Panel session - *Public Policies and Market Dynamics in Africa*

Presentation 1: Assessing buffer stock impact on producers and consumers: the case of maize and rice in Ghana

Presentation 2: Can budget support to the cotton sector be used more efficiently? An assessment of the price support measures in Mali and Burkina Faso.

Presentation 3: Structure and performance of Ethiopia's coffee sector

Presentation 4: Grain stock management in the context of liberalized agricultural trade: recent country experiences and emerging evidences.

Presentation 1

Title: *Assessing buffer stock impact on producers and consumers. The case of maize and rice in Ghana.*

Authors: Federica Angelucci, Guillaume Pierre

Abstract: During the 1980s and the 1990s, buffer stocks represented a safe market outlet for producers and were often used as income support. However, many were eliminated in the early 2000s due to excessive costs incurred by governments to maintain grain reserves. These costs largely outweighed the benefits that grain reserves offered producers in the form of income support and price stabilization. But, soaring food prices in 2008 and 2010 have revived developing countries' interest in using grain reserves to stabilize prices and ensure food security (Zorya et al., 2012). However, according to Demeke et al. (2008), the costs and benefits of these interventions have not been consistently assessed.

Ghana recently introduced a buffer stock programme for three major food crops, namely, rice, maize and soybeans, in response to rising food prices. This programme is administered by the National Food Buffer Stock Company NAFCO.

Taking Ghana as a case study, this paper draws on the results of the Monitoring and Analysing Food and Agricultural Policies (MAFAP) programme to further substantiate the conclusions of previous studies (e.g. Zorya et al, 2012 and Dorosh and Rashid, 2012) on the inability of buffer stocks to achieve the twofold objective of stabilizing prices and ensuring food security in a cost-effective way.

The analysis of price incentives suggests that the buffer stock programme has not produced the expected results in terms of more affordable maize and rice prices for consumers while it has generated higher disincentives for rice producers.

Drawing from the literature on commodity storage, we estimate the buffer stock's impact on prices for consumers and producers. The results will demonstrate whether the buffer stock programme has been effective in stabilizing rice and maize prices, in comparison with open market conditions, and successful in guaranteeing more affordable prices for consumers without penalizing producers.

Presentation 2

Title: *Can budget support to the cotton sector be used more efficiently? An assessment of the price support measures in Mali and Burkina Faso.*

Authors: Federica Angelucci, Hélène Gourichon, Barthélemy Lanos, Alban Mas Aparisi

Abstract: In Burkina Faso and in Mali, cotton is the main cash crop, export of cotton lint accounting for 69 and 63 percent of the total value of agricultural exports, respectively, between 2005 and 2013 (FAOSTAT, 2014). Cotton is also the main source of employment and revenue in both countries.

To maintain the level of cotton production, the Governments of Burkina Faso and Mali support the sector by ensuring remunerative prices for producers. Indeed, analyses based on the Monitoring and Analysing Food and Agricultural Policies (MAFAP) methodology show that the policy environment supported producer prices by 33 and 86 percent in Burkina Faso and Mali, respectively, between 2005 and 2013. To do this, minimum prices are fixed and a price stabilization fund is implemented to sup-

port the sector in case prices on the international market fall. MAFAP analysis shows that this type of price intervention represented 10.5 percent of agricultural expenditure in Burkina Faso between 2005 and 2013 and by 4 percent in Mali.

The present analysis assesses whether the price policies in support of the cotton sector seek to compensate the low prices prevailing in the international market or if there is a component of the price support which aims at financing the cost of inefficiencies in the value chain such as the low productivity at producer level and high transaction costs along the chain including ginning activities.

The price incentives analysis is undertaken using both the international price of cotton, kept artificially low due to the subsidization mechanisms in place in the main producing countries, and an estimated benchmark price which is netted out of policy interventions at the US level/international level (Wubeneh, 2007). This allows us to determine the extent to which international price dynamics affect the cotton sector as well as to isolate the component of price support which could be reduced by interventions at the domestic level, thereby improving value chain functioning and productivity. The identification of alternative areas of intervention is based on MAFAP Public Expenditure analysis that allows for the decomposition of budget support to the cotton sector. The analysis finally estimates the optimum level and composition of budget support (including price support) currently absorbing a large share of the expenditure to the cotton sector in the two countries analysed.

Presentation 3

Title: *The impact of policies and institutional arrangements on incentives and operational efficiency in the coffee value chain of Ethiopia.*

Authors: Bart Minten, Seneshaw Tamiru, Tadesse Kuma, and Yaw Nyarko

Abstract: We study the structure and performance of the coffee export sector in Ethiopia, Africa's most important coffee producer, over the period 2003 to 2013. We find an evolving policy environment leading to structural changes in the export sector, including an elimination of vertical integration for most exporters. Ethiopia's coffee export earnings improved dramatically over this period, i.e. a four-fold real increase. This has mostly been due to increases in international market prices. Quality improved only slightly over time, but the quantity exported increased by 50 percent, seemingly explained by increased domestic supplies as well as reduced local consumption. To further improve export performance, investments to increase the quantities produced and to improve quality are needed, including an increase in washing, certification, and traceability, as these characteristics are shown to be associated with significant quality premiums in international markets.

The study investigates the impact of distortions in trade policy, including foreign exchange misalignment, inadequate capacity and operational inefficiencies of the Ethiopian Commodity Exchange as well as the high cost of doing business on the incentive structures and the performance of premium coffee qualities. It is hypothesized that overvalued exchange rates (leading to under-invoicing), uncertain international prices, lack of transparency in quality inspection and grading, excessive transaction costs and margins are among the major stumbling blocks to improving the efficiency of the value chain and ensuring adequate incentive for producing high quality and specialty coffee.

Presentation 4

Title: *Grain stock management in the context of liberalized agricultural trade: recent country experiences and emerging evidences.*

Authors: Mulat Demeke, Areej Jafari, Eugenia Stefanelli, Stefania Croce

Abstract: Variations in domestic grain production (mainly due to climate change and resource degradation) along with demand shocks (such as those induced by biofuels) have led to market and price volatility. Among the major concerns of agricultural production and price variability are: (i) income risk for farmers, making new technologies less attractive and hence slow agricultural growth in developing countries; (ii) food security risks due to instability in national and world food supplies; and (iii) budgetary costs to the government due to increased cost of price support and stabilization schemes.

There are three ways in which countries can adjust to shocks in domestic food production in the

short run. One option is reducing domestic grain consumption but this could be a difficult choice if the grain under consideration is a staple food item and if the availability of a substitute grain is limited. Reducing the amount of grain used as animal feed and biofuel production may also be considered in some countries. The second option is increasing the quantity of import and/ or reducing export. For many countries, however, increasing grain import when international prices are high and volatile and when foreign exchange is scarce may not be a feasible option. Trade measures are a particularly challenging option for poorer or land-locked African countries.

Finally, adjusting the amount of grain stock carried over to the next year is an option that countries with shocks in domestic production may consider despite the high cost of holding stocks. In the past, buffer stock in developed countries played a major role in stabilizing world prices. Strategic grain reserves are making a comeback in several countries following the 2007/08 food crisis that highlighted the inadequacies of relying on the market as the only strategy to tackle food security concerns.

This study examines the extent to which the production of a major staple has varied in recent years in selected African countries and assesses policy responses in terms of consumption, stocks and trade, taking into account the drive to liberalize agricultural trade. In particular, the study explores how policy decisions regarding grains stocks have evolved in different countries in recent years. The manner in which country characteristics, including being poor, land-locked or a relatively large country as well as the influence of being heavily-dependent on import, affect the decisions to invest in strategic reserve is also established quantitatively using a sample of developing countries.

Panel session - *Global Value Chain in Agriculture*

Presentation

Title: *Supply response along the value chain in selected SSA countries: the case of grains.*

Authors: Emiliano Magrini, Cristian Morales Opazo, and Jean Balié

Abstract: In this paper, we analyse the grain supply response in selected Sub Saharan African (SSA) countries using an innovative dataset recently developed by FAO in the framework of the "Monitoring and Analysing Food and Agricultural Policies" (MAFAP) programme. In particular, we are able to test how agricultural production responds to different prices along the value chain for ten Sub-Saharan African countries over the food-crisis period (2005-2012). We use a panel with individual country-commodity pair effects to measure the impact of farm gate, wholesale and border prices on domestic grain production. The results show that price elasticity of supply is always significant but quite low (around .30), in line with similar analyses performed on various commodities in SSA. This might suggest that farmers, in fact, do interpret market signals and respond positively to a price increase. However, no matter which crops are under observation, such responses have a "glass ceiling" caused by other non-price and institutional factors. More interesting, we note that the price elasticity of supply is higher when we use wholesale prices than farm gate and border prices. We also observe that price distortions at the point of competition between domestically produced and internationally traded products affect production decisions more than distortions at the farm gate level.

Panel session - *Price analysis in global commmodity markets*

Presentation

Title: *How much have domestic food prices increased in the new era of higher food prices?*

Authors: David Dawe, Cristian Morales-Opazo, Jean Balié, Guillaume Pierre

Abstract: Analysis of domestic price data (adjusted for inflation) from a large range of low- and mid-

dle-income countries shows that domestic staple food prices were higher in 2013 than they were in the first half of 2007: consumption-weighted real domestic rice, wheat and maize price indices increased by 19, 19 and 29 percent, respectively. The domestic price indices broadly follow world price movements, but domestic price changes are attenuated to an important extent due to government policies, transport costs, changes in exchange rates and other factors. While world price changes thus overstate the impact on food security of farmers and consumers, the observed increases in domestic prices are still substantial for the poor. Domestic price changes have varied widely across countries, and the changes in any particular country are not necessarily due to changes in world market prices.