Institut d'Etudes Politiques de Paris

ECOLE DOCTORALE DE SCIENCES PO

Programme doctoral Economie des relations internationales

Groupe d'Economie Mondiale à Sciences Po (GEM)

Doctorat en Sciences économiques

LONG SUMMARY

Trade policies and agriculture in Sub-Saharan Africa

Comparative analysis in a Computable General Equilibrium framework

Mathilde Douillet

Thèse dirigée par Antoine Bouët

Soutenue le 22 juin 2012

Mention: Très honorable avec félicitations du jury

Jury :

M. Antoine Bouët, Professeur des Universités à l'Université Montesquieu Bordeaux IV, Senior Research Fellow at International Food Policy Research Institute

M. Jean-Christophe Debar, Directeur de la Fondation pour l'Agriculture et la Ruralité dans le Monde

M. Pierre Jacquet, Chef économiste, Agence Française de Développement

M. Will Martin, Directeur de Recherche, Agriculture et Développement Rural, Groupe de Recherche sur le Développement, Banque Mondiale (rapporteur)

M. Alan Matthews, Professeur Emérite au Trinity College Dublin (rapporteur)

M. Thierry Mayer, Professeur des Universités à Sciences Po (président du jury)

This doctoral research takes some initial steps towards a comparative analysis of the impacts of trade and agricultural policies in Sub-Saharan Africa from a policy coherence for development point of view. The framework is established in the general introduction by a review of the policies implemented in Sub-Saharan Africa linking them to the history of economic thought. The debates on the role of agriculture for development and on the use of public intervention and trade policies to promote development strategies are explored, with no pretention to settle them. Rather, the need for prioritizing potential policy reforms based on their impacts on agriculture and economic growth is highlighted. The choice of this research is to focus on comparative ex-ante analysis of the trade options for Sub-Saharan African countries with a framework enabling to follow the multi-sectoral growth linkages using computable general equilibrium model.

Chapter I illustrates some stylized facts on Sub-Saharan African agricultural trade trough key indicators and highlights the main challenges and opportunities stemming from the changes in the global agricultural markets and the trade agreements currently negotiated, laying the ground for the empirical questions studied in the following chapters. Sub-Saharan African region appears to be more trade dependent than the rest of the world, especially of agricultural trade in the case of countries that are not resource-rich. Hence the new context of higher and more volatile agricultural prices is a matter of concern particularly for the poorest Sub-Saharan African countries that are the most vulnerable. Prospects for tariff and non tariff barriers reduction still arise both from regional and multilateral trade liberalization. Despite the little support from the economic literature until now, there is a new economic rationale to regional economic integration in Africa to respond to the increasing regional demand and shelter from the global economic crisis.

Chapter II shows that the global CGE framework provides a useful way to compare different trade policy reforms, in terms of their impacts on gross domestic product and welfare but also in terms of sectoral growth distribution. In Chapter III the framework is adapted to more closely examine the question of the distributional impacts of trade policies based on the hypothesis that the pattern of trade integration chosen will affect the reduction of poverty through the structure of growth. The methodology chosen is to transmit the shocks of the global trade reforms modeled through a global CGE model to a single country CGE linked

with household data. The case study chosen is Malawi, a landlocked resource-poor populous country with favorable agricultural potential, where the main export crop, tobacco, is grown by all types of farmers. Based on the analysis of the trade opportunities for Malawi, it examines how different trade policy reforms by Malawi and the rest of the world would impact poverty in Malawi, and compares the growth and poverty effects with those of increasing productivity in agriculture.

The most important result of the dissertation comes from the finding of that economic integration at the regional level could bring substantial gains to Sub-Saharan Africa:

Global simulations in chapter II find that for Sub-Saharan African countries as a whole an ambitious regional trade integration could deliver as much as multilateral integration in terms of, welfare growth (defined as equivalent variation of the utility of the representative agent), and agricultural exports volumes. In chapter III, overall growth and poverty reduction effects are found larger with multilateral integration than regional integration, but the latest offers a relatively more balanced poverty reduction of the poorest and smaller scale farmers that produce a larger share of the staple crops traded regionally. But the comparative strength of the growth impacts, especially the higher impacts of multilateral integration is found to be significantly dependent on the assumptions of the model. Given the simplifying theoretical assumptions and missing and uncertain data, the main interest of these results is to comfort the intuition from the analysis of chapter I that economic gains from regional integration are far from being negligible and could under some assumption be equivalent to that of multilateral integration.

In both chapters II and III the multilateral integration scenarios are found to encourage further specialization of the Sub-Saharan African region in the export of unprocessed agricultural products. This trend is not coherent with the view that countries in SSA should not only diversify their export products and destinations, but also capture more value-added on their exports. On the contrary, deeper regional integration is found to foster the processing of agricultural exports. Similarly in chapter III multilateral integration induces Malawi to further specialize in the production and exports of tobacco since it is one of the only good for which the country is competitive at the global level. Malawi is found comparatively more likely to exports a larger range of goods thanks to new market access at the regional level than at the global one. This outcome is driven by the initial trade patterns and the relative competitiveness of other exporters granted the same market access. Those results imply that in order for a multilateral integration, even preferential such as the generous Duty Free Quota

Free to be coherent with the stake of agricultural-led industrialization, countries in SSA need to first increase their competitiveness. Regional integration could be a way to do so, since it would enable most countries to combine increased exports volume and increase transformation of agricultural exports and enable learning by doing.

The second important result of the dissertation is that the gains from trade reforms are bound to be unequally distributed, and are not likely to benefit to the poorest. At the country level, chapter II draws attention to the fact that trade liberalization gains are highly concentrated on a few countries, often the most competitive ones such as South Africa and Nigeria. Looking at the household level impact in Malawi, chapter III shows that growth generated by trade policies favors the households more linked to the markets and dedicating larger land to the exported crop, which are the larger-scaled ones, despite the fact that in Malawi even the poorest households grow the export crop tobacco. This is all the more apparent when comparing the distributional impacts of the trade integration possibilities with agricultural policies stimulating agricultural productivities. Compared with agricultural policies, trade policy reforms are found to generate large poverty reduction effects from growth. But since their overall growth effects depends on the capacity of Malawi to take advantage of the new market access brought by trade integration, and the only crop for which the country is competitive at the global level is tobacco, overall growth effects from trade policy reforms are found much lower than with agricultural policies directly aimed at increasing agricultural productivity. It is expected that the differences in the distributive impacts found between trade and agricultural policies would widen if factors were less mobile and producers adjusted less in real life than in the main simulation.

Hence, even though those specific results of this dissertation are surrounded by the uncertainty linked to the data and the assumptions of the model, the general implication is that not all policy reform is equally good to reduce the poverty of the poorest medium and smaller scale farmers which make up most of the poors and vulnerable in Sub-Saharan Africa.