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Making Sense of Food Price Volatility

Homi Kharas · Thursday, March 3, 2011

Food prices have risen to record highs for the second time in three years. Some blame the hedge fund speculators who have funneled large amounts of money into futures contracts in food markets. They argue that market mechanisms are broken and need fixing. Others blame their governments (look at the riots in the streets of several developing countries) and find fault in the political systems, corruption and cronyism that have robbed them of the resources to afford higher food prices. Their solutions are political. Still others look to pervasive poverty and high income inequality as the reason why food price volatility is of such concern. They focus on the social aspects and solutions.

This separation into markets, politics and social stability is actually a useful frame for understanding how food prices affect developing countries and what needs to be done at a policy level. The issues are of course interconnected but too often the discourse becomes confused as one thread leads to another and the logic gets tangled.

As an initial point, it's worth stressing that the crux of the food price challenge is about price volatility, rather than high prices per se. It is the rapid and unpredictable changes in food prices that wreak havoc on markets, politics and social stability, rather than long-term structural trends in food prices that we can prepare for and adjust to. And it is also worth noting that volatility cuts both ways—prices go up and down. The only reason food prices are going up so much this year is because they came down so fast after reaching 2008 peaks. Both rapid increases and rapid declines in food prices can create problems.

Food price volatility starts with the characteristics of food markets. What makes food markets distinctive is that both supply and demand curves are highly inelastic, meaning neither responds much to price changes in the short run. The most basic economics dictates that small shocks in either supply or demand will therefore lead to large price changes. Today, we have many shocks: supply shocks in important food producing countries due to extreme weather (droughts in Russia and China, floods in Australia and South Africa) and due to the higher cost of inputs (fertilizer, pesticides and transport over long distances) linked to oil prices. Demand shocks have come from sudden policy decisions to increase biofuel content in gasoline, for example. The result is volatility in food prices.

Because food prices are so inherently volatile, it is natural that speculators should enter futures markets in a big way. Speculators make money out of understanding and providing insurance against volatility. They do not create the volatility themselves, except under very strange conditions. Almost all serious studies have come to the same conclusion: the volatility inherent in the food marketplace causes speculation, not the other way around.

So what can be done? First and foremost, break the link between food prices and oil prices. The current global food system worked well in a world of cheap, stable energy prices which allowed food to be grown in concentrated locations and transported over huge distances to meet demands. That system will continue to give us volatility as long as oil prices remain volatile. I would not bet on a return to cheap, stable oil prices in the near term, so the answer must be to change the food system to adapt to the new economics of energy. That probably means more localized and more diversified production and consumption, less use of fertilizer, and less wastage (20 percent of all food gets spoiled in storage and transport today). Ironically, the organic, slow-food, go-local cooperative movement may find that market forces are their new best friend.

Second, invest more in agriculture. There seemed to be an international consensus that this was indeed important; and a U.S.-led international fund to promote investments in agriculture was launched last year (the Global Agriculture and Food Security Program), but faced with budget pressures few countries have made new pledges or lived up to their commitments. From a $20 billion headline goal, GAFSP is now struggling to find a few hundred million dollars to support its programs.

Third, get small-holder yields up. African productivity is only half that of India, one-quarter that of China and one-fifth that of the United States. The technology to increase yields is well-known but requires investments; 90 percent of Africa's agricultural

land is rain-fed and subject to the vagaries of weather. Mechanized power to till the soil would do wonders to raise yields.

Markets can only work if governments allow them to do so. In many countries, food markets are not allowed to operate freely precisely because they generate confusing price swings in the short term. Governments like to make sure that rural farmers get "fair" prices (usually meaning large public subsidies), while urban constituents get subsidized food to consume. The balance between these constituencies varies from country to country, but the large-scale presence of government intervention in food markets is common across the world. The trouble is that when food prices are volatile, government intervention becomes unpredictable in terms of its budgetary cost. When corrupt governments are faced with unaffordable food subsidies, political stability (what has been called the authoritarian bargain) is at risk. And some government interventions reinforce price swings. For example, food exporters like Russia have resorted to export restrictions when food prices rise, reducing supply on international markets. That drives up prices still further.

Many government interventions are designed to shelter local markets against volatility in the global price of food, but in fact it is precisely these national interventions that are spurring global volatility. The various border protections against the global market in place around the world segregate the world food market into a number of much smaller national markets, the exact opposite of what is needed today. If these distortions didn't exist—in other words, if there was truly a single global market for food, and an actual "world" price of food—the volatility of prices would be much lower than the volatility in each of the protected local markets for food that we currently have.

The difficulty, of course, is that there is little incentive for any single country to liberalize its agricultural trade so long as the distortions of other countries—and the volatility in global markets they encourage—remain. And this brings us directly to the failure to complete the Doha Development Round of trade talks, which is now in its 10th year of negotiations and has been stuck largely because of the impasse on agriculture. The ongoing failure of the Doha Round shows that the political will to take collective action to reduce food price volatility is lacking; there is no trust that the market will deliver access to food better than a government.

Politicians in developing countries care more about volatile food prices than those in developed countries because their citizens are more directly affected by the ups-and-downs of food prices. Just a few years ago, the main social issue in India was farmer suicides because of low agricultural prices. Today, it is the lack of affordability of food for the poor. In some sub-Saharan African countries, the poor might spend 70 percent of their income on food. If food prices double, these households literally become faced with the prospect of starvation. The solution: safety nets or social protection for the poor, to cushion the blow of rapid changes in food prices.

There are some drawbacks; good safety nets require effective targeting. Who should be protected? Economists might suggest the children, especially the very young, as there is ample evidence that early child malnutrition results in long-term deterioration of brain development. That line of thinking points towards subsidized school meals, or conditional cash transfer programs (sometimes means-tested, sometimes with self-selection). But politically it is the unemployed youth in urban areas that are most likely to riot. Getting cheap food to them is administratively cumbersome (government ration shops are the most common way) and normally subject to huge corruption. As a practical matter, few countries in sub-Saharan Africa actually have national social protection frameworks, although the concept of the value of social protection is now formally recognized (the African Union endorsed a social policy framework for Africa in 2009). So building social safety nets in poor developing countries remains a worthy but long-term project.

All this brings us back to where we started—big swings in food prices are happening more regularly (maybe because of climate change and the link to oil) and proving to be highly destabilizing for development and poverty reduction. The solutions lie in three areas—improving food markets and agricultural production, building political will to integrate food markets across countries, and developing social safety nets in poor countries. All are long-term projects that have been on-and-off for some years now. And because none of the challenges are being tackled with the urgency that is needed, we can expect more of the same in the years to come.