



Price Volatility and Border Measures

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Following the agricultural price spikes of 2007 and early 2008, many developing countries responded with a combination of instruments. Border measures, such as tariff reductions for certain products, export taxes and other export restrictions were relatively easy to implement swiftly. Other measures such as price controls, input subsidies, and food subsidies were also implemented. Food prices have declined since mid-2008, due in part to the economic downturn following the financial crisis and in part to the appreciation of the U.S. dollar. Many countries have since lessened export restrictions imposed during the crisis. Experts agree, however, that agricultural price volatility will likely increase in the future, which has important implications for both producer and consumer welfare.

This latest crisis calls for a greater understanding of the management of price volatility in agricultural markets in order to be prepared for possible new shocks and more generally, to better handle a more volatile price environment in the future. The objectives of this policy brief are to review past policy responses of various developing countries and to present some questions and related commentary on how developing countries might better manage agricultural price volatility in the future. The brief also addresses the question of whether WTO rules should have a larger role to play with regard to measures that exacerbate global agricultural price spikes. Finally, the brief looks at another price phenomenon, often forgotten in the wake of the recent food price spikes: the long-term decline in real terms of agricultural prices and policy responses thereto.

What was the policy context in 2007-08?

This most recent price spike occurred in an environment

of increasingly open agricultural markets in many developing countries – although significant barriers to trade worldwide certainly remain. Over the last two decades, agricultural markets have been significantly liberalized, particularly so in Latin America. Agricultural tariffs have declined and import and export values have increased. The level of openness of agriculture, measured by the tradability index, has grown. This liberalization has led to more integrated local and international markets, and in some countries (e.g., Brazil and Chile), consumers pay domestic food prices close to border prices. But these benefits of integrated markets have also exposed domestic prices to the volatility of international prices.

To what extent did higher international prices filter into domestic markets?

One would expect that changes in world prices would filter faster into domestic markets where logistics and communications are better developed. And so in poorer countries, the quickest effects from global price changes are felt by urban consumers. Research from the FAO (2009) supports this reasoning. Urban consumers tend to carry greater political weight than remote rural producers, emphasizing the politician’s concerns about rapidly rising prices. There is a wide range in the velocity of price transmission. For example, the FAO notes that on average during 2003-2008, maize prices in Kenya and Uganda adjusted fully to world price changes in about seven months, but after the price spikes of mid-2007, border prices appear to have been transmitted much more quickly (perhaps due to low domestic stocks compounding the world price increases). In Asia, the impact of higher world prices on domestic rice prices depended on local supplies, policy responses, and exchange rate changes with respect

to the U.S. dollar. In India, Thailand, and the Philippines, currencies appreciated, cushioning the increase in border prices, which were quoted in dollars.

To what degree do small producers – poorer farm families – enjoy higher world prices?

This depends on the extent to which farmers participate in local markets and the degree to which local and international markets are linked. Small farmers in Africa do not face the same level of price transmission as commercial farmers in Brazil or Argentina. In Eastern and Southern Africa, for example, supply chain studies show that smallholders do not participate in the commercial chain but rather engage in informal markets unrelated to well-specified grades and standards. These smallholders sell little of their production, and are often net buyers rather than net sellers.

What was the range of policy responses of governments?

Principally, the immediate response was to protect consumers by keeping a lid on food prices. This was done with a variety of border measures: tariff and non-tariff barrier reductions on the import side and restrictions on the export side, as illustrated by the accompanying table. Border measures and export restrictions were relatively easy to implement quickly, and carried relatively low fiscal costs. For example, India - a major exporter of rice - announced an export ban in late 2007, restraining prices. However, such attempts by countries to insulate themselves from the price spikes through export quantity restrictions and taxes served to exacerbate the price increases in global markets. Many governments also chose non-trade interventions to control the prices of bread, grains, milk, and other products. Some governments built buffer stocks, expanded food distribution programs, subsidized food prices, and made cash transfers to the poor. Some countries, such as Egypt and Tunisia, already had such measures in place. Many other countries had removed them as part of reforms during the 1990s. Initiating such internal measures for food distribution and subsidies is fiscally and administratively costly and logistically difficult to implement.

Looking ahead, what are national policy options for addressing future price volatility?

Projections for world prices following the 2007-08 food price spike reminded policy makers in least-developed and developing countries of the potential social costs of neglecting their agricultural sectors, and hence the importance of enhancing agricultural productivity. While increased domestic farm productivity might promote food security and reduce import dependence, self-sufficiency

is not a viable or efficient option for most countries. Because countries will remain exposed to international shocks, what then are sound policy responses to address price volatility? How can governments move toward less distortionary agriculture policy measures while at the same time trying to mitigate the impact of price volatility? How can they avoid raising expenditures aimed at lessening the effects of price spikes, while still letting price signals reach farmers and funding their longer-term programs to expand food production?

Disruptions to exports not only exacerbated global prices but also undermined the reliability and credibility of world food markets. Unreliable markets propel countries to shift resources toward self-sufficiency, which can incur high social costs – both domestically and internationally. And unstable international markets reinforce the political incentives to insulate domestic markets, producing a vicious circle of interaction between domestic interventions and global price volatility. On the import side, lowering tariffs to counteract price spikes is an effective option, but this arguably contributed to sustaining import demand, helping to keep global prices high. To the extent that some non-trade barriers (NTBs) may be discretionary, these could also be relaxed in times of high prices, although most NTBs (e.g., SPS) are not supposed to be discretionary in any event.

Shifting fiscal resources to instruments such as subsidies and safety-net programs is a reasonable first response. However, there is the tendency for such subsidies to endure, distort price signals, and drain revenues, making this line of policies all the harder to finance in the future. Food subsidies in particular are often untargeted, fiscally costly, and once in place, are difficult to remove.

Whether or not they are preferable to border policies, the recent economic downturn has highlighted the fiscal attractiveness of other internal market policies and market-based mechanisms: strategic food reserves, commodity exchanges and price derivatives. With respect to the most interventionist of this list, grain or food reserves (beyond working stocks), most countries simply do not have the wherewithal to manage them directly as a matter of strategic policy. Latin American countries including Brazil, Ecuador, Honduras, Mexico, and Bolivia have announced the intention of creating such reserves, but only Brazil actually has a reserve of significant size. Given the nature of political economic incentives, starting and managing government-held reserves that are large enough to have an impact on national prices if called upon has historically been shown to be not only expensive, but also distorting,

since they do not transmit efficient signals to domestic consumers, producers and others along the supply chain—including private storage operators and users of commodity exchanges.

Turning to commodity exchanges, usually the benefits are straightforward. When they work, they lower the transaction costs of exchange, thereby aiding in price discovery, providing hedging tools, and supporting the consequent development of improved financing for producers and buyers. The world price discovery role is usually played by developed country exchanges, but improving local exchanges in developing countries would also be beneficial. For example, in the case of rice, international exchanges play a limited role due to their low correlation with CIF (destination) import prices for specific varieties and qualities. (Nevertheless, even in the case of rice, world exchanges can offer a useful hedging tool in the event of a severe price spike.) In some developing countries, local exchanges are well established. In others, they are completely absent. Although developing country buyers, importers, processors and other large enterprises have over the years increased their use of local and international commodity exchanges, farmers, especially smallholders, do not participate and cannot hedge their harvest price risk. Policies that would facilitate local exchanges – and their use by smaller, less-diversified farmers – would reduce financial exposure of investments all along the supply chain.

What might be some international responses to price volatility?

The international community can provide food aid and financial assistance in times of price spikes, but the challenge here is how to do so more effectively and with greater transparency. International support – both private and public – to enhance agricultural productivity, particularly in vulnerable, least-developed countries, is also a desirable goal.

Does the WTO have a role in addressing price volatility?

When price shocks are generated in international markets, their impacts can be shared and cushioned by transmitting the effects across many countries, and questions regarding the role of WTO rules in governing policies that transmit price effects are controversial. The WTO presently has rather weak rules with respect to export restrictions, even though they create negative externalities for other countries. The Doha Round modalities include some new provisions on export restrictions, but members may be well advised to consider negotiating more meaningful disciplines. By creating stronger rules on export restrictions, it

would be more difficult for countries to shift the burden of increased prices onto world markets. On the import side, although it is difficult to argue against a country reducing tariffs to aid poorer consumers, one should recognize that reducing tariffs and NTBs in the event of a price spike make import demand more inelastic and so extends the persistence of higher prices abroad. It is hard to visualize how the WTO might address this issue, given that governments always want more flexibility to protect consumers.

In this regard, it is interesting to note that the WTO no longer allows variable levies in response to low prices (once an established feature in Europe) and price bands (rejected for Chile, but still prevailing elsewhere). It seems unlikely that WTO negotiations would address this question of ad hoc changes in import regimes in times of high prices, but it is nonetheless an interesting point to raise, in particular if WTO rules are seen in the context of addressing price volatility rather than primarily providing market access rules.¹

What about the historical long-term declines in real food prices? Whereas the 2007–08 food price spikes have focused attention on high food prices, it is important to point out the longer-term trend of declining commodity prices noted in several studies (e.g., see the recent work by Bobenrieth and Wright). Moreover, there have been periods where prices fall below this trend, and the troughs persist longer than price spikes. Such runs of very low prices sometimes threaten sensitive import-competing activities in poorer countries. Such activities might be competitive in the long run, but these countries do not have access to sufficient credit and derivatives markets to enable them to survive extended low-price periods. Under this scenario, governments want to maintain the flexibility of intervening during the downside of the price volatility cycle by keeping high bound tariffs and having access to remedial measures (anti-dumping, safeguards and countervailing duties).

The Special Safeguard (SSG) created during the Uruguay Round is not accessible to most developing countries be-

¹ Variable levies were automatic, based on some predetermined domestic target price. Price bands are a way of automatically triggering tariff adjustments but not with reference to a domestic target. Rather, they are tied to some rolling international reference price. In WTO terms, they are considered distinct from adjustments to applied tariffs below their bound levels because such adjustments are sporadic and unrelated to a price target, therefore passing the variable-levy test. In any event, both variable levies and price bands were designed primarily to automatically establish floor prices, while recent government actions to lower tariffs were related to an exceptionally high price spike. They were in effect an ad hoc attempt to establish a price ceiling for domestic consumers.

cause most opted for bound tariffs instead of tariffication during the Round. So the proposal to create a new Special Safeguard Mechanism (SSM) that has been under discussion in the Doha negotiations has attracted much attention and may be a helpful element in addressing price volatility, but only on the downward side.²

Unfortunately, it appears that discussions surrounding the

2 During the Uruguay Round negotiations, members were given the choice of either applying the tariffication formula or establishing bound tariff ceilings. Most developing countries opted for the latter, creating an anomaly where only 22 developing (and 17 developed) countries could access the SSG.

SSM have reached a stalemate in the agricultural negotiations, as demands being made by some developing countries are considered unacceptable by exporters. How to unravel this disagreement is a topic in itself. The most difficult issues appear to be the nature of the “trigger” for the safeguard (volume or prices) and the number of products to be covered. As a general rule, limiting the number of products eligible to qualify for safeguard action simultaneously would help avoid its misuse. It would keep the focus on a few politically-sensitive products for which having no defense would be an obstacle for trade liberalization, preserve the credibility of a SSM, and make it much easier to monitor.

Implementation of Trade-Related Policies in Selected Countries, 2008

Countries: China, Latin America, and Sub-Saharan Africa	Border measure change in response to price spike				
	Reduction or elimination of import tariff and quota	Raising export taxes	Export quota or control	Export ban	Govt to govt trade*
China		yes	yes	yes	
Argentina		yes		yes	
Bolivia	yes	yes*		yes	
Brazil	yes	yes*			yes*
Cuba					yes*
Ecuador	yes				yes*
El Salvador	yes				yes*
Guatemala	yes				
Honduras	yes			yes	
Mexico	yes				
Nicaragua	yes*				yes*
Benin	yes				
Burkina Faso	yes		yes		
Ethiopia				yes	
Guinea				yes	
Madagascar	yes			yes	
Malawi				yes	
Niger	yes				
Nigeria	yes				
Senegal	yes				
United Rep. of Tanzania	yes			yes	
Zambia			yes	yes	

Sources: Yes without star-FAO, The State of Agricultural Commodity Markets 2009. Annex Table 1. Policy responses to rising commodity prices in selected countries. Yes with star-World Bank draft policy note, “Don’t play with food: managing volatility in agriculture markets in LAC.”