The practice of sovereign debt sustainability analysis

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Motivation I: DSA in sovereign debt negotiations

- The practice of sovereign debt sustainability analysis (DSA) may influence debt restructuring outcomes

- With potentially large economic, social, and political consequences

- The practice of DSA is more than just the implementation of theory

- Institutional frameworks and even the choice of assumptions is affected by power/politics
    - But economic analysis can give us insights into possible flaws in DSA and whether DSA has answered key question of "sustainability with a high probability"

What’s a DSA

- Assessment of the debt payment capacity of the sovereign

- Intricate concept over which major conflicts during sovereign debt negotiations among different stakeholders are common

- Debtors and different groups of creditors tend to all have different views in debt restructuring negotiations
    - Those differences in views are often not just based on discrepancies over technical criteria but on competing interests

The incompleteness of sovereign debt contracts

- World of sovereign debt is featured by incomplete contracts
  - It is simply impossible to even know the full space of states – a requirement for complete contracts
  - And even to write contracts that are indexed to every known possible state
    - As for instance due to problems of verification ex-post

- The existence of a positive risk market premium recognizes that creditors do not expect full payments according to the scheduled debt payments in every state of nature

- But debt contracts do not specify the states of nature in which the scheduled payments would or should not occur – those for which there was a compensation of risk in the "good" states of nature

The incompleteness of sovereign debt contracts

- In situations of debt distress, creditors generally fail to recognize the ex-ante rationale for a risk premium

- And there is no DSA performed by private or even bilateral official creditors at the time when financing is provided that could hint at what the circumstances were under which the scheduled transfers from the debtor to the creditor were not supposed to occur

- The usual situation:
  - Disagreements based on competing interests among stakeholders
  - Conflicts whose resolution is generally protracted and highly costly given the absence of an international rule of law
  - High costs of delay—to the extent that even both creditors and debtor can be worse off (bad Nash equilibrium)

The two key questions for a DSA

1. Is debt sustainable with high probability?

2. If it is not, what is the size of relief that would take it to a sustainable position with high probability?

The elements of a DSA

- Assessment of debt payment capacity depends on

1. The definition of constraints
2. The set of feasible policies and their endogenous feedback effects
3. Belief distributions (about the economy’s trends and shocks)

Tracing out differences in views in DSA - constraints

- Typical situation in debt negotiations: differences in views about debt payment capacity from all stakeholders – the debtor, the creditors, and the IMF (also a creditor, with de facto *preferred creditor status*)
  - What's the maximum primary fiscal balance that is *feasible*? What's the maximum trade balance that is *feasible*? What's the maximum size of adjustment that is *feasible*?

- Definition of relevant constraints entails taking a stance on how to address the first level of distributional conflict in restructuring – debtor v. creditors

Tracing out differences in views in DSA – constraints

- Definition of constraints also has implications for the stance on second level of distributional conflict in restructuring – inter-creditor
  - What debts should be included in the restructuring perimeter?
  - Discrepancies may arise over the eligible debt for restructuring based on currency, residency, jurisdiction of issuance (law), and even type of creditor

Tracing out differences in DSA – Differences in views about endogenous effects of policies

- The primary fiscal balance is an endogenous variable
    - Spending and tax decisions have endogenous feedback effects on economic activity and hence on tax revenues

- Typical discrepancy between creditors and the debtor over endogenous feedback effects associated with fiscal policies:
    - Creditors claim that the contractionary spending policies will boost confidence and hence investment
    - The debtor is more concerned about the negative multipliers on economic activity of contractionary policies in times of recession – that feature sub-utilization of the factors of production of the economy

- As we will see, creditors' incentives are to overestimate the "confidence effect" or underestimate "multipliers"
    - Often agency issues on both sides—leading to too little restructuring, short sightedness

Tracing out differences in DSA – Differences in beliefs

- DSA requires a definition of distribution of shocks

- The market risk premium reflects market expectations
  - That includes heterogenous expectations of many participants
  - The most optimistic are the ones most willing to buy bonds
  - High risk premium says “market” expects high probability of default (lower bound)

- Doing a DSA entails a recognition of lack of faith on the hypothesis of efficient markets
  - Otherwise, the risk premium should be the unchallenged measure of debt default risk and associated debt payment capacity
  - Besides, in the scenario that assumes a restructuring that restores sustainability, the discount factor should be close to the risk-free rate

Tracing out differences in DSA – Differences in beliefs: the issue of discount factors

- Choice of discount factor is often associated with disagreements between the debtor and its creditor

- Common problem in debt negotiations: creditors frame discussions about debt relief using NPV of securities that do not yet exist
  - Which brings the problem of assuming a yield for a security that has not been issued

Who performs a DSA

- Sovereign debtors rarely perform a DSA
  - And if they do, they mostly rely on advisors (such as Lazard)
  - Most sovereigns do not even have the capacity to perform a DSA
  - If they do it, creditors have incentives to de-legitimize it
    - And creditors may succeed in such endeavor

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  - Argentina’s government did its own DSA in the 2020 restructuring

Who performs a DSA

- Private or bilateral official creditors don’t publish DSA
  - China seems to be performing DSA but does not publish them

Who performs a DSA

- The IMF conducts DSA and is almost always the only one that does it

- Two IMF frameworks for assessing debt sustainability
  1. DSA framework for low-income countries (IMF-WB LIC framework)
     - More focused on external debt sustainability
  2. DSA framework for “market-access countries” (MAC framework)
     - More focused on fiscal (public debt) sustainability

- The lines between the frameworks are blurred
  - Some countries covered by the LIC framework have had more market access than some countries covered by the MAC framework (e.g. Ghana vs Sri Lanka)

Misaligned incentives for timely restructurings

- Evidence on sovereign debt restructurings: “too little, too late”
  - Explained by multiple factors, many of which go beyond this paper

- One important factor related to this paper: incentives both on the creditor and debtor side to delay restructurings
  - Under incomplete contracts, creditors may have incentives to delay a restructuring and keep the possibility of the upside that would occur if a positive shock arises
  - The government may have the incentives to pass on the problem (at least partially) to the next government
    - Political economy problem on the debtor side is a large determinant of government’s behavior
      - Financing campaign, political cost of adverse lobbying, capture
    - There are also important agency issues on the part of creditors

Issues with IMF DSA practice

1. Publication of an IMF DSA

- An IMF member country could request a technical assistance to the IMF on debt sustainability analysis (stand-alone analysis of debt sustainability)

- This is what happened in Argentina's 2020 restructuring
  - While the DSA was less effective to anchor private creditors' expectations directly, it mattered more for anchoring expectations domestically
  - The influence of the IMF DSA on creditors' expectations depends to some extent on its validation by the major stakeholders

- The publication of the IMF DSA may have a larger impact if it does not need to wait until an IMF-supported program is approved by the Executive Board
  - Recent case: complaints by stakeholders (government, civil society, private creditors) around delay for publication of the IMF DSA for Sri Lanka

2. The IMF DSA and China

- To approve a Program under ”Exceptional Access”, the IMF staff must deem that there is a high probability that the country’s debt will remain sustainable and that it has good prospects of regaining access to private capital markets within the time the IMF’s resources will be outstanding (EAC #2)

- The IMF requires financing assurances from official bilateral creditors to be able to make that assessment

- And it can lend into arrears provided certain conditions are met

- Relevant questions for ongoing and future debt restructurings:
  - What should the IMF do if a large bilateral creditor does not provide financing assurances?
  - What assumptions should the Staff include in its DSA regarding the treatment of bilateral debt under those circumstances?

3. The IMF DSA and the IMF as a large (senior) creditor

- The IMF DSA for MAC needs to assess that market access to roll-over existing debts and repay the Fund is likely to be regained (EAC #3)

- But private creditors may not be willing to provide any financing when they see a large outstanding debt stock (with short maturity) with the IMF (the senior creditor)

- This means that there could be no debt operation that restores debt sustainability unless either the debt with the IMF is restructured or the IMF changes its lending terms – for instance extending maturities, neither of which is a decision of the Staff (who does the DSA)

- How does the IMF staff deal with this issue in the practice of DSA?
  - It does not really *deal* with it, so it is forced to make heroic assumptions about market access to create a pretense of meeting its rules
  - Relatedly, in those instances what assumptions should the Staff make about the need for subsequent IMF-supported programs and the lending rates in those programs?

4. Local vs foreign currency debts in the IMF DSA

- IMF DSA includes thresholds that are supposed to be indicative of regions for which the constraints that define debt sustainability would not be violated

- Typical thresholds are
  - Debt to GDP ratios
  - Gross financing needs (GFN) to GDP
    - With the intention to limit rollover risks
  - Foreign exchange debt service to GDP or to exports

- For MAC, the perimeter of debt in the exercise includes the entire stock of public debt (both local and foreign currency debt) rather than just external debt

4. Local vs foreign currency debts in the IMF DSA

- Issue: the focus on GFN and the stock of public debt creates incentives to use domestic currency debt as a variable of adjustment for meeting the targets set

- Even though the sustainability of domestic currency vs foreign currency debt must be done under theoretical frameworks that capture marked differences across those disparate kind of assets
  - Not even sensible to pool different debts under same measure of GFN when the capacity to rollover different debts is different
    - Sri Lanka's treasury should obviously face a higher rollover risk of its foreign currency debt than of its domestic currency debt with the central bank

  - Besides, capital account regulations would have a different impact on domestic currency debt held by residents or non-residents, providing an additional element to deal with external debts in domestic currency that is not available for external debts in foreign currency

5. Discount rate used in the IMF DSA

- DSA is supposed to guide a restructuring such that sustainability is restored and that there is a low probability of default ex-post
- But private sector uses a high discount rate in assessing magnitude of haircut
- And the IMF uses discount factors that assume that the market will still deem the debt as risky even when market access is restored
  - Implicitly recognizing that the restructuring will not restore sustainability with a “sufficiently high” probability
- Interestingly, calculations of numbers that economically do not mean much have political consequences

Conclusions

- Timely and effective debt crises resolutions are important for economic efficiency
- Better debt crises resolutions frameworks are important both for equity and efficiency
- An important element in any good debt crisis resolution process is a good DSA
- We have provided insights into how current DSAs can and should be improved