Effects of NCPB Operations and Import Tariffs on Wholesale Maize Market Prices

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Background

- COMESA / regional trade rules will require changes in Kenya’s maize trade policy
- Up to 150,000 mt maize flow into Kenya from Uganda and Tanzania
- Continued pressure to alter the role of NCPB
NCPB share of domestically marketed maize:
- 40% (1990-2003)
NCPB purchase prices generally above market prices

How do we estimate effects of NCPB operations on maize market prices?

\[
By_t = \sum_{i=1}^{k} B_i y_{t-i} + \sum_{i=0}^{k} C_i p_{t-i} + A^y u_t^y
\]

\[
Dp_t = \sum_{i=0}^{k} G_i y_{t-i} + \sum_{i=1}^{k} D_i p_{t-i} + A^p u_t^p
\]
Statistically examine how monthly maize market prices have been affected by:
- NCPB purchases
- NCPB sales
- NCPB purchase price
- NCPB sales price

Kitale: Historical vs. simulated wholesale maize prices (no NCPB)
Nairobi: Historical vs. simulated wholesale maize prices (no NCPB)

Summary of NCPB effects: 1995-2004

- On price levels:
  - +15.7% (Nairobi)
  - +16.4% (Kitale)

- On price volatility:
  - NCPB operations stabilized prices
Summary of Import Tariff Effects: 1995-2004

- On price levels:
  - +2.0% (Nairobi)
  - +2.9% (Kitale)
  - In some years, raised local prices by up to 9%

- On price volatility:
  - Tariff had little impact on price stability

Why Has Import Tariff Generally Had Only Minor Impact on Prices?

- Porous borders → smuggling
- Informal arrangements between traders and border police
Who benefits and who loses from NCPB operations?

- Depends firstly on:
  - Who sells maize (and how much)
  - Who buys maize

- Depends secondly on how changes in maize production affect employment and wages

Concentration of maize sales; smallholder sector, Kenya, 2000

- Among all smallholdings
- Among maize sellers
Most rural farm households are buyers of maize

- Eastern Province: 79%
- Coast: 93%
- Nyanza Province: 68%
- Central Province: 71%
- Western Highlands: 57%
- North Rift: 22%

Effects on Income Distribution

- Beneficiaries:
  - Large-scale farmers in N. Rift
  - Small farmers in areas such as Trans Zoia, Uasin Gishu, Lugari
- Losers:
  - Urban consumers
  - Maize purchasing rural households
- NCPB’s promotion of maize price stability has had important indirect benefits to the economy
Conclusions:

- NCPB operations have generally raised maize market prices by 15-18%
- Stabilized prices
- Import tariff has not had major effect
- NCPB operations shift income from maize consumers (small farmers, urban consumers) to large maize sellers
Farm Size Distribution – Smallholder Sector only

hectares

Ken  Eth  Rwa  Moz  Zam

bottom 25%  2nd  3rd  top 25%