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Delivering price-risk management services to commodity producers in developing countries: The case of coffee

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Introduction

- Coffee is the developing world's biggest trading commodity
  - Grown by over 10 m small producers
- Coffee is characterised by high price volatility
  - exposes producers to high levels of price risk
- How can producers manage this risk?
  - Can coffee futures markets deliver price risk-management services to producers?

Why manage price-risk?

- Use of futures markets involve costs
  - so benefits for producers should be > costs
- Theoretical/field evidence shows that benefit can potentially be quite high
  - Hedging lowers the variance of return for a producer with a income utility function (with risk aversion)
    - Allows producers to allocate resources more efficiently for production/marketing of coffee
    - Results in a higher expected return

The ITF risk-management mechanism

- Producers access coffee futures (ICE/LIFFE) instruments through local intermediaries
  - Instrument suggested is purchase of ‘put options’
    - Strike price of put guarantees a price insurance to producers (of a minimum price floor)
- How practical is this?
  - Local intermediaries obstruct flow of information
    - Charge high margins to cover their risk
  - Ignores needs of exporters & traders

Development of local exchange

- Advantages
  - lower basis-rate risk
  - price discovery information more transparent to producers and local traders
  - Customised contracts
  - Caters to needs of most market participants
- Limitations
  - Lack of liquidity because of limited participation & low speculator activity
  - High costs of developing exchange

Branch of ICE NY or LIFFE London

- Main exchanges integrate backwards to provide risk-management instruments directly to entities in producer countries
- Advantages
  - Most of the benefits of local exchange
  - Achieve economies of scale from pooling the risk
  - Price of contracts determined in an actuarially fair way
  - Main exchange can play a vital role in providing infrastructure and training

Limitations

- Does not offer the advantage of lower basis risk as in local exchange
  - Part of basis risk from frictions in information flow from main exchanges to producing markets
    - Flow likely to improve with the activities in the branch exchange
    - Some basis risk will always remain
- Adjusting contract sizes to the needs of producers and entities in producing countries

Contract size

- Transaction cost of reducing exchange-traded contract size and ensuring its availability may be prohibitive
  - Economies of scale may enable provision of the instrument in bulk at reduced cost
  - Contract size need not be very small
    - Main clients commercially oriented producers; may have small land plots but produce reasonable market surplus
- Promoting flexible OTC products to supplement exchange-traded product can be helpful
  - OTC providers more active in branch exchange as easier for them to offset their risk

Viability

- Branch Exchange success depends on volume of business
  - Benefit from reputation of main exchange
    - Attract financial institutions, brokers, traders & speculators who will provide it with liquidity & critical mass required for a vibrant exchange
  - Greater degree of vertical integration in commodity markets
    - Importers/ traders keen to locate in producing countries
      - Branch Exchange offers opportunities to offset their risks
  - Branch could deal in diversified hedging activities

The way ahead

- Setting local exchanges may be premature
- Branch exchanges provide the same service as ITF mechanism, with a wider scope & most benefits of local exchange
- Focus on coffee, but can be extended to other commodities traded in commodity exchanges
- Future work should study feasibility of setting branch exchanges

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