Executive Summary
Implications of the COVID-19 pandemic for sovereign credit risk

The COVID-19 pandemic is a once-in-a-century crisis. Besides its unfortunate humanitarian implications, the pandemic also has had far-reaching implications for the economic and financial landscape. One asset class that is uniquely buffeted by the pandemic is government debt, by virtue of its long-term investment horizon and, more importantly, the massive fiscal stimulus packages implemented in many countries around the world. The global stock of public debt has recently reached a record high of over $50 trillion, and is forecast to rise even further, as governments further ramp up their stimulus programs in an environment where tax revenues are falling.[1] As tax revenues plummet and expenditures mount due to the pandemic, governments around the world inevitably find themselves saddled with rapidly expanding debt and ballooning budget deficits. These effects are amplified by the launch of numerous comprehensive stimulus packages in many countries, which governments have implemented to alleviate the adverse economic effects of the pandemic. Decreasing tax revenues coupled with rising public expenditure have the natural consequence of increasing government debt and a rise in the cost of public borrowing, impairing governments' abilities to deal with future crises.

In our new research, "*In Sickness and in Debt: The COVID-19 Impact on Sovereign Credit Risk*," we examine the relation between coronavirus infections and sovereign credit risk.[2] We show that the sensitivity of a country's default risk to COVID-19 shocks depends crucially on the government's fiscal capacity, i.e., its ability to fund its fiscal policy and service its financial obligations. Our findings show that financial markets severely penalize countries with low fiscal capacity, impairing their resilience to external shocks, while countries with sustainable financial obligations are relatively less affected.

Specifically, we examine whether a country's fiscal capacity affects the response of its borrowing costs to external shocks. Measuring fiscal capacity is challenging, as there are manifold dimensions that need to be considered. To illustrate the difficulty of measuring fiscal capacity, we can consider the case of Japan, a country that has very high levels of debt-to-GDP, and yet would be regarded by most economists to have substantial fiscal capacity (primarily due to its large pool of domestic savings). To address these issues, we consider numerous indicators, including debt-to-GDP, credit ratings, foreign exchanges reserves, total interest rate expenses, and pension liabilities. While we consider these measures individually, we also propose a score/index based on a combination of these metrics, creating a comprehensive measure of fiscal capacity.

Based on our proposed measure, we find that during the peak of the pandemic, a one-day increase in COVID-19 infections translates into a one per cent credit default swap (CDS) premium increase for a country ranked at the 25th percentile of the distribution of fiscal constraints, but a three per cent increase in CDS premiums for a country ranked at the 75th percentile. In other words, we find that COVID-19 matters for sovereign credit risk, but more so if a country is fiscally constrained.

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[1] IMF, 2020, Fiscal Monitor - April 2020, Chapter 1, Fiscal Monitor Reports.

[2] We have written about our research findings in popular outlets such as *Fortune*, *Business Today,* and *Il Sole 24 Ore.* See, for example:
https://fortune.com/2020/05/02/eu-debt-crisis-bailouts-coronavirus/ and
https://fortune.com/2020/07/03/coronavirus-hamilton-state-debt-crisis-government-budgets/

In support of our argument for a fiscal channel that amplifies the sensitivity of sovereign default risk to external shocks, we also show that our results are similar in subsamples where we can rule out the effect of monetary policy, by holding it constant, i.e., the Eurozone and the individual states within the United States.

Our results have important policy implications in light of current debates about the deleterious consequences of the spread of the virus in an era when fiscal capacity is already strained. Our finding that fiscal capacity amplifies the exposure of sovereign credit risk to systemic shocks underscores the need to unlever public balance sheets and increase fiscal capacity in economically favorable times. This is the macro-economic analog of macro-prudential regulations of financial firms, where capital buffers are augmented during periods of growth and used in times of need. Our results directly emphasize that sovereigns with a larger fiscal space are more resilient to unexpected growth shocks.

Second, our results emphasize that the sovereign credit spreads of countries and U.S. states rise significantly more in response to an external shock, when their fiscal capacity is low. While different levels of fiscal capacity warrant different levels of credit risk, we find that financial markets penalize sovereigns disproportionately simply because they happened to start from an unfavorable initial fiscal position prior to the pandemic. Thus, our findings suggest that fiscal solidarity in times of extreme crisis may be warranted to avoid differential and disproportional spikes in default risk, in spite of identical shocks to economic growth. This is particularly true in areas like the Eurozone or the United States, where monetary policy is exogenously determined and is outside the control of individual countries or states.