

Food Price Watch



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International prices of food increased by 4% during January and April 2014, putting an end to the declining trend of food prices sustained since August 2012. Prices of wheat and maize sharply increased during that period due to growing weather concerns and mounting import demand. Despite favorable prospects for cereals supplies, several uncertainties hang over the near future, some exerting upward pressures on prices, such as weather in the United States and, more globally, *El Niño*, and a hypothetical escalation of geopolitical tensions in Ukraine and others exerting downward pressures on export prices, such as the releases of public stockpiles of rice in Thailand. Domestic prices of food generally stabilized across regions, marked by seasonal trends and availabilities from previous harvests. In some places, conflicts, public procurement policies, and transport costs had important effects on domestic prices.

The thematic section of this report discusses the role that food prices and food shortages may have on food riots, a term widely used but poorly defined, and partially reflecting decades of overlooking the *food-to-conflict* nexus. Hence, monitoring food prices responds not only to food security and welfare interests, but also to political stability and security concerns. Proper monitoring constitutes a first step in addressing the complex interactions between food insecurity and conflict.

Global Price Trends

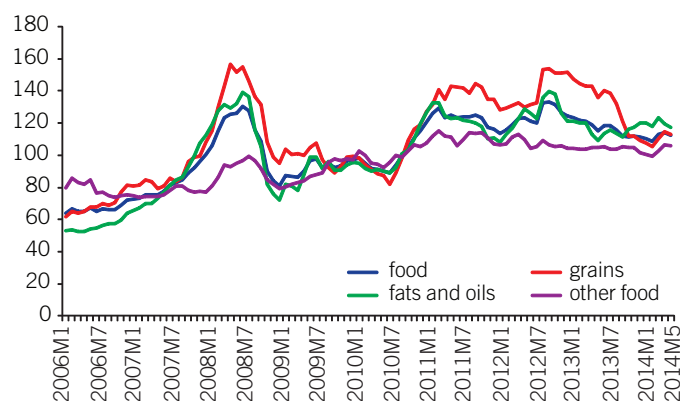
International food prices have increased by 4% between January and April 2014, interrupting sustained declining trends in food prices observed since August 2012 (figure 1). A sharp 4% monthly increase took place in February, followed by a more subdued increase in March and a price drop in April.¹ As a result, internationally traded food prices remain in April 2014 only 2% lower than those observed a year ago. Prices remain in sight of their all-time peak in August 2012, some 16% below their historical record (table 1).

The prices of internationally traded grains and “other” foods increased 7% between January and April 2014. Prices of fats and oils decreased by 1% during the same period.

International prices of wheat and maize increased sharply during the last quarter, in contrast with generally declining prices of rice. International wheat prices soared by 18% between January and April 2014. Such a steep price increase had not occurred since the months leading to the historical peak in the summer of 2012. Likewise, the

price of internationally traded **maize** rose by 12% between January and April 2014. Nonetheless, the prices of maize remained in April 2014 some 21% lower than a year ago, while international prices of wheat were 5% higher than those observed in April 2013. **Rice** prices followed

Figure 1. World Bank Global Food Price Index



Source: World Bank, DECPG.

Note: The Food Price Index weighs export prices of a variety of food commodities around the world in nominal U.S. dollar prices, 2010 = 100. Note that the previous base, 2005 = 100, has now been changed to 2010.

Table 1. Price Change of Key Food Commodities

Indices	Jan 2014 – Apr 2014 (%)	Apr 2013 – Apr 2014 (%)	Aug 2012 – Apr 2014 (%)
Food	4	-2	-16
Fats and oils	-1	7	-16
Grains	7	-17	-26
Other	7	1	0
Fertilizer	-7	-23	-30
Prices			
Maize	12	-21	-33
Rice (Thai, 5%)	-12	-29	-30
Wheat (U.S., HRW)	18	5	-7
Sugar (world)	13	-1	-16
Soybean oil	6	-9	-20
Crude oil, average	3	6	0

Source: World Bank, DECPG.

different patterns between January and April 2014 depending on origin and quality. Prices of Thai 5% rice decreased by 12% (and so did other lower quality varieties of Thai and Vietnamese rice, not reported in table 1).² In contrast, export prices of higher quality rice³ have increased as a result of droughts in Australia, a major exporter of higher quality rice, and diminished availability in the United States.⁴ Regarding commodities other than grains, the World Bank's monthly average price of **crude oil** averaged US\$104 per barrel during the quarter ending April 2014, some 3% above its January 2014 average. **Fertilizer** prices continued to decrease, some 7% during this period and 23% below their level a year ago. Between January and April 2014, **sugar** prices markedly increased (13%), as did prices of **soybean oil** (6%), increases of both these items are associated with weather concerns (especially in Brazil), and strong demand in the case of soybean oil.⁵

Increasing weather concerns and import demand—and, arguably, to a lesser extent, uncertainty associated with the Ukraine situation⁶—explain most of the price increases. These increases have taken place despite bumper crops in 2013 and continued projections of record grain harvests and stronger stocks expected for 2014.⁷ In the case of **wheat**, record harvests are still expected for 2014, although slightly below the all-time records of 2013. Prospects for winter wheat crops in the northern hemisphere, which account for the bulk of global production, are mostly favorable.⁸ In China and India, recent increased minimum support prices and public purchases contributed—along with good weather

conditions—to the expansion of cultivated areas.⁹ Strong stock build-ups in China, Canada, and the Russian Federation explain, in addition to bumper crops, the expected marked increases in global wheat stocks.¹⁰ Notwithstanding this positive news, continued dryness in the Southern Plains in the United States, as well as some earlier deterioration due to cold and dryness in the Great Plains, are growing concerns.¹¹ Localized weather concerns in the Black Sea region, European Union, and Canada have also been reported.¹² Increasing import demand from China—demand that more than doubled in 2013¹³—and other large importers from Asia, North

Africa and the Middle East¹⁴ has also contributed to further tightening of the international wheat markets.

Similarly, prospects for **maize**—which broke historical production records last year—have been mostly favorable, although with some recent deterioration. Good conditions are generally reported in Argentina, South Africa, and Mexico.¹⁵ Favorable conditions in Brazil during March and early April deteriorated in late April due to persistent dry conditions in southern production areas. A reduction in the planted area (due to lower prices and substitution to other crops)¹⁶ is also contributing to the lower output in Brazil, a key world exporter. Recent weather conditions delayed to some extent the planting of maize in the United States; yet a sharp rebound from last year's reduced harvests is still expected in the United States.¹⁷ The use of maize for ethanol will increase as a result of a recovery in the production of this biofuel in the United States (expected to exceed 7% in 2014), thus reversing the previous year's decreases.¹⁸ Another factor affecting international maize prices is the strong demand for exports, especially from the United States—but also from Ukraine and Russia—and increased import demand from China, the European Union, the Arab Republic of Egypt, the Islamic Republic of Iran, and Algeria.¹⁹ This increased trade responds in part to an increase in feed uses, but also to a building up of stocks in China, the United States, Canada, and Ukraine.²⁰ Globally, ending stocks of maize are expected to increase by 17% to the largest level in 10 years.²¹

Rice production is expected to increase to record highs again, although at a slower pace than in previous years.

Also, record world stocks of rice are estimated for the end of the 2013/14 season.²² The slowdown in production growth is due to economic factors, such as a switch to more profitable crops, as in the United States; policy measures, such as the suspension of the price mortgage program in Thailand; and weather conditions, such as in Australia, the United States, and China.²³ Lower production expected in Australia and the United States (of the Japonica variety) and recent weather concerns (cold weather) reported in Indonesia, Vietnam, and Thailand are pressuring international prices,²⁴ as are stronger currencies in Pakistan and India, after a devaluation of India's rupee earlier in the year. In Thailand, the ending of the price mortgage program in February and the release of public stockpiles also had consequences—in addition to effects on planted area and production—in terms of reduced domestic prices and increasing exports. In India, domestic policies may have the opposite, declining effect on exports (although not threatening its world's top exporter position). Larger Asian importers are expected to significantly increase their imports, reversing what some have called a “lukewarm” buying interest in 2013.²⁵ This also includes China, at a time when the minimum purchase price of rice by the government has also increased, thus incentivizing imports from cheaper origins.²⁶

Looking forward, the downward pressures on prices reported in the February 2014 *Food Price Watch* seem to have waned to a large extent. Continued weather concerns in the United States, Australia, and South America might have a larger impact in the coming months as new crops are being harvested.²⁷ Some sources have already indicated that El Niño conditions might develop toward the end of the year, although the chances of it unfolding and possible impacts remain uncertain at this point.²⁸ Geopolitical tensions in Ukraine have not disrupted exports so far, but might have effects on future production and trade if uncertainty increases. Other developments that might have additional short-run effects on export prices include releases of public stockpiles of rice in Thailand.

Domestic Price Trends

Domestic prices of grains remained mostly stable between January and April 2014. In western Africa, cereal prices remained stable or declined after increasing supplies from coastal countries and strengthened regional trade flows offset limited production in certain Sahel countries.²⁹ In southern Africa, the price of maize stabilized or declined

seasonally based on expected good harvests.³⁰ In eastern Africa, maize prices also followed seasonal trends, with prices recently increasing as food availability from previous harvests dwindles. Insecurity has intensified those seasonal effects in Somalia, South Sudan, and Sudan. In Central America, prices of beans increased sharply due to reduced crops in 2013. Prices of maize also increased due to seasonal trends.³¹ In South America, wheat prices declined (helped by record production in Argentina, the largest regional exporter), but remain at high levels. However, maize prices have shown mixed trends in South America.³² In East and South Asia, rice prices remained stable from a combination of downward pressures due to seasonal factors and good availability from previous harvests and upward pressures from increased public purchases and localized limited harvests.³³ In Central Asia, prices of wheat generally remained stable because of adequate supplies from good harvests and imports.³⁴

Between January and April 2014, the largest wheat price increases (table 2) took place in Ukraine (national average, 37%), reflecting currency depreciation and increasing export demand,³⁵ in monitored markets in Ethiopia (24%), following seasonal patterns; and in Sudan (19%) and Kyrgyzstan (15%) due to currency depreciation and increasing transport costs.³⁶ Sizable wheat price reductions—from increased availabilities—were reported in monitored markets in Argentina (38%)³⁷ and, more moderately, across markets in Pakistan (8%), Bolivia (6%), and Tajikistan (2%) due to fresh supplies.³⁸ Domestic **maize** prices experienced the largest increases in Ukraine (national average, 73%), because of delayed plantings and increasing costs, and in monitored markets in Uganda (62%) due to seasonal factors, increasing export demand, and institutional purchases.³⁹ In Somalia, increases in domestic maize prices reached 47%—linked to low supplies and market disruptions from insecurity⁴⁰; 34% in Russia (national average); and 31% in monitored markets in Tanzania on account of increased demand and limited output.⁴¹ Large decreases were observed in monitored markets in Mozambique (41%), based on good expectations for the ongoing harvests, and Bolivia (26%), as new supplies enter the markets.⁴² Between January and April 2014, **rice** prices increased by 13% in Nicaragua (national average) following seasonal factors and recent changes in the value-added tax.⁴³ Rice prices went up by 11% in selected markets in Myanmar due to smaller recent harvests and localized floods,⁴⁴ and by 10% in monitored markets in Somalia. The largest declines in rice prices occurred in Madagascar

Table 2. Largest Variations in Domestic Prices

Quarterly Price Movements: January 2014 – April 2014			
Wheat	% change	Maize	% change
Ukraine, natl. avg., 3rd class, bid, EXW, processing, hryvnia/ton	37	Ukraine, natl. avg., bid, EXW, processing, wholesale hryvnia/ton	73
Ethiopia, Jimma, white, wholesale, Ethiopian birr/local	24	Uganda, Kampala, wholesale, US\$/ton	62
Sudan, Kadugli, wholesale, Sudanese pound/local	19	Somalia, Belet Weyne, white, retail, Somali shilling/kg	47
Kyrgyzstan, Osh, flour, 1st grade, retail, som/kg	15	Russian Federation, natl. avg., offer EXW, wholesale, ruble/kg	33
Russian Federation, natl. avg., milling, 3rd class, offer, EXW, wholesale, ruble/kg	11	Tanzania, Dar es Salaam, wholesale (US\$/ton)	31
Moldova, Chisinau, retail, leu/kg	9	Colombia, Bogotá, yellow, wholesale, Colombian peso/kg	-6
Tajikistan, natl. avg., flour, 1st grade, retail, somoni/kg	-2	Rwanda, Kigali, wholesale, US\$/ton	-9
Bolivia, La Paz, flour, imported, Argentina, wholesale, boliviano/local	-6	Togo, Lomé, white, retail, CFA franc/kg	-9
Pakistan, Karachi, flour, retail, Pakistan rupee/kg	-8	Bolivia, Cochabamba, hard yellow, cubano, wholesale, boliviano/local	-26
Argentina, Buenos Aires, flour, wholesale, US\$/kg	-38	Mozambique, Gorongosa, white, retail, metical/kg	-41
Rice	% change	Sorghum	% change
Nicaragua, natl. avg., 2nd quality, retail, cordoba oro/kg	13	Somalia, Galkayo, red, retail, Somali shilling/kg	40
Myanmar, Yangon, Emata, Manawthukha FQ, wholesale, kyat/kg	11	Sudan, Al-Damazin, feterita, wholesale, Sudanese pound/local	31
Somalia, Buale, imported, retail, Somali shilling/kg	10	Chad, N'Djamena, retail, CFA franc/kg	21
Peru, Lima, milled, corriente, wholesale, nuevo sol/kg	8	Mali, Bamako, local, wholesale, CFA franc/local	7
Guatemala, Guatemala City, 2nd quality, wholesale, US\$/kg	6	Niger, Agadez, local, wholesale, CFA franc/local	-11
Haiti, Port-au-Prince, local, retail, gourde/local	5	Togo, Korbongou, retail, CFA franc/kg	-15
Bangladesh, Dhaka, coarse, wholesale, taka/kg	-4	Ethiopia, Addis Ababa, white, wholesale, US\$/kg	-43
Mexico, Guadalajara, Sinaloa, wholesale, Mexican peso/kg	-7		
Cambodia, Phnom Penh, mix, wholesale, riel/kg	-11		
Thailand, Bangkok, 5% broken, wholesale, baht/ton	-11		
Madagascar, natl. avg., local, retail, Malagasy ariary/kg	-12		
Annual Price Movements: April 2013 – April 2014			
Wheat	% change	Maize	% change
Sudan, Kadugli, wholesale, Sudanese pound/local	72	Somalia, Baidoa, white, retail, Somali shilling/kg	45
Argentina, Buenos Aires, flour, wholesale, US\$/kg	70	Uganda, Kampala, wholesale, US\$/ton	40
Belarus, Minsk, flour, retail, Belarussian ruble/kg	57	Zambia, natl. avg., white, retail, kwacha/local	33
Ethiopia, Shashemene, white, wholesale, birr/local	35	Tanzania, Dar es Salaam, wholesale, US\$/ton	32
Uruguay, natl. avg., flour, wholesale, peso Uruguayo/kg	34	South Africa, Randfontein, white, wholesale, rand/ton	23
Armenia, natl. avg., flour, 1st grade, retail, dram/kg	-9	Russian Federation, natl. avg., offer EXW, wholesale, ruble/kg	-18
El Salvador, San Salvador, flour, wholesale, US\$/local	-10	Rwanda, Kigali, wholesale, US\$/ton	-19
Russian Federation, natl. avg., milling, 3rd class, offer, EXW, wholesale, ruble/kg	-12	Honduras, San Pedro Sula, white, wholesale, US\$/kg	-25
Tajikistan, natl. avg., flour, 1st grade, retail, somoni/kg	-13	Moldova, Chisinau, retail, leu/kg	-30
Moldova, Chisinau, retail, leu/kg	-24	Haiti, Port-au-Prince, meal, local, retail, gourde/local	-40
		Mozambique, Chokwe, white, retail, metical/kg	-49

table continues on next page

Table 2. Largest Variations in Domestic Prices (continued)

Annual Price Movements: April 2013 – April 2014 (continued)			
Rice	% change	Sorghum	% change
Peru, Lima, milled, corriente, wholesale, nuevo sol/kg	34	Somalia, Baidoa, red, retail, Somali shilling/kg	80
Bolivia, Cochabamba, grano de oro, wholesale, boliviano/local	33	Sudan, El Gedarif, feterita, wholesale, Sudanese pound/local	71
Philippines, MetroManila, regular milled, retail, Philippine peso/kg	27	Ethiopia, Addis Ababa, red, wholesale, US\$/kg	10
Nicaragua, natl. avg., 2nd quality, retail, cordoba oro/kg	21	Burkina Faso, Ouagadougou, local, wholesale, CFA franc/local	-6
Philippines, natl. avg., well milled, retail, Philippine peso/kg	18	Niger, Niamey, local, wholesale, CFA franc/local	-17
Bangladesh, Dhaka, coarse, wholesale, taka/kg	12	El Salvador, San Salvador, Maicillo, wholesale, US\$/local	-19
Pakistan, Karachi, irri, retail, Pakistan rupee/kg	12	Togo, Korbongou, retail CFA franc/kg	-42
Cambodia, Phnom Penh, mix, wholesale, riel/kg	-11		
Niger, Niamey, imported, wholesale, CFA franc/local	-12		
Somalia, Bossaso, imported, retail, Somali shilling/kg	-13		
Costa Rica, natl. avg., 2nd quality, retail, US\$/kg	-22		
Thailand, Bangkok, 25% broken, wholesale baht/ton	-28		

Source: Food and Agriculture Organization (FAO), and Global Information and Early Warning System (GIEWS).
Note: Currencies as originally reported by FAO.

(national average, 12%) due to increased availability, and the capital cities of Thailand and Cambodia (11%), reflecting the continued releases of public stockpiles and adequate supplies, respectively.⁴⁵

Domestic price variations between April 2013 and April 2014 show a wide range in yearly prices. The price of **wheat** in January 2014 was 72% higher than 12 months ago in Sudan (Kadugli), because of currency depreciation and more expensive imports; and 70% higher in Argentina (Buenos Aires) due to tight supplies from reduced harvests and low stocks.⁴⁶ In contrast, Moldova (24%, Chisnau), Tajikistan (13%, national average), and Russia (12%, national average) report decreases in domestic wheat prices, mainly due to increased availabilities from adequate regional exports and domestic production.⁴⁷ Large increases in the annual **maize** price occurred in monitored markets in Somalia (Baidoa, 45%), partly reflecting scaled back humanitarian assistance⁴⁸; in Uganda (Kampala, 40%) and Zambia (national average, 33%) due to the removal of maize and fuel subsidies⁴⁹; and in Tanzania (Dar es Salam, 32%) and South Africa (Randfontein, 23%).⁵⁰ Maize prices declined over the last year in monitored markets in Mozambique (Chokwe, 49%), with plentiful local supplies from the 2013 secondary season⁵¹; Haiti (Port-au-Prince, 40%); Moldova (Chisnau, 30%); and in Honduras (San Pedro Sula, 25%), generally due to ample supplies. **Rice** prices increased in monitored domestic markets in Peru (34%) and Bolivia (33%), reflecting

uncertain prospects and a sharp reduction in local output, respectively; the Philippines (27%), from low imports and stocks and high prices of oil and electricity⁵²; Nicaragua (national average, 21%); Bangladesh (12%)—linked to political unrest⁵³; and Pakistan—affected by the appreciation of the rupee (12%). In contrast, the annual rice price dropped by 28% in Thailand (Bangkok), 22% in Costa Rica (national average), and about 10% in Somalia and Niger.⁵⁴

Food Prices and Food Riots

Dozens of violent episodes across the world were reported during the food price hikes of 2007 and 2008.⁵⁵ And others have since followed. Casualties associated with such episodes—popularly known as “food riots” (yet somewhat arbitrarily defined, box 1)—in Argentina, Cameroon, Haiti and India, to cite a few, made world headlines. There have been violent episodes also associated with low prices, such as those involving coffee producers in Vietnam (or cotton producers in Burkina Faso).⁵⁶ These episodes remind us about the close relationship between food insecurity and conflict. Furthermore, the world has grown accustomed to seeing a different angle of the food-conflict nexus: food-related humanitarian disaster and famines were—and continue to be—associated with civil conflict and interstate wars, for example, the recent Somalia famine. But the other link, the *food-to-conflict* connection is hardly news, and, as the father of the Green Revolution and Nobel Laureate Norman

Box 1. Defining and Monitoring Food Riots

There is no consensus on the definition of “food riot.” Recent work on food-related protests have included events that are at times not reasonably connected to food; involve overly restrictive definitions (for example, include only episodes that have associated deaths) or, rather, are too broad (that is, include discontent even when peacefully demonstrated); focus on a singular region; or are limited to a short period of time. Building from these incomplete analyses, this *Food Price Watch* focuses on violent, collective, and relatively severe behavior that relates to all dimensions of food security. Thus, a food riot here is defined as: *a violent, collective unrest leading to a loss of control, bodily harm or damage to property, essentially motivated by a lack of food availability, accessibility or affordability, as reported by the international and local media, and which may include other underlying causes of discontent.*

There are several difficulties associated with this—or alternative—definition(s), such as ascertaining the degree of violence involved in certain events and assessing the relevance of food-related motives behind protests. The definition proposed here focuses on physical attacks and clashes with police forces that have associated human casualties (that is, involve deaths, injuries and/or arrests) and/or property damages. The proposed definition focuses only on those cases where food-related issues were critical determinants, without which the riot would arguably have not taken place. Thus, most of the 2011 Arab Spring events are not considered food riots, only those events that took place at the prerevolution stages in Tunisia and Algeria, where people rioted over food price inflation before events turned into wider revolutions, are considered.

Based on these considerations, a database was constructed to capture events between 2007 and 2014 that were reported by the mainstream media, humanitarian news portals, and academic articles. Research was conducted through Web search engines such as Factiva, Google, and specialized portals such as IRIN. The search identified 51 food riots in 37 countries between 2007 and 2014. Those episodes are further grouped into two types. Type 1 is the most frequent type of food riot reported. It is clearly motivated by food price inflation and generally directed toward the government and other public authorities. Type 2 food riots are not necessarily directed against the government and do not usually have strong political underpinnings. These food riots target food supplies and usually occur around food supply trucks, shops, or refugee camps. These food riots typically arise in response to severe shortages.

Source: Author's compilation.

Notes: Table 3 provides an overview of the top three most violent food riots recorded for each type. Figure 2 maps all countries with food riots between 2007 and 2014 and shows specific information for two additional countries, not present in table 3, Honduras and Sudan.

Borlaug eloquently put it: “we cannot build world peace on empty stomachs and human misery.” The interrelated and bidirectional connection between food and war has also been emphasized in the works of Amartya Sen, Jean Drèze, and anthropologist Ellen Messner, who coined the term “food wars.”⁵⁷

Food price shocks can be responsible for the origination and continuation of conflict and, more generally, political instability. Increasing empirical evidence shows that international food prices and the domestic pass through to local markets of these international prices has a significant role in all types of conflict, from interstate wars to civil wars, regime breakdowns, and communal violence.⁵⁸ Food price shocks may cause spontaneous and largely urban sociopolitical instability, with urban food consumers as the primary protesters.⁵⁹ In these cases, price shocks can trigger sociopolitical unrest, fueling preexisting grievances—including poverty and other disparities—and highlighting the lack of adequate social safety nets and other compensating policies.⁶⁰ This is the case, for example, with protests in Guinea and Mauritania in 2007 and Haiti in 2008.⁶¹

Yet, some argue that poverty is not a precondition for such protests, and, in fact, some of these protests did not necessarily always engage the poorest or hungriest individuals nor countries (for example, protests organized by consumers' associations in Senegal and trade unions in Burkina Faso in 2008).⁶² Either way, those shocks reduce a country's capability of producing, purchasing, and providing access to food, thus increasing the risk of food insecurity and, consequently, the likelihood of protests and escalated conflict.⁶³

But food prices are not the only cause or contributor to violent protests associated with food.⁶⁴ More structural pressures, such as competition—intra or interstate—over natural resources such as land, water, fisheries, labor, or capital may well cause political instability and unrest. Farmers and farm workers become, in such cases, the main agitators, more likely developing into social movements than riots from price shocks in urban settings.⁶⁵ This is the case, for example, in land grabs in Madagascar that in 2009 were reported to contribute to a coup that ousted then President Ravalomanana, or the violent protests concerning genetically modified food in the Philippines in 2013.⁶⁶

Table 3. Top Three Most Intense Food Riots, by Type

Food riot: Type 1 (mainly motivated by food price inflation)							
Country	Year	Month	Intensity			Related quotations	Source(s)
			Deaths	Injuries	Arrests		
Cameroon	2008	Feb.	24–100	-	1,671	“Riots against the high cost of living—including food and fuel prices—reportedly paralyzed the Cameroon capital of Yaounde”	Schneider (2008)
South Africa	2012	Aug.	37	80	6	“Evidence for a link between the violence in South Africa and the rapidly rising food prices”	Lagi, Bertrand, and Bar-Yam (2011)
Tunisia	2011	Jan.	23	100+	-	“Tunisia and Algeria sought yesterday to stem growing revolts over food prices”	<i>The Times</i> , January 10, 2011; <i>Carmarthen Journal</i> , January 26, 2011
Food riot: Type 2 (mainly motivated by food shortages)							
Country	Year	Month	Intensity			Related quotations	Source(s)
			Deaths	Injuries	Arrests		
Argentina	2012	Dec.	22	200+	-	“In working-class neighbourhoods in Buenos Aires province, hordes of teenagers ransacked grocery stores as outnumbered police stood helplessly”	<i>Daily Mail</i> , December 28, 2012
Pakistan	2009	Sept.	20+	30	-	“20 trampled to death in food riot”	<i>The Sun</i> , September 15, 2009
Somalia	2011	Aug.	10	-	-	“At least ten Somalis—refugees among them—have reportedly been killed in a food riot in a camp near Mogadishu. Shots were fired when troops and locals raided truckloads of aid supplies destined for famine-hit areas”	<i>Euronews</i> , August 5, 2011

Sources: *The Times*, “Up to 20 Shot Dead by Police in Food Riots,” January 10, 2011; *Carmarthen Journal*, “Riots in Tunisia Highlight Concern Over Food Security,” January 26, 2011; *Daily Mail*, “President Resigns after riots Leave 22 Dead in Argentina,” December 28, 2012; *The Sun*, “20 Trampled to Death in Food Riot,” September 15, 2009; *Euronews*, “At Least Ten Die in Somali Food Riot,” August 5, 2011; M. Lagi, K. Z. Bertrand, and Y. Bar-Yam, “The Food Crisis and Political Instability in North Africa and the Middle East,” New England Complex Systems Institute (2011); M. Schneider, “We Are Hungry! A Summary Report of Food Riots, Government Responses, and States of Democracy in 2008,” Cornell University (2008).

Consequently, the attention given to conflict jeopardizing food security (by reducing agricultural production and forcing displacement of people) during the last decades needs to be expanded. A more encompassing view should also incorporate the fact that food insecurity in general, and food price shocks in particular, also contribute to instability and conflict. Monitoring food prices (table 3 and figure 2) responds not only to food security and welfare interests, but also to serious political instability and conflict motivations. As a result, a proper monitoring constitutes a first step in addressing the interactions between food insecurity and conflict.

Notes

1. Even though the assessment for April coincides with both the Bank’s *Food Price Watch* and the FAO’s *Food Outlook* (May 2014), the cereals price index variation of both does not. In effect, the price decline in April is explained by some improvement in weather conditions and the realization that the Ukraine situation had not slowed down their

shipments. Yet, the FAO Food Price Index for cereals in April reports an increase of 0.5%, while the Bank cereal index shows a reduction of 1.2%. This difference can be explained by differences in the composition of both indexes. While FAO cereals index include 10 wheat quotations and 16 rice quotations, the Bank’s includes 1 and 4, respectively. Also, the Bank cereal index includes one quotation for barley and one for sorghum. The implication of these compositional differences is that as the prices of wheat have firmed up, those of rice not included in the Bank have also increased, and sorghum decreased in April (even though the price of barley increased), the FAO index is expected to show firmer behavior than the Bank’s for the month of April.

2. They declined by 7% and 8%, respectively (World Bank, “World Bank Commodity Price Data [Pink Sheet],” May 5, 2014).

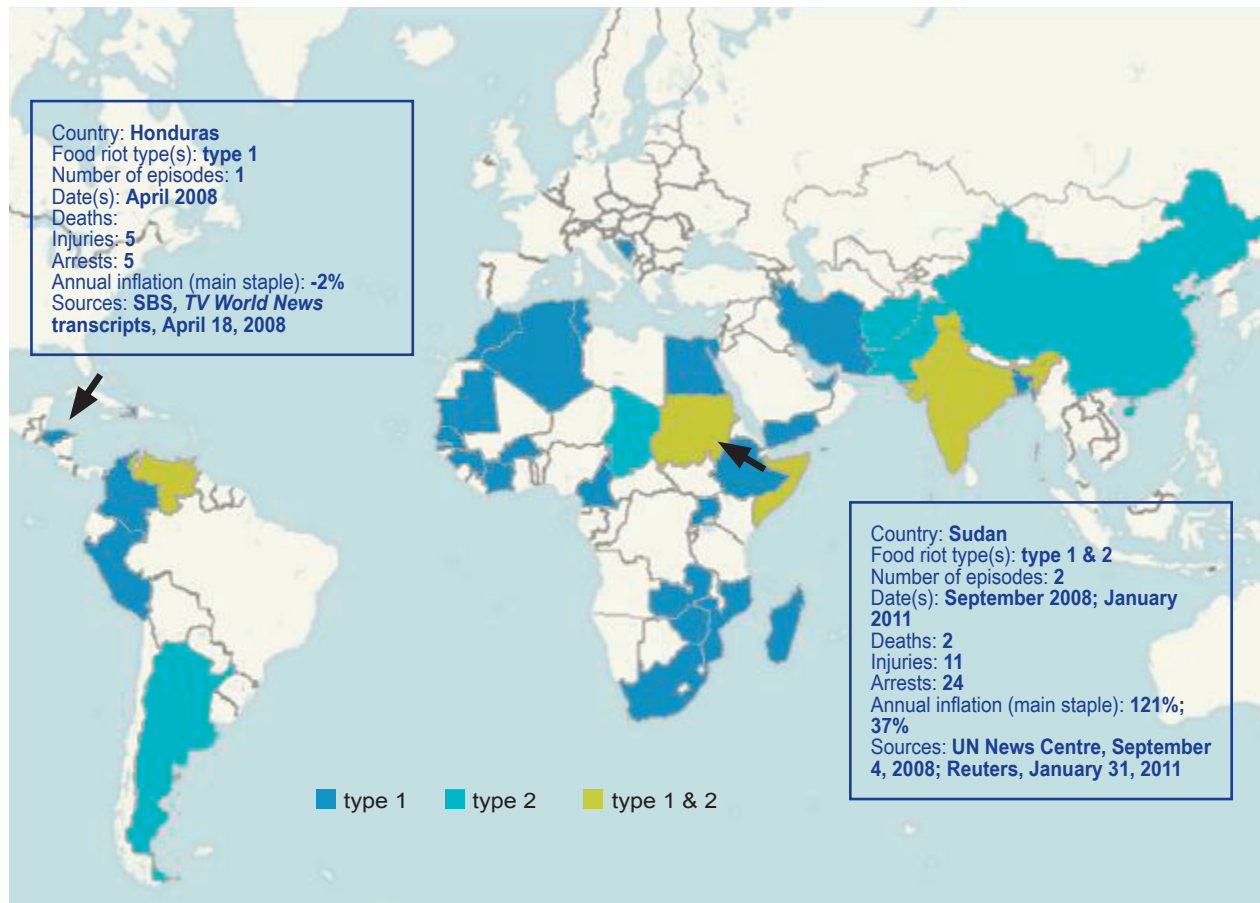
3. USDA, *World Agriculture Supply and Demand Estimates* (WASDE) 528, April 2014.

4. FAO, *Rice Market Monitor*, April 2014. Another contributing factor is the continued export constraints in Egypt (FAO, *Food Outlook*, May 2014).

5. FAO, *World Food Situation*, March 6, 2014. Such quarterly increases have made prices of sugar virtually the same as a year ago, while soybean oil prices still remain 9% below their levels 12 months ago.

6. So far, the depreciation of the national currency, below average rain

Figure 2. Food Riot Monitoring, with Selected Examples for Honduras and Sudan, 2007–14



Sources: Factiva (researcher level), newspapers, academic papers, other publications; sources for Honduras and Sudan as noted in map.

Notes: This map displays the incidence of food riot episodes in each country worldwide since the global food crisis in 2007. Two types of riots are distinguished: type 1 riots are mainly motivated by food inflation, while type 2 riots are mostly motivated by severe shortages. This map is stylized and not to scale. It does not reflect a position by UN IGME agencies on the legal status of any country or territory or the delineation of any frontiers. The number of deaths, injuries, and arrests per event may be approximate, based on sources.

precipitation in recent months, and switches to more profitable crops may have had a larger impact on prices of wheat and maize than the political instability itself.

7. The year 2014 refers to 2014/15 season, and 2013 to 2013/14 season.
8. FAO, *Crop Prospects and Food Situation*, No. 1, March 2014. The decrease with respect to 2013 production is mostly attributable to Canada and Black Sea countries because of their lower yields (also area in Canada).
9. FAO, *Crop Prospects and Food Situation*, March 2014.
10. The global stocks-to-use ratio is expected to increase from 22.8% in 2012/13 to 25.4% in 2013/14, and the exporters' stocks-to-disappearance ratio from 14.1 to 15.3%. These increases markedly improved last year's especially low levels, but remain below previous years ratios (FAO, *Crop Prospects and Food Situation*, April 2014).
11. FAO, *Crop Prospects and Food Situation*, March 2014, p 5.
12. FAO, *AMIS Market Monitor*, April 2014.
13. FAO, *Cereal Supply and Demand Brief*, April 2014; USDA, WASDE 528.
14. Algeria, China, Egypt, Iran, Saudi Arabia and Turkey (FAO, *Cereal Supply and Demand Brief*, April), and Bangladesh and Afghanistan (FAO, *Crop Prospects and Food Situation*, March 2014)
15. FAO, *Crop Prospects and Food Situation*, March 2014.
16. Cotton and wheat (FAO, *AMIS Market Monitor*, April 2014).
17. USDA (WASDE 529) reports, however, expected increases in yields that might more than offset reductions in planted area. It is worth noting that these are USDA's first projections for 2014/15.
18. FAO, *Cereal Supply and Demand Brief*, March 2014.
19. USDA, WASDE 528.
20. FAO, *Cereal Supply and Demand Brief*, April 2014.
21. In terms of ratios, the stocks-to-use ratio for coarse grains has recovered from its historical low of 13.8% in 2012/13 to 17.0% in 2013/14 (8.4 to 12.1% for major exporters' closing stocks to disappearance, respectively; FAO, *Crop Prospects and Food Situation*, April 2014). In the case of maize, at 170 million metric tons, world maize ending stocks in 2013/14 are comparable to the 2000/2001 highs (USDA, WASDE 529 and 393).
22. World stocks-to-use ratios for rice have gone up from 35.7 to 36% between 2012/13 to 2013/14, with a small reduction in the major exporters stocks-to-disappearance ratio from 28.1 to 27.8%, respectively (FAO, *Food Outlook*, May 2014).
23. FAO, *Rice Market Monitor*, April 2014; FAO, *Food Outlook*, May 2014.
24. Partially to counteract these pressures, the government of Vietnam lowered the minimum export price for low grade rice (FAO, *AMIS Market Monitor*, April 2014).

25. FAO, *Food Outlook*, May 2014, p. 23.
26. Both aimed to compensate for a disappointing 2013 harvest in China.
27. FAO, *AMIS Market Monitor*, April 2014.
28. According to FAO (*AMIS Market Monitor*, May 2014), the U.S. National Oceanic and Atmospheric Administration estimates a 60% likelihood of El Niño conditions occurring in 2014. FAO also indicates that the unfolding of El Niño during the late summer and early autumn of the northern hemisphere would have a minimal impact on northern summer crops, but a major influence on the latter part of the Indian monsoon season.
29. FAO, *Global Food Price Monitor*, April 10, 2014. Nonetheless, trade flows have been disrupted by conflict in Chad and northern parts of Nigeria. Furthermore, the Famine Early Warning System Network (FEWS NET, *Price Watch*, April 30, 2014), reports below average production in Mauritania, eastern Niger, and northern Chad.
30. However, in South Africa, continued tight supplies and increasing export demand have been exerting upward pressure, despite bumper crop expectations (FAO, *Global Food Price Monitor*, May 10, 2014; FEWS NET, *Price Watch*, April 30, 2014).
31. FAO, *Global Food Price Monitor*, April 10, 2014. Unlike for beans, maize production in 2013 was abundant and provided adequate supplies. As a result, beyond the effects of seasonal factors, maize prices remain below their levels a year ago.
32. FAO, *Global Food Price Monitor*, April 10, 2014.
33. FAO, *Global Food Price Monitor*, May 9, 2014.
34. FAO, *Global Food Price Monitor*, April 10, 2014.
35. FAO, GIEWS Country Briefs, Ukraine, March 26, 2014.
36. FAO, *Global Food Price Monitor*, April 10, 2014, and May 9, 2014.
37. FAO, GIEWS, Country Briefs, Argentina, May 19, 2014.
38. In the case of Tajikistan, the reduction of Russian duties on fuel exports has contributed to declining transport costs in Tajikistan, thus pushing food prices down (FEWS NET, *Price Watch*, April 30, 2014).
39. FAO, *Global Food Price Monitor*, April 10, 2014; FEWS NET, *Price Watch*, April 30, 2014.
40. FAO GIEWS, Country Briefs, Somalia, January 28, 2014; FAO, *Crop Prospects and Food Situation*, March 2014.
41. FAO, *Global Food Price Monitor*, May 9, 2014.
42. FAO, *Crop Prospects and Food Situation*, March 2014.
43. FEWS NET, *Price Watch*, March 2014.
44. FAO, GIEWS, Country Briefs, Myanmar, May 14, 2014.
45. FAO, *Global Food Price Monitor*, May 9, 2014.
46. In addition, decreased outputs from 2013 harvests explain large price increases in Belarus (57%, national average) and Ethiopia (35%, Shashemene), while high regional export demand contributed to 34% higher yearly prices in Uruguay (national average; FAO, *Crops Prospect and Food Situation*, March 2014; FAO, GIEWS, Country Briefs, Ethiopia, January 28, 2014).
47. FAO, *Crop Prospects and Food Situation*, March 2014.
48. Other contributing factors include reduced availabilities and insecurity.
49. FAO, *Global Food Price Monitor*, May 9, 2014.
50. In South Africa, reduced 2013 output and increased export demand contribute to higher prices.
51. FAO, GIEWS, Country Briefs, Mozambique, February 12, 2014.
52. FAO, *Global Food Price Monitor*, May 9, 2014.
53. FAO, *Rice Market Monitor*, April 2014.
54. In Costa Rica, prices went down in comparison to the recovery in the 2013 output (FAO, GIEWS, Country Brief, Costa Rica, March 14, 2014), while in Somalia, price declines are associated with cheaper imports and improved port functioning (FAO, *Global Food Price Monitor*, May 9, 2014).
55. J. Cuesta and J. Barbet-Gros, "Food Riots-From Definition to Operationalization," mimeo, World Bank (2014).
56. G. Greenfield, "Vietnam and the World Coffee Crisis: Local Coffee Riots in a Global Context," <http://focusweb.org/publications/2002/Vietnam-and-the-world-coffee-crisis.html> (2002); S. Mirza, "The Land Usage of Cotton in Burkina Faso and Its Impact on Food Security," ICE Case Studies Number 263, December 2011, <http://www.l.american.edu/ted/ICE/burkina-food-riot.html>.
57. J. Drèze and A. K. Sen, *Hunger and Public Action*, Oxford University Press (1989); J. Drèze, "War and Famines," in *The Companion to Development Studies*, ed. V. Desai and R. B. Potter, London: Arnold (2002); E. Messner, "Food Wars: Hunger May Be the Deadliest Weapon in Conflict Areas Around the World," <http://www.brandeis.edu/magazine/2011/summer/featured-stories/foodwars.html> (2013).
58. J. D. Angrist and A. D. Kulger, "Rural Windfall or a New Resource Curse? Coca, Income, and Civil Conflict in Colombia" *Review of Economics and Statistics*, 90 (2): 191–245 (2008); H. Brinkman and C. Hendrix, "Food Insecurity and Violent Conflict: Causes, Consequences, and Addressing Challenges," Occasional Paper No. 24, World Food Programme (2011); M. Brückner and A. Ciccone, "International Commodity Prices, Growth and the Outbreak of Civil War in Sub-Saharan Africa," *The Economic Journal*, 120: 519–34 (2010); R. Arezki and M. Brückner, "Food Prices, Conflict, and Democratic Change," Research Paper No. 2011-4, School of Economics, University of Adelaide (2011); O. Dube and J. Vargas, "Commodity Price Shocks and Civil Conflict: Evidence from Colombia," Mimeo, Harvard University (2008); J. Berazneva and D. Lee, "Explaining the African Food Riots of 2007–2008: An Empirical Analysis," *Food Policy*, 39: 28–39 (2013, and references there). In concrete, Berazneva and Lee (2013) find that restricted access to and availability of food along with urbanization, coastal location, oppressive regimes, recent history of political instability, and poverty levels are associated with higher probabilities of riots in a sample of 14 African countries in late 2007 and 2008.
59. C. Barret, ed., *Food Security and Sociopolitical Stability*, Oxford University Press (2014).
60. A comprehensive study (of 146 countries between 1980 and 2005) found that undernutrition, under age five malnutrition, and under age five mortality were significant contributors to armed conflict, along with poverty and poor health (Pinstrup-Anderson and Shimokawa 2008, "Do Poverty and Poor Health and Nutrition Increase the Risk of Armed Conflict Onset? *Food Policy*, 33: 513–20).
61. Berazneva and Lee (2013) for references to African countries.
62. Ibid.
63. Barret, *Food Security and Sociopolitical Stability*.
64. Ibid.
65. Ibid.
66. L. Cotula, S. Vermeulen, R. Leonard, and J. Keeley, *Land Grab or Development Opportunities? Agricultural Investment and International Land Deals in Africa*, IIED/FAO/IFAD, London/Rome (2009); P. Collier and S. Dercon, "African Agriculture in 50 Years: Smallholders in a Rapidly Changing World?" Expert Paper for the FAO Conference,

"How to Feed the World in 2050," Rome, October 12–13, 2009; J. Mayuga, "Farmers Uproot Golden Rice in CamSur Experiment," <http://www.businessmirror.com.ph/index.php/en/business/agri-commodities/17657-farmers-uproot-golden-rice-in-camsur-experiment>, August 8, 2013). Note that such events are not considered food riots under the *Food Price Watch* classification, as

neither of these types of protests are caused directly by lack of supplies or lack of affordability. They are caused more by the ways in which food is produced and distributed rather than by its scarcity or affordability. Even though they may have future and indirect effects on scarcity and affordability, they are not the main cause or trigger for protests.