

BUILDING A RESILIENT GLOBAL FOOD SYSTEM BY LOWERING FOOD PRICE SPIKES AND VOLATILITY

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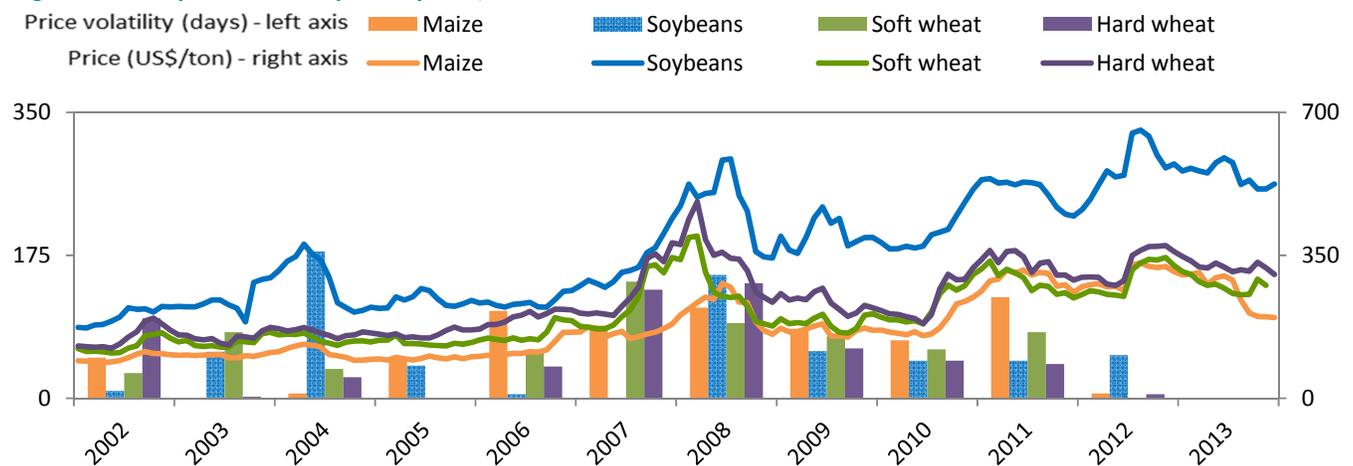
INTRODUCTION

Volatility and spikes in global food prices can have large and diverse impacts on the welfare of poor people, particularly their food and nutrition status.¹ Although high and volatile price levels have subsided in recent years, the international community should not become complacent (Figure 1.1). The complex set of concurrent factors behind the recent food price crises in 2007–2008 and 2011—including diversion of crops for

biofuel, extreme weather events, low grain stocks, and panicky trade behaviors—are still present or have the potential to reemerge. An important component of improving the stability of the global food system is to reduce price spikes and volatility that can destabilize future food availability and accessibility.

The objective of this brief is to review the latest literature and developments related to actions taken in preventing and managing food price spikes and volatility and to identify future actions to build a more resilient global food system (Table 1.1.).

Figure 1 Food price volatility and spikes, 2002-2013



Sources: Data from IFPRI and FAO.²

Note: Price spikes refer to a steep rise in prices over a short period, whereas *volatility* is defined as a high dispersion of prices around the average market price. See von Braun and Tadesse.³

AREAS OF PROGRESS

Increased Investment in Agriculture, Food, and Nutrition

Investments in agriculture are an especially effective and equitable tool to enhance food security by reducing food prices and increasing output.⁴ Falling investment levels in agriculture throughout the developing world during the 1980s and 1990s have been reversed in recent years. Since 2008, the Group of Eight countries (G-8) has launched a series of global financial commitments toward improved food and nutrition security, including US\$22 billion under the L'Aquila Food Security Initiative and, more recently, US\$4.15 billion under the Global Nutrition for Growth Compact. However, two years after the conclusion of the L'Aquila Initiative, donors have disbursed only three-fourths of their commitments.⁵

Country- and regional-level investment toward agricultural development has also been on the rise in recent years. Agricultural public investment in Africa increased by an average of 7.4 percent per year between 2003 and 2010.⁶ China doubled its spending on agricultural research and development (R&D) between 2000 and 2008 (and increased it by 50 percent between 2009 and 2010)⁷ and has prioritized agricultural investment and modernization in its strategic plans since 2012. Similarly, Brazil has increased its farm budget to expand warehouse capacity and subsidize agricultural insurance and loans—but this policy needs to be closely monitored because subsidized interventions can often be economically distortive and unsustainable.⁸

Decreased Use of Trade Restrictions

Distortionary trade policies intended to insulate domestic markets from international food price fluctuations contributed

Table 1 Progress of proposed actions to build resilience against food price volatility and spikes

PROPOSED ACTION	PROGRESS
Increase investment in agriculture, food, and nutrition	√
Decrease use of trade restrictions	√
Elevate levels of national stocks and develop regional reserves	√
Mitigate food-fuel competition	X
Eliminate distortionary and costly price support policies	X
Promote equitable growth and strong social protection	X
Support climate-change adaptation and mitigation activities	X

Source: See Fan, Torero, and Headey.⁹

to tighter agricultural markets (by reducing production incentives among agricultural producers) and induced panic purchases in 2007–2008, exacerbating already high prices.¹⁰ Since 2009, trade restrictions have been on the decline. According to a recent report, approximately half of the 71 examined developing countries used export bans in 2007–2008 (predominantly in Africa and Asia), but this number fell to around 20 percent in 2011–2012.¹¹ Multilateral platforms have offered the opportunity for countries to agree on trade guidelines that do not aggravate food prices, including the long-sought-after agreement to ease trade barriers and costs for all types of trade at the Ninth World Trade Organization (WTO) Ministerial Conference in Bali.

Increased National Stocks and Regional Emergency Reserves

Food production systems (especially food prices) can be more sensitive to supply and demand shocks when food stocks are low.¹² In the years leading up to volatile food prices in 2008, demand growth outstripped food supply, resulting in declining stock levels; but recent global cereal stocks have been on the rise, with 2013–2014 stocks forecast to reach their highest value in more than 10 years.¹³

Some progress has also been made in developing regional grain reserves to help maintain healthy food stocks and mitigate the negative impact of food production shocks on food prices. The Association of Southeast Asian Nations plus Three (China, Japan, and South Korea) officially launched its Emergency Rice Reserve in 2013 as a permanent mechanism to keep its rice markets flexible during times of natural and man-made shocks. Meanwhile, the Economic Community of West African States has taken preliminary steps to establish a regional food reserve for West Africa during emergencies and as part of social safety net programs.

AREAS OF STAGNATION AND REGRESSION

Distortionary and Costly Price Support Policies

Another policy response to recent high price volatility was the introduction (or expansion) of price support policies, such as input subsidies alongside output and consumer price subsidies, to protect producers and consumers against fluctuating commodity prices and increase domestic food production. However, such national interventions can lead to resource misallocation and price instability, and in the long term, their costs often exceed their benefits (compared with public investments in R&D and infrastructure).¹⁴

Most of the price support policies introduced or expanded during the 2008 food crisis have remained in force.¹⁵ These policies have been especially popular in Asian countries, where price support measures date back to the Green Revolution in the 1970s. In recent years, China and India have increased support policies toward agriculture, focusing on boosting agricultural production for self-sufficiency.¹⁶ Moreover, Thailand, the traditional leader in rice exports, introduced a policy of guaranteeing farmers' prices at above-market levels, resulting in higher rice prices and reduced rice exports in Thailand. Since 2013, the United States and the European Union have adopted agricultural policies that reaffirmed their support of domestic agricultural production, which could potentially stifle agricultural development in other countries and increase the risk exposure of the global food system by limiting food production to a few countries.¹⁷

Mitigating Food-Fuel Competition

Biofuels contribute to spikes in food prices: rising oil prices have been shown to increase demand for biofuels (underpinned by government mandates/subsidies), shifting agricultural production toward biofuel feedstock.¹⁸ Concerns that biofuels endanger food security have driven a number of countries, such as China and India, to support development of advanced biofuels produced from nonfood crops or the nonedible parts of crops. However, recent efforts to limit the use of crop-based biofuels by the European Union (the third-largest producer of biofuels) have been delayed (most likely until 2015). In the United States (the largest biofuel producer), funding toward the development of advanced biofuel technologies was reduced under the 2014 Farm Bill. These actions have the potential to thwart the momentum behind long-term development of the next generation of (nonfood) biofuel technologies.¹⁹

Exclusive Growth and Limited Social Protection

Developing countries in Asia and in Africa south of the Sahara (SSA) experienced strong economic growth in the years leading up to and following the economic slowdown in 2008. However, rising inequality in the two regions has weakened the conversion of this growth into improved food security and poverty reduction, likely due to factors such as high initial inequality, low agricultural growth compared with other sectors, and uneven access to and spending on social services.²⁰ In India and China, for example, rural-urban and regional income disparities appear to be on the rise.²¹

With many of the world's poorest people—who are typically net buyers of food—bypassed by economic progress, social protection interventions are an important countercyclical tool

to help vulnerable households address current and future vulnerabilities. Such programs—including food transfers and school feeding—have gained momentum during the last decade in many developing countries.²² Yet large segments of the population throughout the developing world remain without social protection, ranging from 76 percent in SSA to 42 percent in Latin America and the Caribbean.²³ Moreover, current social protection initiatives are often characterized by fragmentation and duplication.²⁴

Inadequate Climate-Change Adaptation and Mitigation Activities

Food production systems are both a cause and a casualty of increasing climate change, significantly contributing to global greenhouse gas emissions but also vulnerable to more extreme weather patterns.²⁵ Climate-smart agriculture has had a low-key presence within the ongoing United Nations Framework Convention on Climate Change (UNFCCC) process. During the UNFCCC's 2013 meeting in Warsaw, participants could not reach an agreement on including agriculture in official negotiations—due to opposition from developing countries—and so deferred negotiations to future meetings.²⁶

At the same time, evidence from several African countries, for example, indicates that farmers' use of climate-change adaptation and mitigation strategies is low, with farmers often more influenced by their perception of short-term livelihood gains than long-term yield benefits.²⁷ Other constraints may include insufficient access to inputs and rural services (such as credit and information) as well as insecure property rights.

PATHWAYS TO BUILDING RESILIENCE TO VOLATILE AND HIGH FOOD PRICES

Despite some improvements since the food price crises in 2007–2008 and 2011, much more remains to be done to strengthen the resilience of the global food system to future price spikes and volatility through the right mix of innovative policies.

Promote mutually beneficial trade. To maintain the stability of food markets, governments should avoid distortionary and destabilizing trade policies (especially during times of high food prices). There is considerable scope for governments to agree multilaterally to seek restraints on variable trade restrictions under the current round of WTO negotiations.

Reduce biofuel-food competition. Policy initiatives that alleviate biofuel-related pressures on food prices and food security include removing measures that encourage the use of food crops for fuel production. Research should focus on developing advanced biofuels that use nonfood crops, the nonedible parts of food crops, or crops grown on marginalized lands that are appropriate for adoption in developing countries, especially by smallholders. Governments should also explore

diverse energy policies, including the flexible use of biofuel mandates.

Establish and expand regional and global food grain reserves. Such reserves provide mechanisms for short-term relief during food-related emergencies. Transparent, accountable, and well-defined operational policies and institutional channels are essential for the effective and nondistortionary functioning of such mechanisms, combined with comprehensive early warning and market information systems.

Increase adoption of climate-smart technologies and practices. A “triple-win” approach to climate change within the agricultural sector would focus on productivity-enhancing climate-change mitigation and adaptation solutions accessible to all farmers, including smallholders. Increased investment in agricultural R&D is needed to develop new varieties of drought- or flood-tolerant crops, focusing especially on the climate-related constraints.

Invest in productive and cross-sectoral social safety nets. Better-targeted, more productive, and flexible social protection policies are needed to minimize the impact of short-term shocks and offer long-term opportunities to escape food insecurity and poverty. New country-specific approaches, such as cross-sectoral initiatives that combine social protection, nutrition, and agricultural productivity interventions using modern technologies, should be explored—especially targeting vulnerable segments of the population and the most food-insecure regions.

Develop market-based price stabilization. Private institutions, governments, and donors should collaborate to support the design of innovative and flexible market-based price stabilization tools (such as hedging funds and futures markets), paying attention also to the needs of smallholders. These innovative tools can potentially limit the risk exposure of producers and calm volatile markets without the distortionary effects and high costs of current price support measures, but they should be better regulated to limit excessive speculation on food commodities.

GOING FORWARD

Building the resilience of developing countries and their vulnerable populations to volatility in food prices is an important component of a comprehensive strategy to help these populations manage a myriad of future man-made and natural shocks to their already fragile livelihoods. Some progress has been made in key areas such as agricultural investments, open trade, and regional grain reserves, but effective actions are still lagging in regard to biofuels, market-based price stabilization, climate change, and inclusive economic growth. National and international stakeholders need to devote urgent attention to these lagging areas and make further progress in the other key areas.

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NOTES

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