82107tng Doctorate Thesis

Title:
Merchandise Trade Openness, Export Competitiveness, Bilateral Trade Agreements and Public-Private Partnerships for Infrastructure Development

Revisiting Sovereign Debt Sustainability in Low- and Middle-Income Countries

Abstract:

The Sustainable Development Goals (SDGs) have gained increasing attention among development economists and practitioners since their establishment in 2015. At global scale, trillions of US dollars each year are required to achieve the SDGs. At the national level in low-income countries, accomplishing the SDGs related to poverty, health and education requires, on average, some US $148 billion annually. It is worth noting that these estimations were calculated in the context of pre-pandemic scenarios and without consideration of the current international geopolitical tensions and conflicts. This means that the calculations likely underestimate the actual financial requirements to achieve the Goals.

This dissertation argues that these underestimations have at least three origins. Firstly, compared to the initial, pre-pandemic calculations, current global economic conditions and the geopolitical context further exacerbate upward pressures on government expenditures. This applies especially to low- and middle-income countries, and all volatile economies, as they are among the hardest hit by the pandemic's consequences and geopolitical uncertainties. They, especially, are in need of financial resources for pandemic-related social welfare and economic recovery programmes.

Secondly, domestic economic performance and export activities in low- and middle-income countries have been detrimentally affected by lingering impacts of the pandemic, as well as by the increasing uncertainty in the global economy. Indeed, the disruptions in global value chains that were pervasive during the pandemic, and lasted up until recently, have caused severances in international trade. These ruptures have resulted in sharp and at times sudden reductions in the export revenues of low- and middle-income countries. Such diminishment of export revenues increases trade deficits, contributing to a deterioration of sovereign solvency in these economies, as less foreign exchange is generated to finance domestic spending and external debt repayments.

Thirdly, recent years have witnessed increasing outflows of international capital from low- and middle-income countries to the stylized 'safer heavens', such as government bonds of the United States and different types of bonds issued by other advanced economies in the Western hemisphere. These outflows lead to severe shortages of financial resources for domestic investment and development in low- and middle-income countries. This situation immediately worsens economic performance in these poorer economies, affecting their export activities. Furthermore, increasing upward pressures are imposed on these countries' fiscal positions, necessitating further external public borrowing to make up for the financial shortages rooted in capital outflows. In worse-case scenarios, these outflows increase the interest rates that borrowers in low- and middle-income countries must pay for credit, thus multiplying insolvency risks.

Recent empirical data shows that public debt reached a historic high in 2020 – the year of the Covid-19 pandemic outbreak – and has risen further since. It is evident that the magnitude of the pandemic's effects on public indebtedness has been more robust and sizable for the 'less developed economies', especially countries whose export revenues are more dependent on natural endowments. This effect, alongside the three aspects discussed above, collectively increases the reliance of low- and middle-income countries on external loans and puts developing countries in riskier positions with regard to sovereign insolvency at national and international levels.

With this in mind, the current dissertation argues that now is the time to revisit analysis of the interactions between merchandise trade openness, industrial employment and manufacturing exports, bilateral trade agreements and infrastructure development, and the sustainability of public external debt in low- and middle-income countries. In the current global climate, interest in this research area is re-emerging among macroeconomists, development economists and other stakeholders, such as sovereign borrowers, creditors, investors and policymakers. Rigorous examination of these interactions in the context of low- and middle-income countries will provide a more up-to-date and insightful understanding of the risks to sovereign solvency in these economies. This understanding is particularly important in relation to low- and middle-income countries, as their economies are particularly affected by exogenous shocks from the global economy, and they may face severe fiscal constraints due to slowdowns of domestic economic activity and an adverse external environment.

To address these concerns, the dissertation employs a range of econometric methodologies which have been widely used in studies with panel datasets. The aim of the dissertation is to make significant contributions to the related theoretical and empirical literature. Additionally, findings from the analysis feed into evidence-based recommendations for designing and implementing more effective and sustainable external debt policies. These will be of value both for policymakers in low- and middle-income countries and for international creditors.

Overall, the dissertation is organized into six chapters as follows. Chapter 1 introduces the contextual backbone on which the dissertation is constructed. This chapter critically reviews the existing literature and offers a comparative analysis of past waves of sovereign insolvency. The critical review of historic sovereign insolvencies, despite numerous policy interventions and advice from foremost international institutions, sheds light on why and how external debt may still face risks nowadays. The chapter also addresses remedies that sovereign borrowers and creditors can implement to avoid the disruptive consequences that sovereign insolvency brings. The chapter's examination of internal and external risks to the sustainability of public debt in developing countries draws on the thorough discussions provided by previous studies. Based on those analyses, the chapter defines research gaps regarding sovereign debt sustainability in low- and middle-income countries, which is becoming a more urgent issue in the current global economic and geopolitical context. Then, the chapter presents four research questions, which are delved into in the four main empirical chapters of the dissertation. In this first chapter, each research question is briefly introduced, alongside the related datasets and econometric methodology employed. Expected results that form the basis for policy recommendations on each respective topic are also presented.

Chapter 2 investigates the relationship between merchandise trade openness and dependence on external public debt in low- and middle-income countries. Theoretically, higher merchandise trade openness improves sovereign solvency by creating a stable, sustainable and competitive supply of foreign exchange. Employing panel vector autoregression on a dataset of 55 low- and middle-income countries from 2000 to 2019, the chapter finds that merchandise trade openness indeed reduced dependence on external public debt in low- and middle-income countries. Impulse-response functions indicate that the found effects were valid in the short term and then phased out in the second year. These findings highlight the importance of specialized international trade with more highly developed partners to promote sovereign solvency and external debt sustainability in low-income countries. Additionally, the chapter shows that an aging population is problematic for public external debt, regardless of the country's development level. These results, furthermore, are found to be robust across different datasets and using alternative regression techniques.

Chapter 3 addresses the latest concerns of researchers and practitioners on external debt sustainability in relation to appropriate industrialization. The chapter is based on previous studies' conclusion that appropriate industrialization strategies can improve the solvency positions of low- and middle-income countries with limited capital and technological capabilities. Regressing on a panel dataset of 77 low- and middle-income countries from 2000 to 2017, the chapter finds the presence of sub-optimal labour allocations and a potential low quality of industrial employment to be negatively correlated to external debt sustainability in these countries. The magnitude of the effect of manufacturing exports on debt sustainability doubles when sub-Saharan

African countries are removed from the analysis. The chapter also finds a significant linear condition for external debt sustainability in low- and middle-income countries; that is, the share of manufacturing in their export portfolio should be in the range of 10.66% to 43.74%. Moreover, loans from non-Paris Club creditors are found to significantly reduce the external debt sustainability of low- and middle-income countries. These findings remain robust using alternative econometric methods and sample variations.

Chapter 4 provides an extensive analysis of the relation between trade openness and external debt sustainability via a bilateral trade agreement. The rationale of this approach is to further explore how an official bilateral mechanism in international trade might affect economic growth and government solvency, especially in the context of emerging markets and developing countries. More specifically, this chapter empirically examines the impact of joining a free trade agreement with a more highly developed partner on a country's fiscal capability. Using plausibly causal estimates based on a synthetic control method analysis, the chapter finds that the Vietnam–Korea Free Trade Agreement helped Vietnam to borrow more from the Republic of Korea. The agreement also helped Vietnam become less reliant on external borrowing from other international lenders. These results remain robust when changing the pool of control countries. Findings echo the literature on the positive role of free trade agreements in enhancing low- and middle-income countries' external borrowing capability, especially due to the lending role of direct partners, which is essential for low- and middle-income countries to finance growth targets and to enhance resilience in the face of global economic volatilities.

Chapter 5 examines the relationship between external debt, re-election limits and infrastructure development via public-private partnership, again using evidence from low- and middle-income countries. Indeed, recent years have witnessed increasing demand worldwide for infrastructure development via public-private partnerships. Meanwhile, concerns have been raised on the effectiveness and efficiency of public-private partnership projects, especially in low- and middle-income countries. Empirical data point to numerous cases of failure in implementing public-private partnerships, resulting in detrimental consequences for economic performance, fiscal balance and sovereign solvency, alongside a rising trend of failures of such projects in these economies. This chapter centres on the argument that governments may use public-private partnership in infrastructure development as an 'off-the-balance-sheet' tool to conceal real fiscal problems and to facilitate the transfer of debt repayment obligations to succeeding administrations. Using negative binomial regressions on a panel dataset of 40 low- and middle-income countries from 1992 to 2021, the empirical analysis finds that governments with high short-term external debt, measured in both stocks and flows, were more motivated to participate in public-private partnerships. Furthermore, the results were robust across sensitivity tests using different sample datasets. These findings reaffirm the existence of fiscally opportunistic behaviours of public sectors in public-private partnerships in low- and middle-income countries. Results also indicate that governments that face re-election limits are more strongly motivated to implement infrastructure projects via public-private partnership. These impacts were found to be stronger in less-developed economies and in sub-Saharan Africa, leading to insightful recommendations on the heterogeneity of motivations for public-private partnership with respect to countries' levels of development and geographic setting.

The final chapter recaps the conclusions of the four main chapters with reference to the current global economic conditions and geopolitical uncertainties. The discussion's main focus is the role of trade openness and public debt. The chapter also highlights salient contributions of the research to the theoretical and empirical literature. Against this backdrop, the final chapter offers key policy recommendations for borrowing countries, creditors and other related stakeholders to ensure public external debt sustainability in which trade openness and appropriate industrialization strategy play a crucial role.