DIRECTIONS IN DEVELOPMENT
Agriculture and Rural Development

Awakening Africa's Sleeping Giant

Prospects for Commercial Agriculture in the Guinea Savannah Zone and Beyond

THE WORLD BANK

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Study objective

To promote the growth of commercial agriculture in Africa in ways that contribute to broad-based poverty reduction

Analytical approach

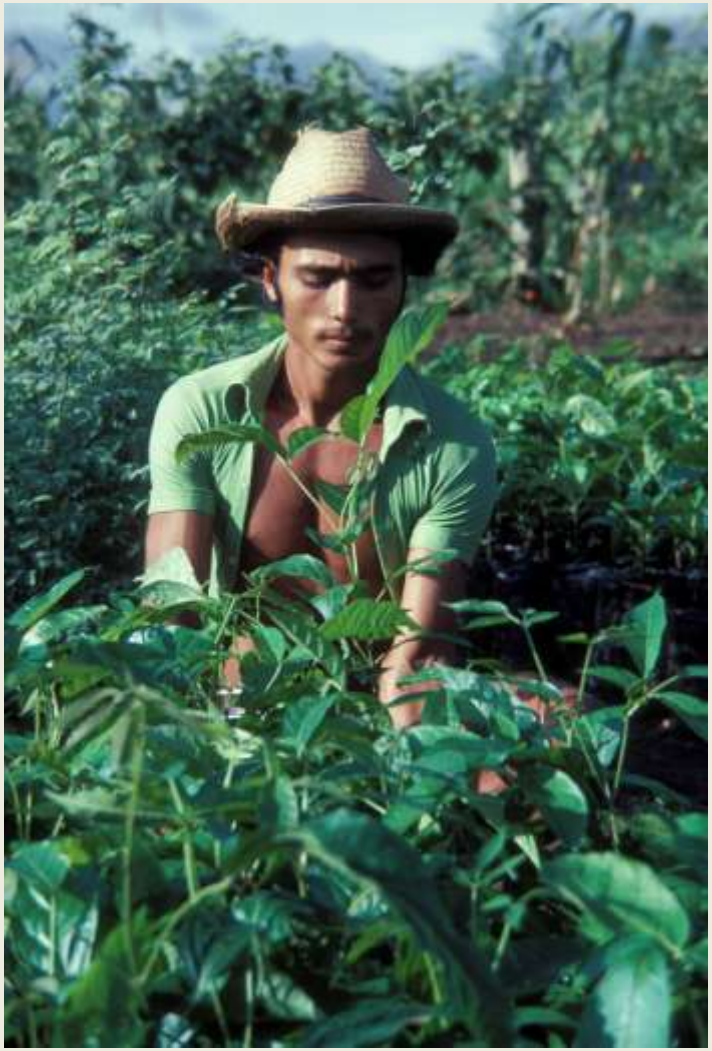
The study explored the feasibility of restoring international agricultural competitiveness and growth in Africa through the identification of key products, production and marketing systems that could stimulate development of competitive commercial agriculture

Brazilian Cerrado

Pre-1970: Remote region, poor soils, low population, stagnant agriculture

1970s, 80s: Transformation led by public investments in R&D, infrastructure, credit; emphasis on large-scale systems

Post-1990: Private sector-led boom built on exports (soybeans, maize, cotton, cattle); reduced poverty



Northeast Thailand

Pre-1960: Remote region, poor soils, subsistence agriculture, high poverty levels

1970s, 80s: Transformation led by pursuit of cassava export opportunity; public support for private sector; emphasis on small-scale systems

Post-1990: Further intensification and diversification; falling poverty

Study focus

Agro-climatic zone

Guinea Savannah

Case study countries

Mozambique, Nigeria, Zambia

Target commodities

Cassava, cotton, maize, rice, soybeans, sugar

African Guinea Savannah

- 800 - 1,100 mm rainfall
- 150 – 220 days season
- 7 million km^2 total area
- 0.5 million km^2 cropped
- 3 cropping systems:
  - Cereal - root crop
  - Root crop
  - Maize mixed

Key issues for analysis

Role played by

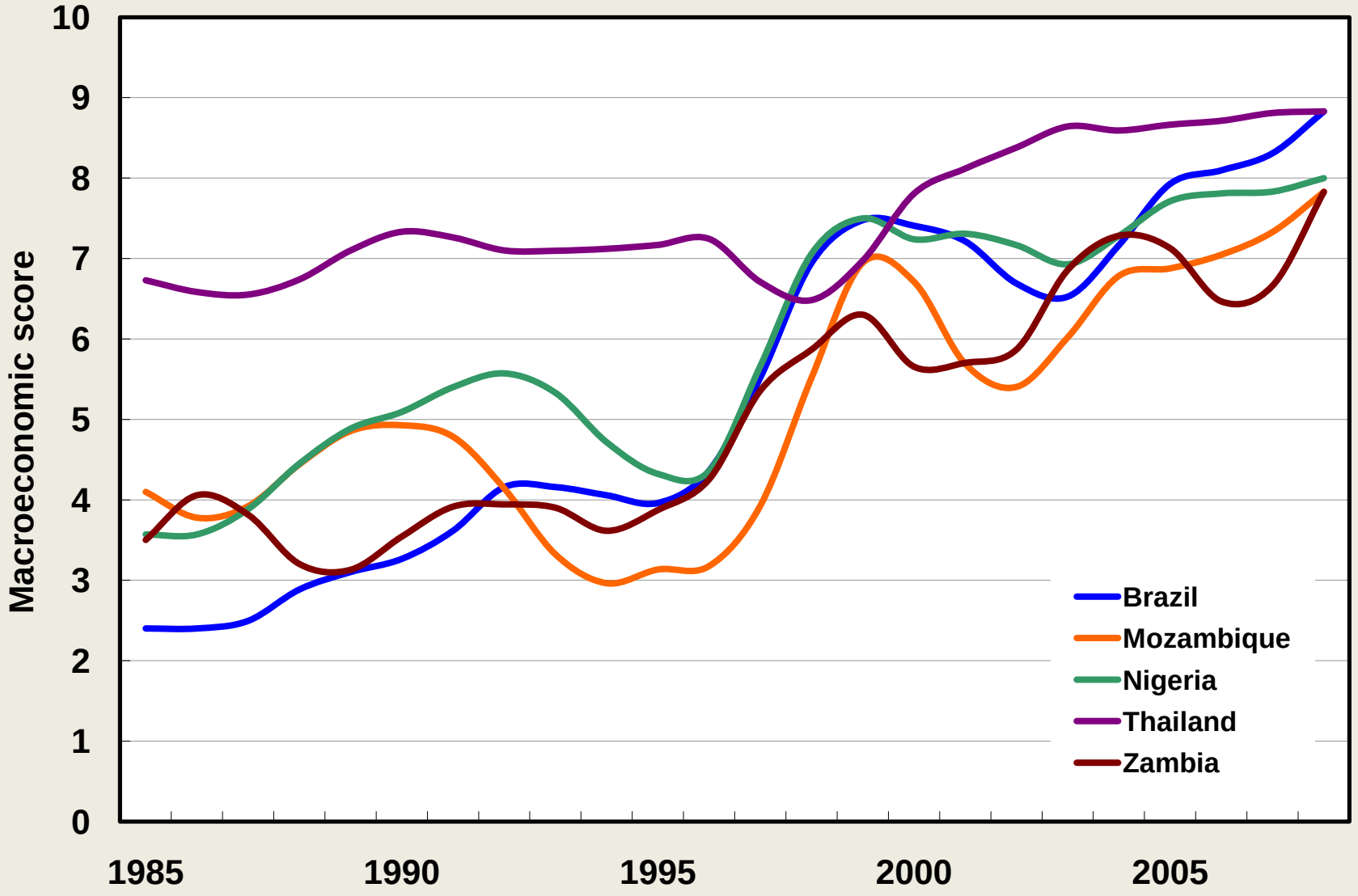
- Research and extension
- Infrastructure
- Business climate
- Human capital
- Government policies

Key issues for analysis

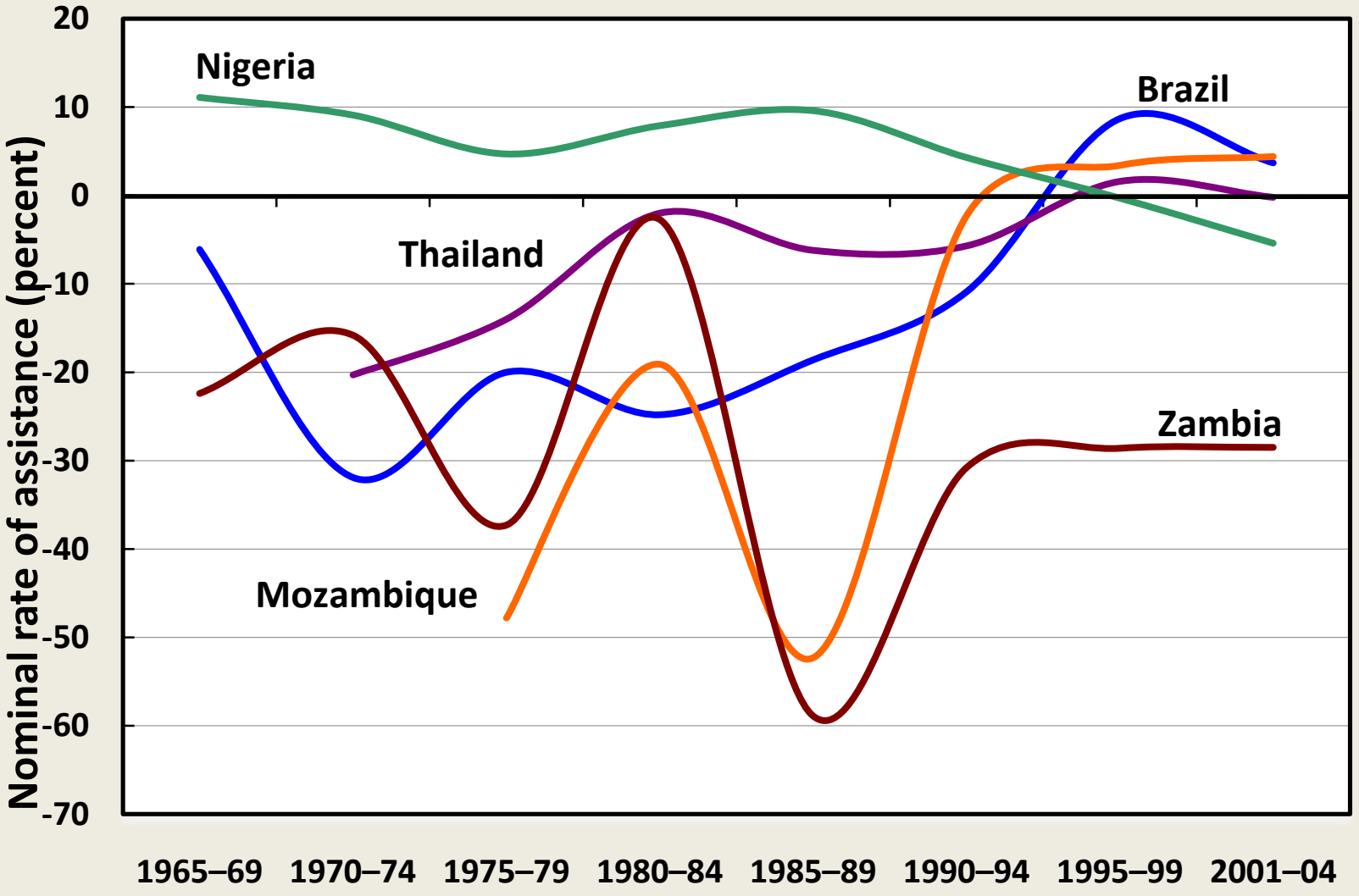
Critical questions surrounding

- **Scale considerations**
- **Access to land**
- **Employment effects**
- **Gender dimensions**
- **Poverty impacts**
- **Environmental impacts**

Macro policies improving in Africa



But agricultural exports still taxed

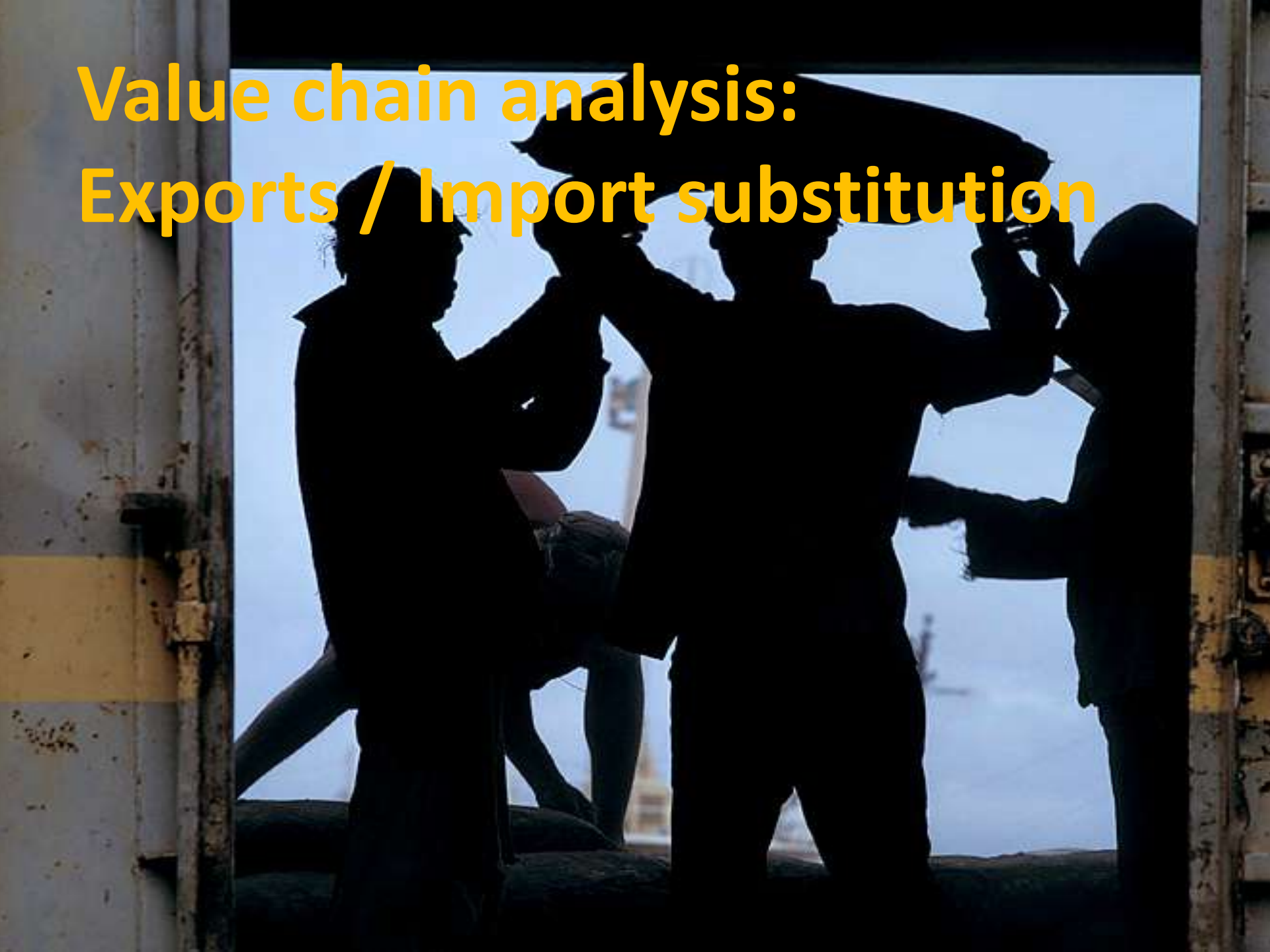


Value chain analysis: Production

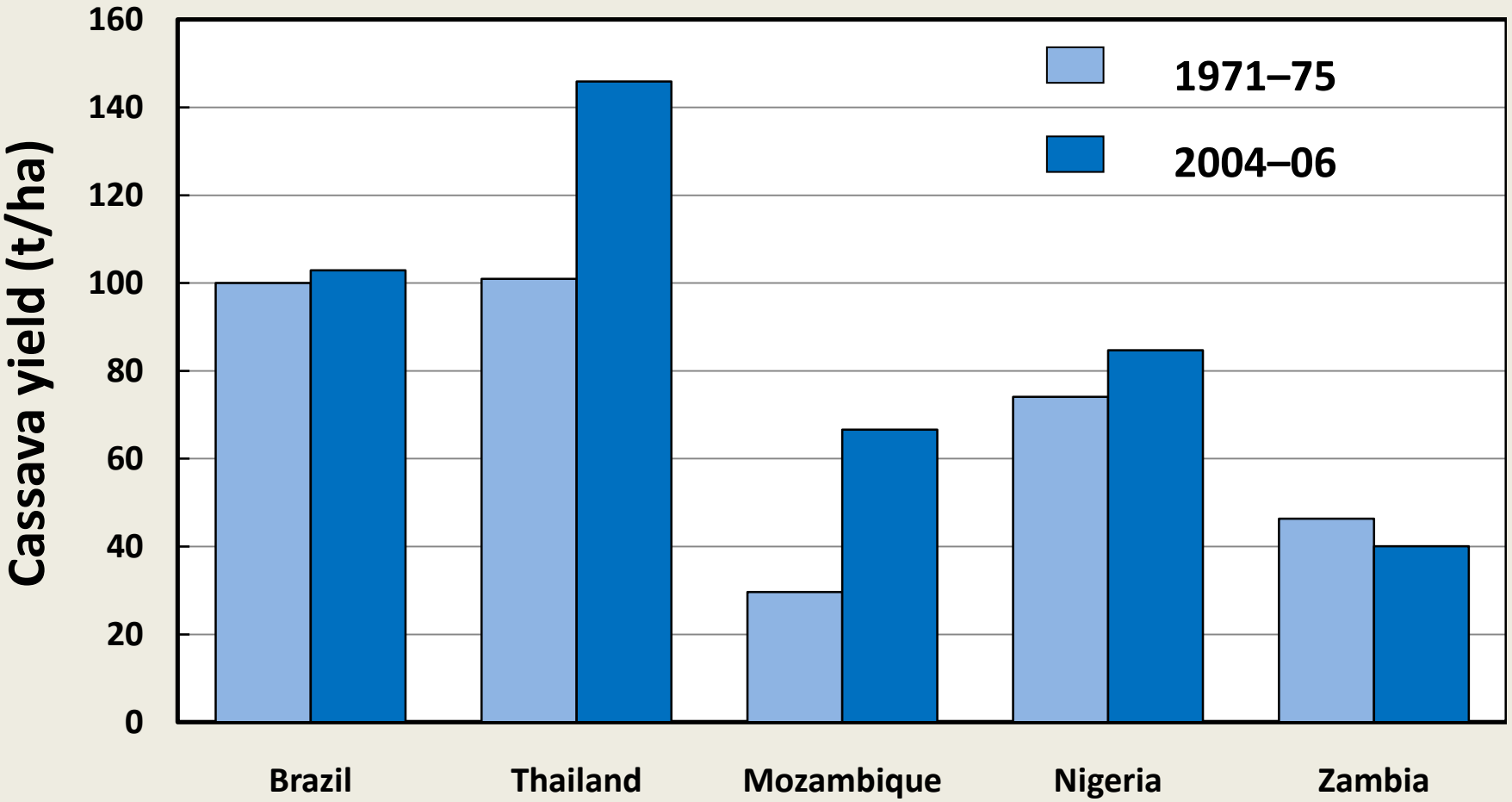
Value chain analysis: Processing

Value chain analysis: Transport and storage

Value chain analysis: Exports / Import substitution

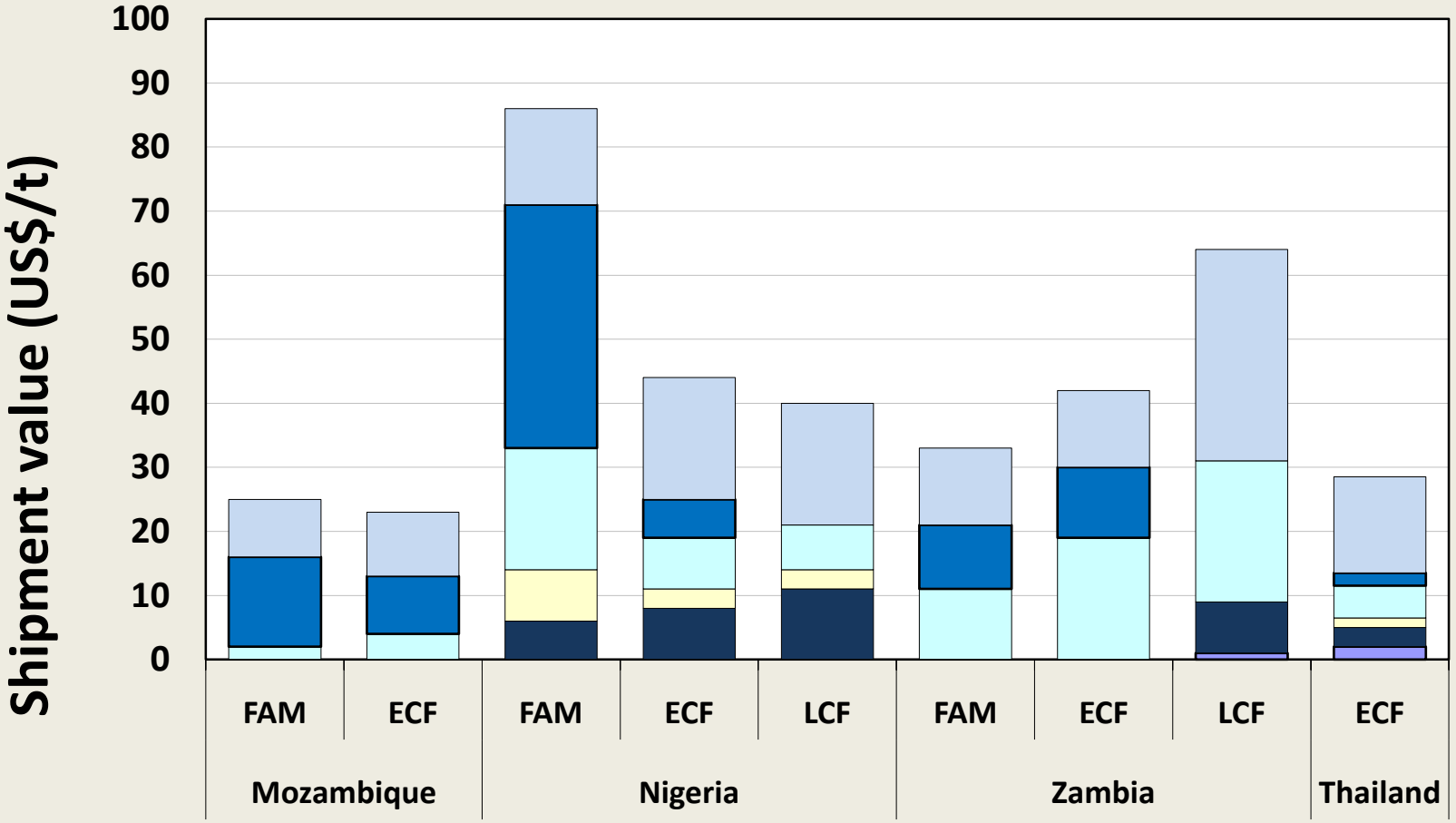


Farm-level productivity lower in Africa



Example of cassava

But shipment values similar



Example of cassava

1. **Farm-level production costs in Africa are often low compared to other regions**
2. **Africa's producers are generally competitive in domestic markets**
3. **Africa's producers are generally not competitive in global markets**

4. **Regional markets offer most promising opportunities for expansion over the short to medium term**
5. **Competitiveness of African countries is undermined by inefficiencies in domestic logistics**
6. **Smallholders have a critical role to play as source of competitiveness in Africa**

Scale of production

Literature: Small farms usually more productive

Family members have superior incentives to work and invest

Hetreogeneity of agricultural resources and seasonality lead to high supervision costs

Economies of scale in input, output, information and credit markets tend to offset these advantages

But on balance the incentives and supervision cost advantages dominate the latter

Large farms emerged as a consequence of power and distortions

- **Reservations of the best agricultural land**
- **Slavery, servitude and forced laber**
- **Or imposition of head or hut taxes that could only be paid in cash, combined with prohibition on cash cropping**
- **Privileged tax treatment, input and output subsidies, provision of infrastructure and services**

- **The systems of privilege survived until the 1990s in Africa and Latin America**

Alternatives to large farms

Realization of scale economies

- **Contract farming with smallholders**
- **Machine hire services by the private sector**
- **Effective producer organizations**

Three exceptions

1. **Plantation crops:**
   - **Economies of scale in processing or shipping of fresh produce are transmitted to the farm as coordination requirements: sugarcane, bananas and other horticulture crops for exports, oil palm**
   - **Alternative to plantations**
     - **Contract farming – the main alternative in Asia;**
     - **Nucleus estates with out-growers**
   - **Plantations in the Philippines, Indonesia have lost competitiveness to smallholders in Thailand**

Crops with stringent quality requirements

- **Need for backward traceability favors larger farm units**
  - **Alternative is contract farming:**
    - **China has conquered major export markets for high valued crops based on contract farming with tiny farms**
    - **But contract farming in India usually with larger family farms.**

Low population density areas (mechanization)

- Prime example is Brazil Cerrado with only large scale commercial farms
  - Enterpreneurs were family farmers who sold out in the South and bought huge farms in the Cerrado, and then developed into corporate farms
- In Africa this model may be appropriate
  - where immigration is politically infeasible
  - and contract hire services do not emerge
- But who would be the enterpreneurs?

The history of large scale agriculture in Africa is not encouraging

- Commonwealth Development Corporation and IFC supported project succeed mostly in plantation crops
- The Sudanese large scale mechanized farming program retained elements of privileges and led to natural resource degradation
- Few of the recent large scale land acquisitions have yet led to investments and production

Developing low population density areas can use three models

1. Enable the few local farmers to grow in size via mechanization through animal draft or machine hire
2. Encourage immigration, as for example in southern Mali or South-West Burkina Faso

   Both these models require investment by agroindustry and contract farming (where appropriate) and support via smallholder services
3. And/or large scale commercial farming

   Preferably with linkages to smallholders

All approaches require careful attention to land rights

A combination of the three approaches may be most appropriate

Scale of production

Bottom line

- **Little evidence to suggest that large-scale farming models are necessary or even particularly promising for Africa**
- **Smallholder-led commercialization likely to lead to more inclusive growth, with greater backward and forward linkages**

Bright prospects

Five principal factors

1. Rapid growth and strong demand prospects
2. Better domestic policy environments
3. Improved business climate
4. Increased incentives to invest in agriculture
5. New technologies for production and processing

Constraints to be overcome

Compared to Brazil and Thailand

1. Tougher international competition
2. Exogenous shocks (HIV/AIDS, climate change, global markets)
3. Weak national commitment
4. Weak donor commitment
5. Lack of social cohesion, political stability, and bureaucratic capacity

Needed interventions

1. Policy reforms

- No backsliding on macro policies
- Eliminate remaining taxation of agriculture
- Land policies

2. Investments

- Research
- Education
- Infrastructure

3. Institutional changes

- Make markets work better for smallholders
- Access to finance

Social and environmental issues

Social impacts management

- Land management
- Farm size
- Technology choice

Environmental impacts management

- Soil fertility
- Water quality and quantity
- Tradeoffs: intensification vs. extensification

The road ahead

Grounds for cautious optimism, but many constraints remain…

- Start with bulk commodities
- Target domestic and regional markets
- Reduce logistics costs
- Pay attention to land management
- Pay attention to environmental issues
- Make the necessary public investments
- Engage the private sector

Links to background studies

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Thank you