the decision to integrate the central bank's balance sheet—where necessary—in the analysis of sustainability. This is a response to the mess in Argentina, or course, but probably with one eye on Lebanon also. Other central banks need careful watching on this score, such as in Nigeria. But there is also the potential, noted in the MAC-SRDSF, to more generally rethink sustainability for large holding of public debt resulting from QE—though without consolidating with the government.

This latter decision—not to consolidate the accounts as a result of QE—lacks ambition.

But let's start with the Argentina/Lebanon case. The document suggests that the framework should “account for central bank liabilities, such as FX swaps and liquidity paper” (§15, p.9.) Later, it goes on to explain that “The framework will propose consolidations only in cases of central banks with large negative capital positions and/or where the country team considers the central bank to be involved in significant direct monetary financing of the budget and/or quasi-fiscal activities” (§40, p.24.) A footnote goes on to note that: “Such consolidation would imply that (i) central bank claims on the government are netted out *and* (ii) central bank debt liabilities (excluding currency and deposits held by residents) are added.”

There are at least three problems with this. First, at first blush, it is not clear that the Argentina case (in 2018) would have nudged staff to consolidate the central bank with the Federal government on this basis. BCRA net worth never officially registered negative, direct monetary financing was stopped as part of the program (it became a stock, not a flow problem), and only the task of financing the central bank's deficit remained—essentially financed by net bill issuance and, where necessary, money printing.

Second, it is not clear that “excluding currency and deposits held by residents” makes sense. Currency in circulation, sure. But deposits of the banking system, perhaps to fulfil reserve requirements, should only be removed for analytical purposes *if the interest rate paid on these is minimal or zero*. Otherwise, they too could contribute to a central bank deficit in the conduct of monetary policy. They should not be precluded in advance; it depends on the circumstances. The point should be: if the central bank itself runs a deficit in the conduct of monetary policy after allowing for transfers from the Federal government or income on securities or capital, then this deficit has to be dealt with as part of any assessment of sustainability.

Third, central banks often need to accumulate reserve assets in rebuilding buffers as part of IMF programs. As noted above, this has to be factored in. So, the asset side of the central bank balance sheet, alongside links to the fiscal authorities, also matters.

The definition of when central bank consolidation might be needed is expanded on in an Annex, where it is further clarified when central bank absorption instruments—liquidity papers?—should trigger consolidation (Annex II, ¶5, p.13.) There we are told that, “Liquidity papers that are issued solely for monetary policy purposes would normally be excluded from the debt definition used for the DSA, provided (i) no financing to the government can be provided through their issuance; (ii) the government is not *de facto* responsible for paying debt service thereon; and (iii) the securities do not represent a material fiscal risk (as indicated, for example, by a track record of central bank independence and monetary stability). Where one or more of these conditions is not met, liquidity papers would be included in public debt and GFNs for DSA purposes unless their outstanding stock can be deemed *de minimis*.”

Again, it is not obvious from this more detailed definition that this would have captured Argentina’s situation in 2018. There is too much wiggle room. Indeed, it’s not even clear that this is consistent with the definition noted four paragraphs up in the main body of the document. Can staff reasonably be expected to judge no “material fiscal risk (as indicated, for example, by a track record of central bank independence and monetary stability)”? IMF staff are sycophantic by construction, are no longer capable of constructing analytical monetary accounts, and will not be able to tell a central bank they aren’t independent or in control of monetary stability until it is too late. It’s not a realistic test to assign to Fund staff.

Staff are *expected* to construct a financial program in surveillance and program cases—or so they claim. So, in truth, the heavy lifting of consolidating with the central bank should be being done already. There should be little additional trouble to systematically integrate the fiscal-central bank balance sheets. In other words, it would be better to make it an expectation of Fund staff to consolidate fiscal-monetary accounts as part of the debt sustainability assessments of the public sector. Into the bargain, so to speak, this would involve balance of payments integration.

Returning to the matter most pressing for DM central banks, where the constraint of adequate central bank capital is not binding. It is a great pity the document does not go further in exploring the sustainability implications of large holdings of public sector assets by central banks under the influence of QE. “In case of central banks with healthy balance sheets, the framework will incorporate the mitigating characteristics of central bank holdings, without consolidation... These factors can be addressed through incorporation of future seigniorage revenues into the fiscal projections and by accounting for their impact on the government’s financing risks.” (Annex II, ¶5, p.13.)

Given the exploration of “dual rates”—and negative rates on lending—by some key central banks, and the potential for others to follow—the Fund ought to provide more clarity on how far negative central banks can push capital without threatening inflation or posing a risk to fiscal policy.

Put another way, the interaction between central bank and fiscal sustainability is more important now than it has been for many decades, and the Fund ought to be leading on this.

Ruling out consolidation for DMs here is an opportunity missed—particularly in parallel with failure to explore the implications of  $i_t < g_t$ . The fiscal space available to DM governments as a result of exceptionally low interest rates in conjunction with the expansion of central bank balance sheets needs to be pushed to the extreme. The latest MAC-SRDSF does not allow the Fund to push to the edge of policy space.

### **Conclusions**

Reading the latest effort to underpin debt sustainability assessments at the Fund for market access cases, the lack of ambition can be summarized:

- First, “market access” is a pretty broad category of countries—there is a strong case for distinguishing between DM/reserve currency fiscal authorities in distinguishing how far monetary-fiscal interactions can be pushed.
- Second, no serious effort is made to explore the implications of  $i_t < g_t$  and how this should be reflected in policy discussions.
- Third, the balance of payments and external accounts receives minimal attention, despite being crucial—it is as if the authors of the document failed to understand the Greece and Argentina cases.
- Fourth, the effort to consolidate government with the central bank don’t go far enough.

One problem with this MAC-SRDSF is that much interesting detail will only arrive with the promised “accompanying Guidance Note and template” that will be finalized when the framework is operationalized in late-2021. Perhaps the technical (analytical) detail will deliver more than the Policy Paper. But this is unlikely. And there will be more debt sustainability analytical failings before another opportunity for fresh thinking comes around.

END.