Exploring the Role of State-Contingent Debt Instruments in Preventing Sovereign Debt Crises

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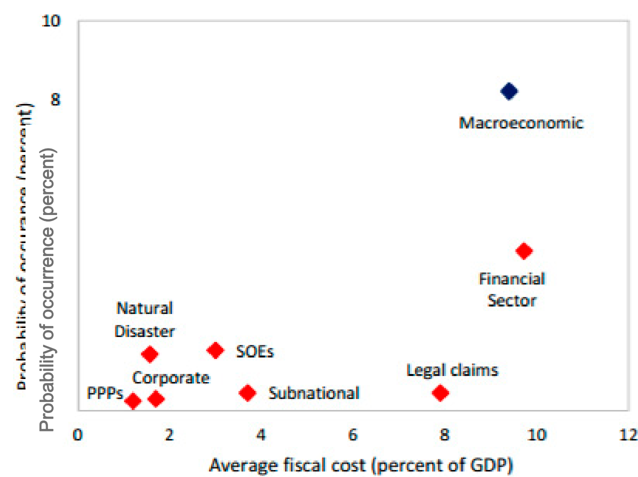
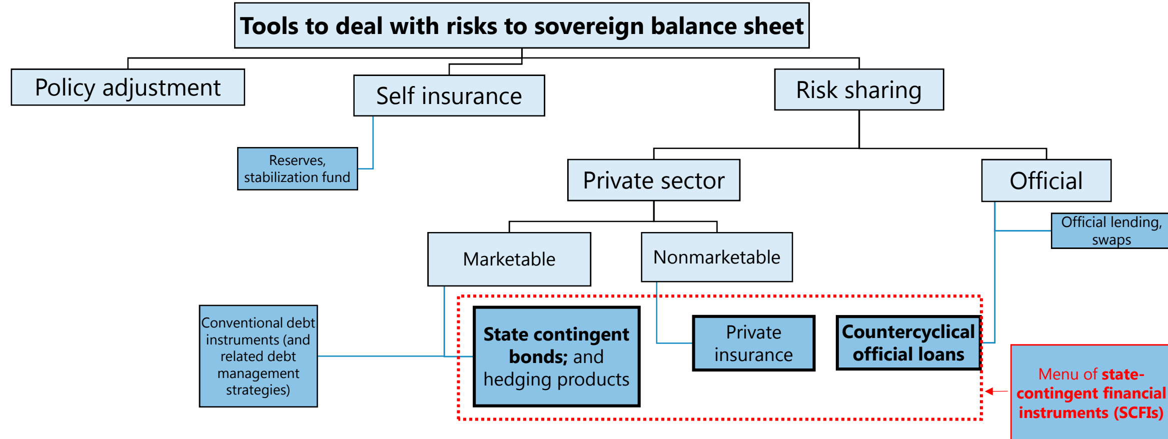
Sovereign balance sheets are vulnerable to a variety of risks.



Source: IMF (2016). Based on survey of fiscal risks in 80 countries between 1990 and 2014.

The sovereign toolkit to deal with these risks is…



State-contingent financial instruments (SCFIs)
- Instruments with contractual net payment obligations that are explicitly linked to a state variable/trigger event
- And that seek to alleviate liquidity and/or solvency pressures during "bad" times

SCFIs: Benefits and Complications

Benefits

Issuers	Investors	International financial system
• Greater policy space in bad times • Esp. relevant for sovereigns: (i) with limited fiscal space; (ii) whose risk premia rise in downturns; (iii) with constraints on monetary policy • Avoid problems associated with rainy day funds	• Prospect of higher return in current low-yield environment • Potential diversification benefits vis-a-vis other assets, liabilities in portfolio • Lower risk of outright debt default and related deadweight losses	• More complete markets • Increased risk-sharing between public and private sectors, and across countries (esp. in currency areas w/o fiscal union) • Efficient and timely prevention and resolution of debt crises • Better pricing of sovereign risk

Complications

- Higher risk on private balance sheets may not be optimal in some circumstances (e.g. in GFC-type event)
- Refinancing risk from pro-cyclical pricing: higher demand for SCFIs in good times (when payout is high) than in bad times
- Political costs: premia upfront, benefits kick-in only with scale
- Pricing impact on conventional debt instruments (fragmentation of existing liquid instruments, subordination concerns)

Focus on state-contingent **debt** instruments

Benefits relative to non-debt SCFIs

- Derivatives and insurance products entail counterparty risk for the sovereign
- Hedging typically only available at short tenors
- SCDIs offer better tie-in to debt management strategy (longer horizon)

How to design:

- State/trigger variable: GDP, commodity price, hurricane?
- Adjustment mechanism: automatic, continuous, symmetric, bounded?
- Payment structure: indexation of principal and/or coupon; maturity extension?
- Other: Currency, maturity, legal structure

Conditions under which market for SCDIs could emerge

Diversification benefits for both sides

- Oil-price linked bonds issued by oil exporter to investor carrying mostly oil-importer risk

Differential expectations on "state"/"trigger" variable

- e.g., helped kick-start market for inflation-linked bonds
- Differential growth outlooks could matter for GDP-linked bonds

Other risk/preference complementarities

- e.g., upside instruments in restructurings (issuer need for liquidity, investor more focused on overall return)
- Investors' desire for long-term GDP return matches issuer desire to stabilize debt/GDP
- Sovereign cocos may avoid liquidity-induced credit event (damaging for both sides)

Obstacles to overcome:

- Novelty/liquidity premia: Market-makers, index eligibility, large volume issuance…
- Pricing difficulties/data integrity: Simple design that is incentive-compatible
- First-issuer reticence: Coordinated issuance?
- Regulatory treatment: Rating, risk-weights; treatment in fiscal rules, DSAs
- Seniority vis-à-vis conventional debt: Link to design, legal jurisdiction?