

Food riots redux: lessons from the 2007-08 food crisis

Charlotte FONTAN SERS¹ and Mazhar MUGHAL²

Abstract

The 2007-08 global food crisis led to hunger riots around the world. Food prices have again risen spectacularly since the Covid19 pandemic, but have fortunately not led to major social unrest in the global South. In this research note, we argue that the difference lies, in part, in the nature of the two price shocks, and in part, in the policy response from the governments and international organizations. This time round, the stability of rice prices appears to have dampened the impact of food inflation in major rice-importing countries. This pattern of global rice price is in sharp contrast to that seen in 2008 when the price tripled between January and May. The two food crises also differ substantially in the extent and responsiveness of public policy. Right from March 2020, governments began taking fiscal and administrative measures to help the populations suffering from the loss of livelihood. Nonetheless, food inflation remains a concern, and prolonged conflict in Ukraine and the ongoing inflation spiral could put in jeopardy the mitigating effects of the anti-inflationary policy measures.

Keywords: Covid-19 ; 2007-08 ; food prices ; riot

¹ (Corresponding author) ESC PAU - Ecole Supérieure de Commerce, Pau Business School.

² ESC PAU - Ecole Supérieure de Commerce, Pau Business School.

1. Introduction

Fluctuations in food prices have played a significant role in the human history. Episodes of unbridled and food inflation are often associated with social unrest, violence, political upheaval and revolutions. The 2007-08 food crisis, for instance, led to hunger riots in countries such as Egypt, Haiti, Indonesia, Morocco and the Philippines. Food riots occurred in at least fourteen African countries, and were more likely in countries with higher levels of poverty and limited food access and availability (Berazneva and Lee, 2013). During the crisis, the price of rice in the world market tripled between January and May 2008 and the prices of wheat, maize and soyabeans doubled. The World Food Price Index of the Food and Agricultural Organization (FAO) rose by 45 percent during the crisis. The situation was made worse by panic reaction from several major cereal exporters which introduced export bans and maintain domestic stocks (Anderson, Ivanic, & Martin, 2014; Bouët and Laborde, 2017). While larger economies in Asia and Latin America were able to shield their populations better through restrictive trade measures and higher buffer stocks, small African countries and island nations that were heavily dependent on food imports were particularly hit (Cudjoe et al., 2010, FAO et al., 2011a). A number of studies reported increase in under-nourished population during the 2007-08 crisis (Asian Development Bank, 2013; Akter and Basher, 2014; Hadley et al., 2011; Verpoorten and al., 2013). Later, the numbers of under-nourished stagnated or even fell, dropping from 676.3 million in 2008 to 674.5 million in 2009 and 601.3 million in 2010.

Key factors that led to the hike of agricultural commodities during the 2007-08 crisis include supply shocks related to poor harvest and droughts, low stocks, increasing speculative transactions in the commodity derivatives market, high price of oil, depreciation of dollar, and especially demand-led shocks related to spectacular increase in the production of ethanol (FAO et al. , 2011b; Mitchell, 2008; Headey and Fan, 2008; Piesse and Thirtle, 2009). There have been serious concerns on the food security implications of Ethanol production, as large proportion of corn in the United States and other countries was turned into the renewal biofuel.

Food prices have again been on the rise during the Covid19 pandemic (Agyei et al., 2021; Kindberg-Hanlon, 2021). In 2021, the Food Price Index rose by 28 percent over 2020 to reach the highest level in ten years (FAO, 2022a). The trend was wide-ranging, with the prices of most of the food commodities registering significant increases. The increase in the prices of cereals was particularly worrisome, with the prices of wheat and maize rising by 31 and 44 percent respectively. Major cereal producers such as Canada experienced dry climate in 2021 leading to lower production. Furthermore, the cost of maritime logistics increased significantly during the pandemic.

At the same time, the World Uncertainty Index reached levels close to what was seen around the September 11 2001 attacks in the United States and the United Kingdom's 2016 vote to leave the European Union (IMF, 2022). This raised the spectur of another round of social unrest in the developing countries suffering from uncontrolled food price increases (Fontan Sers and Mughal, 2020). Fortunately however, this global food inflation episode did not lead to major social unrest in the global south the likes of which were seen in 2007-08 or 2011-12, and which contributed to the Arab Spring uprisings.

So what was different this time? In this note, we argue that the difference lies, in part, in the nature of the price shocks, and in part, in the policy response from the governments and international organizations. Unlike in the 2007-08 crisis, the situation in 2020-21 appears to be more a question of access to food than its production.

2. Stability of rice prices

The price of rice more than doubled between 2007 and 2008. The year 2008 was marked by a historic price surge linked to the scarcity of the product. In May 2008 alone, when the prices were at their highest, international rice trade fell by 10 percent (Inter-Rice, 2008). Major rice producers such as China, India, Indonesia and Vietnam limited or entirely banned their rice exports. The export restrictions implemented between 2006 and 2011 increased price volatility for wheat and rice (Rude and An, 2015). This particularly affected West African countries such as Benin, Burkina Faso, Gambia and Niger, whose rice import dependency exceeds 70 percent. Likewise, Bangladesh was hard hit by export ban by India (Dorosh and Rashid, 2013). Sulser and Dunston (2020) assess the impacts of these export limitations for rice and wheat and show that trade restrictions might have significantly increased world prices and pushed millions of poor rice consumers into starvation.

Another factor (though ostensibly a less significant one) that played a role in increasing rice prices in the international market was speculation in the commodity futures (Timmer, 2010). Some of the capital fleeing the housing market in the wake of the Subprime crisis went into speculation in rice and other food commodities³, leading to unprecedented price volatility (Dufumier et Hugon, 2008).

This pattern of rice price is in sharp contrast to that seen more recently. With the onset of the Covid-19 pandemic, countries around the world went into preventive lockdowns. This led to supply chain breakdown with inordinate shipment delays and increase in maritime freight charges. The cost of shipping a container on the world's transoceanic trade routes increased seven-fold in the 18 months following March 2020 (Carrière-Swallow et al., 2022). This had an all-round inflationary impact on the prices of energy, food and agricultural products including farm inputs such as seeds, fertilizers and pesticides (FAO, 2021a; Hebebrand and Laborde, 2022). The subsequent reopening of the economies saw pent up demand for goods which put further pressure on prices. Dry weather, especially in Canada, also contributed to increase in wheat prices.

However, the price of rice- world's second main staple cereal in terms of production and utilization (FAO, 2022)- dropped by 4 percent in 2021. A major contributory factor this time was a better harvest in major rice producers such as China, India, Thailand and Vietnam. Global rice production reached 779 million tons (FAO, 2021b). This record production was achieved despite the supply chain disturbance witnessed during the pandemic. As a result, international trade in rice grew by 12.5 percent from 45.6 million tons in 2020 to 51.2 million tons in 2021. The stability of rice prices dampened the impact of food inflation in major rice-

³ Bredin et al. (2021), for instance, examine six food commodities using monthly data for the 1990 - 2017 period, and report evidence pointing to an increased role played by Manipulators during the period most associated with financialization. Similarly, Etienne et al. (2018) report some impact of speculative trading on corn prices depending on the speculative measure used.

importing countries in Asia and West Africa. Consequently, the recent food crisis differs from the 2007-08 crisis in both the dimensions discussed above, i.e. both in terms of trade restrictions imposed by major rice exporters and speculation in the futures market.

3. Policy responses

The two crises also differ substantially in the extent and responsiveness of public policy. Starting from March 2020, when most countries went into partial or complete lockdown, governments began taking fiscal and administrative measures to help the populations suffering from the loss of livelihood and the sectors particularly affected (IMF, 2020). These measures were wide-ranging and attempted to cover a great proportion of the vulnerable population. A number of countries provided direct emergency income support to the targeted population (Brazil, Indonesia, Malaysia, Mali, the Philippines, Thailand, Vietnam). India provided cash transfer to the low-income households through mobilized digital payment platforms, amounting to 1.2 percent of the GDP. Pakistan's Ehsaas Emergency Cash programme provided a financial assistance of Rs. 12,000 (approx. USD75) per household to a third of the country's population, which was later on extended to cover 16.9 million households, or about half of the country's population (Government of Pakistan, 2020). A large number of countries provided subsidized food (e.g. Burkina Faso, Guinée Bissau, India, Indonesia, Pakistan, Senegal). Gambia allocated USD 15.8 million to the national food distribution programme to provide food to 84 percent of the households, Nigeria released 35,000 tonnes of maize, 25,000 tonnes of sorghum, 5,000 tonnes of millet and 5,000 tonnes of gari (cassava-based flour) from the National Grain Reserve to be distributed to the most vulnerable households, while Senegal issued kits containing 100 kg of rice, 10 kg of soap and sugar to ten million population (IMF, 2020, RPCA, 2020). Several countries introduced price ceilings on cereals and staple food items (Gambia, Mali, Pakistan, Senegal, Sri Lanka), or reduced import duties or removed import bans or quotas (Angola, Bangladesh, Brazil, Kenya, Mauritania, Turkey). Net food exporting countries such as Argentina and Russia raised export taxes or initiated temporary export bans. Likewise, starting from March/April 2020, India and Vietnam stopped or delayed signatures on new rice export contracts for several weeks (Jadhav, R. Bhardwaj, 2020; Vu, 2020).

These strong policy measures required significant government efforts, and were made possible through substantial increase in public spending and international support through the initiative for debt suspension by the G20 and emergency funding by the IMF (IMF, 2020). Many of these public initiatives were temporary and time-bound. Even so, the timely rolling out of these initiatives helped reduce economic misery and served as a social safety valve. The 2007-08 food riots also helped policymakers realize the importance of reducing dependence on food imports (Fontan Sers & Mughal, 2019). It appears that the political commitment made in the aftermath of the 2007-2008 food crisis and later at the time of the Covid-19 pandemic have made it possible to cushion the shocks of the current price increase, particularly for the most vulnerable population.

4. Conclusion

In this study, we examined two major hikes in international food prices, namely those of 2007-08 and 2020-21 to understand the difference in public response to the two ; how the former but not the latter crisis led to major bouts of social unrest. In spite of soaring food prices since 2018 and two years of coronavirus pandemic, we have mercifully not seen major

food riots. We highlighted two factors which could account for this difference in public reaction : 1) the behaviour of rice price, whose stability during the pandemic protected billions of rice consumers from the detrimental effects of increase in global food prices, and 2) the nature and timeliness of government response to the food crises. With the weakening of the pandemic, the global economy has regained some of the lost ground, businesses have revived, and unemployment has begun to recede. Most of the stimulus programmes launched during the pandemic have been wound down as the governments attempt to recover from the sizeable budget deficits and debts incurred due to the expansionary fiscal measures. However, growing international geopolitical tension have again started to affect the commodity markets. FAO's food price index has reached the highest level since the index's creation in 1990. The ongoing Russo Ukrainian conflict has further aggravated the situation, with wheat futures reaching record levels in March 2022 (FAO, 2022b). The countries in Sub-Saharan Africa are feeling the effects of high prices more acutely (Mamun et al., 2022 ; De Weerd and Duchoslav, 2022 ; Breisinger et al., 2022). The region covers 85 percent of its wheat demand through imports. Rising food prices are already contributing to social unrest in a number of countries in Asia and Africa. Indeed, food inflation remains a concern (FAO, 2022c), and a prolonged conflict involving Russia and Ukraine, world's two major food exporters, could put in jeopardy the mitigating effects of the policy measures taken by the governments during the times of Covid-19 and make the attainment of Sustainable Development Goals more challenging.

References

- Agyei, S., Isshaq, Z., Frimpong, S., Adam, A., Bossman, A., Asiamah, O., 2021. COVID- 19 and food prices in sub- Saharan Africa. *African development review = Revue africaine de developpement*, 33, [IssueS1, Supplement: Special Issue on The impact of COVID- 19 on African Economies](#), April 2021.
- Akter, S., Basher, S.A., 2014. The impacts of food price and income shocks on household food security and economic well-being: Evidence from rural Bangladesh. *Global Environmental Change* 25, 150–162.
- Anderson, K., Ivanic, M., Martin, W.J., 2014. Food price spikes, price insulation and poverty, in: *The Economics of Food Price Volatility*, Chapter 8, University of Chicago Press.
- Asian Development Bank, 2013. *Food security in Asia and the Pacific*, 131p.
- Berazneva, J., Lee, D.R., 2013. Explaining the African food riots of 2007–2008: An empirical analysis,. *Food Policy* 39, 28–39.
- Bouët, A., Laborde, D., 2017. Food crisis and export taxation: The cost of noncooperative trade policies, in: *Agriculture, Development, and the Global Trading System: 2000– 2015*. pp. 403–433.
- Bredin, D., Potì, V., Salvador, E. 2021. Food Prices, Ethics and Forms of Speculation. *Journal of Business Ethics*.
- Breisinger, C., Kirui, O., Dorosh, P., Glauber, J., Laborde, D., 2022. The Russia-Ukraine conflict is likely to compound
- Carrière-Swallow, Y., Deb, P., Furceri, D., Jiménez, D., Ostry, J.D., 2022. How Soaring Shipping Costs Raise Prices Around the World, IMF, March 2022.
- Cudjoe, G., Breisinger, C., Diao, X., 2010. Local impacts of a global crisis: Food price transmission, consumer welfare and poverty in Ghana. *Food Policy* 4, 294–302.
- De Weerd, J., Duchoslav, J., 2022. Russia's invasion of Ukraine threatens food security in Malawi. How can the country respond?
- Dorosh, P., Rashid, S., 2013. Trade subsidies, export bans and price stabilization: Lessons of Bangladesh–India rice trade in the 2000s. *Food Policy* 41.
- Dufumier, M., Hugon, P., 2008. Piques et polémiques les “émeutes de la faim”: du sous investissement agricole à la crise sociopolitique. *Revue Tiers Monde* 196, 927–934.
- Etienne, X. L., Irwin, S. H., Garcia, P. 2018. Speculation and corn prices, *Applied Economics*, 50:44, 4724-4744.
- FAO, 2022a. *FAO Food Price Index, World Food Situation*, February 2022.
- FAO, 2022b. *FAO Food Price Index, World Food Situation*, April 2022.
- FAO, 2022c. *Impact of the Ukraine-Russia conflict on global food security and related matters under the mandate of the Food and Agriculture Organization of the United Nations*.

FAO, 2021a. Food Outlook, Biannual Report on Global Food Markets.

FAO, 2021b. FAO Cereal Supply and Demand Brief, December 2021.

FAO, 2022. FAO Cereal Supply and Demand Brief, December 2022.

Inter Rice, 2021. World rice market report- April 2021 n°206.

FAO, Africa Rice, Coalition for African Rice Development, African Development Bank, 2018. As rice import bills rise, African countries must sustain growth.

FAO, IFAD, WFP, 2011a. The State of Food Insecurity in the World How does international price volatility affect domestic economies and food security.

FAO, IFAD, IMF, OECD, UNCTAD, WFP, World Bank, WTO, IFPRI, UN HLTF, 2011b. Price Volatility in Food and Agricultural Markets: Policy Responses.

Fontan Sers, C., Mughal, M., 2020. Covid-19 Outbreak and the Need for Rice Self-sufficiency in West Africa. World Development 135.

Fontan Sers, C., Mughal, M., 2019. From Maputo to Malabo: Public agricultural spending and food security in Africa. Applied Economics 51, 5045–5062.

Government of Pakistan, 2020. Ehsas programme, Poverty Alleviation and Social Safety.

Hadley, C., Linzer, D.A., Belachew, T., Gebre Mariam, A., Tessema, F., Lindstrom, D., 2011. Household capacities, vulnerabilities and food insecurity: Shifts in food insecurity in urban and rural Ethiopia during the 2008 food crisis. Social Science & Medicine 73, 1534–1542.

Headey, D., Fan, S., 2008. Anatomy of a crisis: the causes and consequences of surging food prices. Agricultural Economics 39, 375–391.

Hebebrand, C., Laborde, D., 2022. High fertilizer prices contribute to rising global food security concerns.

IMF, 2022. Global Economic Uncertainty, Surging Amid War, May Slow Growth, IMF Blog.

IMF, 2020. Policy-Responses-to-COVID-19.

Jadhav, R. Bhardwaj, M. 2020. Indian rice exports suspended on supply chain disruption – industry, Reuters, Avril 2020.

Kindberg-Hanlon, G., 2021. Food price volatility and inflation in low-income countries, World Bank Blog.

Mamun, A., Glauber, J., Laborde, D., 2022. How the war in Ukraine threatens Bangladesh's food security, IFPRI Blog.

Mitchell, D., 2008. A Note on Rising Food Prices, Policy Research Working Paper No. 4682. World Bank.

Piesse, J., Thirtle, C., 2009. Three bubbles and a panic: An explanatory review of recent food commodity price events. Food Policy 34, 119–129.

RPCA (Le Réseau de Prévention des Crises alimentaires), 2020. Crise alimentaire et nutritionnelle 2020-2021.

Rude, J., An, H., 2015. Explaining grain and oilseed price volatility: The role of export restrictions. *Food Policy* 57, 83–92.

Sulser, T., Dunston, S., 2020. COVID-19-related trade restrictions on rice and wheat could drive up prices and increase hunger.

Timmer, P., 2010. Did Speculation Affect World Rice Prices, in: *The Rice Crisis: Markets, Policies and Food Security*. Routledge.

Verpoorten, M., Arora, A., Stoop, N., Swinnen, J., 2013. Self-reported food insecurity in Africa during the food price crisis. *Food Policy* 39, 51–63.

Vu, K., 2020. Vietnam's ban on rice exports still in force, government may set limit: traders, Reuters, Mars 2020.