Policies for promoting efficiency in food markets

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Presented at the Comesa policy seminar
"Food price variability: Causes, consequences, and policy options"
on 25-26 January 2010 in Maputo, Mozambique
under the Comesa-MSU-IFPRI African Agricultural Markets Project (AAMP)

Outline

- Definition of market efficiency
- Policies to promote market efficiency
  - Roads and other infrastructure
  - Market information systems
  - Agricultural market liberalization
  - Deregulation of trucking industry
  - Taxation
  - Competition policy
  - Predictable policy environment
- Conclusions

Definition of market efficiency

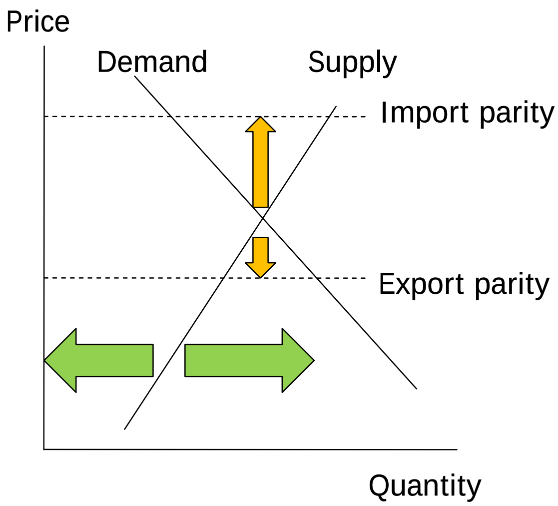
- Operational efficiency: Marketing costs are as small as possible
  - Factors that may raise costs: poor infrastructure, lack of credit, lack of security, etc.
- Exchange efficiency: There are no unexploited opportunities for mutually beneficial trade
  - Factors that prevent mutually beneficial trades: lack of information, market power (collusion), and risk associated with government policy

Roads and other infrastructure

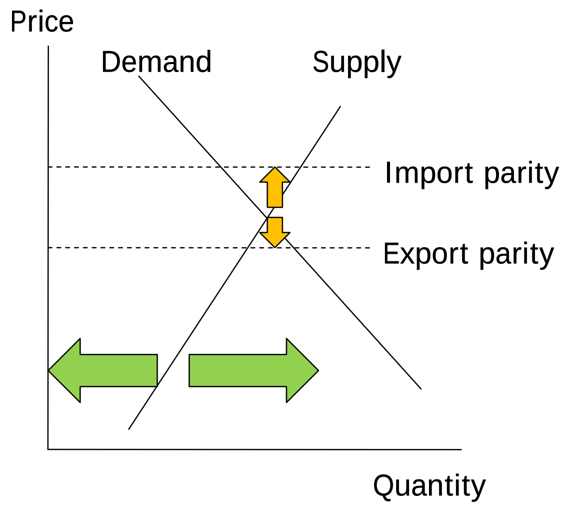
- How do better roads reduce transport costs?
  - Lower fuel consumption,
  - Lower maintenance costs,
  - Slower depreciation of vehicles,
  - Lower tire replacement costs,
  - Less spoilage due to smoother and faster trips

Roads and other infrastructure

- If cost of shipping to/from port is high, international trade allows wide band of food price movement



- If cost of shipping to/from port is low, international trade allows narrow band of food price movement



Roads and other infrastructure

Evidence

- Loveridge (1991): road improvement in Rwanda led to smaller price differences between two markets and increased the correlation of their prices over time.
- Minten and Kyle (1999): cost of transportation on poor roads twice as high compared to paved roads in Zaire (now D.R. Congo).
- Buys et al (2006): Indicates 1% increase in road quality in Africa leads to a 2% increase in trade between countries.

Roads and other infrastructure

Evidence

- Thorat and Fan (2007) estimate rate of return to 7 – 8 types of public investment in India, China, Thailand, and Vietnam
- Roads are 2^{nd} or 3^{rd} , behind agricultural R&D and education, but ahead of electricity, telephones, subsidies, irrigation, etc.

Market information systems

- Transaction costs: Cost of finding buyer/seller, negotiating trade, and enforcing deal
- Large component of marketing costs
- Can be reduced with
  - Market information for traders and farmers
  - Standard units of measure
  - Grades and standards for crops
  - Code of conduct among traders and enforcement through association
  - Information on reliability of traders

Market information systems

Akers (2005) study

- Topic: spread of mobile phones in Niger over 2001-2006
- Results: Mobile phone usage
  - Reduced the grain price spread between markets by at least 6.4%
  - Reduced inter-seasonal price differences by 10%.
  - Effect was greater in more remote areas and areas with poor roads.

Agricultural liberalization

Study	Country	Effect on price co-movement	Effect on marketing margins
Goletti & Babu 1994	Malawi	Improved	
Van Campenhout 2007	Tanzania		Improved
Rashid 2004	Uganda	Improved	
Negassa & Jayne 1997	Ethiopia		Improved
Dercon 1995	Ethiopia	Improved	
Negassa & Meyers 2007	Ethiopia	No change	
Lutz et al, 1994	Benin	No change	

Deregulation of trucking industry

Types of restrictions

- Administratively set freight rates
- Strict licensing requirements
- Routes fixed by licensing
- Restrictions on backhaul
- Protection of local trucking industry
- Freight queuing system
- Bilateral agreement on freight sharing

Deregulation of trucking industry

Country	Effect of trucking deregulation
Czech Republic	Entry of new companies, innovation
France	Dramatic reduction in transport prices
Indonesia	Entry of new companies, competition
Mexico	Lower costs, higher frequency, speed in delivery
Morocco	Dramatic reduction in freight rates
Rwanda	Transport costs fell 75% in real terms

Source: Teravaninthorn and Raballand, 2008

Taxation of transport sector

Taxation of transport sector

- Taxation via fuel tax most common
- Earmarking part of transport taxes to infrastructure
- Taxation via trucking license favors capacity utilization
- Local taxation can lead to high overall rates of taxation and/or “side-payments”

Promoting competition in marketing

Competition policy

- Avoid government role in pricing or allocation of freight (“regulatory capture”)
- Avoid giving transport association a role in licensing, pricing, or allocation of freight
- Reduce barriers to entry (e.g. strict licensing)
- Allow competition between local and foreign transport services

Policy environment

Importance of predictable policy environment

- In short run, frequent, unpredictable changes in tariffs, import permits, price policy, etc cause losses among traders
- In long run, traders withdraw from international trade, storage, and other activities subject to policy reversals
- Increases risk premia and cost of trading activity
- Increases spread between prices