Price Shock Transmission: Evidence from Wheat-Bread Market Value Chain in Ethiopia

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Introduction

• **Wheat in Ethiopia**
  - 15% of the caloric intake
  - 20% of the domestic cereal production (as of 2013/14)
  - The most important staple food crop that is imported
    » *Import has been as high as 40% of the locally produced wheat*

• **This large import dependency exposes the domestic market to world market shocks and volatility.**
  - Following the 2007/08 food crisis, imported wheat contributed more than twice of the domestic market surplus (Rashid and Lemma 2014)
  - Between Apr-Aug 2008, wheat *grain* price surged by 60% while wheat *flour* and *bread* prices increased by about 30% and 40% respectively (CSA, 2015).
The wheat value chain in Ethiopia

International Wheat Price

Wholesale Wheat Price

Wheat Flour Price

Wheat Bread Price

Wheat Flour Price

Produce Wheat Price

Wholesale Wheat Price

Retail Wheat Price

Wheat Flour Price

Wheat Bread Price

Exogenous factor

Endogenous market

Direct effect

Indirect effect
Two sorts of price shock transmission

- From international wheat market TO the domestic wheat supply chain
- Across the different market stages ALONG the domestic wheat value chain
Co-movement of wheat and wheat product prices
Declining price margin between upstream and downstream prices

Data sources: CSA, World bank, Bloomberg
Key results: Price shocks do transmit

Shocks at international markets have **differential impacts** on local producers and consumers.

Prices and price expectations are primarily formed at the upstream of the wheat-bread value chain—particularly at the wholesale market.

Other factors/costs gain more importance.
Concluding remarks

- Although imports are directly administered by the government, exposure to world price volatility is **not entirely mitigated**.

- The **wheat wholesale market** is a leading market and the wholesale price gives sufficient signal about other prices.
  - *Policies should give particular attention to this market stage of the wheat value chain.*

- The observed **decreasing** trend of the price margins:
  - indicates declining transaction and processing costs (welfare improving)
  - potentially increases the transmission of price shocks along the value chain.

- **Adjustment** to price shocks along the wheat-bread value chain is **slow**
  - high transaction costs, the presence of market power, existence of several agents along the value chain, and information asymmetries
    » Market information systems (MIS)
Thank you!

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