

Delving deeper into the food security- development finance-governance quality nexus in Sub-Saharan Africa



Introduction

The Sustainable Development Goal 2 (SDG-2) to “end hunger, achieve food security and improved nutrition and promote sustainable agriculture” (Rosa, 2017) has received a lot of attention in recent years as part of the 2030 Agenda. The post-2015 SDG-2 commitments towards achieving Zero Hunger by 2030 has increased aggregate foreign capital flows into the Sub-Saharan Africa (SSA) region, especially development aid, to support developmental projects and humanitarian relief (OECD, 2021). At the same time, however, recent years have witnessed a significant rise in the number of food insecure and malnourished people in the region. In particular, the prevalence of undernourishment in the region is the highest in the world, rising sharply from 17.6% in 2014 to 19.1% in 2019, more than twice the average in the rest of the world (FAO et al., 2020). More recent reports in the aftermath of the pandemic clearly suggest more alarming trends in food insecurity not only at the global level but also in the context of the SSA region with global hunger still far above pre-pandemic levels and 122 million more people than before the pandemic (FAO et al., 2023). Needless to say, apart from global hunger, recent malnutrition estimates at the global level in 2022 are very alarming and an estimated 148.1 million children under five years of age (22.3 percent) were stunted, 45 million (6.8 percent) were wasted, and 37 million

(5.6 percent) were overweight, with undernourishment rates at 19%, the highest in the world, for the Africa region (FAO et al., 2023). Furthermore, non-inclusive growth in SSA increases further food insecurity and nutrition inequities in the region (Gordon, 2022) and workers may be faced with months of unpaid salary arrears or poor minimum wages due to bad governance (Reeves et al., 2021), thus, leading to a reduction in household food access. Finally, the overall relationship between governance quality and its interaction with various capital flows is crucial regarding the final impact on the food and nutrition insecurity front in the region (Dhahri and Omri 2020; Ogunniyi et al. 2020). It is also important to stress that many SSA countries are highly dependent on imported staple crops and agricultural inputs, which further expose the region to higher food and nutrition insecurity due to the global food supply chain disruptions created by the pandemic and the ongoing Ukraine war following the invasion of Russia to Ukraine in February 2022 (IFPRI, 2022; Kaiser, 2022). Against this background, recent IOB published research (Cassimon, Fadare and Mavrotas 2021, 2022, 2023) has been instrumental in contributing to the growing literature on food security in the developing world in the post-pandemic era, with a particular focus on the SSA region.

About this research

In a paper published in the *Review of Development Finance* (Dec. 2021), the authors estimate a series of static panel data models using data for 25 SSA countries and disaggregated foreign capital flows in various types along with a series of governance indicators in order to examine the impact of development finance on food and nutrition security in the region. In another study by the same authors published in *PLoS ONE* journal in October 2022, they estimate a series of dynamic panel data models to examine the impact of institutional quality and capital flows on food security, nutrition security and undernourishment this time, by using panel data for 25 SSA countries over the period 1996 to 2018. Finally, in another paper published in *Sustainability* in 2023, the authors focussed on the same group of countries in SSA employing again dynamic panel data analysis, but this time with particular emphasis on the role of food aid in affecting food and nutrition security in the region. One of the key contributions of this research is the use of both aggregate and disaggregated capital flows to examine the impact on both food and nutrition security, a dimension that has been surprisingly neglected in most of the relevant literature. They combine this with the interaction of various types of capital flows with an institutional quality index they constructed from various governance indicators to examine the impact of institutions on the overall nexus. Another important contribution of the above research was to consider not only the impact on food and nutrition security but also on undernourishment, thus providing a more detailed analysis in terms of impact for a variety of food and nutrition outcomes.

The link between institutional quality, capital flows, and food and nutrition security remains a complex one (Dhahri and Omri, 2020). Previous studies examining this relationship have shown notable variations in findings due to different types of capital flows employed in the analysis and the measures of food and nutrition security used. Some studies have used a composite indicator that synthesizes three main indicators used by the FAO to measure food and nutrition security, while others have employed a composite indicator to measure governance quality (Ogunniyi et al., 2020). Furthermore, in most of the relevant literature, the components of institutional quality are not considered as inputs into food and nutrition outcomes, thus paying little attention to the conditional hypothesis which suggests that foreign aid may affect food security only in countries with good governance, in the light of a substantial aid effectiveness literature linking foreign aid to governance quality in aid-recipient countries. Against this background, in addition to the methodology adopted in the *Review of Development Finance* paper in 2021, in subsequent papers in *PLoS ONE* and *Sustainability*, respectively, the authors also employ a dynamic estimation methodology in the form of Difference-GMM and System-GMM estimators along with various misspecification diagnostics to deal with possible endogeneity issues.

In the paper published in *Sustainability* (2023) the authors contribute to the relevant literature on the subject in a number of ways. Firstly, they examined the impact of food aid and governance quality (the latter disaggregated in different components) on both food and nutrition security in the SSA region and for a sample of 25 countries over the period 1996 to 2018. Similarly to the econometric methodology employed in the *PLoS ONE* paper, they used dynamic panel data modelling in the empirical analysis, which is appropriate for estimating long term effects. In doing so, the paper contributes to the relevant literature by providing macro-level evidence in the SSA region to complement country-specific evidence. They also used different food and nutrition security outcome measures, which include the average value of food production (AVFP), average dietary energy supply adequacy (ADESA), and prevalence of undernourishment. Finally, they combine the above with the use of both aggregated and disaggregated governance indicators. They find evidence of a robust positive relationship between food aid, governance quality, and food and nutrition security outcomes by employing the dynamic generalised method of moments (GMM) estimator. In particular, they find that food aid increases AVFP and ADESA while it reduces undernourishment. Among the various governance quality indicators they have employed, the control of corruption and political stability show a significant positive relationship with the measured outcomes. However, the composite governance index and food aid jointly have no significant effect on AVFP, but they significantly increase ADESA and reduce undernourishment across the various empirical models they have employed in the empirical analysis.

Research publications on which this Analysis and Policy Brief is based

- Cassimon D., O. Fadare, and G. Mavrotas (2021). [Development finance, governance quality and their impact on food and nutrition security in Sub-Saharan Africa](#). *Review of Development Finance* 11(2):1-7.
- Cassimon, D., O. Fadare, and G. Mavrotas (2022). [The combined effect of institutional quality and capital flows on food and nutrition security and undernourishment in Sub-Saharan Africa](#). *PLoS ONE* 17.
- Cassimon D., O. Fadare, and G. Mavrotas (2023). [The impact of food aid and governance on food and nutrition security in Sub-Saharan Africa](#). *Sustainability* 15(2).

Key messages and recommendations

- The findings clearly demonstrate the **importance of the heterogeneity approach in development finance** and reflect on earlier work regarding **the role of institutional quality in the overall nexus between external capital flows and various measures of food and nutrition security** which leads to an interesting variation in the results obtained, depending on the type of capital flows and the interaction with the governance indicators. This is certainly a very promising area for further future research so more insights can be added on the above important nexus which has surprisingly not received the attention it deserves for many years.
- In the aftermath of the unprecedented Covid-19 pandemic it is imperative for the international development community to make a huge effort to intensify progress on the food & nutrition security front in the coming years and in order to compensate for the substantial progress made so far on this front, and which was undermined by the pandemic recently. The above research work help us to delve a little deeper into the important range of factors affecting food and nutrition security (and undernourishment) in the SSA region with some significant policy lessons emerging from the analysis, which include among others the **centrality of quality of governance and its interaction with various types of capital flows in influencing final outcomes**. And this seems to suggest that it is not so much the magnitude of the capital flows but their interaction with the levels of governance quality which needs to attract the particular attention of policy makers in order to enhance further food and nutrition security in the region.
- Finally, **an important policy lesson emanating from the empirical findings is that controlling corruption and maintaining political stability may have significant implications for enhancing the impact of food aid on food and nutrition security in the region**. This is an important research and policy area that requires further future research in order to delve deeper into the mechanisms through which the combined effect of food aid and governance quality on food and nutrition security operates at both the macro and micro levels.

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