The IMF's Debt Sustainability Framework for Market Access Countries (MAC DSA)

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Presentation Outline

1. The IMF's current framework for assessing debt sustainability for market access countries (the "MAC DSA")

2. Debt sustainability assessments and implications for IMF lending

3. Ongoing review of the IMF's debt sustainability framework

1. The IMF's Current Framework for Assessing Debt Sustainability

IMF definition of debt sustainability

- In general, public debt can be regarded as sustainable when the primary balance needed to stabilize the debt/GDP ratio under both the baseline and realistic stress scenarios is economically and politically feasible, such that the level of debt is consistent with an acceptable rollover risk and with preserving potential growth at a satisfactory level.

The MAC DSA was approved in 2013 and provides critical inputs for the exercise of the Fund's mandate

Surveillance

- Detect early signals of sovereign stress and identify medium term debt vulnerabilities.

Lending

- Determine whether debt sustainability criteria are met.

Technical Assistance

- Inform authorities' medium-term debt management and fiscal strategies.

The framework was significantly revamped in 2011-13 to respond to shortcomings revealed by the GFC and euro area sovereign debt crises.

(a) Realism tools for projections

- Tools to reduce optimistic bias in GDP and fiscal projections.

Background slide (a)

(b) Early warning for debt distress

- Tool to predict sovereign risk based on a signal detection approach applied to debt burden and debt profile indicators under baseline and stress tests.

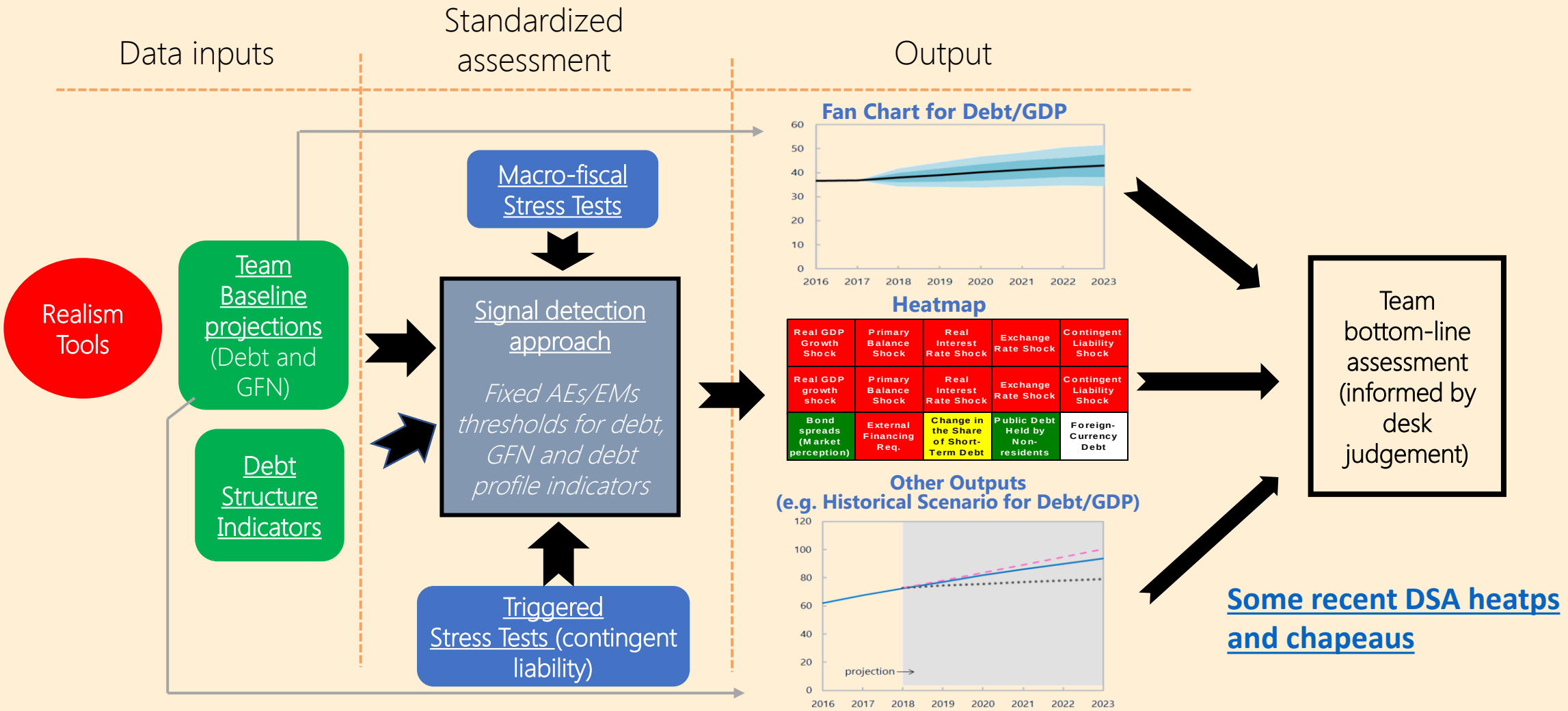
Background slide (b)

(c) Fan charts

- To provide information on uncertainty surrounding projections.

Background slide (c)

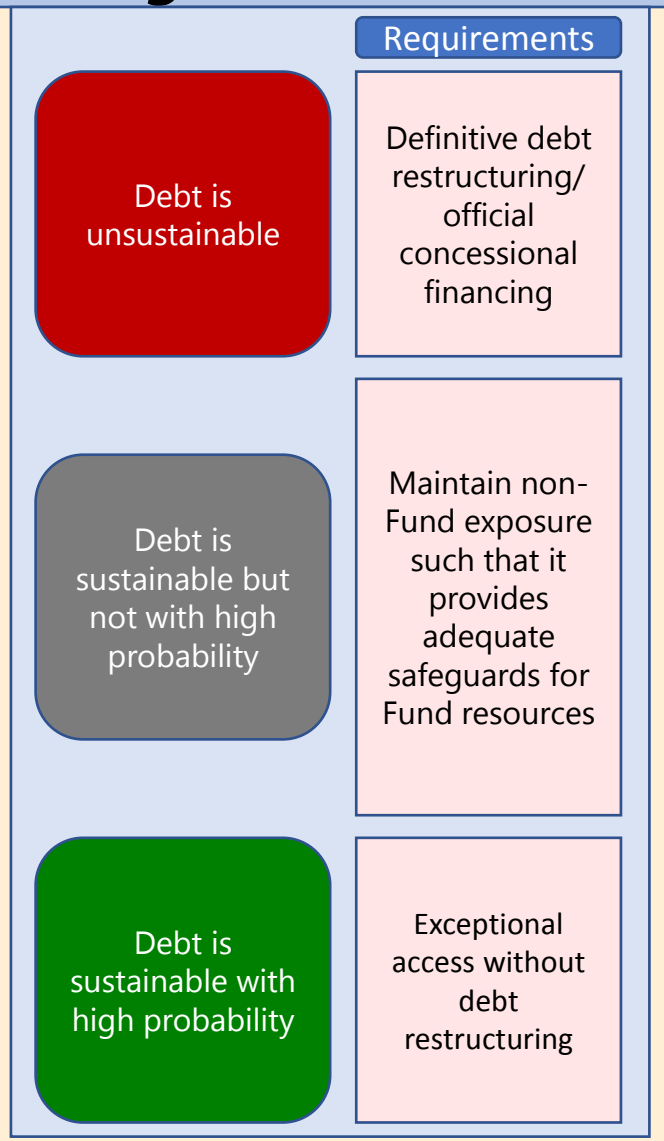
The various outputs of the framework are combined with judgement from country teams to produce the bottom-like assessment



2. Implications for IMF lending

Public debt sustainability is a pre-requisite for all IMF lending.

- The **MAC DSA is the IMF's main tool** for assessing whether this debt sustainability requirement is met in market-access countries.
- **The debt sustainability assessment is forward-looking**: an IMF arrangement can be approved before measures to improve the debt situation – such as a debt restructuring – have taken place, as long as the IMF can come to a judgment that there are reasonable prospects that anticipated measures would restore debt sustainability and close the financing gaps.
- **For Exceptional Access cases, the bar is higher: debt needs to be assessed to be "sustainable with high probability"** ("green zone").
  - If sustainable but not with high probability ("gray zone"), lending would be justified if financing available from other sources provides sufficient safeguards for Fund resources. *This condition can be satisfied through a debt reprofiling, but also via market access, official bilateral financing, or a maturity structure of debt where only a small volume of the sovereign's external debt is maturing during the program period.*
  - The Board introduced this new flexible approach for gray zone cases in January 2016.



The MAC DSA is often used as an input to debt restructuring discussions

- **Based on the DSA, forward-looking debt sustainability targets are set. There is no set rule but, typically, these targets include;**
  - Debt level as share of GDP, to be reached at the end of the projection period (5 years); and
  - Ceiling on gross public financing need (GFN), for at least five years beyond the projection horizon.
  - Ukraine's 2015 restructuring is a recent example of this approach.

- **Judgement is needed, realism important:**
  - How the amount of exceptional financing needed can be achieved is an integral part of the assessment.
  - There may be trade-offs between debt level, GFN and structure of debt.

➡ **Creditors and their advisors often use the Fund's debt sustainability targets as an anchor for their negotiations.**

3. Ongoing review of the IMF's debt sustainability framework

The framework's tools need to be refined to enhance their ability to identify risks

•Strengthening predictive capacity

- Separate assessment of near-term risks from medium-term vulnerabilities;
- Additional indicators of sovereign stress: e.g. debt trajectory, debt service, financial cycle, private external debt;
- New tools to provide sharper insights into the nature of debt distress;
- Better controlling for countries' differential debt-carrying capacity;
- Incorporating special mitigating and aggravating factors (e.g. large non-financial wealth, currency union membership).

Ensuring a realistic baseline

- Enhanced realism tools to detect over-optimistic forecasts.

Better incorporating uncertainty

- Triggered stress tests to capture tail risks (natural disasters, commodity price shocks, contingent liabilities, etc.).
- Expanded use of fan charts vs. stress tests to capture full distribution of risks around the baseline.

We need to ensure a transparent and robust bottom-line assessment of debt vulnerabilities

Consistent and appropriate coverage

- Greater harmonization of debt and institutional coverage across countries;
- Encouraging broader coverage of contingent liabilities;
- Guidance on how to accommodate financial assets, and new instruments (e.g. central bank swap lines; derivatives exposures);
- Considering a longer horizon to capture restructurings/long term liabilities.

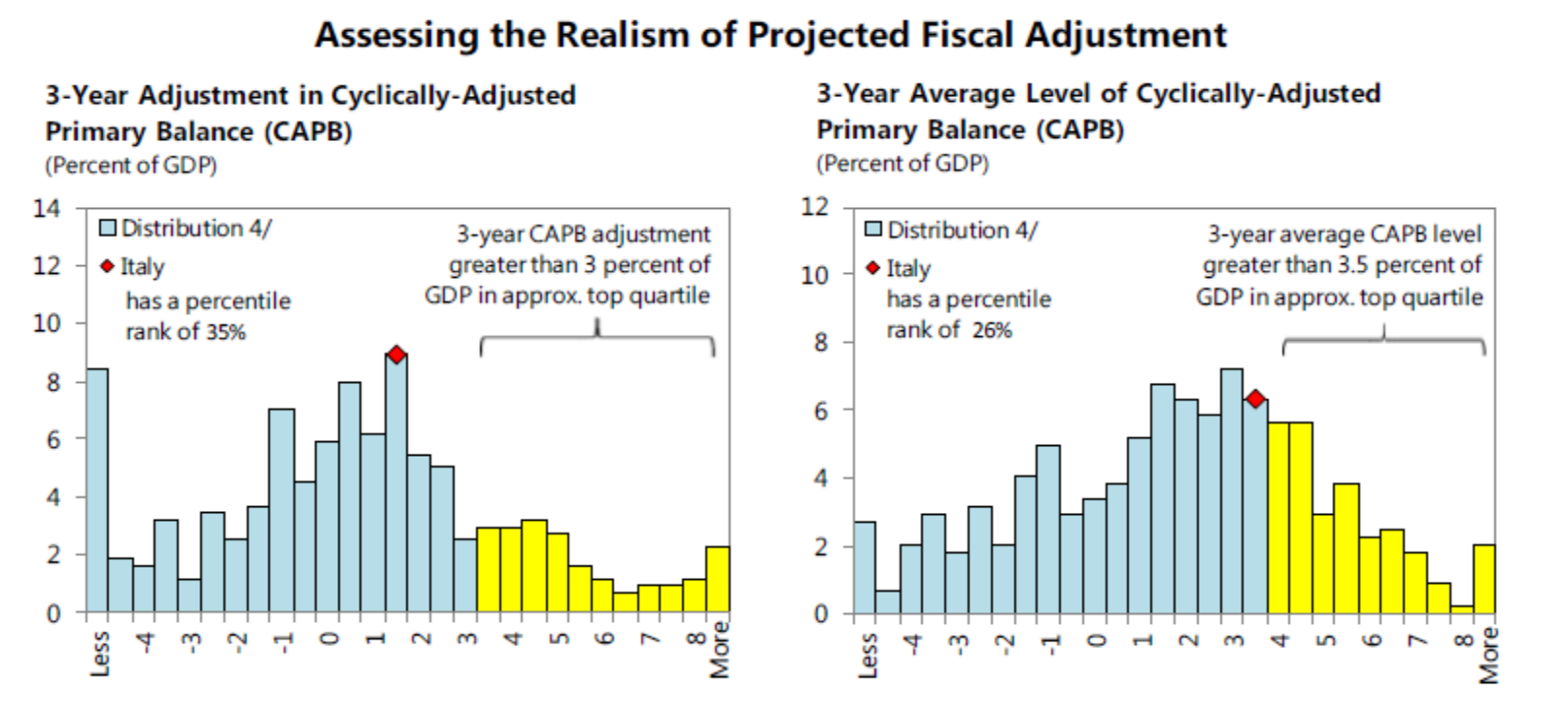
Transparency and ease of communication

- Clearer guidelines on how to integrate all elements and arrive at the overall debt sustainability assessment that is easy to communicate.
- Introduce more guidance for exercise of judgement, to ensure evenhandedness and comparability, while preserving flexibility.

Thank you!

Background Slide (a): *Realism tools allow comparisons with past performance and cross-country evidence*

The tool to assess the realism of projected fiscal adjustments is based cross-country experience (staff has the option to choose all MACs, program MACs or surveillance MACs as comparator group)



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Background Slide (b): *The heatmap seeks to synthesize risks to debt sustainability*

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

Debt Burden Benchmarks (%)	Debt-to-GDP	GFN-to-GDP
Emerging Markets	70	15
Advanced Economies	85	20

Risk level	Baseline above benchmark?	Stress test above benchmark?
High	Yes	Yes
Moderate	No	Yes
Low	No	No

The **heat map** is based on a **signal extraction approach** applied to debt and GFN (and debt-profile indicators) under baseline and stress tests

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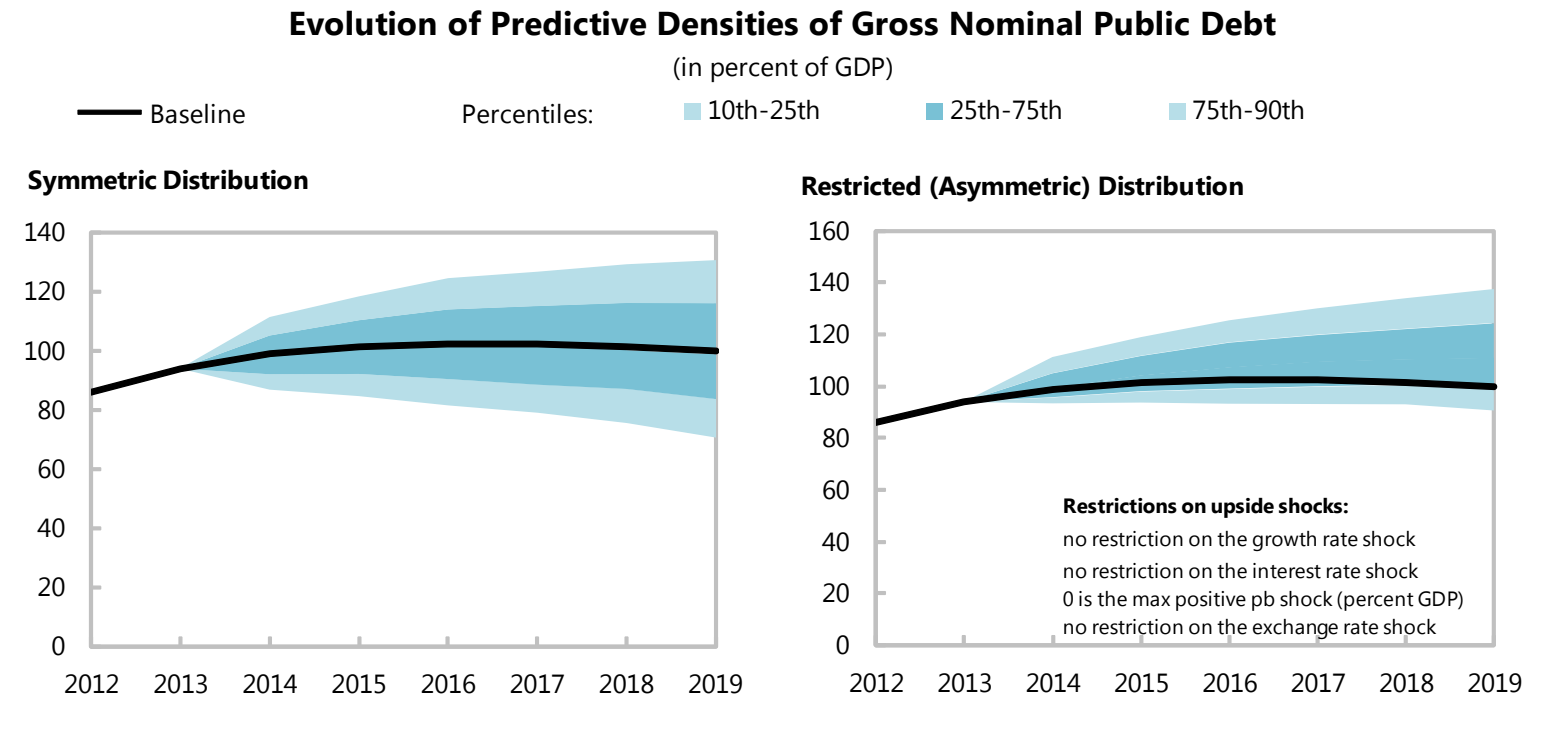
Background Slide (c): *Fan charts help incorporate uncertainty around the baseline debt projections, but do not inform the heat map*



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United States: Public DSA–Risk Assessment

Heat Map Baseline (2015-2025)

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

US (2017 Article IV). *The budget deficit in the United States has been reduced significantly over the past few years. Yet, the public debt ratio remains on an unsustainable trajectory over the medium term. Under the baseline scenario, public debt is projected to continue rising as age-related spending pressures on entitlement programs assert themselves and interest rate normalize. Gross financing needs are large, but manageable given the global reserve currency status of the United States. However, a very different composition of adjustment (i.e., with a reprioritization of budget programs, and a revenue-gaining tax reform, both aimed at boosting potential growth) would be more desirable, sustainable and, thus, more credible.*

Japan Public DSA Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

Japan (2017 Article IV). *Japan's public debt is unsustainable under current policies, amounting to 239 percent of GDP in 2016.1 The debt-to-GDP ratio is projected to decrease slightly during the medium term (up to 2022) due to an improving primary balance and a negative interest-growth differential. However, the complementary analysis up to 2030 (Figure 7, middle right chart) shows that the debt-to-GDP ratio will start increase from 2023 and reach around 250 percent of GDP in 2030 as interest-growth differential is assumed to gradually revert to positive territory. While all debt profile indicators are below early warning benchmarks, Japan's extremely high financing needs point to vulnerabilities to various shocks and changes in market perceptions especially over the medium term. Moreover, a larger-than-expected increase in public health spending beyond the projection period is an important downside risk.*

Figure 9. China: Public DSA (Broad Coverage) – Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

China (2017 Article IV). *Because of uncertainty about the perimeter of general government, the debt sustainability analysis assesses government debt under narrow and broad definitions. Government debt under the narrow definition remains low under the baseline but on a slight upward path. "Augmented" debt (broad definition), however, is high and increases strongly. These results reflect a deterioration of debt dynamics compared to last year's DSA due to an upward revision of the deficit path throughout the projection period. The risk of debt stress depends fundamentally on the willingness to reduce public investment.*

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Turkey Public DSA Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

Turkey (2018 Article IV). *At about 28 percent of GDP (measured as general government gross debt according to Maastricht criteria), Turkey's public debt ratio is well below its historical ten-year average. Gross public sector financing needs have declined significantly and should remain low over the medium term. The public DSA suggests that Turkey's government debt is sustainable under the baseline and various shock scenarios. Given the debt structure, the direct interest and exchange rate pass-through to the budget is relatively low. While all public debt profile indicators are below early warning benchmarks, high external financing requirements point to risks arising from the country's external debt position.*