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G20 GERMANY 2017

GDP-linked Bonds

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Guiding Question

“What are the opportunities and challenges of state-contingent debt instruments, including GDP-linked bonds, to promote debt sustainability?“

The following slides will examine this question along the lines of the G20-Compass for GDP-linked bonds*

https://en.wikipedia.org/wiki/File:Kompas_Sofia.JPG

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*http://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Schlaglichter/G20-2016/g20-compass-for-gdp-linked-bonds.pdf?__blob=publicationFile&v=3

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SCDIs have been subject to discussions within the Finance Track of the German G20 Presidency 2017

Building Resilience

- Global Economy
- International Financial Architecture
- Financial Markets
- International Taxation
- Trade and Investment
- Employment

Improving Sustainability

- Climate and Energy
- 2030 Agenda
- Digitalisation
- Health
- Empowering Women

Assuming Responsibility

- Tackling the causes of displacement
- Compact with Africa
- Combatting Terrorism-Financing / Anti-money laundering
- Anti-corruption
- Food Security

Issues covered within Finance Track; further issues

FMs & CBGs referenced Compass for GDP-linked Bonds in their Baden-Baden Communiqué

The discussions on SCDIs build on the Chengdu Communiqué in which G20 FM&CBGs had formulated a clear mission with regard to SCDIs:

- “We call for further analysis of the technicalities, opportunities, and challenges of state-contingent debt instruments, including GDP-linked bonds,
- and ask the IMF, working with interested members, to report back on these issues to G20 Finance Ministers and Central Bank Governors in 2017.”

Both targets have been met during the German G20 Presidency

Compass for GDP-linked Bonds (March 2017)

- objective is to inform interested sovereigns and investors
- summarizes recent considerations with regard to state-contingent debt instruments
- focuses more specifically on GDP-linked bonds
- based on the IMF's "Staff Note for the G20: State-Contingent Debt Instruments for Sovereigns"*
- presents a systematic, yet not exhaustive, overview of important aspects of GDP linked bonds
- Lists benefits, challenges and their potential mitigating factors, as well as considerations on instrument design

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*http://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/Featured/G20/2017-04-05-g20-staff-note-for-the-g20-imf.pdf?__blob=publicationFile&v=4

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Sovereign state-contingent debt instruments are not new (1/2)

Lessons from history of SCDIs

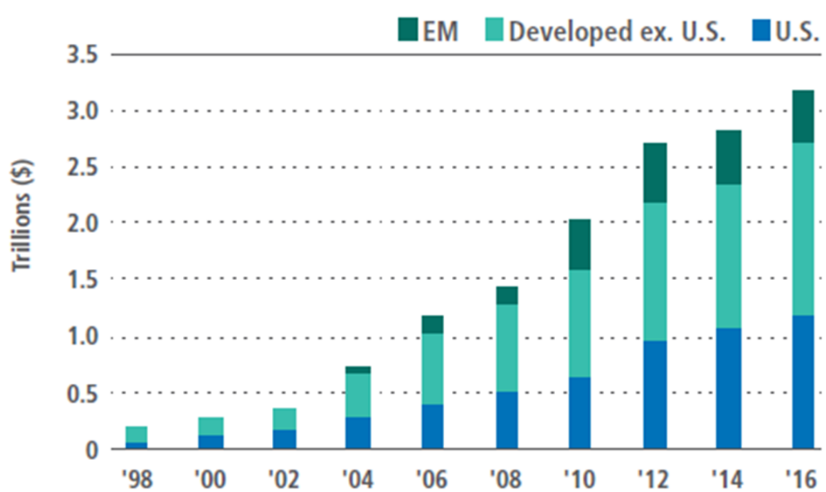
Contract design (e.g. avoiding pro-cyclical lags due to indexation)

Choice of reference variable as indicator (e.g. bonds linked to nominal wages)

Incentives and data credibility (e.g. inflation-linked bonds)

…

Sovereign state-contingent debt instruments are not new (2/2)



As of 31 March 2016

Source: Components of Barclays Universal Government Inflation-Linked All Maturities Bond Index *

"Thanks to the total volume of inflation-linked securities currently outstanding, the issuer can draw on a comfortably deep market, providing it with sufficient flexibility to support secondary market activities"

http://www.deutsche-finanzagentur.de/en/institutional-investors/federal-securities/inflation-linked-securities/

*cited at: https://global.pimco.com/en-gbl/resources/education/understanding-inflation-linked-bonds

GDP-linked bonds as potentially beneficial instruments when designed in ways which may… (1/2)

- **generate fiscal space in difficult economic times**

"GDP-linked bonds can tie a country's debt service to its ability to pay
thus reducing public debt service in difficult economic times …"

- offer ancillary benefits

"such as widening the set of financial instruments, contributing
to enhancing the completeness of financial markets"

- …

GDP-linked bonds as potentially beneficial instruments when designed in ways which may… (2/2)

- generate fiscal space in difficult economic times

"GDP-linked bonds can tie a country's debt service to its ability to pay thus reducing public debt service in difficult economic times …"

- offer ancillary benefits

"such as widening the set of financial instruments, contributing to enhancing the completeness of financial markets"

- …

However, it is to note that GDP-linked bonds can be designed in multiple ways. The design of possible variants requires a careful analysis

Example of principal-indexed vs. coupon-indexed bond

(Cecchetti & Schoenholtz 2017)

	1 Jan 2015 (issue date)	1 Jan 2017
Nominal GDP		
Level 6 months prior* (billions, real-time vintage)	$17,328.2	$18,450.1
Growth rate (from previous year)		2.51%
GDP-Principal-Indexed Bond		
Principal (indexed to GDP)	$100	$106.474
Annual Coupon (2% of principal)		$2.13
GDP-Coupon-Indexed Bond		
Principal (fixed)	$100	$100
Annual Coupon (2% + nominal GDP growth)		$4.51

Example for purposes of illustration, not included in original compass

Key choices in the the design of GDP-linked bonds

- **Fixed income vs. equity liked products:** coupon vs. principal indexing, …
- **Choice of state variable:** GDP, commodities, other…
- **Foreign vs. local currency:** ….
- **Other „mechanisms“:** e.g. maturity extensions
- …

Important aspects for GDP-linked bonds to be effective and economical:

- **Take steps to reduce costs of insurance:** E.g. issues of standardization, liquidity, novelty
- **Carefully assess the (international) demand:** E.g. potential for a well diversified investor base?
- **Fulfill statistical, technical, and regulatory prerequisites:** E.g. reliable and timely statistics as well as a sound regulatory and institutional framework
- …

Thank you for your attention!

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