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

By

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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
Selected References


