Managing commodity price volatility:
Contrasting Cote d'Ivoire with Ethiopia

by

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The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.
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Background
prior to market reforms

Ethiopia
• All commercial farms remained under state control
• Fixed pan-territorial coffee and other grains prices
• Restrictions on private inter-regional grain movements and producers’ grain quota (Lirenso 1987 and Franzel, et.al., 1989).
• Government embraced market oriented economic policies in 1991.
• Adoption of structural adjustment programs, abolishment of agricultural price control

CIV
• CAISTAB was under the complete control of the central government and determined payments for all the stages along the marketing chain, including the producers’ remuneration (Cardenas 2002).
• 1998 adoption of market reforms
• Intervention of private sector
Current trading systems

Ethiopia
- Ethiopian Commodity Exchange (ECX)
- Spot and online trading
- Centralised trading platform
- Dissemination of market and price data
- Grading and storage facilities
- Risk management

CIV
- Central body le Conseil du Café-Cacao (CCC) responsible for the management, regulation, development and price stabilisation of cocoa and coffee.
- New marketing mechanism involving the forward sale of 70 to 80% of the coming year’s crop through auctions.
- Floor price dissemination but ceiling price is not disseminated
Hypotheses

**HYPOTHESIS 1**

**H0:** Local Commodity Exchanges have reduced transactions costs and increased small-scale farmers’ incomes.

**HA:** Local Commodity Exchanges have not reduced transactions costs and increased small-scale farmers’ income.

**HYPOTHESIS 2**

**H0:** Market and pricing dissemination has improved transparency in the trading system.

**HA:** Market and pricing dissemination has not improved transparency in the trading system.

**HYPOTHESIS 3**

**H0:** The ECX grading standards and storage facilities have improved farmers’ incomes.

**HA:** The ECX grading standards and storage facilities have not improved farmers’ incomes.
Types of coffee, currency used & transaction costs data.

**Ethiopia**
- Arabica
- Higher price than Robusta
- Transaction costs include farm gate price to port of embarkation. Measured by COMMODAFRICA
- All prices and costs are calculated using US cents.

Fixed effects model has been used to deal with the unobserved variable “quality”.

**CIV**
- Robusta
- Lower price than Arabica
- Transaction costs include farm gate price to port of embarkation. Measured by COMMODAFRICA
- All prices and costs are calculated using US cents.
Showing trends in Producer’s price in comparison to International price

![Graph showing trends in Producer’s price and International price.](image-url)
Showing trends in transaction costs in CIV and Ethiopia

Data Source: COMMODAFRICA
Secondary data analysis & Interpretation

- Descriptive statistics
- Correlation Matrix
- Fixed Effects (EF)estimation technique
- Percentage change analysis
- Indexes
### Fixed Effects

Holding all other factors constant a 1 US cent increase in transaction costs will cause 26 US decrease in producer’s price. This is statistically significant at 5 percent level.

### Percentage change Analysis

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<tr>
<td>Percentage Increase in</td>
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<td>transaction costs:</td>
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<tr>
<td>Ethiopia is 51.74 %</td>
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<td>CIV is 62.96%</td>
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<td>Transaction costs in</td>
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<td>CIV have increased</td>
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<td>11.22 % more than</td>
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<td>in Ethiopia.</td>
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### Indexes

An overall downward trend in transaction costs and an upward trend in producer’s price in **Ethiopia**.

An overall upward trend in transaction costs and a downward trend in producer price in **CIV**.
Primary data analysis & interpretation

Questionnaires
Adopted from UNCTAD (2009)
(See appendix 5 page 222)

Questionnaires Design
Structure: closed-ended
Sampling: purposive and quota sampling strategies
Ethical considerations: follows UWS' ethical principles, ethical approval granted

Validly & reliability tests
- 2 Pilot tests
- Alpha Cronbach
- Descriptive statistics
- Spearman rho Correlation Matrix
- Ordered Logit regressions
  Coefficient
  Odds Ratio

Thematic analysis of Interviews
follows Braun and Clarke (2006)
suggested 6 steps.

- Familiarisation
- Coding
- Themes and sub-themes matrix
- Salient analysis of themes
- Themes and sub-themes mind map
- Quotations used to represent themes were subject to 'participant checking' with the relevant interviewee
- Peer review of the themes
## Ordered logit analysis
### Key findings

### Transaction costs
- Reduced middlemen
- Increase farmers’ access to Primary Trading Centres (PTC)
- Improved farmers’ organisation

### Transparency
- Facilitated transaction in the industry
- Improved pricing and market data dissemination which has helped farmers to become more informed and get better price for their produce.
- Improved farmers’ power to set price for their coffee.

### Grading & Storage
- Improved pricing
- Improved quality of production
- Facilitated transactions

#### Storage
- ECX has not increased smallholder farmers’ power to decide nor reduced distressed sales
- The warehouse receipts have not improved farmer’s access to bank loans.
Key findings from the Thematic analysis

Ethiopia

Synthesising the main themes in a tentative statement Ethiopia dataset:

❖ Efficiency of the centralised trading system can be improved by improving infrastructure, making use of modern technology for grading while providing access to appropriate services that offer access to storage facilities, credit and training for farmers and their organisations.

CIV

Synthesising the main themes in a tentative statement CIV dataset:

❖ An efficient trading system can be achieved by reducing the number of intermediaries, improving transparency and providing mechanisms for risk management while offering access to appropriate services such as storage facilities and credit for farmers.
Key recommendations (policies)

❖ Futures trading as well as spot trading should be considered to improve transparency (Ethiopia).

❖ Policy makers should facilitate the embedment of hedging functionality into the terms of contract intermediaries such as cooperatives, input suppliers, financiers and buyers offer to farmers, and this could be extended to microfinance organisations, relevant to both countries (Rashid et al., 2010).

❖ There is “no one size fits all” commodity exchange. Thus, undertaken a research prior to establishing a commodity exchange is essential. This will help countries to establish one that meet the needs of smallholder farmers and other service users (CIV).

❖ Provision of storage facilities could be managed through cooperatives, relevant to both countries

❖ Best practice can be shared across countries. For example, zero default policy in Ethiopia can be replicated in CIV.
Thank You