IPC Alert
International Food & Agricultural Trade Policy Council

June 12, 2013

Price Volatility, Food Security, and Trade—Experts Reflect on Policy Optionss

Spikes in global commodity prices in recent years have rekindled a debate over public policy measures to address food security concerns. At a May 22 seminar, "**Achieving Food Security in Volatile Times--WTO Disciplines, Grain Reserves and Other Public Policy Responses**," participants discussed the effects of price volatility, the challenges of maintaining an effective reserve stock, and the need for transparent information on stocks so that market prices can accurately signal supply responses. Additionally, experts from China and India provided insights into the methods those governments have used to address global commodity price increases.

During the seminar, IPC also released a paper "**Food Security: New Market Variables and Rational Public Policy Choices**," by Kendall W. Keith, which provides a case study of the U.S. experience with government-held stocks. The seminar was moderated by Joseph Glauber, Chief Economist, U.S. Department of Agriculture.

Tim Josling, Senior Fellow at the Freeman Spogli Institute for International Studies, Stanford University, led off emphasizing that price volatility provides important information to market suppliers and consumers. Those with limited income and few choices in consumption can be hit hard by price variability. A market open to international trade can dampen price volatility and reduce the cost of uncertainty as the information is spread across a wider market and more agents can react to offset extremes. Costs associated with price variability are more widely shared but trade can also spread instability.

Good ways to deal with price volatility according to Josling include:

- improving information in the market, including regarding stocks;
- providing risk management tools to farmers;
- ensuring adequate infrastructure to facilitate the trade in goods as well as financial liquidity;
- implementing appropriate stock policies that match the cost of holding stocks with the benefits of having the stocks;
- reducing the negative impact of speculative activity by outside agents;
- providing consumers access to imports free of taxes so as to lessen price shocks; and
- cushioning the impact of price fluctuations on the poor.

Josling warned price volatility can be exacerbated by:

- setting fixed prices for producers over a multi-year period, which blocks the flow of basic information to suppliers;

- tightening regulation of futures markets thereby starving markets of the liquidity necessary to fulfill their function;
- government intervention in the marketing process, which can distort signals and lead to anti-social behavior and overtly political decisions;
- excessive government stocks can drive out private stocks and lead to politicization of market management;
- fixing consumer prices can make supply shortages worse and even harm poor consumers without access to subsidized foods; and
- action at the border, by varying import tariffs, limiting exports and "panic buying" by government agencies, can lead to more market instability and uncertainty.

Josling proposed six collective actions to meet concerns about price volatility: Improvement in information on stock levels and other key data on product availability; facilitating farmer access to instruments for risk management, including tools appropriate for small farmers who may not have access to sophisticated hedging instruments; improving market infrastructure; encouraging countries to reduce tariffs and other barriers in times of high prices; shielding poor consumers by means of instruments that do not involve across-the-board subsidies; and agreeing to rules that limit the use of export curbs and taxes so as to keep trade flowing when it is most needed.

Export restrictions or taxes are sometimes imposed by a producing country in times of perceived short supply in order to minimize the effects of high prices on its population. These actions aim to keep supplies in the country and thereby lower prices. **Rob Howse, NYU School of Law,** reflected on the implications of a recent WTO decision that clarifies that current disciplines are more rigorous than presumed historically. Conventional wisdom has held that existing WTO rules on export restrictions are weak, whereas recent WTO jurisprudence points towards a different interpretation of these rules—namely that a country may not respond to a food crisis in a manner that is indifferent to the food security impacts on import-dependent countries. Prior to the WTO's decision in the China Rare Earth case, a government could self assess whether a critical shortage existed. The WTO Appellate Body now has said that a member government seeking to justify export restrictions should prove there is such a shortage and the restrictions should be a temporary response. Extraordinary conditions are required to impose such restrictions and the measure should be removed when the situation changes. Consideration has to be given to the impact of an export restriction on an importing country.

The Appellate Body also stated that in a situation of long-term insecurity, domestic measures to restrict use must be imposed if restrictions are applied to an importing country. It is problematic to externalize a food security challenge to one's own country to other countries.

Howse also raised the issue of addressing the absence of disciplines on export taxes. He noted this could violate investment treaties.

Brian Wright, Chair of the Department of Agricultural and Resource Economics, University of California, Berkeley, discussed the reasons for price volatility, reserves, and other public policy options. He noted wealthy countries can adjust to price spikes but poorer countries are vulnerable and their governments under pressure to take measures. Prior to 2005, Wright commented, commodity prices reflected stock levels and prices could be more volatile when stock levels were low. However, biofuels policies have altered that relationship. The U.S. ethanol mandate has created additional demand for corn. If expected to last only one period, this demand boost would have affected the market like an equivalently large one-year drought; prices would have been damped by drawdown of stocks. But the schedule of increasing ethanol demands also increased anticipated future demand for stocks, so stocks have not been available to dampen recent spikes. Strong substitution between major grains as sources of food calories has meant that the relevant stocks include the aggregate stocks of calories available from all three.

When considering price volatility in the future, an important question is whether governments will continue to encourage and facilitate expansion of the percentage of grain ethanol that is blended with gasoline supplies, keeping aggregate stocks of major grains below the equilibrium path appropriate to the new increasing path in demand for grain calories.

Wright critically evaluated a number of policy options that may be considered to address food security concerns. These include self sufficiency; strategic reserves; virtual reserves; subsidized storage; a ban on export bans, which might not be politically feasible, nor consistent with humanitarian concerns; a limit on biofuels use of grains and sugar; farmer risk management tools; acquiring foreign farmland to grow the national staple; and biofuels diversion contracts. Of these, limitation of expansion of biofuels is by far the most important for the welfare of the global poor.

Jikun Huang, Director, Center for Chinese Agricultural Policy, Chinese Academy of Sciences, reviewed the political economy of food pricing policy in China. After 2002, China's agricultural commodity prices became more closely aligned with global prices. Because food expenditures are still a substantial percent of Chinese people's incomes, especially the poor, there was concern when global prices spiked in 2007/2008 about the population's ability to absorb these increases. The Chinese government acted to stabilize food prices so that global wheat, rice and corn price increases were not fully felt domestically; soybean price rises could not be mitigated as that market is liberalized. In late 2007, reserve stocks were released onto the market, forward contracting was used to secure supplies, and production and input subsidies were increased.

Additionally, export incentives were removed by ending a corn transportation subsidy, cancelling VAT rebates, and imposing a 5 percent export levy on commodity sales. Later, exports of food and feed commodities were not permitted and fertilizer exports had stiff levies imposed. The government implements a food price subsidy for poor urban populations and college students. For the longer term, China modified its biofuels policy to encourage the use of other crops, reinforced water conservation policies and devoted additional resources to research.

Ashok Gulati, Chairman of the Indian Commission for Agricultural Costs and Prices, explained India's efforts to ensure food security. With food price inflation rising about ten percent per year and much of India's population spending half or more of their income on food, food security is a concern. A new National Food Bill, which is being discussed in the Parliament, envisages food as a legal right and would provide highly subsidized food to 67 percent of India's population. Rather than using cash transfers, this will require a massive effort to procure, store and distribute 62 million metric tons of wheat and rice annually and cost about $23 billion a year for the food subsidy alone. He also addressed India's use of stocks during periods of recent price spikes and noted that now India's agricultural exports are twice its level of imports.

In summary, India is moving fast to provide 'economic access' to cheap food to a larger portion of its population, which will entail increased government intervention in grain markets. At the same time it is gradually moving towards open ended and stable trade policies; its export bans on rice and wheat were abolished in 2011 and India now imports more of its domestic needs for essential foods, such as edible oils (more than $10 billion has been imported at low duties of 2.5% to 7.5%) and pulses (about $2 billion of imports at zero duty). These policy changes portend an India which will attempt to manage large quantities of commodities for subsidized food distribution but one which is more open to imports supplying a larger portion of its domestic requirements.

IPC Releases New Study on Food Security: New Market Variables and Rational Public Policy Choices

National and global food security has become a topic of great interest following recent commodity price spikes in 2008 and 2012. The downward trend of grain stocks is related to higher demand from increased incomes, higher protein diets, and biofuels, the combination of which seems to have set the stage for more frequent episodes of high volatility in food markets related to weather and other potential supply disruptions.

As detailed in a recent paper released by IPC, "**Food Security: New Market Variables and Rational Public Policy Choices,**" by **Kendall W. Keith** (available on the IPC website at http://www.agritrade.org/Publications/GrainReservesandFoodSecurity.html), these developments have led to considerable dialogue regarding possible need for greater government intervention in markets to provide for improved assurance of food at reasonable prices. Recent research offers evidence that private markets remain the best mechanism for distributing relatively scarce stocks. However, it is unrealistic to expect zero intervention by governments. The critical links between national security and food security, the strategic importance of food, and prospects for internal political unrest caused by food shortages are all significant matters of public policy in many countries.

The conclusions of this paper are that governments should: 1) avoid significant intervention in markets (such as trading futures or accumulating large stocks) which could distort efficient distribution of grain and food; 2) invest in the collection of stocks data and work cooperatively with other countries to make such data public for a more efficient global food distribution system; 3) participate in ongoing dialogue with other countries on methods to discourage government policy shifts that aggravate impacts of temporary shortages; and 4) if viewed as necessary, supplement private grain stocks with low levels of stocks held for strictly humanitarian and emergency needs. Government holding of large stocks discourages private stock accumulation, distorts market signals and impedes timely supply and demand responses in private markets.