



Sovereign Bond Market Risks and Their Relation to Fiscal Fundamentals

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Abstract

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This article examines how fiscal fundamentals shape sovereign bond market risks in recent years and how this relationship evolves under episodes of heightened uncertainty. Using a systematic literature review of peer reviewed articles published between 2019 and 2023, it synthesizes evidence on the links between public debt, deficits, fiscal space and institutional quality, on the one hand, and bond yields, spreads and sovereign credit risk, on the other. The review describes how the selected studies operationalize sovereign risk and fiscal variables, compares their empirical approaches across advanced and emerging economies, and organizes the findings into themes covering normal times, crisis and pandemic episodes, and the role of monetary policy and financial integration. The main findings show that fiscal fundamentals remain central to sovereign risk pricing, but their impact is state dependent and mediated by fiscal space, credibility and global conditions, with important implications for fiscal frameworks and financial stability.



1. Introduction

Sovereign bond markets play a central role in government financing, macroeconomic stabilization, and financial system resilience. They provide the primary channel through which governments obtain long term funding, manage rollover risk, and signal their fiscal and macroeconomic policy commitments to domestic and international investors. Yields and spreads on sovereign bonds incorporate investors' assessments of default risk, liquidity conditions, and broader concerns about fiscal solvency, while also reflecting expectations about growth prospects, tax burdens, and the likelihood of future fiscal adjustment. In this sense, sovereign bond prices summarize a large amount of information about countries' fiscal positions and perceived creditworthiness and are closely monitored by policymakers, rating agencies, and market participants (Jalles, 2019; Pappas & Kostakis, 2020).

A substantial empirical literature documents that sovereign risk premia are systematically related to macroeconomic and fiscal fundamentals, such as public debt ratios, deficit paths, and growth performance, although the magnitude and stability of these links vary across countries and time periods. Higher debt and weaker fiscal outlooks tend to raise borrowing costs, whereas sound fiscal frameworks and credible institutions can dampen risk premia by anchoring expectations about future policy (Jalles, 2019; Pappas & Kostakis, 2020). At the same time, evidence from network and spillover analyses shows that sovereign credit risk is not solely driven by domestic factors. Financial integration and cross border portfolio holdings generate powerful contagion channels through which shocks in one sovereign

market affect others, amplifying volatility and systemic risk (Bostancı & Yilmaz, 2020). These findings suggest that sovereign bond market risks emerge from the interaction between country specific fiscal fundamentals and common global or regional risk forces.

The COVID 19 crisis has further sharpened interest in how fiscal fundamentals condition sovereign bond market responses to large exogenous shocks. Studies for advanced and emerging economies report that pandemic related shocks to infections, mobility, and economic activity significantly widened sovereign credit default swap spreads and bond risk premia, with stronger effects in countries that entered the crisis with limited fiscal space and pre-existing vulnerabilities (Andrięs et al., 2021; Bizuneh & Geremew, 2021). Recent work also shows that contractions in consumption and output, together with discretionary fiscal support, affected sovereign credit risk asymmetrically across the risk distribution, reinforcing the role of underlying fiscal fundamentals and policy credibility (Augustin et al., 2022; Hao et al., 2022). Complementary bibliometric evidence indicates a rapid yet fragmented expansion of research on sovereign credit risk and its links to financial markets in the post crisis period (Bajaj et al., 2022).

Despite these advances, the empirical evidence remains dispersed across regions, sample periods, and methodological approaches. There is still no comprehensive synthesis that systematically maps how debt levels, fiscal balances, fiscal rules, and institutional quality shape sovereign bond market risks, while jointly considering global risk factors, contagion, and large shocks such as the pandemic. This fragmentation makes it difficult for policymakers and researchers to evaluate

the consistency of findings, identify robust determinants of sovereign risk premia, and detect emerging themes or methodological gaps.

This article addresses this gap by conducting a systematic literature review of peer reviewed studies published between 2019 and 2023 that examine the relationship between sovereign bond market risks and fiscal fundamentals. Using a transparent protocol for search, screening, and synthesis, the review consolidates evidence across advanced and emerging economies, compares alternative measures of sovereign risk and fiscal stance, and assesses how recent crises have reshaped the pricing of fiscal fundamentals in sovereign bond markets. The study aims to develop an integrated analytical framework that clarifies where the literature converges, where results remain contested, and which questions warrant further empirical investigation.

2. Literature Review

The post crisis literature increasingly emphasizes that sovereign bond market risks are jointly shaped by fiscal fundamentals, macroeconomic conditions, and country specific institutions rather than by public debt ratios in isolation. Recent evidence shows that higher debt and deficit levels, weaker primary balances, and rising interest growth differentials are systematically associated with wider sovereign spreads, especially when they coincide with signs of fiscal “tension” such as deteriorating budget forecasts or slippages from medium term fiscal frameworks (Ciżkowicz et al., 2022). Studies on emerging market economies further highlight that markets respond not only to the level of debt but also to perceptions of fiscal

solvency and the credibility of adjustment plans, with risk premia rising when investors doubt governments' willingness or capacity to implement consolidation in the medium term (Bizuneh & Geremew, 2021). This strand of work supports the view that sovereign bond markets embed forward looking assessments of fiscal sustainability that go beyond static indicators.

A rapidly growing body of research focuses on how global shocks, and in particular the COVID 19 pandemic, have interacted with fiscal fundamentals in driving sovereign risk. Analyses of advanced economies show that sovereign credit risk responded much more strongly to pandemic related growth shocks in countries with limited fiscal space, suggesting that fiscal capacity conditions the transmission of real shocks to default risk and spreads (Augustin et al., 2022). For emerging markets, evidence from sovereign credit default swap spreads around the pandemic outbreak shows that epidemiological dynamics, fiscal space, oil revenue dependence, and external conditions jointly explain the sharp repricing of sovereign risk during the early pandemic phase (Daehler et al., 2021). Complementary cross country work documents that the pandemic raised sovereign credit risk particularly where consumption contracted sharply and fiscal policy was perceived as insufficient to stabilize household incomes, again underscoring the role of underlying fiscal capacity and the design of support measures (Hao et al., 2022).

A third line of literature examines how fiscal fundamentals interact with monetary policy, market structure, and financial linkages in shaping sovereign bond risk. Event study analyses for the euro area suggest that unconventional monetary policy announcements have had powerful spread compressing effects, while fiscal

announcements mattered mainly when they signalled credible, sizeable transfers rather than additional borrowing, raising questions about the relative roles of monetary and fiscal authorities in stabilizing sovereign bond markets (Havlik et al., 2022). Other studies map the evolving connections between sovereign credit risk and broader financial markets, documenting clusters of research around determinants, pricing interactions, and contagion channels, and pointing to new themes such as climate related exposures and the role of sovereign risk in global financial networks (Bajaj et al., 2022). Overall, the literature points to a complex and time varying relationship between sovereign bond market risks and fiscal fundamentals, with substantial heterogeneity across country groups and crisis episodes. This motivates a systematic literature review that synthesizes recent evidence, compares methodologies and samples, and identifies the conditions under which fiscal fundamentals exert the strongest influence on sovereign bond risk.

3. Methods

This study uses a systematic literature review approach to identify and synthesize recent evidence on the relationship between sovereign bond market risks and fiscal fundamentals. The review focuses on peer reviewed journal articles published between 2019 and 2023. Relevant studies were searched using combinations of keywords related to sovereign bonds, yields, spreads, credit default swaps, sovereign risk, fiscal fundamentals, public debt, deficits, fiscal space, and fiscal rules. Searches were carried out in major academic databases, and the results were filtered to include only articles written in English and subject to peer review.

After removing duplicates, titles and abstracts were screened to exclude studies that did not examine sovereign bond market risk or did not include fiscal indicators. Conceptual papers, policy reports, books, and non-refereed working papers were excluded to maintain consistency in research quality.

Articles that passed the initial screening were read in full to confirm their relevance. A simple data extraction template was used to record information on country or region, sample period, measures of sovereign risk, fiscal variables, empirical methods, and main findings. The selected studies were then analyzed in two steps. First, a descriptive overview summarized the distribution of research by year, region, and type of sovereign risk measure. Second, a thematic synthesis grouped the evidence according to key topics, such as the role of debt and deficits in normal times, the interaction between fiscal fundamentals and global shocks, and the influence of policy interventions and financial linkages. This procedure provides a transparent basis for comparing findings across studies and for identifying gaps that warrant further research.

4. Results and Discussion

The results of the review show that the post 2019 literature largely confirms a positive association between weaker fiscal fundamentals and higher sovereign bond market risk, but with important nuances. Across most empirical studies, higher public debt, persistent primary deficits, and worsening fiscal forecasts are associated with wider sovereign spreads or higher credit default swap premia, particularly in countries that already face elevated debt ratios or weaker growth prospects

(Ciżkowicz et al., 2022). At the same time, several contributions highlight that markets also react to the quality and credibility of fiscal adjustment strategies. Evidence from structural and model-based analyses suggests that well designed consolidations that are perceived as durable can reduce spreads and improve debt dynamics, whereas consolidation attempts that are pro cyclical or poorly communicated may have limited or even adverse effects on borrowing costs (Anzoategui, 2022). These findings indicate that sovereign bond markets price not only current fiscal indicators but also expectations about the future path of fiscal policy and the broader macroeconomic environment.

The review also underscores the central role of fiscal space in shaping the sensitivity of sovereign risk to large shocks, most clearly during the COVID 19 pandemic. Studies for advanced economies show that sovereign credit risk responded more strongly to pandemic related growth and consumption shocks in countries that entered the crisis with limited fiscal buffers, higher debt, or weaker pre crisis fundamentals, while countries with larger fiscal space experienced smaller increases in spreads for a given deterioration in activity (Augustin et al., 2022, Hao et al., 2022). For emerging markets, panel evidence on sovereign spreads and credit default swap premia indicates that epidemiological variables, commodity dependence, and global risk factors amplify sovereign risk primarily where fiscal space is constrained and policy responses are perceived as insufficient to stabilize incomes and demand (Bizuneh & Geremew, 2021, Daehler et al., 2021). Complementary work using micro level trading data shows that informed investors adjust their positions based on country level fiscal capacity, with short sellers

concentrating on firms in fiscally constrained jurisdictions at the onset of the pandemic (Greppmair et al., 2023). Together, these results suggest that fiscal fundamentals and fiscal capacity act as key transmission channels from real shocks to sovereign borrowing costs.

A further set of studies emphasizes how institutional frameworks and market interconnectedness shape the relationship between fiscal fundamentals and sovereign risk. Evidence on fiscal tensions and risk premia indicates that markets react not only to the level of debt and deficits but also to deviations from fiscal rules, weaker enforcement, and slippages from medium term plans, which are interpreted as signals of reduced fiscal discipline (Ciżkowicz et al., 2022). Work on the euro area during the pandemic shows that unconventional monetary policy announcements had strong spread compressing effects, while fiscal announcements reduced borrowing costs mainly when they signaled credible transfers or risk sharing rather than higher issuance, implying that monetary and fiscal policies interact in determining sovereign spreads (Havlik et al., 2022). Studies using spillover and network approaches document that sovereign bond markets have become more tightly integrated, with yield shocks transmitting across countries and maturities and with contagion intensifying during the COVID 19 period (Bostancı & Yilmaz, 2020; Rout & Mallick, 2022). Bibliometric analyses reinforce this picture by revealing clusters of work around determinants, financial linkages, and crisis episodes, and by pointing to emerging themes such as climate related exposures and the interaction between sovereign risk and banking sector stability (Bajaj et al., 2022).

Overall, the evidence reviewed points to a complex, state dependent relationship between fiscal fundamentals and sovereign bond market risks. Traditional indicators such as debt and deficits continue to matter, but their impact on spreads is amplified or dampened by fiscal space, the design and credibility of adjustment strategies, the strength of fiscal institutions and rules, and the broader monetary and financial environment. The sensitivity of sovereign risk to fundamentals appears to increase in periods of stress, when fiscal buffers are limited and global risk aversion is high, and to be mediated by increasingly dense cross border financial linkages. At the same time, the literature remains uneven across regions, with relatively fewer studies on low income and frontier markets, limited integration of new dimensions such as environmental, social, and governance factors, and substantial methodological heterogeneity in how fiscal fundamentals and sovereign risk are measured. These gaps suggest fruitful avenues for future research, including more granular analyses of domestic investor bases, the role of fiscal transparency, and the interaction between sovereign risk, banking sectors, and climate related shocks.

5. Conclusion

The review concludes that fiscal fundamentals remain central to the pricing of sovereign bond market risks, but their effects are far from mechanical. Debt levels, deficits, and fiscal balances are consistently associated with higher spreads and credit risk, particularly when they signal deteriorating fiscal space or are accompanied by weak growth prospects and fiscal tensions. At the same time, markets appear to

reward credible and well communicated adjustment strategies and robust fiscal institutions, suggesting that expectations about the future path of policy and the quality of governance are as important as current headline indicators. In periods of stress, such as the COVID 19 pandemic, limited fiscal buffers and doubts about fiscal capacity magnify the impact of macroeconomic shocks on sovereign borrowing costs, while countries with stronger fiscal positions can deploy countercyclical policies without triggering the same degree of market pressure.

The findings also highlight the growing importance of financial integration, policy interaction, and state dependent dynamics. Sovereign bond markets are increasingly interconnected, with shocks in one jurisdiction propagating through portfolio and network channels, and the response of spreads reflecting not only domestic fundamentals but also global risk sentiment, unconventional monetary policy, and perceptions of risk sharing. This systematic literature review contributes by organizing dispersed evidence published between 2019 and 2023 into coherent themes, clarifying where results converge and where they differ, and identifying the conditions under which fiscal fundamentals exert the strongest influence on sovereign risk. Future research can build on these insights by extending coverage to low income and frontier markets, examining the role of fiscal transparency and domestic investor bases, and integrating new dimensions such as climate related exposures and banking sector linkages into the analysis of sovereign bond market risks and fiscal fundamentals.

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