

1. Causes of food crisis:

The food crisis is an ongoing problem that has grave implications for international stability. It arose from the confluence of several individual factors, some of which . Unfortunately, there is little peer-reviewed empirical evidence describing the relative impact of different factors. Proximal factors include:

- Multiple years of unstable weather in major agricultural regions, likely a symptom of climate change
 - o 2006-08: Drought in Australia, the second-largest rice exporter
 - o 2008: Floods in the US that delayed rice planting and destroyed crops
 - o 2008: Floods in India
- Higher prices of agricultural inputs (fuel and fertilizer), as well as transportation cost
- Diversion of corn from food to ethanol markets
- Declining grain reserves in the US and the EU
- Food market speculation

Long-term factors include:

- The wasteful conversion of plant protein to meat protein via feedlots
- IFI structural adjustment policies that force developing nations to convert cropland to cash crops for export, while opening markets to heavily subsidized staples from the US
- Demand increases from population growth and a dietary shift from grains to meat

2. Zoellick's proposed responses

As president of the World Bank, Mr. Zoellick has proposed several responses:

- Increase food donations
- Increase agricultural support to developing countries (seeds, fertilizer, irrigation services, agri extension services, etc) via grants and loans
- Work with key international importers & exporters to "break the price spiral", e.g. Allow Japan to export the 1, 500, 000 tonnes of rice it unwillingly purchased
- Reform biofuel policies to decrease incentives to make ethanol from corn
- Reform international trade: reduce trade restrictions and possibly eliminate agricultural subsidies

3. Why those responses will or will not work for poor countries

Increased food donations will have a short-term impact on poverty alleviation if they are delivered to the poorest people, and if the donations do not decimate local markets. Mr. Zoellick has proposed to target poor people by directing donations to school lunches and food for work programs. To avoid driving farmers out of business who live near target areas, Mr. Zoellick has proposed local purchasing of food stocks. This is contrary to long-standing US policy of only purchasing food-for-aid from US farmers,

but will incentivize local production which will offer protection from volatile international commodity markets as well as currency devaluation.

Increased agricultural support will likely help poor countries, especially if it results in long-term capacity expansion and reduced dependence on fossil-fuel based inputs (fuel and fertilizer) without getting them into greater debt or mandating structural adjustments that decimate long-term growth prospects. Loan-based support is especially dangerous in light of climate destabilization, because a country that takes out large loans for agricultural infrastructure may have a series of bad harvests and be unable to repay the loan. Most of the agricultural support appears to promote the use of fossil-fuel based inputs, rather than alternatives such as organic compost. This is cause for concern in the long-run, because the price of those inputs are expected to continue rising indefinitely.

Coordinating the activities of major grain importers and exporters may derail the price spiral, which would have a positive impact for poor countries. The release of Japanese rice reserves onto the world market in a *controlled* manner could limit the severity of impacts on the poor and force international commodity prices down. The Japanese held rice appears to be the last significant reserve that will be easily accessed until a surplus is built up, so it should be leveraged as much as possible for as long as possible, or at least until other responses come fully online.

Bio-fuel policy reform, specifically removing mandates and all other production incentives on corn-based ethanol is a good short- to medium-term solution that will relieve recent pressure on grain supplies. It is unlikely these reforms would hurt poor countries, unless they have invested heavily in corn ethanol infrastructure. Any international litigation that followed (e.g. based on Chapter 11 of NAFTA that permit foreign investors to sue states for changes in laws that negatively affect their income) would be directed at the US or EU rather than poor countries.

International trade reform could have significant effects in the long-term, but the direction of the effects on poor countries depends on which reforms get passed. The World Bank's "Double Jeopardy" report showed greater preference to a reform package of tariff cuts and increased market access than to a reform package that included elimination of agricultural export subsidies. If markets in poor countries are made more open to heavily-subsidized US agriculture, this could drive local farmers out of business. Opening markets in poor countries to heavily-subsidized US agriculture has decimated their agricultural production, so any effective reform package needs to decrease that problem rather than expanding it.

4. How can short and long run responses have greater effectiveness in poor countries?

The price bubble in the grain market offers a significant prize for speculation and price-gouging. Although the world bank does not believe those activities are significantly contributing to the current food crisis, they should structure trade and market reforms to discourage individuals or organizations from cashing in on this crisis. Some money will be made as long as the price is up, so to mitigate the "7 lost years", the world bank should advance policies that will send more of that money to the poorest people in the grain value chains. For example, they currently discourage limiting trader margins. Setting a limit would ensure that more of the windfall profits go towards the production end of the supply chain that includes poor people. The lack of a limit means traders have a disincentive to reduce grain prices.

Plan agricultural support programs that will be robust against a future of climate uncertainty (droughts and floods), falling aquifers, increased costs of fuel and fossil-fuel based fertilizers, increasing transportation costs, and falling pollinator populations. Specifically, this implies building physical infrastructure to protect against flooding (wetlands, storm water management, burms, and dikes); improving irrigation systems by reducing canal leaks and promoting better management; replenishing aquifers through large-scale water efficiency programs, land management, and rainwater harvesting; transitioning to agricultural practices that best leverage organic fertilizers; promoting farm equipment that can be powered by crop residues (via biomass gasification) rather than diesel; promoting regional food networks and urban food production to lower transportation and storage costs; and transition away from pesticides and land use practices that reduce pollinator populations. Following the loss of fossil-fuel based agricultural inputs, Cuba was forced to develop a strong and robust urban organic gardening program. Cuba has been exporting doctors and literacy teachers for some time, and may be open to the idea of exporting agricultural specialists to extend and adapt their food programs to other countries.

All world bank policies should take special care to avoid conditions that precipitated the dust bowl conditions of the US during the 1930s. The dust bowl was caused by a confluence of several factors. Global grain prices soared during World War 1 after Europe lost Russian wheat imports and agricultural productivity. Many US farmers seized on this market opportunity and expanded their production and took out significant loans for tractors and land. Periodic regional climate variations also expanded rain zones, making marginal prairie land profitable. Subsequently, the global grain prices fell to more normal levels and the rain patterns shifted back. The yields were no longer as profitable, and the land no longer bore food; instead periodic wind storms would blow loose dirt away after planting. Many farmers desperate for a crop used their new tractors to retill the soil and replant. Some farms lost 3 or 4 layers of soil in a single year that way. Farmers were unable to repay their loans, which contributed to the start of the great depression. Also, the rapid destruction of historic prairie habitats enabled a grasshopper epidemic because by reducing populations of natural predators.

In summary, a market bubble and unstable climate conditions caused over-expansion of farms financed through debt. As the bubble collapsed and the regional climate shifted again, this caused economic collapse, environmental devastation, and social unrest. Today, we have a bubble in the grain market, a climate that is undergoing long-term instabilities, and easy access to loans. We need to be very careful about unsustainable agricultural expansion, especially if financed by institutions that cannot afford to have entire regional sectors default on loans.

References

- The World Bank. G8 Hokkaido-Toyako Summit: Double Jeopardy: Responding to High Food and Fuel Prices, July 2, 2008
- Maros Ivanic and Will Martin. 2008. *Implications of Higher Global Food Prices for Poverty in Low-Income Countries*. The World Bank, Policy Research Working Paper 4594, April 2008.
- Will, G.S. (2007, April 29). "1930s Dust Bowl offers a warning for today". Deseret News (Salt Lake City). Available online: http://findarticles.com/p/articles/mi_qn4188/is_20070429/ai_n19051162