Moody's
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Session 4: Debt Sustainability

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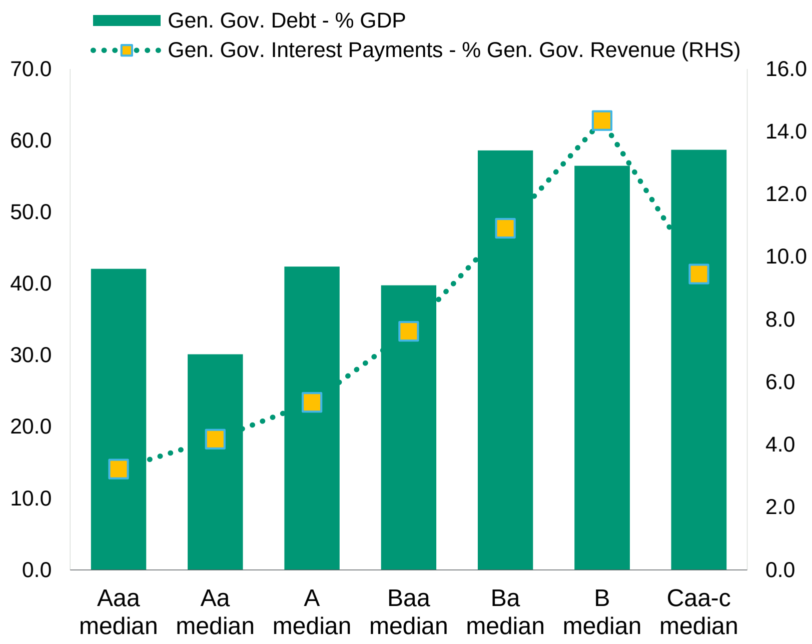
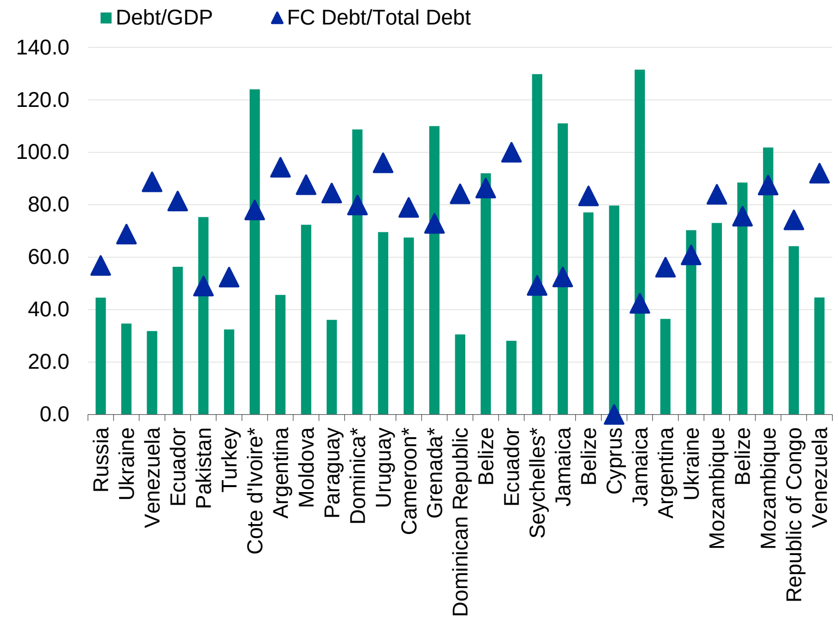
Learning from past defaults

- » While defaults are correlated with rising debt burden, a high debt-to-GDP ratio is neither necessary nor sufficient condition for a default
- » Significant amounts of foreign-currency debt can be a major source of vulnerability
- » Debt affordability is better correlated with past defaults than debt-to-GDP
- » A lack of economic strength and weak institutions are decisive factors

Debt-to-GDP and interest payments-to-revenue across broad rating categories (%)



Sovereign defaults have occurred at high as well as low debt to GDP ratios (%)



Source: Moody's Investors Service, Sovereign Defaults Series - The Aftermath of Sovereign Defaults - October 2013.

The causes of modern-era sovereign defaults

High debt burden

Persistent external and fiscal imbalances build up to an unsustainably high debt burden. Slow build-up of debt and deterioration in debt affordability over many years due to terms-of-trade shocks or unsustainable fiscal policies. *Defaults occur at high debt-to-GDP and interest payments-to-revenue levels*

Pakistan (1999), Belize (2006, 2012, 2017), Jamaica (2010, 2013), Greece (twice in 2012)

Chronic economic stagnation

Stagnating economic conditions, weak fiscal position and domestic vulnerabilities combine with large external shocks and loss of investor confidence. Vicious circle of economic distress, capital outflows, currency crisis, and banking crisis culminates into sovereign default *even at initially low debt-to-GDP which spikes after currency depreciation*

Russia (1998), Ukraine (1998, 2000), Argentina (2001), Venezuela (2017)

Political and institutional weaknesses

Political instability, unwillingness to pay, weak governance. *Debt-to-GDP could be low and interest payments-to-revenue vary*

Venezuela (1998), Ecuador (2008), Argentina (2014), Ukraine (2015), Mozambique (2016, 2017), Republic of Congo (2017)

Banking crisis

Systemic banking crises and capital outflows contribute to a large and sudden build-up of public debt. *Debt levels and interest payments rise sharply over couple of years before default*

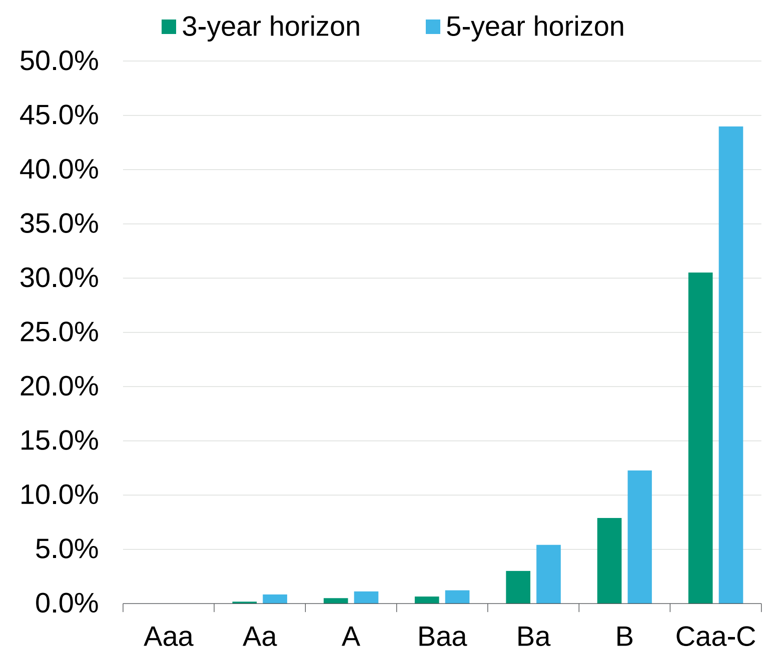
Ecuador (1999), Uruguay (2003), Dominican Republic (2005), Cyprus (2013)

Source: Moody's Investors Service, The Causes of Sovereign Defaults: Ability to Manage Crises Not Merely Determined by Debt Levels, Nov. 2010.

Sovereign ratings balance accuracy and stability

- The likelihood of default for rated sovereign issuers increases monotonically as one moves down the rating scale
- In addition, sovereign ratings offer a relatively stable risk measure, as they respond only to enduring changes in fundamental credit risk – about 83% of all moves in market opinion are reversed within a year

Issuer-weighted cumulative sovereign default rates at the 3-year and the 5-year horizon (1983-2017)



Average annual volatility statistics (as a percentage of issuers, 1999-2018)

	Moody's Ratings	Bond Yield-Implied Ratings
Share Experiencing One or More Rating Change	23%	86%
Share Experiencing Large Rating Changes (more than 2 notches)	3%	37%
Share Experiencing a Rating Change Reversal within 12 Months	0.5%	83%

Source: Moody's Investors Service, Sovereign Default and Recovery Rates, 1983-2017, July 2018.

Practical challenges in assessing sovereign debt sustainability – “the known unknowns”

- **The realization of contingent liabilities**, especially those arising from the banking system, has often led to a large build-up in public debt and, in extreme cases, triggered sovereign debt crises. How important for sovereign debt sustainability is the build-up in private sector debt?
- **How much fiscal space exists for reserve currency countries?** The reaction of interest rates to fiscal expansion will be non-linear
- **How fragile is the investor base?** The rollover needs of indebted countries are highly sensitive to shifting market sentiment
- **What is a “sustainable” level of debt in a QE environment?** Do demographics and secular stagnation imply that the level of sustainable debt is higher than in the past?
- **What happens to policy space as central banks hold increasing amounts of government bonds?** Should debt analysis put more weight on the combined policy space of the government plus the central bank?