What role for DSA in the reform of EU fiscal rules?

Assessing Debt Sustainability: modelling challenges and the way forward, ESM, Luxembourg, 30 November 2023

Lucio R. Pench

Non-resident fellow, Bruegel
Visiting professor, Università Cattolica del Sacro Cuore, Milan

The Commission proposals for reform of EU fiscal governance: overall philosophy

Reformed EU fiscal governance
k

Other rationales for fiscal rules? (cyclical stabilisation, investment)

Fiscal sustainability (main economic rationale for having l supranational fiscal rules)

National ownership (political condition for supranational fiscal rules to work)

Can supranational fiscal rules bind **national fiscal sovereigns?**

Medium-term binding orientation
(stronger ex post supranational enforcement compensating for greater ex ante national autonomy)

The Commission proposals for reform of EU fiscal rules – stylised (four-stage) process: debt sustainability at the centre stage

I

Commission to make public a 'technical (adjustment) trajectory' (for Member States with deficit > 60 % of GDP or deficit > 3% of GDP) satisfying pre-specified criteria (**sustainabiity criterion** + additional safeguards)

II

Member State to carry out 'technical dialogue 'with Commission (with special focus on **sustainability**) and then to submit its fiscal-structural plan (covering at least 4 years with possibility of extension up to 7 years in exchange for reform and investment commitments)

III

Commission to provide assessment of the plan according to the pre-specified criteria (chief of them **sustainability**) for endorsement by the Council.
Member State to implement the plan as endorsed by Council

IV

Commission and Council to monitor plan implementation.
EDP as means of enforcement:
- **deficit-based EDP**: in case of breach of 3% of GDP (as per curent rules);
- **debt-based EDP** (if debt above 60% of GDP): in case of cumulative deviation from the plan (**sustainability risk** key relevant factor).

What role for DSA in the reform of EU fiscal rules ? Risk assessment methodology vs numerical algorithm

- **Qualitative formulation of sustainability criterion for fiscal-structural plans** in the Commission proposals :

  whether the national medium-term fiscal-structural plan ensures that *public debt* is put or kept *on a plausibly downward path* by the end of the adjustment period at the latest, *or stays at prudent levels*

  …

  Whether the government deficit is maintained below the 3% of GDP reference value in the absence of further budgetary measures over a period of 10 years

- **Operationalisation of "downward path"** ***or*** **"prudent level" open to question: DSA natural response.**.

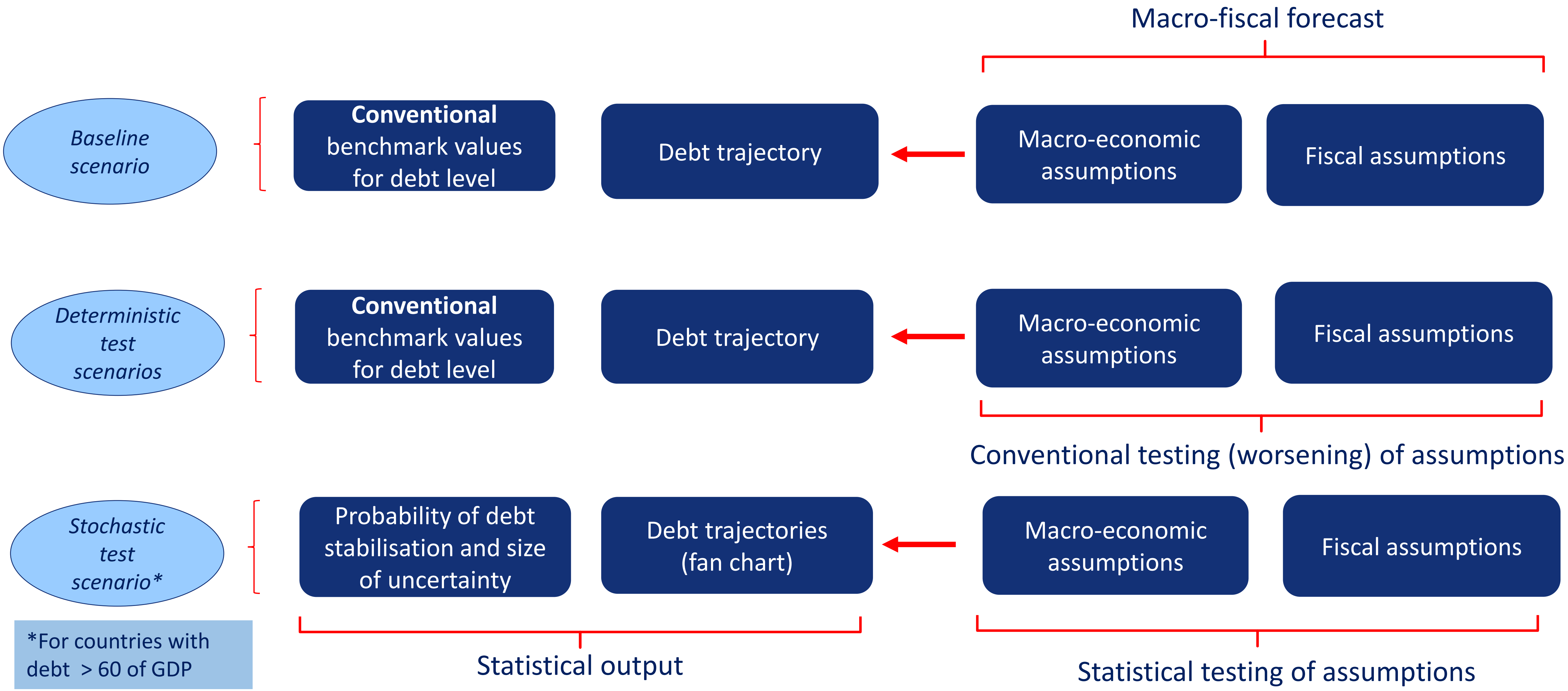
- **Commission** ***risk assessment methodology*** **(based on DSA)** in principle offering consistent approach for applying the sustainability criterion in the assessment of the plans: plan should ensure 'graduation' out of 'high risk' category' (for countries currently at high risk) or avoidance of 'high-risk' category' (for the others). In sum, plans should ensure **de-risking of public debt** according to **DSA-based standards** (Pench 2023).

- In practice, **sustainability criterion likely to be operationalised via a** ***numerical algorithm*** **(derived from DSA)** such as (Darvas, Welslau, Zettelmeyer 2023) :

  If debt is above 60 percent of GDP at the beginning of the adjustment period, SPB* is set such that (1) in all three stress scenarios, debt falls monotonously after the end of the adjustment period as long as it remains above 60 percent of GDP, and remains below 60 percent if it falls below 60 percent of GDP, until at least the tenth year after the end of the adjustment period (deterministic scenarios); and (2) the probability that the debt ratio at the end of the fifth year after the adjustment period exceeds the debt ratio at the end of the adjustment period is lower than 30 percent (stochastic criterion).

  If debt is below 60 percent of GDP at the beginning of the adjustment period, SPB* is set such that (1) in all three stress scenarios, debt does not exceed 60 percent at any time during the 10-year period after the end of the adjustment period (deterministic scenarios), and (2) the probability that the debt ratio at the end of the fifth year after the adjustment period exceeds 60 percent of GDP is lower than 30 percent (stochastic criterion)

DSA methodology: the importance of assumptions



What role for DSA in the reform of EU fiscal rules? Need to reflect on the limitations of the DSA approach

- DSA tool suffers from well-known **methodological limitations**, including regarding its stochastic component:

  - (Baseline) projections are very sensitive to the underlying assumptions, which may rapidly change, dramatically so in crisis times (e.g., Ireland before and after the Great Financial Crisis);

  - Stochastic simulations – often presented as a superior tool – suffer from own limitations : results depend on quality of data / input / model used; excessive uncertainty of results beyond a T+5 horizon ('fan chart' becoming just too large); not suitable for deriving 'hard' policy conclusions (e.g., Ireland after the pandemic crisis (Irish Fiscal Advisory Council, 2021)).

- DSA not meant to provide a 'binary' outcome ("debt is / is not sustainable") but rather a **risk assessment.**

- In general, **assessing debt sustainability** risks remains a fraught exercise (Debrun et al. 2019, Pamies and Reut 2020, Heinberger 2023) implying strong elements of **judgement**.

- Having a **dialogue with governments** focused on avoiding that debt may be on an unsustainable path seems more **conducive to ownership** than trying to impose some arbitrary numerical values (close-to-balance-or-in-surplus or even DSA-derived primary-structural balance).

What role for DSA in the reform of EU fiscal rules? 'Technical trajectories' vs 'fiscal-structural plans'

- **Important distinction** in Commission reform proposals between **'technical trajectories' issued by the Commission** (Stage I) and **Member States' 'fiscal-structural plans'** subject of **technical dialogue with the Commission** (Stage II) and eventual **endorsement by the Council** (Stage III).

- Preliminary issuance of technical trajectories by the Commission criticised as pre-emptying national choices in contradiction with national ownership (Blanchard, Sapir, Zettelmeyer 2022) or difference between technical trajectories and fiscal structural plans essentially overlooked under implicit assumption that the two would be the same (Darvas, Welslau, Zettelmeyer 2023).

- **Distinction** between technical trajectories and fiscal structural plans **important** for both i) **legal-institutional** and ii) **technical-economic** reasons (Pench 2023).

  i) From a **legal-institutional** perspective, **adjustment path endorsed by the Council** (Stage III) **sole basis for assessment of compliance and enforcement** (Stage IV), irrespective of indications in technical trajectories or even in the legislation itself.

  ii) From a **technical-economic** perspective, **fiscal structural plans expected to differ from technical trajectories** owing to **inevitably insufficient granularity of technical trajectories**:

  - **technical trajectories based on standard assumptions** on e.g., output gap closure, revenue elasticities, size of multipliers; **market-based assumptions** used for inflation and interest rates projected (European Commission 2023a);

  - standard assumptions expected to be questioned and possibly replaced by **assumptions reflecting country-specific situations** in the course of **technical dialogue** (Stage II).

What role for DSA in the reform of EU fiscal rules? Some conclusions

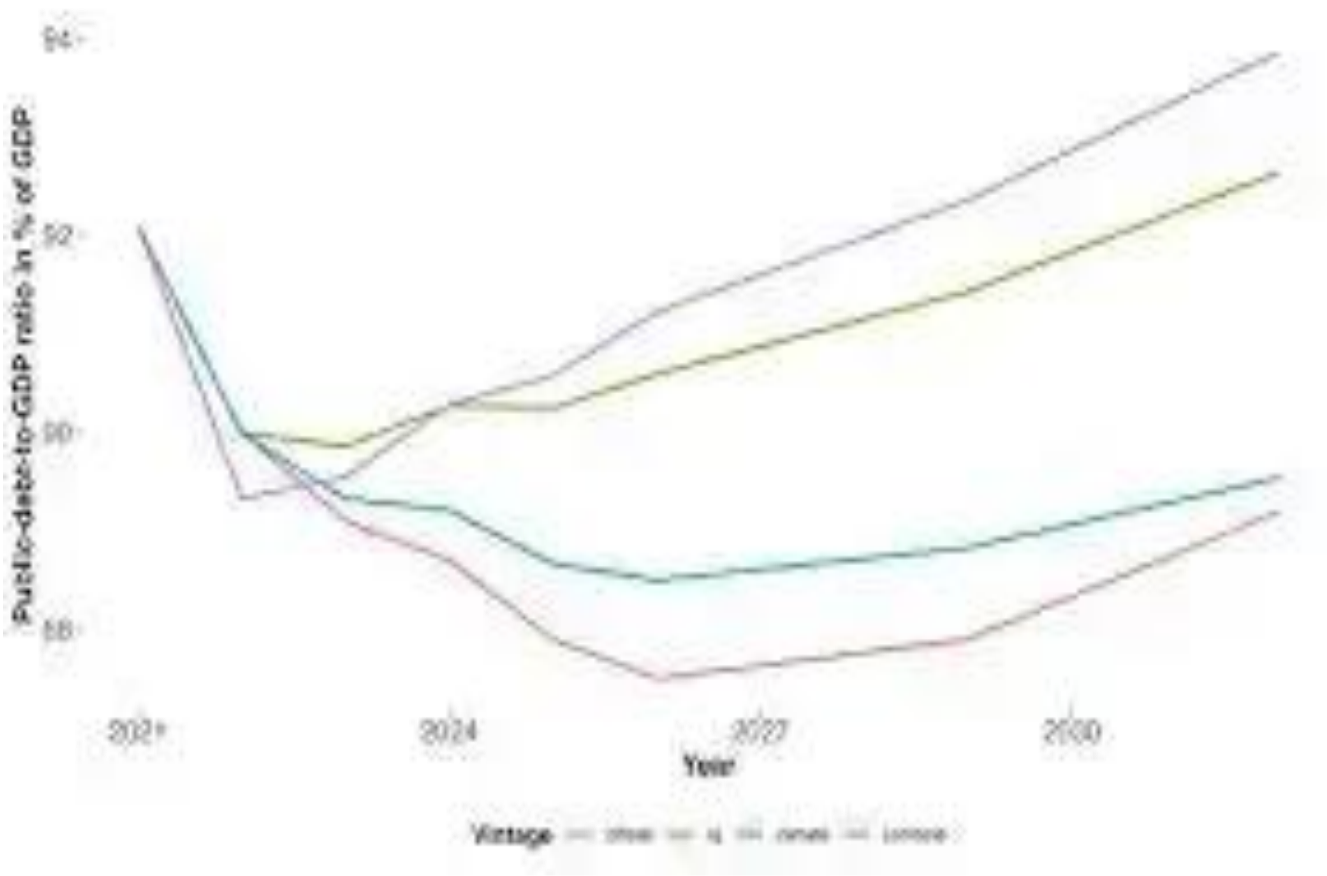
- The **Commission proposals for the reform of EU fiscal rules** put **debt sustainability at the centre stage** requiring an operationalisation of the concept.
- **DSA natural reference for operationalising debt sustainability**, but different approaches can be conceived for formulating a debt sustainability criterion based on DSA methodology (DSA-based standards vs DSA-derived algorithm).
- Adopting a DSA-derived-algorithm approach should not obscure the underlying methodological limitations of the DSA and the inescapable role of **judgement** in reaching conclusions. In sum **DSA Is neither a necessary or sufficient basis for 'contract'** (Yared 2019)**.**
- The **distinction between technical trajectories and fiscal structural plans** in the Commission proposals recognises the role of judgement in both technical economic and legal-institutional sense: the **proper subject of the (enforcement of the) contract is the adjustment path endorsed by the Council**.
- Assuming that technical fixing of the DSA methodology – e.g., through the role of a DSA working group including all Member States plus different EU institutions – can obviate the need for judgment is economically and politically misguided.
- Rather than on the refinement of the DSA methodology **success of the reform is likely to depend on the effective implementation of the fiscal structural plans** and in particular the Commission and Council willingness to carry out **enforcement through debt-based EDP for 'high-risk' countries.**

Annex – Background slides

From the intertemporal budget constraint to sustainability analysis

- **Solvency** defined as respect of the intertemporal budget constraint is a purely **forward-looking concept**: it is not guaranteed (excluded) by apparent respect (violation) of the constraint in the past.
- Econometric tests of solvency necessarily model past behaviour as reflected in time series: e.g., verifying whether primary balance increases as debt increases (i.e., $\beta > 1$ in $s_j = \beta b_j + other\ determainants\ of\ s$), implying that debt is reduced (by *(1- β)*) in each period relative to a 'Ponzi scheme' ($(\frac{1}{\rho})^t b^t$) (reducing the debt n-period ahead by *(1- β)^n*).
- In practice, **debt sustainability analysis** aims at verifying that, for given assumptions about economic growth and the interest rate, **fiscal policy** (the sequence of primary balances) **over a certain period of time reduces sufficiently the risk that the government ends up losing control of the debt**. This typically demands some **judgemental definition of a debt threshold**, i.e., a level of debt toward which should not be exceeded or toward which debt should converge.

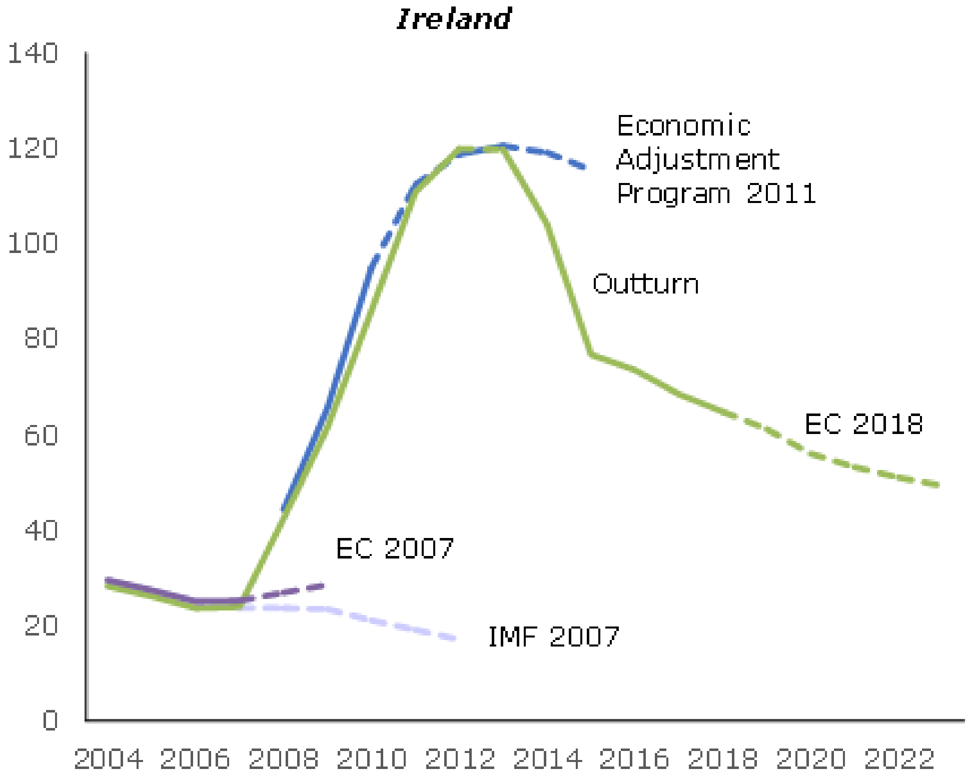
DSA (debt sustainability analysis): the importance of robust assumptions



The Commission’s DSA framework allows for projecting the trajectory of the public-debt-to-GDP ratio based on assumptions with regard to future developments in the government’s fiscal balance (including ageing costs), interest payments, economic growth, and inflation. The projections are tested for sensitivity to shocks to the interest-rate growth rate differential , the primary balance. These can result in important deviations relative to the baseline (see illustrative figure). In addition, for countries with debt ratio in excess of 60, the baseline projection is stressed for the probability that the debt ratio would be higher after five years based on the historical occurrence of shocks to growth, interest rate and primary balance (stochastic test); *In the proposed reform of fiscal governance, the DSA framework is applied to derive and test a country’s debt trajectory* starting from *the end of the planned adjustment period (4 to 7 years).*

Insights on DSA from case of Ireland: sensitivity to underlying macro-fiscal assumptions

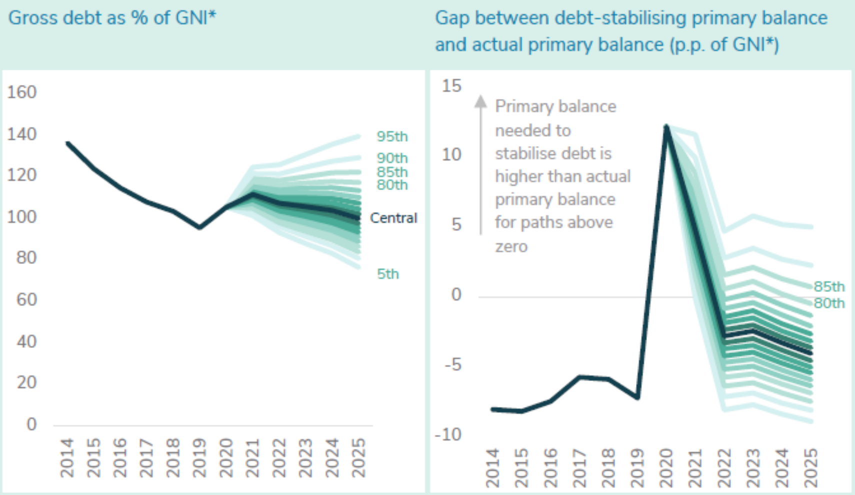
Ireland: before / after Great financial Crisis



Insights from case of Ireland: stochastic analysis not suitable for 'hard' policy advice

- Results suggest that there is a 15 to 20% risk of debt being on an unsustainable path by 2025 under current policies, meaning that *the country would need to adjust its fiscal policy to reduce debt sustainability risks*.
- However, the Irish Fiscal Advisory Council concludes that:

Figure H1: Reasonably low risk of debt being unsustainable



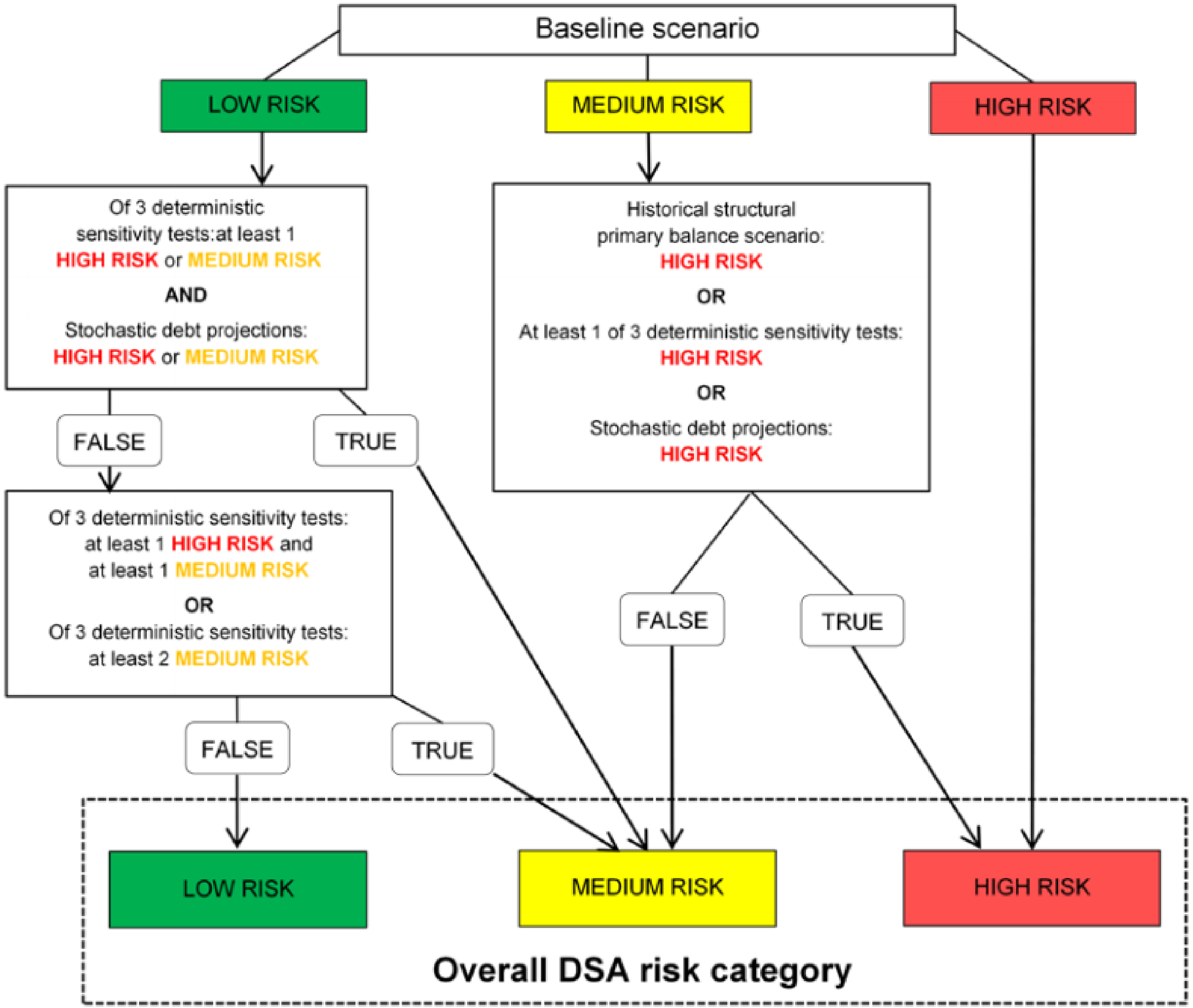
Sources: Fiscal Council workings based on Department of Finance (SPU 2021) forecasts.
Notes: Each line shows a path for debt dynamics at various percentiles. The "Central" line represents the official SPU 2021 forecasts.

"[This probability] may not necessarily be high enough to warrant a much tighter fiscal policy in the immediate period after the Covid crisis. An appropriate fiscal stance would take into account the wider context, including the need to return the economy to near full employment, which would also reinforce debt sustainability."

Current role of DSA in EU fiscal rules

EU surveillance process	Legal provisions	Details
Stability and Growth Pact		
-Corrective arm		
Assessment of debt developments following a breach of the debt criterion	Council regulation (EC) no. 1467/97	The Commission, when preparing a report under Article 126(3) of the TFEU, assesses the case for launching an EDP by taking into account all relevant factors, including the medium term economic and budgetary position of the Member State and ***the developments in the medium-term government debt position, its dynamics and sustainability.***
- Preventive arm		
Assessment of Stability and Convergence Programmes	Council Regulation (EC) No 1466/97 (Article 3)	Includes an assessment of ***debt sustainability*** implying a full-fledged DSA according to the methodology presented in the FSR / DSM.
Setting-up of the (minimum) MTOs	Council Regulation (EC) No 1466/97 (Article 2a)	The MTOs are set so as to ensure sustainability or rapid progress towards ***sustainability.*** To that purpose, the Commission estimates country-specific lower bounds of the MTOs, also based on the jointly prepared Commission / Council long-term budgetary projections.
Required fiscal adjustment to the MTO	Regulation (EC) no. 1466/97, and 2015 Council Commonly agreed position on flexibility within the SGP (no. 14345/15)	The 2015 Council Commonly agreed position on flexibility within the SGP includes a 'matrix' of requirements for adjustment towards the MTOs with a specific reference to risks to ***debt sustainability*** as a relevant criterion for differentiating fiscal requirement across countries. Moreover, the quantitative assessment of the long-term budgetary effects and the impact on the long-term sustainability of public finances is assessed by the Commission in case Member States apply for the "structural reform clause" or the "investment clause".
Degree of discretion	Article 6(3) and Article 10(3) of Regulation no. 1466/97	The analysis of ***sustainability*** challenges is used for the exercise of a degree of discretion when considering departures from the fiscal requirements to achieve a fiscal stance that contributes to both strengthening the ongoing recovery and ensuring the sustainability of Member State's public finance.
Assessment of Draft Budgetary Plans	Regulation (EU) No 473/2013 of the European Parliament and of the Council	Includes sensitivity analyses that provide an indication of the risks to ***public finance sustainability*** in the event of adverse economic, financial or budgetary developments.
- General escape clause		
Activation of the general escape clause	Articles 5(1) and 9(1) (preventive arm) and Articles 3(5) and 5(2) (corrective arm) of Regulation (EC) 1466/97	For the *preventive arm* , "in periods of severe economic downturn for the euro area or the Union as a whole, Member States may be allowed temporarily to depart from the adjustment path towards the medium-term budgetary objective, ***provided that this does not endanger fiscal sustainability in the medium term*** ". For the *corrective arm* , in the case of a severe economic downturn in the euro area or in the Union as a whole, the Council may also decide, on a recommendation from the Commission, to adopt a revised fiscal trajectory.

Commission framework decision tree for DSA risk classification



Commission framework DSA assessment criteria

DSA scenarios (Baseline, HSPB)

<table>
<tr><th>Debt ratio at end of projections (t+11)</th><th>Debt peak year and structural primary balance percentile rank</th><th>RISK CATEGORY</th></tr>
<tr><td>HIGH RISK</td><td>ANY</td><td rowspan="2">HIGH RISK</td></tr>
<tr><td>ANY</td><td>Both HIGH RISK</td></tr>
<tr><td>MEDIUM RISK</td><td>ANY but both HIGH RISK</td><td rowspan="3">MEDIUM RISK</td></tr>
<tr><td rowspan="2">LOW RISK or MEDIUM RISK</td><td>one HIGH RISK, one MEDIUM RISK</td></tr>
<tr><td>Both MEDIUM RISK</td></tr>
<tr><td rowspan="3">LOW RISK</td><td>one HIGH RISK, one LOW RISK</td><td rowspan="3">LOW RISK</td></tr>
<tr><td>one MEDIUM RISK, one LOW RISK</td></tr>
<tr><td>Both LOW RISK</td></tr>
</table>

Deterministic sensitivity tests

<table>
<tr><th>Debt ratio at end of projections (t+11)</th><th>Debt peak year</th><th>RISK CATEGORY</th></tr>
<tr><td>HIGH RISK</td><td>ANY</td><td rowspan="2">HIGH RISK</td></tr>
<tr><td>MEDIUM RISK & ≥ 70%</td><td>HIGH RISK</td></tr>
<tr><td>MEDIUM RISK & <70%</td><td>HIGH RISK</td><td rowspan="3">MEDIUM RISK</td></tr>
<tr><td rowspan="2">MEDIUM RISK</td><td>MEDIUM RISK</td></tr>
<tr><td>LOW RISK</td></tr>
<tr><td>LOW RISK</td><td>ANY</td><td>LOW RISK</td></tr>
</table>

Stochastic debt projections

<table>
<tr><th>Prob. of debt ratio at T+5 greater than at T</th><th>Debt distribution: Diff. b/w 10th and 90th percentiles</th><th>RISK CATEGORY</th></tr>
<tr><td>HIGH RISK</td><td>ANY</td><td>HIGH RISK</td></tr>
<tr><td rowspan="2">MEDIUM RISK</td><td>HIGH RISK</td><td rowspan="3">MEDIUM RISK</td></tr>
<tr><td>MEDIUM RISK</td></tr>
<tr><td>LOW RISK</td><td>HIGH RISK</td></tr>
<tr><td>MEDIUM RISK</td><td>LOW RISK</td><td rowspan="3">LOW RISK</td></tr>
<tr><td rowspan="2">LOW RISK</td><td>MEDIUM RISK</td></tr>
<tr><td>LOW RISK</td></tr>
</table>

Commission framework thresholds for risk assessment

<table>
<tr><th>Variable</th><th colspan="2">Threshold</th></tr>
<tr><td>Debt ratio at the end of projections (2031)</td><td colspan="2">Red: above 90%
Yellow: between 60% and 90%
Green: below 60%</td></tr>
<tr><td>Debt peak year</td><td colspan="2">Red: peak year btw. T+7 and end projections (2027-31), or still increasing at end projections
Yellow: peak year between end of forecasts (T+3) and T+6 (2023-26)
Green: peak year within forecast horizon (2020-22)</td></tr>
<tr><td>Percentile rank of average SPB over projection period (2022-31)</td><td colspan="2">Red: if smaller than (or equal to) 15%
Yellow: between 15% and 30%
Green: greater than 30%</td></tr>
<tr><td rowspan="3">Probability of debt ratio at the end of 5-year stochastic projection horizon (2025) greater than initial (2020) debt ratio</td><td>Initial (2019) debt ratio at or above 90%:</td><td>Red: if probability above 30%
Yellow: if probability strictly positive and at or below 30%
Green: if zero probability</td></tr>
<tr><td>Initial (2019) debt ratio at or above 60% and below 90%:</td><td>Red: if probability above 60%
Yellow: if probability between 30% and 60%
Green: if probability below 30%</td></tr>
<tr><td>Initial (2019) debt ratio below 60%:</td><td>Yellow: if probability above 70%
Green: if probability at or below 70%</td></tr>
<tr><td>Difference between 10^{th} and 90^{th} debt distribution percentiles from stochastic projections</td><td colspan="2">Red: the third of the countries with highest dispersion
Yellow: the third of the countries with intermediate dispersion
Green: the third of the countries with lowest dispersion</td></tr>
</table>

References

References (I)

Debrun, X., Ostry, J. D., Willems, T., & Wyplosz, C. (2019) Debt sustainability. *Sovereign debt: A guide for economists and practitioners*, *151* at https://books.google.com/books?hl=en&lr=&id=Jye3DwAAQBAJ&oi=fnd&pg=PA151&dq=debrun+ostry+debt+sustainability&ots=YHS6RQoXp9&sig=D80QJuRIQOkjfC8NFcO1VVtEVjc

Blanchard, O., A. Sapir and J. Zettelmeyer (2022) 'The European Commission's fiscal rules proposal: a bold plan with flaws that can be fixed', *Bruegel Blog*, 30 November, available at https://www.bruegel.org/blog-post/european-commissions-fiscal-rules-proposal-bold-plan-flaws-can-be-fixed

European Commission (2023a) 'Debt sustainability Monitor 2022', *Institutional Paper* 199, available at https://economy-finance.ec.europa.eu/system/files/2023-06/ip199_en_UPD.pdf

European Commission (2023b) 'A proposal for replacing Regulation (EC) No 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies', COM/2023/240 final, available at https://economy-finance.ec.europa.eu/system/files/2023-04/COM_2023_240_1_EN.pdf

European Commission (2023c) 'A proposal for amending Council Regulation (EC) No 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure', COM/2023/241 final, available at https://economy-finance.ec.europa.eu/system/files/2023-04/COM_2023_241_1_EN.pdf

References (II)

Darvas, Z., L. Welslau and J. Zettelmeyer (2023) 'A quantitative analysis of the European Commission's fiscal governance proposals', Working Paper 09/23 Bruegel at https://www.bruegel.org/sites/default/files/2023-09/WP%2016_3.pdf

European Commission (2022) 'Communication on orientations for a reform of the EU economic governance framework', COM(2022) 583 final, at https://economyfinance.ec.europa.eu/system/files/2022-11/com_2022_583_1_en.pdf

Heinberger (2023) 'Debt Sustainability analysis as an anchor in EU fiscal rules', European Parliament PE 741.504 (March 2023)

Irish Fiscal Advisory Council (2021) 'Fiscal Assessment Report', Irish Fiscal Advisory Council (May 2021)

Pamies, S. and Reut, A. (2020) 'Assessing public debt sustainability: some insights from an EU perspective into an inexorable question', *Quarterly Report on the Euro Area, 19* (1), 27-43, at https://economy-finance.ec.europa.eu/system/files/2020-06/ip130_en_chapter_ii.pdf

Pench, L. (2023) 'Making sense of the European Commission's fiscal governance reform plan', Policy Brief 17/2023, Bruegel at https://www.bruegel.org/policy-brief/making-sense-europeancommissions-fiscal-governance-reform-plan

Yared, P. (2019) 'Rising government debt: Causes and solutions for a decades-old trend' *Journal of Economic Perspectives*, *33*(2), 115-140 at https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.33.2.115