Price Volatility and Food Security

Soaring food prices have again brought international attention to the world agricultural production, its risks and resulting limits to economic growth and development, as well as social, economic and political consequences of food markets instability. The international community is concerned about the rising global impact of expected global events and news. Any news relating to likely production shortfalls or disruption in supplies leads to large price swings.

What is causing these price spikes? In recent year volatile prices have been attributed to a variety of random events, e.g. severe weather events in Russian Federation, dry weather in Brazil, flooding in Australia. Furthermore, a number of systemic factors have been identified as possible causes behind upward pressure on grain prices, such as increasing demand on account changing dietary patterns with rising incomes in developing and emerging economies; rising prices of oil which have direct bearing on production and transportation costs; production of some types of bio-fuels such as corn-based which become more viable with increasing oil prices. Furthermore, many experts believe that increasing attention to commodities as an asset class, and the resulting increased derivative trading in soft commodities can amplify the impact of unexpected events, increasing price volatility beyond that given by the fundamentals. An additional cause, often mentioned by the media, is export restrictions such as export bans or imposition of export quotas.

Factors of food market instability

Factor	**Direct effect**	**Long term effect**	**Mitigation of adverse impact**
Unexpected production/consumption shock	Unexpected price change	Additional costs to adjust production systems to reduce the impact of future shocks	Use of derivative price risk management instruments Macro level insurance National and regional buffer stocks Food aid
Systemic trend due to change in technology or consumption patterns	Pressure on market prices. Little immediate impact.	Gradual change in global pattern of production and consumption of commodities	Investment in productive capacity. **Buffer stocks ineffective**
"Assetization": trading of commodities as investment assets	Transmission and amplification of shocks; Transmission of financial liquidity and its volatility to commodity markets	Greater uncertainty and deterrent to investment in productive capacity	Equal access to financial markets, capital mobility Regulations to level the playing field for physical commodity producers and consumers **Buffer stocks ineffective**

Trade restrictions and protectionism	Restricted physical availability and amplified impact of physical supply/demand shocks	Erosion of global productive capacity	Trade rules and irreversible commitments **Buffer stocks**

While it is accepted that more investment is required in agriculture to enhance production and productivity and there is a need to reverse the neglect of agriculture over last many decades, it is also necessary to take action to address the impact of climate change by introducing large scale adaptation and mitigation measures to overcome its adverse impact. Models of climate change seem to indicate that the world can expect increasing frequency of floods, droughts and other weather related events affecting agriculture and thus food security.

Investments in food derivatives such as futures and options have increased greatly. The increase in buying food derivatives has come from large investors who are attributed to largely invest for speculation. There is no consensus about the relationship between food commodity derivatives markets and the volatility of prices. According to a College of London study, there is compelling evidence that increased speculation "is causing adverse impacts on global food prices and there is therefore a need for the commodities future market to be regulated more effectively." There are also competing views [e.g. Gilbert] which expect financial markets to reduce the volatility of commodity markets. Greater transparency concerning the positions of financial investors in commodity markets had been identified as a major point in improving the understanding of financial impact on commodities.

Realizing the linkages between the physical and financial markets, the Common Fund for Commodities" held a conference on "Promoting Beneficial Global Financial & Commodity Market Synergies" at Brussels in December 2010 and the major recommendations of the experts were:

1. Improve markets to reduce volatility by:
    - increased transparency commodity transactions through central clearing,
    - disclosure of aggregate positions by different investor classes (based on the investment strategy), and
    - restricting banks to their core functions.
2. Regulations and International measures to mitigate the impact of market volatility

    The discussion is still wide open on measures that need to be undertaken, or can be taken at the international level. The radical proposal in this regard is to "leave commodity market to commodities", remove or prohibit financial investors from commodity markets and regulate commodities separately from finance because of food commodities social significance. Specific regulatory measures that can be considered are:

    - futures market regulations, multi-tier tax on transactions for different investor classes;

- position limits based relevant to market practice;
- public reporting of market activity;
- different treatment of commercial and speculative business.

Commodity producers will be affected by regulations through market linkage. Successful regulation would make the markets easier to "read" to more participants, makes participation could be more dispersed, information asymmetries could be reduced. Prices may be less volatile, but could also be lower, as risk premiums would fall.

Other measures that can enhance coping capacity of commodity dependent developing countries to price volatility *inter alia* include:

- food security stocks;
- hybrid or virtual buffer stocks combining small physical stocks and virtual reserves based on hedging instruments;
- countercyclical support policies, compensatory finance;
- policies expressly aiming to exploit commodity boom to move up the value-chain i.e. value addition;and
- regional markets and linkages to diversify markets.

The international community and national governments can further advance food security by stepping up their efforts for enhancing investments in agricultural productive capacity, relying on efficient markets to provide equitable reward on such investment.

An important practical point raised by experts in the Global Commodities Forum 2011 concerns the nature of investment in productive capacity of agriculture. As the scope for increased use of productive resources is limited, greater productivity and improved efficiency is required. However, industrialized countries employing advanced seeds and agricultural technology can only achieve a modest improvement. On the contrary, Developing Countries can achieve major productivity gains by engaging in "Agronomic revolution" i.e. by finding ways to apply known efficient agricultural management practices. Thus, agricultural management in Developing Countries becomes a critical element in advancing global productive capacities and food security. The challenge for international cooperation is to find sustainable models of adapting productive practices to the socioeconomic environment in Developing Countries.

The French government's decision to make commodity price volatility and global food security priority issues during French presidency of G20 presidency is a welcome step to bring commodities back to center-stage in the discussions of international development.