

AGRODEP BULLETIN

AFRICAN GROWTH AND DEVELOPMENT POLICY (AGRODEP) MODELING CONSORTIUM

IS THE AFRICAN GROWTH MIRACLE SUSTAINABLE?

While in 2000 Africa appeared as the hopeless continent (The Economist, 2000) its economic and development performance since has been impressive. The average growth rate of GDP per capita and in volume in Sub-Saharan Africa has been around 3% since 2000, after being negative during the 1980s and the 1990s. Extreme poverty has declined from 58% in 2000 to 48% in 2010. Infant mortality has also been reduced significantly. According to Young (2012),¹ real consumption in Africa has grown by 3.5% per year on average during the last two decades, much more rapidly than indicated in international datasets. Is there in fact an African growth miracle occurring? A couple of papers look at this key issue.

Mc Millan and Harttgen (2014)² show how Africa's recent outstanding economic performance can be traced to

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a significant reduction in the share of the labor force working in the agricultural sector. This conclusion corresponds to an old economic idea. In 1979, Arthur Lewis and Theodore Schultz received the Nobel Prize

for their work on the dual economy model, which characterizes many

developing economies: (i) productivity is persistently low in agriculture; this is a fundamental cause of poverty; (ii) when non-farm employment expands enough, migration from rural to urban areas occurs and agricultural productivity increases.

Mc Millan and Harttgen combine data on employment shares with data on value-added for a sample of 19 African countries and find that the share of the labor force in the agricultural sector decreased by 10.6% between 2000 and 2010, while the share of labor force in the service

AGRODEP is a Modeling

Consortium of African researchers living and working in Africa with research interests ranging from economic modeling to regional integration and development to climate change, gender, poverty, and inequality.

There are currently 147 members from 27 countries; our members work at top research institutions and universities in their own countries as well as various government agencies and non-profit organizations.

The benefits of being an AGRODEP member include opportunities for research grants, free access to cutting-edge economic research tools, data, and training. Members also gain access and exposure to large global networks of economic researchers and experts. [Click here to learn more.](#)

¹ Young, A., 2012, The African Growth Miracle, *Journal of Political Economy*, 120 (August): 696-739.

² McMillan M. and K. Harttgen, 2014, What is Driving the 'African Growth

Miracle'?, NBER Working Paper Series, WP 20077, 1-38.

sector (respectively, the manufacturing sector) increased by 8.2% (respectively, 2.2%). These results are confirmed when calculations are based on other databases like the Demographic and Health Surveys.

This evolution of agricultural employment can be explained by several factors. First, it may be related to a significant (albeit slow) increase in agricultural productivity. Second, population growth in rural areas has started to slow compared to urban areas. Third, there are fewer civil wars and armed conflicts, as documented by Strauss (2012).³ This increased security may encourage more rural-urban migration. The roles of the augmented quality of governance and increased agricultural and non-agricultural commodity prices are less clear. In particular, higher agricultural prices may make agricultural farming more profitable, therefore reinforcing the attractiveness of the sector.

Rodrik (2014)⁴ makes the same observation about Africa's outstanding economic performance between 2000 and 2014 but questions its sustainability. He also examines how this performance corresponds to structural evolutions.

According to neo-classical growth theory, a country's long-run income level depends on specific factors, which growth theory calls "growth fundamentals". These include investment levels, human capital, and sound macroeconomic policies. Acemoglu et al. (2014)⁵ believe that these specificities are determined by the quality of a country's institutions. If this view is correct, the African miracle can be explained by the policy reforms undertaken during the 1990s: liberalization of agricultural markets, trade openness, and adoption of sound macroeconomic policies like better management of exchange rates and of monetary policies. Moreover, Africa's political institutions have improved significantly, as pointed out by various indicators like Polity 2 (see the Polity IV project). According to this view, Africa's current growth is sustainable in the sense that sufficient reforms have already been undertaken in many countries and should lead the continent to high incomes in the long run.

However, Rodrik questions this view. Better macroeconomic management coupled with improved political institutions may result in (sustainable) slow growth if these

reforms are not accompanied by a structural transformation of the economy. In order to stimulate rapid and sustainable economic growth, an economy needs a deeper transformation because there exists a major dispersion in productivity across economic activities. According to dual-economy models, developing economies are split into modern versus traditional sectors, formal versus informal sectors, and traded versus non-traded sectors. Traditionally economies engaged in rapid and sustainable economic growth have seen a major reallocation of the labor force from the agricultural sector to the industrial one. But this is not what has happened in many African countries, since the decline of the labor force benefits the services sector much more than the industrial one. According to Rodrik's view, better economic governance and political institutions are not sufficient to sustain Africa's current growth. To initiate rapid and sustainable economic growth, African countries need to either engage in successful industrialization or invent a new model, based on modern agriculture, increased productivity in services, or exploitation of natural resources.

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³ Strauss S., 2012, Wars do end! Changing Patterns of Political Violence in Sub-Saharan Africa, *African Affairs*, 111/443, 179-201.

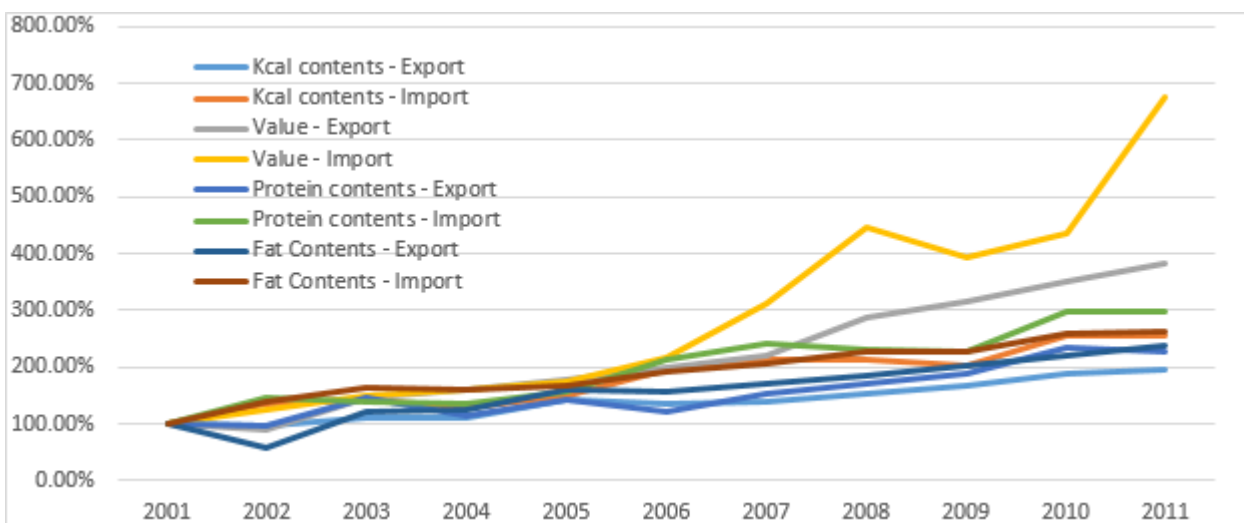
⁴ Rodrik D., 2014, An African Growth Miracle?, presentation at the R.H. Sabot Lecture, April 24th, 2014, CDG, Washington D.C.

⁵ Acemoglu, D., Naidu, S., Restrepo, P., and Robinson, J. (2014). *Democracy Does Cause Growth*. NBER Working Paper. Cambridge, MA: National Bureau of Economic Research.

DATA

Recent Statistics about Africa

Figure 1: Evolution of African Countries' Agricultural Exports and Imports, 2001-2011 (Different Weights)



Source: Laborde D., and L. Deason, 2014. Trade and Nutritional Contents, IFPRI, mimeo.

This figure indicates the evolution of African agricultural exports and imports between 2001 and 2011. These global trade flows are presented either in nominal value or in terms of nutritional contents (calories/fats/proteins). In value, imports have increased much more rapidly than exports. This reflects different phenomena, in particular a higher economic growth and a higher demographic growth in Africa during this period of time. The figure also illustrates a diversification in food demand since African imports increase more rapidly when they are viewed in terms of protein contents.

WEBSITE UPDATES

Member Profiles Updated

The AGRODEP management team has recently asked members to include their CVs on their AGRODEP web profiles, as well as links to their Google Scholar and Research Gate accounts. These updates will allow members to more easily network and collaborate with their colleagues both within and outside of AGRODEP. Additionally, they will provide important metrics regarding members' publications and citations. Profiles have been updated by the AGRODEP web team.

AGRODEP AT 2014 GTAP CONFERENCE

Members to Attend, Present

The 2014 GTAP Conference, co-organized by AGRODEP and the Center for Global Trade Analysis, will take place Jun 18-20. Thirty AGRODEP members and affiliate members will attend the event, with 16 selected to present their work. The AGRODEP Training Course on "Advanced CGE Modeling: PEP and IFPRI Models" will be held in tandem with the conference, with 15 members currently slated to attend.

NEW AGRODEP PUBLICATIONS

Latest Working Papers and Technical Notes

AGRODEP recently released three new Working Papers.

"Investigating the Impact of Climate Change on Agricultural Production in Eastern and Southern African Countries", by Mounir Belloumi of the University of Sousse, examines the effects of changes in precipitation and temperature on agricultural production in 11 Eastern and Southern African countries. "Investigating the Linkage Between Climate Variables and Food Security in ESA Countries", also by Mounir Belloumi, looks at the impact of precipitation and temperature on Eastern and Southern Africa's food production index, child mortality rate, and life expectancy at birth. "Post-Liberalization Markets, Export Firm Concentration, and Price Transmission Along Nigerian Cocoa Supply Chains", by Joshua Olusegun Ajetomobi of the Ladoké Akintola University of Technology, examines the pricing behavior of three major Nigerian export firms in the post-liberalization period. Read the entire [Working Paper series](#).

A new Technical Note was also released in April. "On the Estimation of Supply and Demand Elasticities of Agricultural Commodities", by Fabio Gaetano Santeramo of the Department of Agricultural Economics and Policy, University of Naples "Federico II," presents a literature review of various supply and demand elasticity concepts, methodologies, and challenges. The note focuses specifically on identification problems in estimating elasticities and how to overcome these problems. Read the entire [Technical Note series](#).



UPCOMING TRAINING COURSES

2014 Training Courses Continue

The 2014 AGRODEP Training Courses will continue with three courses: May 26-27, June 2-6, and June 16-17 and 22. The May course, "Experimental Methods for Impact Assessment," will be instructed by Angelino Viceisza of IFPRI. The first June course, "Impact Evaluation and Analysis of Development Interventions Part III," will be instructed by Michael Anderson of the University of California, Berkeley and organized and facilitated by Tanguy Bernard and Susan Godlonton of IFPRI. The second June course is a two-part course on advanced CGE models. The first portion on "Advanced CGE Modeling: PEP and IFPRI Models" will be instructed by Fousseini Traore and Ismael Fofana of IFPRI. The second portion on "Advanced CGE Modeling: Models of Regional Trade Integration" will be instructed by David Tarr of the World Bank and Thomas Rutherford of the University of Wisconsin-Madison.

WHAT IS AGRODEP?

The African Growth and Development Policy (AGRODEP) Modeling Consortium is an initiative led by the International Food Policy Research Institute (IFPRI). The goal of AGRODEP is to position African experts to take a leading role in both (1) the study of strategic development questions facing African countries as a group and (2) the broader agricultural growth and policy debate, which traditionally has been dominated by external actors and concerns.

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