

The logo for the 10th UNCTAD Debt Management Conference. It features a large '10' where the '0' is a multi-colored ring (green, yellow, orange, red) with 'th' inside. To the right, 'UNCTAD' is in green, and 'DEBT MANAGEMENT CONFERENCE' is in a smaller green font.

10th UNCTAD DEBT MANAGEMENT CONFERENCE

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Panel 5: Exogenous Shocks and Debt

A role for GDP-indexed bonds to avoid developing and emerging countries' debt crises in an unstable global economic environment ?

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The views expressed are those of the author and do not necessarily reflect the views of UNCTAD

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The MFAS logo, consisting of a blue stylized 'M' followed by the letters 'FAS' in blue.

The UNCTAD logo, with the word 'UNCTAD' in a bold, gold-colored font.

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- 2. What role for GDP-indexed bonds?**
 - a. What are GDP-indexed bonds?
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- 3. Policy recommendations: How to make GDP-indexed bonds work**

Developing Country Debt Crises – exogeneity vs endogeneity

- Many structural causes of developing country debt and debt crises
- In particular in LDCs typically limited abilities to mobilize domestic resources, low export capacities, high structural import dependencies
- **But, at present**, predominance of role played by debt-refinancing through easily accessible international financial markets in a context of limited access to alternative (bi- or multilateral) borrowing

Developing Country Debt Crises – exogeneity vs endogeneity

- Global excess liquidity and debt
 - **In theory:** openness to capital flows can have counter-cyclical effects, if capital flows respond passively to demand from developing countries ('pull drivers')
 - **In practice:** Exogenous ('push') drivers of excess liquidity dominate, such as advanced economy policy decisions and risk perceptions
- Associated risks:
 - High (or at least more volatile) costs of market-based debt refinancing
 - Increased currency and interest rate risks
 - Large positions of foreign lenders in domestic sovereign bond markets

Developing Country Debt Crises – exogeneity vs endogeneity

- Associated risks (cont'd):
 - Largely uncontrolled rise of foreign currency denominated external corporate debt with risk of eventual 'socialisation' in case of wide-spread private sector debt unsustainability (e.g. Global Financial Stability Report September 2015)
 - Very weak links between capital inflows and their direction, through market forces, to productive investment purposes and long-term financing requirements
 - Increased exposure to contingent liabilities: e.g. PPPs

Developing Country Debt Crises – exogeneity vs endogeneity

- Associated risks (cont'd):
 - **Ultimately:** Increased risk of sovereign external debt crises through ‘confidence crises’ when a sufficiently high number of (or a few large) debtors default and cause sudden reversals to liquidity shortages.
 - **Macroeconomic costs** of debt crises:
 - Furceri et al (2011): 5 to 10 percentage points of current growth figures; after eight years output is still lower (than country trend) by some 10 per cent.
 - Paoli et al (2006): Mean output loss following sovereign default is 15% of GDP.
 - Benjamin et al (2009): Debtor nations exit debt crises (default periods) with an increased debt-to-GDP ratio despite haircuts.

Developing Country Debt Crises – exogeneity vs endogeneity

- Other exogenous shocks:
 - Falling or stagnant commodity prices
 - Natural disasters in the context of climate change and environmental degradation
 - Migration/Refugee crises
 - Crises of global (economic) governance and associated disruptions by war and social unrest
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GDP-indexed bonds (GIBs)

What are GIBs? Main features

- **Contingent payment provision for sovereign bonds: The principal is indexed to a country's nominal GDP**
- **Example: Real long-term GDP growth rate is 3% (GDP baseline), plain vanilla bonds pay 7%**
 - Issuing country reduces annual coupon payments by 100 bps for every 1% fall in GDP growth and vice versa
 - If, in a particular year, GDP growth rate is 1%, coupon payment will be 5% [$7\% + (1\% - 3\%)$]
 - If GDP growth is 6%, coupon payment will be 10% [$7\% + (6\% - 3\%)$]

GDP-indexed bonds (GIBs)

What are GIBs? Main features

- Inclusion of insurance premium such that:

$$\text{Coupon payment} = \max [\mu + (g_1 - g_2), \Phi]$$

where:

- μ = standard plain vanilla bond rate
- g_1 = actual growth rate
- g_2 = baseline growth rate
- Φ = insurance premium

GDP-indexed bonds (GIBs)

What are GIBs? Main features

- 'Quasi- equity' financing instrument: Longer-term stake in a country's growth performance
- Differ from conventional bonds through positive relation between returns to investors and underlying variable (GDP growth/levels): Conventional bonds are inversely related to the rate of interest (the coupon payments are fixed, but not the price of the bond: A rise in the rate of interest will lower the price of the bond).
- Can be used to prevent debt crises or during sovereign debt restructurings

GIBs and indexed bonds :

Historical experiences

- **Different forms of indexed sovereign bonds with a long history:**
 - Commodity-price indexed debt since the 1700s: US 1864, France 1970s, Mexico 1990s, Nigeria 1990s, Venezuela 1990s
 - London Agreement 1953 (German post-War debt restructuring): export-indexation of debt
 - Inflation-indexed bonds: Despite advocacy by many leading economists (Edgeworth, Jevons, J.M. Keynes, Marshall, I. Fisher, Tobin, M. Friedman) remain exception to the rule, but have been taken up with no clear correlation to state of development or inflationary pressures.

GIBs and indexed bonds : Historical experiences

- **GIB- like financial instruments:**
 - UK- US WWII loans: Bisque clauses (J.M. Keynes)
 - Brady restructurings including diverse forms of some type of GDP-indexation: Costa Rica (1990), Bosnia and Herzegovina (1990s), Bulgaria (1994)
 - Argentina debt restructurings 2002 – 2005
 - Greece 2012 and new proposals (Goodhard, Varoufakis)

GIBs : Conceptual Advantages

Expert group meeting UN HQ Cct 25, 2005:

www.un.org/esa/ffd/BackgroundPaper.doc

- Act as 'automatic stabilizers', i.e. limit pro-cyclical fiscal pressures from foreign capital inflows
- Reduce likelihood of sovereign debt crises with their associated socio-economic cost
- Therefore have large-scale 'positive externalities' for the global economy [public good character of GIBS – Griffith-Jones and Sharma (2009)]
- Provide 'diversification opportunity' to investors (low correlation of growth rates across emerging markets), esp. pension fund investors
- Hedging options for investors relative to conventional bonds

GIBs increase fiscal space, and therefore level of sustainable debt

Figure 4: Output growth and the change in the primary balance, conventional bonds

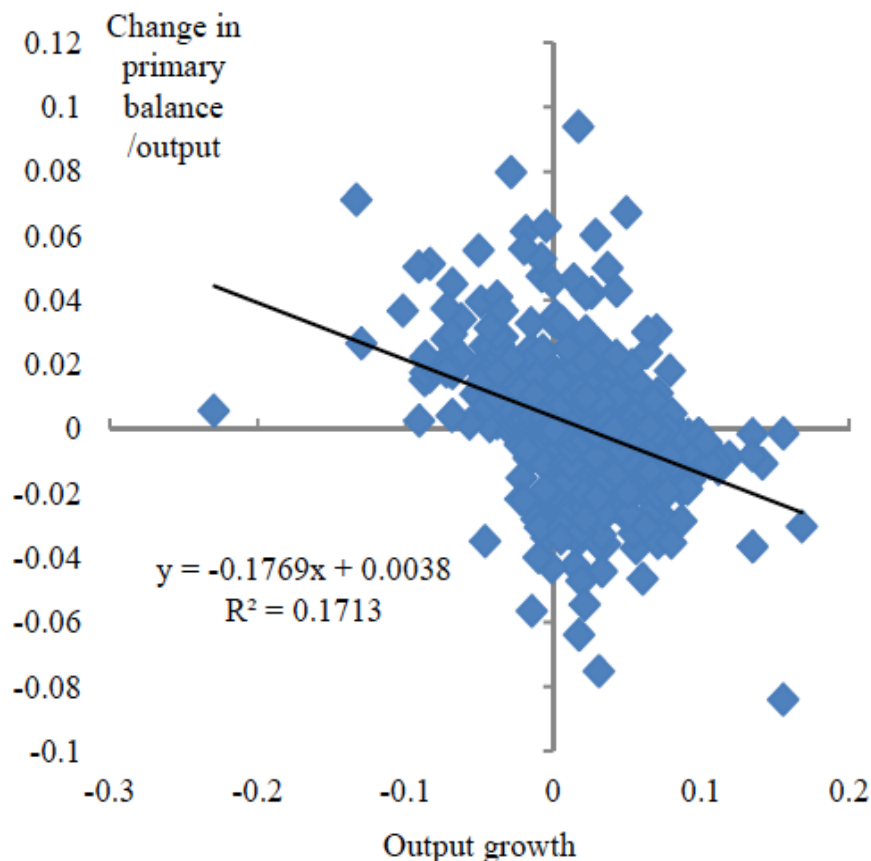
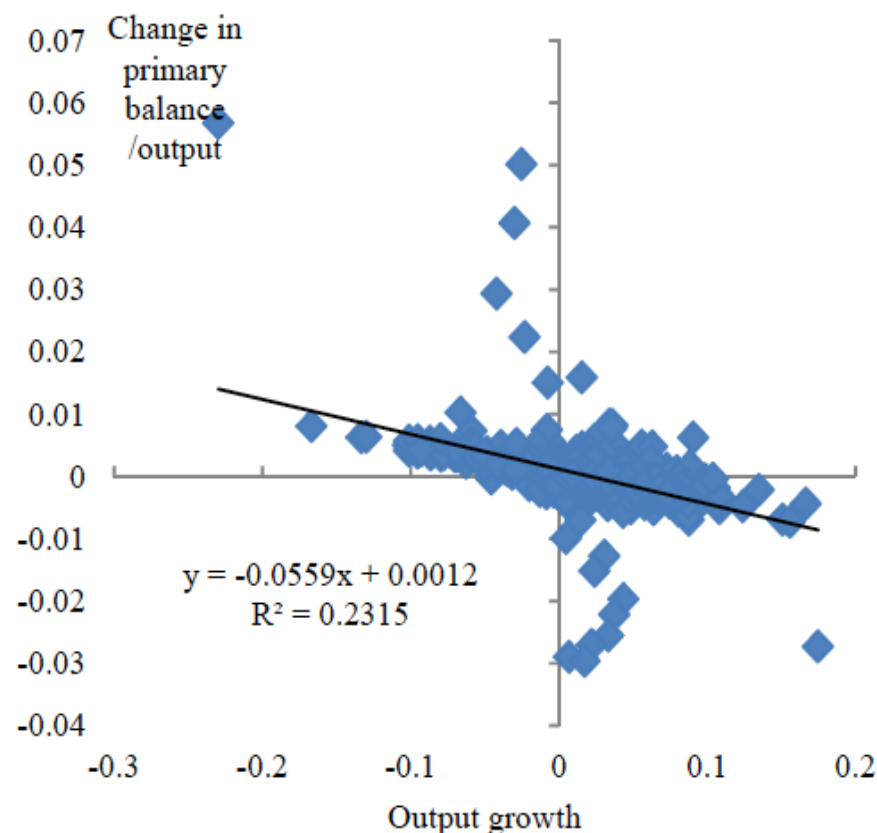


Figure 5: Output growth and the change in the primary balance, GDP bonds



GIBs : Conceptual Limitations

- Create **credibility** for GDP-indexed sovereign bonds in international financial markets and therefore overcome liquidity barriers and uncertainty about these:
 - Intentional misreporting of GDP data
 - How to price GIBs (bond maturity)?
 - Moral hazard
 - Callability clauses
 - Methodological issues, more widely:
 - Reporting methodologies, exact empirical measures of relevant GDP indicators and comparability across countries
 - Revisions of GDP data

Policy recommendations

1. **Keep it simple:** Earlier GIBs (mostly in the context of sovereign debt restructurings) suffered from high complexity and therefore limited transparency and comparability across GIBs
2. Role for **multilateral development banks** to facilitate pricing methodologies and price creation for GIBs (e.g. swaps of nominal bonds for GIBs)
3. Highlight **diversification opportunity** to investors, given low correlation between growth in developed and emerging economies (Griffith-Jones and Sharma 2009).

Policy conclusions

1. GIBS are NOT a panacea for debt sustainability problems in developing and transition economies
2. Fundamentally rely on co-ordinated push for GIBs from major issuers to allow a minimum critical mass for 'market credibility' to be reached, and therefore public benefits – at country and international levels – to be reaped.
3. Have to be understood as part of a contractual approach to improving market conditions for sovereign debt restructuring as against alternative options, such as co-ordinated legal multilateral frameworks and/or international principle-based approaches to debt crisis prevention and sovereign debt workout mechanisms.