PORTUGUESE EXPERIENCE WITH GDP-INDEXED TREASURY CERTIFICATES

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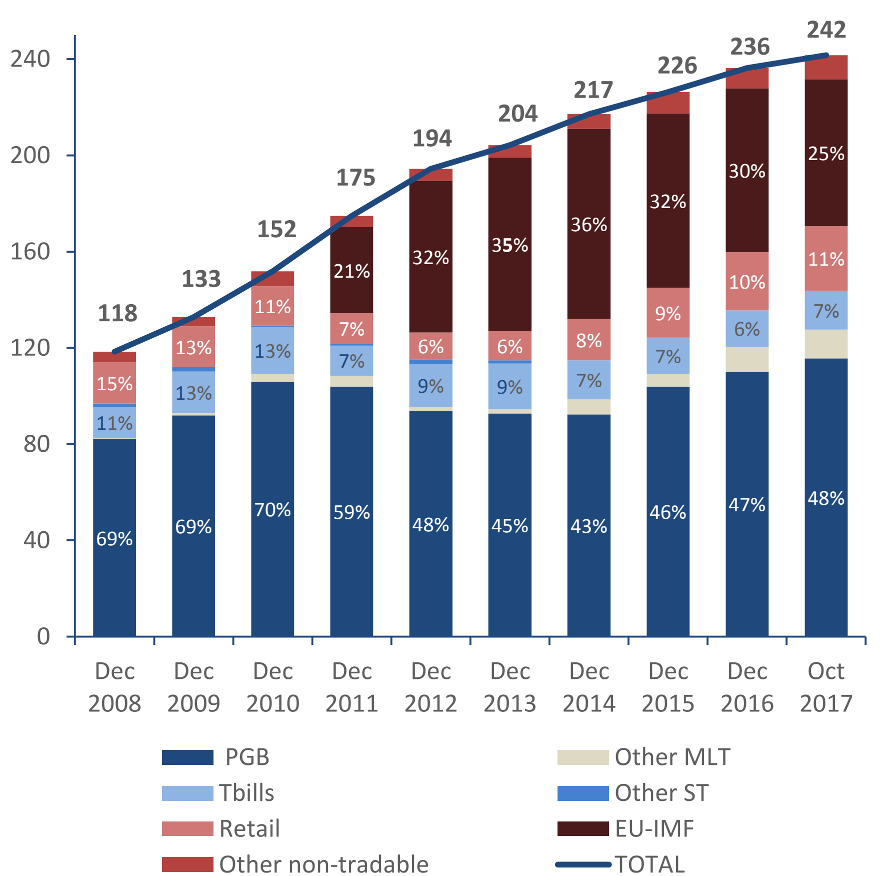
IGCP
Agência de Gestão da Tesouraria e da Dívida Pública

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

More diversified public debt composition

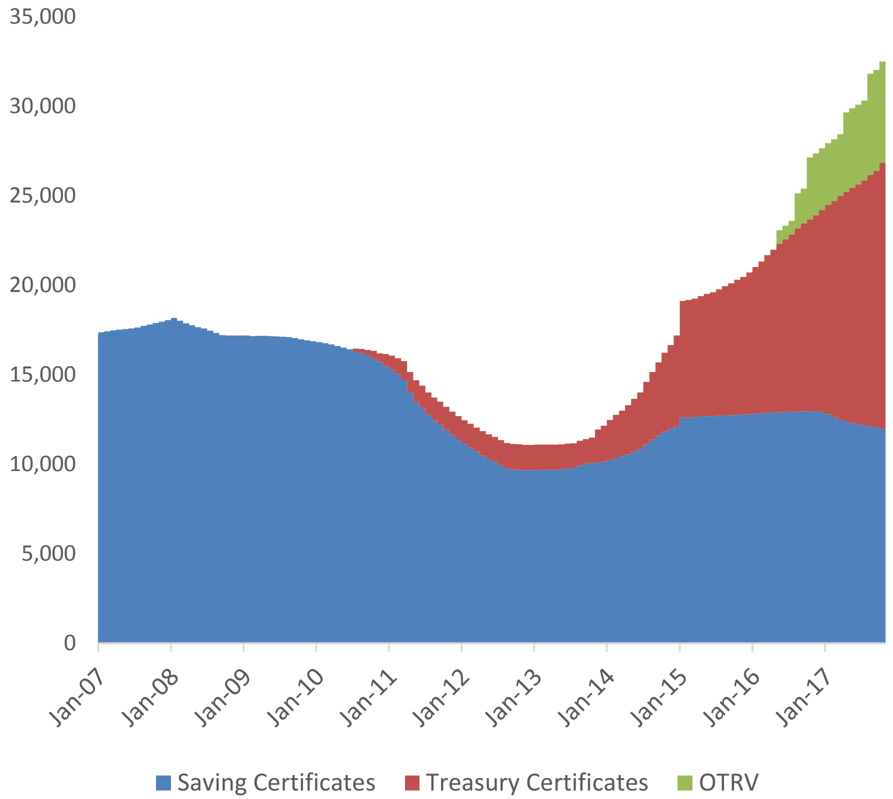
[EUR billion and % of total State debt]



Source: IGCP

Stock of sovereign debt instruments for retail investors

[EUR mln]

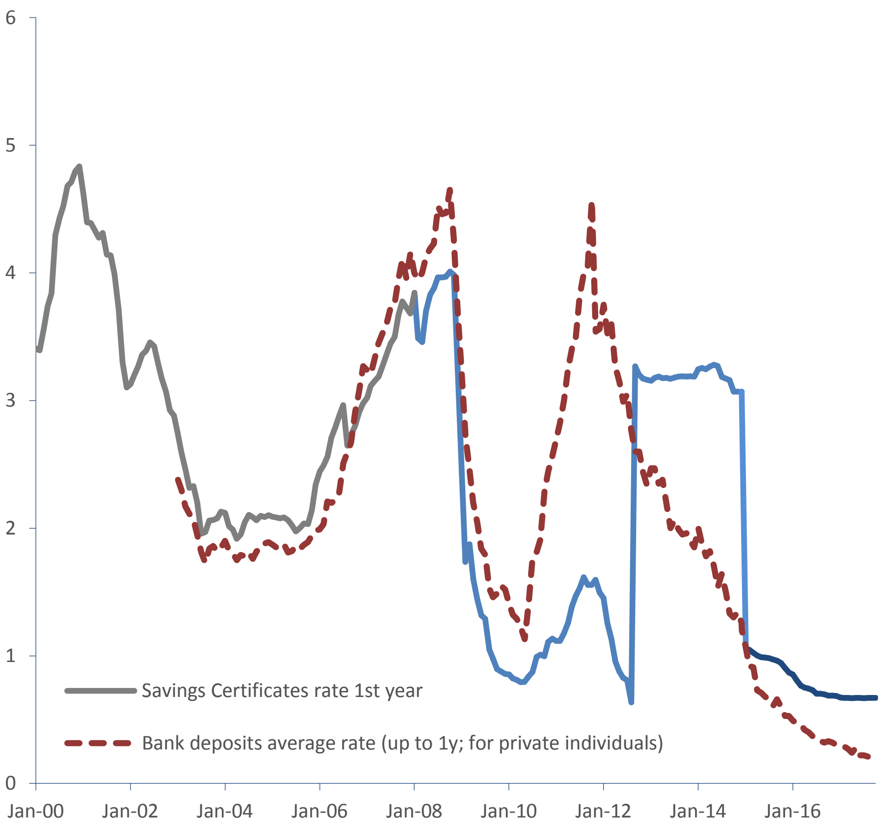


Source: IGCP

Net issuance of retail instruments had a major contribution to the funding plan since 2013

Banking system deposits rates and retail products' rates

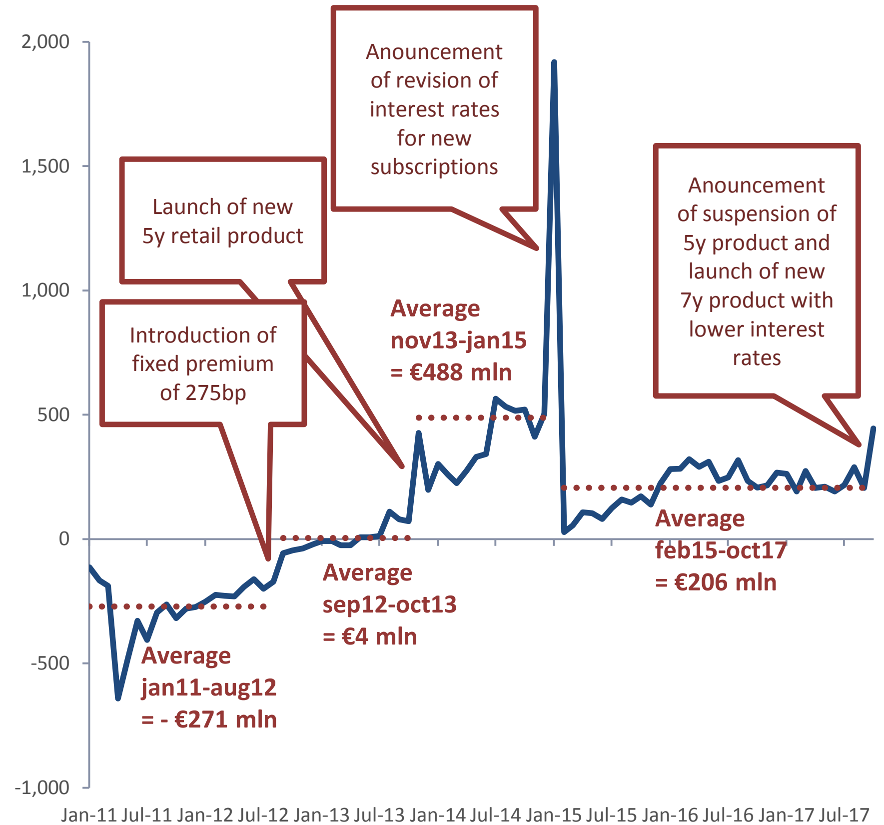
[%]



Source: IGCP, Banco de Portugal

Retail products net monthly issuance

[EUR mln]



Source: IGCP

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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**

Years	1	2	3	4	5
Base Interest Rates (Oct-13 to Jan-15)	2.75	3.75	4.00	5.00	5.00
Base Interest Rates (Feb-15 to Oct-17)	1.25	1.75	2.25	2.75	3.25

- ✓ 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)**

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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

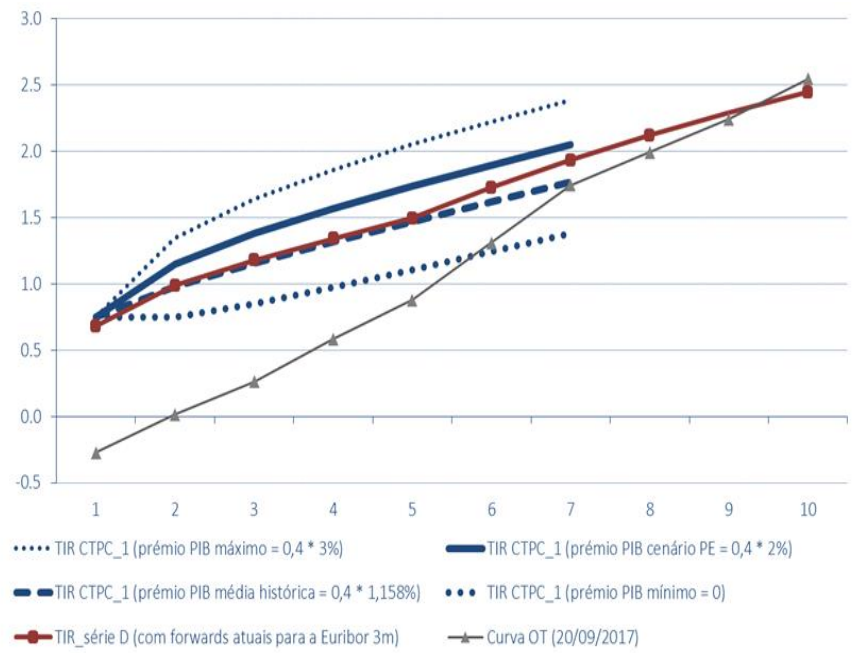
Treasury Certificates Savings Growth (*CTPC*)

- ✓ Launched in October 2017
- ✓ Final maturity = 7 years (redeemable after 1 year)
- ✓ **Fixed rate step up structure**

Years	1	2	3	4	5	6	7
Base Interest Rates	0.75	0.75	1.05	1.35	1.65	1.95	2.25

- ✓ 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%)

IRR CTPC vs CA_D series vs PGB yield curve (in Sep-2017)



Source: IGCP

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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