PORTUGUESE EXPERIENCE WITH GDP-INDEXED TREASURY CERTIFICATES

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Reengaging with domestic retail investors was an important part of the process to regain market access since 2013

More diversified public debt composition

[EUR billion and % of total State debt]

Stock of sovereign debt instruments for retail investors

[EUR mln]
Net issuance of retail instruments had a major contribution to the funding plan since 2013

Banking system deposits rates and retail products’ rates

Retail products net monthly issuance

Source: IGCP, Banco de Portugal
Treasury Certificates with premium indexed to real GDP growth

Treasury Certificates Savings Plus (CTPM)

- Launched in October 2013
- Non-tradable security, subscribed on a continuous basis (Post Offices, Citizen Spaces, web)
- Final maturity = 5 years (redeemable after 1 year)
- Fixed rate step up structure

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<thead>
<tr>
<th>Years</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
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</thead>
<tbody>
<tr>
<td>Base Interest Rates (Oct-13 to Jan-15)</td>
<td>2.75</td>
<td>3.75</td>
<td>4.00</td>
<td>5.00</td>
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<tr>
<td>Base Interest Rates (Feb-15 to Oct-17)</td>
<td>1.25</td>
<td>1.75</td>
<td>2.25</td>
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<td>3.25</td>
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- Premium in the final 2 years: indexed to 80% of real GDP growth rate
- Floor = 0

Impact on interest costs

- Issuance = circa €3.4bn / year
- Outstanding after 4 years = €13.5bn (circa 6% of total debt stock)...
- ... but stock paying premium each year = circa €6.5bn

=> level of indexation = 3%

- Interest cost savings in year of recession (compared with baseline scenario of 2% growth) = €100mn (0.05% of GDP)
GDP-linkers vs GDP-floaters

Some arguments in favour of coupon-indexation (instead of principal-indexation)

- **Simplicity** – adding a premium to the coupon is simpler to explain (in particular to retail investors).

- **Risk-characteristics**
  - while indexing the principal to nominal GDP provides a direct immunization of the debt/GDP ratio, this is only meaningful for high and unrealistic levels of indexation;
  - on the contrary, even a small level of indexation provides a timely and non-negligible impact on annual interest costs, promoting a more counter-cyclical fiscal policy and working as another automatic stabilizer;
  - In particular for advanced economies, the tax-/deficit-smoothing objective is arguably more interesting than debt stabilization.

- A more thorough discussion of the implications of each instrument seems important, before concentrating all efforts in a particular standardized design.
Treasury Certificates recalibrated in 2017

- **Launched in October 2017**

- **Final maturity = 7 years (redeemable after 1 year)**

- **Fixed rate step up structure**

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<thead>
<tr>
<th>Years</th>
<th>Base Interest Rates</th>
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<tr>
<td>1</td>
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<td>7</td>
<td>2.25</td>
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- **Premium since the 2nd year: indexed to 40% of real GDP growth rate**

- **Floor = 0 + Cap = 1.2%** (by symmetry, we have now also excluded the upper tail of the distribution, when GDP growth >3%)
Obstacles and limitations to the issuance of GDP-indexed bonds

IGCP is not considering the issuance of GDP-indexed bonds in the capital markets in the foreseeable future, as the focus will continue on providing liquidity to the standard fixed-rate bonds.

- **Liquidity concerns** – In many circumstances investors seem to privilege liquidity over return and these products will tend to be rather illiquid. Moreover, dividing the funding programme among more instruments may have a negative impact on liquidity in the standard fixed-rate bonds market.

- **Reputational impact** – These instruments have been issued by countries coming out of sovereign-debt crisis, so it may raise a negative market perception, which could increase volatility and funding costs.

- **Demand quality and depth** – Unlike ILBs, GDP-indexed bonds do not serve any specific hedging purpose from the point of view of the investor (particularly in the case of a small economy as Portugal), so the quality and depth of the demand may be a cause for concern.

- **Measurement error** – GDP figures are subject to significant statistical revisions, which may dampen the hedging characteristics of this instrument; it is crucial to carefully define the measure of GDP to be used and the data dissemination sources and calendars to be used.

- These instruments are likely to be more costly for the issuer and it remains to be assessed whether the benefits from the risk-characteristics of the product more than compensate this cost.

- A **coordinated effort** (with the support of specialized international institutions) would be important to mitigate the negative aspects that may be attached to this financial innovation.
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