

## Briefing papers: “Debt Sustainability Assessment: the State of the Art”

In November 2018, the EGOV unit published two external briefing papers on “Debt Sustainability Analysis: the State of the Art”, upon request of the ECON Committee. Authors were [Cinzia Alcidi and Daniel Gros](#) (CEPS) and [Giancarlo Corsetti](#) (University of Cambridge). This note presents some background information and provides the summaries of these two papers.

### Background

**The Debt Sustainability Analysis (DSA)** is an analytical framework that helps assessing a country's capacity to service its public debt over time, while financing its policy objectives without compromising its financial stability. The International Monetary Funds ([IMF](#)) and the European Commission ([COM](#)) have developed their own methodological frameworks, used in the contexts of both their economic surveillance activities and provision of financial support. The Box presents some basic methodological features of DSAs.



In the **EU legislation**, Article 6 of EU Regulation (EU) No [472/2013](#) on “surveillance of Member States with serious difficulties with respect to financial stability” requires the COM to assess whether the public debt of a Member State requesting financial assistance is sustainable. Also Article 13.1 of the [Treaty](#) of the European Stability Mechanism ([ESM](#)) requires “to assess whether public debt is sustainable. Wherever appropriate and possible, such an assessment is expected to be conducted together with the IMF”.

#### Box : Methodological key features

From the methodological standpoint, DSAs are essentially constituted of projections of the relevant economic indicators. They are based on models and assumptions that vary across institutions and time. For the assessment of the debt sustainability, two indicators are commonly used:

- The general government Debt-to-GDP ratio;
- The general government Gross Financing Needs-to-GDP (GFN-to-GDP), which quantifies the country's debt payment obligations (principal plus interests, plus new primary deficit), in relation to its economy. This indicator takes account of the debt structure (maturity, interest rates and interest deferrals).

The two indicators are interrelated, though the GFN-to-GDP ratio better captures the country's short- and medium-term financial stability risks. However, it is difficult to establish numerical thresholds for debt sustainability:

- As to the debt-to-GDP ratio, thresholds vary across countries, depending on economic fundamentals and debt management capacities (e.g. Argentina defaulted when its debt was around 60% of GDP, while Japan continues to sustain debt of more than 200% of GDP). The IMF benchmark is set at 85%.
- Regarding the GFN-to-GDP indicator, the [IMF guidelines](#) (p. 32) indicate that the ratio would need to remain below 15%-20% to ensure debt sustainability. In its statement of May 2016, the [Eurogroup](#) had agreed to assess debt sustainability for Greece in terms of the GFN-to-GDP ratio, which “should remain below 15% ... for the medium term, and below 20% of GDP thereafter.”



Recently, the **Eurogroup and the Euro Summit** debated the role and the divisions of tasks related to DSA, in the wider context of the deepening of the Economic and Monetary Union (EMU). The Euro Summit of 13 December 2018 reached [conclusions](#), as suggested by the Eurogroup in its [report to Leaders](#). The COM - in liaison with the and the [ECB](#) - and the ESM will collaborate on the preparation of the assessments of public debt sustainability. The COM will focus on the overall assessment of the sustainability of public debt, while the ESM will mainly assess the capacity of the Member State concerned to repay ESM loans (see also the ["Joint position on future cooperation between the European Commission and the ESM"](#)).

In June 2018, the **ECON Committee** requested two experts to review the existing methodologies and provide an assessment of the corresponding strengths and weaknesses, also taking into account the specificities of the EMU.

## Key findings of two external papers

In their [paper](#), **Cinzia Alcidi and Daniel Gros** differentiate DSA as a standard instrument of fiscal surveillance in normal times ("economic surveillance DSAs") and as a tool for taking decisions about the provision of financial support ("hard DSAs"). Given the fundamental relationships between debt, deficits, interest rates and growth, the result of a DSA depends ultimately on the assumptions about the parameters. One caveat of this approach is that it applies empirical regularities from the world-wide economies and in the pre-euro period to estimate such parameters; the authors note that this may be misleading for euro area countries. The paper presents the main differences between the IMF and the COM approaches, and notes that such differences are more relevant when DSA is used in the context of financial assistance, than in regular surveillance. An important difference is due to the time horizons: the IMF uses the five-year horizon of its World Economic Outlook projections for both "surveillance" and "hard" DSA, while the COM has usually a ten-year horizon. This is related to the size and scope of the respective potential financial assistance: the IMF provides limited amounts of financing, of a short- to medium-term nature and with a substantial top up over risk free rates; therefore, the DSAs of the IMF focus on the ability of a country to finance itself in the market and repay the IMF after 5 years. Financing by the ESM in the Euro Area, by contrast, can be large, cheap and of such a long maturity that the program itself can have a major impact on the long-term debt sustainability. On fiscal sustainability indicators used in the context of "economic surveillance DSAs", the authors argue that they are somewhat less judgmental: on the one hand, certain indicators have proven to be useful warning signals of future fiscal stress, on the other hand, they point to different directions and it is difficult to extrapolate a univocal conclusion.

In his [paper](#), **Giancarlo Corsetti** notes that the approach to DSA has substantially evolved after the global economic and financial crisis. The main goal now is to improve the detection of risks. To this scope, DSAs make use of an increasing number of indicators and systematically include both implicit and contingent liabilities; DSAs also use statistical methods to quantify highly risky "tail events". Furthermore, DSAs more and more often set "debt limits", by adopting thresholds for debt and payment flows, which are used to single out enhanced vulnerability. While these developments mark true progress, this paper argues that some issues should be incorporated to improve the predictive capacity of DSA, focusing mainly on liquidity (versus solvency) risks and contagion risks. The identification of fixed "debt thresholds" is another critical area, limiting DSA effectiveness: the author argues that such limits should not be fixed, neither across countries nor over time. In the paper, the author explains why DSA should embed potentially available official support: according to this approach, therefore, the limited clarity of the design of the financial support - as currently in the EMU - constitutes a hurdle for an effective DSA. The author also shows that different risks require different financial assistance tools, and that the (negative) role of self-fulfilling expectations can be prevented by designing appropriate instruments, while taking into account moral hazard aspects. The paper concludes with a comparative assessment of current standard DSAs models and applications, suggests directions for further improvement, and discusses the correct use of DSAs in light of the strengths and weaknesses inherent the underlying methodologies.

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Contact: [egov@ep.europa.eu](mailto:egov@ep.europa.eu)

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