

Discussant comments for *Session 4 - Technology, Innovation, and Industrial Upgrading*

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1. General introduction

- 1.1 The studies in a nutshell
- 1.2 Key Messages

2. Major comments

- 2.1 Synergies
- 2.2 Consideration for improvement

3. Key take-away

The studies in a nutshell

- Reviewed three interesting studies
 - 1 In Search of Demand Engines: Evidence from South Africa's Automotive Industrial Policy by [Matteo Filippi](#)
 - 2 Reimagining Industrial Policy for the Fourth Industrial Revolution: A Sectoral Assessment of Smart Manufacturing Readiness and Policy Gaps in Tanzania by [Enock Mwakalila](#)
 - 3 Taking Stock of Africa's Economic Transformation: Rethinking Sources of Productivity Growth- Douglas Gollin; Margaret McMillan by [Emmanuel Mensah et al](#)

South Africa's Automotive Industrial Policy

Main focus

- Pursuit of an inward-looking industrial policy, boosting local value addition through incentives (duty rebate)
- Focus on South Africa's Automotive Production Development Program (APDP)

Main message

- "Local content" goals are more likely to succeed when embedded in incentive schemes that expand scale and anchor demand and address supply-side frictions e.g certification/standards

Smart Manufacturing Readiness and Policy Gaps in Tanzania

Main focus

- Assessing adoption and preparedness for the adoption of the Fourth Industrial Revolution (4IR) in key Tanzanian manufacturing sectors
 - Agro-processing, textiles, construction materials, pharmaceuticals, and light engineering

Main message

- Uptake of smart manufacturing should be supported by infrastructural development, coordination across ministries & targeted financial or fiscal incentives

Rethinking Sources of Africa's Productivity Growth

Main focus

- **Portraying the African reality** - Africa's development strategy, led by productivity in the services sector
- However, productivity growth is modest in services (wholesale and retail trade)

Main message

- Engines of productivity growth lie less in policy distortions (trade rest& ex rate) and more in basic infrastructure, human capital & productive capacity
 - Extreme poverty; electricity access; human capital & health systems

A meeting of minds

Complementary approaches

- A proper use of secondary data, primary data & literature review to inform policy
- Whereas industrialization seems to be ↓, it is possible to ↑ through adoption of the 4IR and incentives
- Also value-chain deepening via policy design

Message

An-Africa specific solution

- Role of government policies
- Need for deep domestic market integration
- Set pace for external engagement
- Importance of access to good data

Comments for consideration

South Africa's Automotive Industrial Policy

- The assumption that a firm is perfectly competitive in both output and input markets might not be realistic for the automotive industry
 - CES production over Cobb-Douglas

Smart Manufacturing Readiness and Policy Gaps in Tanzania

- There is a mention of the Smart Manufacturing Readiness Index (SMRI) but its methodology and results are not discussed
- Explore additional firms e.g Azam
- Explore some quantitative analyses where possible

Rethinking Sources of Africa's Productivity Growth

- The statement market liberalization and oriented, at least in rhetoric, toward industrialization—has proven insufficient to overcome the structural constraints limiting Africa's transformation potential might be too strong and needs some evidence e.g regressions

What to remember from this session

- 1 Manufacturing still matters, but not in traditional ways
- 2 Demand linkages + digital upgrading must be embedded in a broader productivity strategy

Thank You!