

The Reality of Commodity Price Volatility: Rethinking the Links between Commodities and Poverty

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Structure of Presentation

1) Context and Background

1) Overview of the literature - Four main Areas:

- Causes of Shocks
- Transmission Mechanisms and the Impact of Commodity Price Shocks on the Poor
- Coping and Mitigating Mechanisms Adopted by the Poor
- Past and Current Formal “Solutions” to the problem

3) Developing an Alternative Framework:

- Concerns and Problems arising from the Literature: A closer Look at the Assumption and Definitions
- Gaps in Research
- Conclusions and Methodological Steps Forward

Context and Background

"What Commodity Prices Lack in Trend they make up for Variance" (Deaton 1999)

Focus and Definitions

- i. Idiosyncratic versus Systemic Shocks
- ii. Positive versus Negative Shocks
- iii. Output versus Price Shocks

Importance of this topic

- i. Macroeconomic impact and ongoing concern for Policy-makers and national, regional and international level
- ii. Poverty and Vulnerability impact and the Behaviour of Households Affected by Commodity Price Shocks
- iii. Increased Volatility since the 1970s (Cashin and McDermott 2002 and Deaton and Miller 1995)

"Commodity price cycles with flat bottoms punctuated by occasional sharp peaks" (Gilbert 1999)

Causes and Origins of Shocks

Can frame most analysis in terms of Supply and Demand or Production and Consumption Features:

- Deaton (1999): Production and Storage on the Supply-side adding to Problem on Inelasticity of Demand
- Dehn et al (2004): Low production and consumption elasticity due to time lags and low input components
- Deaton and Laroque (1992): $\text{Price} = f(\text{Availability})$ i.e. the impact of storage on prices
- Maizels (1987): Demand and Business Cycles in DCs: Feedback Effects
- Maizels et al (1997): In addition to Supply Fluctuations due to weather and production nuances, speculative behaviour may impact on prices.

Alternative Perspectives on the Causes and Origins of Shocks

Misplaced focus on supply and demand. Market failure considerations can help explain some of the underlying origins of shocks:

- Informational Asymmetries
- Institutional Weaknesses and Power Asymmetries
- Economies of Scale

Dehn (2000) suggests an important starting point, which is the distinction between risk and uncertainty and therefore a definition of price volatility that goes beyond predictable elements in the price process.

Link to other part of project: Elements of value-chain analysis can complement the above to gain a fuller understanding of what is occurring in a particular setting and for a specific commodity.

The Impact and Transmission Mechanisms of Commodity Shocks

Macroeconomic Impact

- Endogenous Growth Theory and Consumption Fluctuations (Barlevy 2003)
- Cross-Country evidence (Ramey and Ramey 1995)
- Weak institutions exacerbate this relationship (Rodrik 1999)
- Government Revenue and Expenditure (Gilbert 2003)
- Investment and Growth (Dehn 2000)

Household and Poverty Impact

Focus here has been largely on idiosyncratic rather than systematic shocks

- Uncertainty and investment in human and physical capital (Dehn 2004 and Lustig 1999)
- Poor appear to be more vulnerably to shocks than other groups (Dercon 2005)

Links between Macro and Household-level Impacts

- Collier (2005): Transmission of shocks from the household to the economy-wide level through demand-effects from producers, export value effects and a multiplier effect.
- Laursen and Mahajan (2004): Transmission of shocks from the economy to the household through expenditure cuts, income distribution and inflation.

Alternative Views on Transmission Mechanisms

Current gap in the literature in fully understanding the impact of price shocks on households and small farmers:

- No **distributional analysis** of these shocks at the level of the village/community.
- Need further research at the **Micro-level** to discover how price shocks impact on rural farm income and behaviour.
 - e.g. One recent study by Fafchamps et al (2003) find a lack of transmission of international price changes at the farm level.
- No consensus on what we mean by **“vulnerability” to shocks**. Definition varies from discipline to discipline. (Alwang et al 2001) Need to have a clear definition and understanding of what “vulnerability to commodity price shocks” means.
- Need to consider how **macro-level impacts combine with micro-level ones** to gain fuller understanding of the impact of price-shocks.

Informal Coping and Mitigating Strategies

Asset Strategies

- Sale of buffer stocks (Fafchamps et al 1998)

Income-Smoothing Strategies (Dercon 2005)

- Diversification
 However “The poor select a low-risk, low-return portfolio” (Dercon 2005 p. 19)
- Employment
- Access to Credit
- Drawing on Savings

Informal Risk-Sharing

- Network formation based on kinship, distance, religion, wealth etc. (De Weerdt 2005)
- Reciprocal gift exchanges (Morduch 1999)

Formal Strategies for Dealing with Commodity Price Shocks

Over time the focus has shifted from intervention by state or international bodies to market-based solutions

Previous Strategies:

- International Commodity Agreements (Gilbert 1996)
- Buffer Stocks
- Commodity Currency Index (Keynes 1943)
- Preferential Trade Agreements (Ponte & Gibbon 2005)

Current focus:

- Macroeconomic Adjustment (IMF 2003)
- Transfers and Safety Nets (Dercon 2005)
- Risk-Management Techniques (Varangis & Larson 1996, WB 1999, Bryla 2003, Newbery & Stiglitz 1981)
- Insurance and Self-Insurance (Dercon 2005)
- Aid and Compensatory Finance (Collier 2005)

Alternative Strategies for Dealing with Shocks

- **The failure of formal strategies**

Starting to see some work that analyses the failure of risk-management techniques, but still quite thin and only from the perspective of efficient market hypothesis. (Fortenbery & Zapata, 2004)

- **The interaction of formal and informal strategies**

Dercon (2002 and 2005) on the crowding out of community risk-sharing mechanisms by public transfers. However need to now take this analysis and apply it to more recent strategies and to systematic rather than idiosyncratic shocks.

- **An alternative framework for analysing the causes and transmission mechanisms**

What role to elements of market failure play in our understand of where shocks originate and how they impact on the poor. Only when this is understood can we start to consider strategies for dealing with commodity price shocks.

- **Link to other parts of the project**

How does our understanding of market structures and elements of value-chain analysis approach aid our search for new mechanisms and strategies for dealing with commodity price volatility.

Conclusions and Methodological Steps Forward

- Current understanding of the origins, impact and transmission mechanisms of commodity price shocks is flawed
- As a result of these misinterpretations, formal mechanisms for dealing with commodity price shocks have also been lacking
- There is an urgent need to redress the gaps in our understanding of how commodity price shocks impact on the poor and through this evaluate effective policies
- A closer look at the village level and at household behaviour in the wake of commodity price shocks, should help address these concerns.
- A comparison of two case studies should highlight similarities and differences in formal and informal mechanisms for dealing with commodity price shocks.
- Focus on a particular commodity and case study evidence should help address some of the deficiencies mentioned above.