**Agriculture in MCC Analytics and Program Design**

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## Background

Agriculture occupies a relatively modest profile in MCC's portfolio of compact investments, an outcome that may be linked to MCC's analytical approach and history of operations. In many MCC partner countries, however, agriculture remains the largest sector by labor share, and rural populations still account for the bulk of the people living in poverty in those countries. Moreover, research literature points to agriculture's critical contribution to advancing a developing economy's structural transformation and ultimately its long-run growth. Considering MCC's mission to reduce poverty through sustainable and inclusive economic growth, and in light of challenges posed both by COVID-19 and long-run climate change, renewed attention has focused on *whether MCC's analytical work and investments in agriculture accurately reflect the importance of agriculture in advancing growth and structural transformation objectives*.

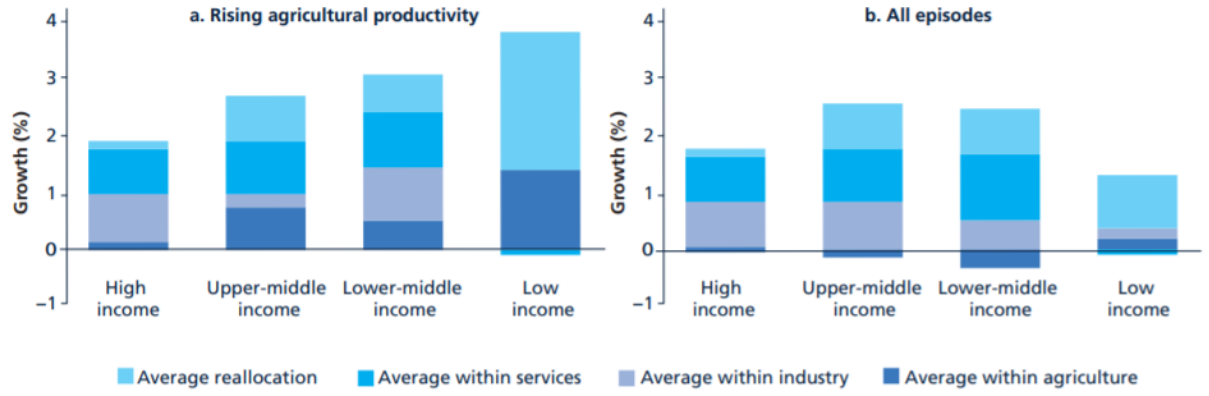
## Accounting for Agriculture's Role in Sub-Saharan Africa's Structural Transformation

An economy's structural transformation from traditional, rural subsistence economies toward urbanized industrial activities entails several phenomena, including rising productivity in agriculture, falling food prices, falling shares of agricultural employment, and greater urbanization as jobs shift into manufacturing and services. Recent success stories from East Asia fit this pattern, with rising productivity within multiple sectors, including agriculture, and labor migration from low to high productivity sectors (Diao et al. 2017). However, urbanization in SSA has proceeded in spite of its slow agricultural productivity growth, with large labor shifts particularly into unproductive informal services—effectively impeding income growth in cities as well (Timmer et al., 2014; de Vries et al., 2015; Fox et al., 2017; Gelb et al., 2020). Meanwhile, the specter of "premature deindustrialization" looms over ambitions that labor-absorbing manufacturing opportunities offer SSA a path to growth (Rodrik 2016).

Evidence for the agriculture sector's contribution to growth and poverty reduction is nonetheless strong. Low and middle-income economies grow faster on average when agricultural productivity is growing. Merotto et al. (2018) show this empirically in the figure reprinted below. In poor countries, agricultural productivity growth contributes far more to overall productivity growth via sectoral labor reallocations than all other episodes of growth. Multiple mechanisms can explain this, from lower food prices that foster demand for other consumer goods to greater human capital resulting from better nutrition and better educated children freed from farm labor. Evidence also indicates that agricultural sector growth is pro-poor. Byerlee, Diao, and Jackson (2005) show that countries with the highest agricultural growth per worker experienced the greatest rate of rural poverty reduction. In comparison, the elasticity of poverty with respect to overall growth in SSA is weak (de Melo 2017). Thus, a challenge emerges in analyzing agriculture's contribution to economic growth in SSA. The literature points to agriculture productivity's strong impact on growth, but SSA's growth path will likely not resemble the precedents of East Asia or elsewhere.

Meanwhile, as part of its country analysis, MCC relies on a growth diagnostic methodology proposed by Harvard University's Ricardo Hausmann, Dani Rodrick, and Andrés Velasco (HRV methodology) that offers a systematic approach to identifying potentially binding economy-wide constraints. The HRV methodology is thorough and sector-agnostic. It proposes a suite of empirical tests that can reveal bottlenecks to growth. However, the HRV methodology does not distinguish overall growth effects from specifically poverty reducing ones, nor does it account for a country's particular stage of structural transformation in which different sectors play specific, and potentially sequential, roles. Such abstractions may result in obscuring agriculture's role and impact in understanding a country's constraints to growth.

Figure 2.8
Productivity decompositions: growth episodes in which agriculture grows and all growth episodes




Source: Merotto et al. (2018), using World Bank Group World Development Indicators

Independently of the HRV methodology, moreover, analyst and institutional biases can subtly shape which sectors capture MCC's attention, given priors about sectoral importance and the mechanisms driving economic growth. Data availability and collection costs can also shift the focus into areas where the streetlamp shines brightest. For example, World Bank Enterprise Surveys and Doing Business indicators—common sources of data for Constraints Analysis diagnostic tests—generally capture established firms operating in major cities, effectively excluding smallholder farms. Interviews with country stakeholders often take place in capital cities with government and economic elites, amplifying their concerns above less visible rural counterparts.

**Entry points for Agricultural Investment: Focusing on Agribusiness and Food Processing**

In light of the challenges posed by its low farm productivity and looming global deindustrialization, SSA's structural transformation may feature a hybrid of agriculture and manufacturing in the form of value-added processing in the food sector (ACET, 2017). By some accounts, SSA's food and beverage market may reach $1 trillion by 2030—up from $313 billion in 2010—driven in large part by rising incomes, urbanization, and growing and more diverse food consumption in cities. One narrative for framing a new structural transformation path for SSA is through investments in digitization, processing, logistics, market infrastructure, and retail networks to help support the growth of commercial value chains throughout the region (Page, 2018). The concept of "Industries without Smokestacks" suggests a reconsideration of industrialization in Africa to focus on activities with similar characteristics to manufacturing, like horticulture exports and food processing (Newfarmer et al. 2018). Investing in agribusiness and increasing the capital-to-labor ratios in the agriculture sector in SSA can increase land and labor productivity and

provide higher wages for the rural poor through employment generation in post-harvest food value chains, including processing and retailing. Meanwhile, higher demand for raw agricultural materials could benefit farming households (FAO 2016) and shift the agricultural output mix toward high-value, tradeable food goods. Simultaneously, a successful transformation would ensure that gains from agricultural productivity adequately feed both rural and expanding urban populations (African Development Bank 2015).

MCC heavily focuses on programs that facilitate private sector investment; this tends to shift focus and limited budgets away from micro-scale interventions that aim to directly engage smallholder farmers.[1] Given that such producers comprise agriculture's biggest segment, any MCC investments in agribusiness may struggle to achieve broad-based inclusion and poverty reduction. Different models of vertical coordination and/or integration may have different implications for inclusion, and all models may require some mechanism to encourage increased inclusion of smallholders into commercial value chains. Additionally, structural transformation will differ depending on the factor intensity of technical change that may result from investments intended to increase agricultural productivity (Bustos et al. 2016).

Further, the objective of promoting inclusive growth in the agriculture and agri-business sectors requires additional consideration of food security and subsistence consumption needs for risk-averse, small farmers who comprise most agricultural producers in SSA. Food security (or insecurity) for a large share of those employed in agriculture has implications for sustainable economic growth and structural transformation through productivity increases in agriculture. Chronic malnutrition limits human capital development and rational, risk-coping behaviors can forestall on-farm efficiency gains, ultimately harming growth.

**Questions for the EAC**

Given agriculture's modest share in MCC investments and its simultaneous importance to growth and poverty reduction, particularly in the beginning stages of structural transformation, is MCC's Constraints Analysis process adequately attuned to capturing binding constraints to growth related to agriculture?

1. Given that SSA's unique constraints and opportunities likely imply a growth path that differs from East Asia and elsewhere, what new role, if any, will agriculture play in driving the region's structural transformation?

2. In partner countries with large rural populations dependent on agriculture, should MCC's growth diagnostics systematically and explicitly assess agriculture and its contributions and constraints to a country's growth (independent of the HRV methodology)? One example of such an effort is the Mozambique II Constraints Analysis, where MCC economists have focused on the rural economy and innovated by developing a summary framework to assess "Potential Inclusive Growth Paths."

[1] Smallholder farmers are defined as those who operate on land holdings below a certain threshold (the land threshold amount can vary – usually in the range of less than 1 to 10 hectares, and the definition can also be framed to reflect a threshold around income, profits, or output). While smallholders can be engaged in the private sector and can contribute to commercial agriculture (through, for example, outgrower schemes where they supply raw production to a larger buyer/aggregator), they are more likely to be subsistence farmers. Some estimates suggest 60 percent of the SSA population falls under the "subsistence" category. "Smallholder farming" and "subsistence farming" are thus often used interchangeably.

3. What analytical tests, tools, or approaches can ensure that agriculture's role in a country's growth accurately reflects its critical role in the early transformation and sustainable growth path for SSA economies (e.g. interventions in ag technologies, extension, land use) as distinct from interventions in other sectors, e.g. power, transportation, human capital?

4. Supporting commercial-scale agriculture, particularly through foreign investments, may sideline smallholders and the rural poor and potentially lead to greater landlessness (Arezki et al., 2013). What inclusive growth conditions should MCC consider when it supports large-scale agricultural and agribusiness interventions? Would a focus on agribusiness that "looks like" manufacturing[2] be an appropriate strategy to promote more inclusive structural transformation tailored to SSA's constraints and opportunities?

5. How can we balance food security and productivity growth in a shift toward commercial- and export-oriented (or import-substituting) agriculture? Would this require re-thinking economic returns criteria imposed for MCC projects?

[2] Agribusiness that "looks like" manufacturing refers to the "Industries without Smokestacks" described in the UNU-WIDER report: a wide range of services and agroindustrial products, including horticultural products, that share many features with manufacturing—they are tradable through global value chains and have high value added per worker, benefit from technological change and productivity growth, and (some) exhibit scale and agglomeration economies.

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