The world economic crisis at the end of 2008 led to a profound distrust of financial markets, particularly among the developed countries that were impacted the most. Similarly, the twin price spikes that like bookends preceded the collapse and now accompany the global recovery, have caused political leaders in many developing countries to lose faith in grain and other commodity markets.

After at least two decades of gradual withdrawal as part of an overall move toward free markets and economic liberalization, food price riots in 2008 and the recent unrest in many countries—sparked in part by renewed inflation—have prompted many governments to vigorously intervene in grain markets.

Outright bans, quotas or other restrictions on exports by Russia, Ukraine, Argentina, India, China and others are just one aspect of this trend.

Another is the policy decisions of many countries to increase the size of their strategic grain reserves whether composed of domestic or imported origin. The effects on world markets of these larger reserves have yet to be seen, but could make volatile markets even thinner as governments seek to hold, or as critics would say, hoard more grain.

There are numerous examples from many parts of the world.

**MIDDLE EAST**

In the Middle East, a region heavily dependent on grain imports, wealthy governments have decided to invest some of their immense cash surpluses in strategic grain holdings. Industry sources report that Saudi Arabia intends to increase its stock on hand of imported wheat to 1.5 million tonnes, which...
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represent a six-month supply based on an annual milling wheat requirement of 3 million tonnes. A number of large grain storage facilities are expected to be built, particularly at Red Sea ports, as the country has rapidly phased out domestic wheat production due to aquifer depletion after nearly 30 years of costly self-sufficiency.

On April 18, the head of the Iraqi Grain Trading Company stated that his agency would up its wheat purchases from abroad this year to 3.25 million tonnes, equivalent to one year’s import supply plus a 1-million-tonne strategic reserve. Last year the country imported 1.9 million tonnes. Iraq will also increase rice imports to 1.5 million tonnes in part for reserve purposes.

Oman recently announced plans to construct a total of 300,000 tonnes of steel silo storage for government wheat reserves at two ports. The country’s two domestic milling companies will draw from the reserve in order to rotate the wheat in storage.

In the UAE, there have been recent press reports of a plan to build a very large grain storage complex at the port of Fujairah on the Indian Ocean with financing from Abu Dhabi, the richest of the seven emirates. The location, which already houses a strategic petroleum reserve, would ensure access to imported grain in case the Strait of Hormuz was ever blocked. Saudi Arabia’s emphasis on Red Sea storage facilities may reflect the same geopolitical worries.

In line with this theme, industry sources report that Qatar’s government is considering building a huge underground grain storage bunker that would protect a wheat reserve from radioactive fallout in case of a nuclear catastrophe in nearby Iran.

In Jordan, where the state is the monopoly importer, the wheat reserve will rise by one third thanks to the addition of a 100,000-tonne-capacity concrete grain elevator at the Red Sea port of Aqaba. However, it could be argued that this increase merely keeps up with population growth.

In Egypt, with the government accounting for 5 out of 7 million tonnes of total wheat imports along with 2.5 million tonnes of domestic purchasing, there is little room to increase its activity except to push holdings up to six months stock, the upper end of the reported target level.

Iran, which has achieved near self-sufficiency in wheat production in the last decade, has gone against the regional tide of greater state involvement in the last couple of years by deregulating most of its wheat sector and allowing private milling companies to buy directly most of the over 15 million tonnes per annum of wheat produced in the country.

SUB-SAHARAN AFRICA

Despite its status as the earth’s least food secure region, governments in sub-Saharan Africa in recent decades have held only modest grain reserves, if at all. Above all, this has to do with financial constraints, since buying up domestic grain and rotating stocks can be a huge burden on national budgets, not to men-

The effects on world markets of these larger reserves have yet to be seen, but could make volatile markets even thinner as governments seek to hold, or as critics would say, hoard more grain.
tion the cost of building proper storage facilities, the market risks of intervention, and problems of transparency and governance associated with such activity. Just as important, all but a few African governments have abandoned the socialist policies of the past, which often included state ownership of grain processing and storage facilities.

However, recently some countries, particularly cash-rich oil exporters, have begun laying the basis for greater intervention in grain markets. Nigeria has adopted a policy that 15% of the total annual grain harvest should be held in reserve. The National Food Reserve Agency (NFRA) will hold 5% as a core strategic grain reserve, and individual states are to hold another 10% as so-called “state buffer stocks.”

This policy initiative has already been backed by significant investment. In 2011, NFRA will complete the construction of steel silo storage capacity for over 1 million tonnes of grain, primarily maize, sorghum and millet, at 10 sites in key production areas. Existing NFRA storage capacity was 325,000 tonnes.

In Angola, the state also may divert some of its oil and gas export revenues to create a national grain reserve. The plan is for several hundred thousand tonnes of grain to be held in new government storage facilities under the Ministry of Agriculture. To date, just 45,000 tonnes capacity of steel silo storage has been built in five locations, thanks to development aid from the Spanish government. Despite 30 million hectares of unused arable land, Angola still imports much of its food.

Guaranteed government purchases in order to build up a grain reserve could serve as an incentive to more investment in agriculture. Kenya’s National Cereal and Produce Board has decided to double the reserves it stores from 4 million to 8 million sacks of 90 kg. The total of 720,000 tonnes will be almost entirely domestically purchased maize.

Zambia’s Food Reserve Agency, since about 2005, has become an active player in buying the maize surplus in the country, holding over 350,000 tonnes of maize, but in the process was subject to criticism for squeezing out private sector trade and contributing to overproduction and a 1-million-tonne surplus that could be neither adequately stored nor exported, resulting in a price collapse in 2010.

Sudan’s government, which operates a small reserve for domestic intervention in sorghum and millet, has largely stayed out of the wheat market since total deregulation of the sector in the late 1990s. However, recently it put out feelers for a tender purchase of 300,000 tonnes of wheat.

Ethiopia has operated an emergency grain reserve targeting a level of 400,000 tonnes for about 15 years. Thanks to economic reforms and outside investment, the country has experienced five years of GDP growth averaging 11%. Greater budget revenues should help the country realize a plan to increase the amount of grains held in reserve for both emergency relief and market stabilization.

SOUTH ASIA

Bangladesh’s Food Department is increasing its public stocks of wheat and rice to 1.5 million tonnes from a previous target level of 700,000 tonnes. Up until the early 1990s, the country held 2.2 million tonnes and was praised by international economists for reducing this by two-thirds.

Pakistan and India could be viewed as going counter to the trend of increased food reserves. Thanks to bountiful harvests in recent years, Pakistan is in the process of exporting hundreds of thousands of tonnes of wheat from govern-

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ment stores in order to make room for the current harvest with planned government purchases of 4 million tonnes just in Punjab state.

India’s harvest of grain and pulses at 235 million tonnes is at record levels for the second year running. Despite this, the country has banned wheat and rice exports since international prices started rising in 2007. Now many high-placed people are calling for the country to export some of its surplus wheat from a carryover stock that exceeds 17 million tonnes held by the Food Corporation of India, plus another 7 million tonnes in private hands. FCI needs to make room for targeted procurement of 26 million tonnes from the new harvest. There are fears of poorly stored grain rotting. One paradox of large government grain holdings is that due to lack of investment in modern storage facilities, the goal of food security is subverted by storage losses that can exceed 20% in many cases, though this is rarely officially recognized. Most government grain reserve record-keeping shows one bag going out for every bag coming in.

Up to 75% of India’s food reserve wheat is still stored outdoors in jute bags piled on raised earthen platforms called plinths and covered with tarpaulins. Most of the rest is stored bagged in go-downs. Only about 650,000 tonnes of government wheat is stored in modern steel silo facilities built by private operator Adani Grain in the last decade. In Pakistan’s neighboring Punjab region, the storage practices are the same though a higher share of wheat purchased by the Punjab state government annually may be in go-downs.

Bangladesh is launching an ambitious project to build terminals for imported wheat and rice at a number of ports excluding Chittagong where grain terminals already exist. In other ports for lack of berths and ship unloaders, a couple of hundred laborers with shovels fill sacks in holds of vessels at anchor in the harbor for loading onto 1,500-tonne lighters and transport to mills up river. Handling and transport losses are thought to be significant.

**EAST ASIA AND SOUTHEAST ASIA**

Though the total is a state secret, China’s government wheat holdings are estimated to reach 55 to 60 million tonnes following the harvest with an annual carryover of at least 20 million tonnes. Grain production and consumption represent 20% of the world total, but the impact on international markets is relatively benign due to a sacred policy of 95% self-sufficiency in grain, excepting about 57 million tonnes per year of soybean imports. Most other governments in the region hold large rice reserves. South Korea’s hit a record level of 1.5 million tonnes in the last year. In Indonesia, the food reserve agency Bulog has a monopoly on rice imports as does its counterpart in the Philippines.

**CONCLUSION**

In countries like Nigeria, increased grain reserves are mostly a domestic market phenomenon. But in the case of wheat, with some traditional exporters — particularly Russia and Ukraine — seeking to protect national stocks on the one hand while on the other hand governments in a number of importing countries build infrastructure to increase their holdings, the implication could easily be less stable and less liquid markets over the medium term.