

# Commodity Price Stabilization in an Age of Overlapping Emergencies: The Case for International Buffer Stocks<sup>1</sup>

## Summary

In our time of overlapping emergencies, price shocks triggered by production and trade disruptions in systemically important commodity markets such as energy, food, and critical raw materials are likely to occur more frequently in the future. As the past three years have shown, **such commodity price shocks can trigger domino effects along the value chain in both the Global North and South, leading to devastating humanitarian, political, and macroeconomic consequences and impeding necessary green transformations.** Therefore, we propose establishing institutions at the regional, national, and international levels that can **correct supply disruptions and immediately cushion price fluctuations on commodity markets in future crises.**

**Commodity price volatility can negatively impact growth, development, and political stability.** Commodity price drops lead to income losses for producers. The end of the commodity price boom of the 2010s in Latin America and the farmer protests in Europe of 2023 are just two examples to illustrate the far-ranging political consequences of such price declines. In the Global South, entire economies depend on the export of a few commodities, so price drops can lead to currency devaluations and exacerbate debt crises. **Sharp price increases in systemically important commodities,** such as energy and food, can **trigger inflation** and thus also cause macroeconomic and political instability. If the response to inflation in the US and Europe is to hike interest rates, this forces other countries to follow suit to prevent capital flight and exchange rate devaluations. **An alternative policy response to inflation in rich countries has**

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the potential to help avoid recessions and debt crises around the world. Due to this international interrelatedness of inflation responses, international coordination towards new stabilization mechanisms is urgently needed.

One key instrument can be buffer stocks to cushion sharp price fluctuations in important commodities. Buffer stocks can be established analogous to the operations of central banks: they buy when prices drop and sell when prices rise sharply.

The policy proposals in this brief primarily focus on the food sector. International virtual and physical buffer stocks should be established (while supply is high and prices are low) to stabilize the prices of selected, widely traded food staples (e.g., bread wheat, rice, corn, vegetable oils). National and regional public food reserves in the Global South should be supported financially and technically by multilateral organizations. Food reserves can be part of a multifaceted public procurement system that incentivizes more sustainable and diversified cultivation. Furthermore, agricultural trading companies should be more strictly regulated. Similar approaches are conceivable for other systemically important commodity markets. When firms in systemically significant sectors reap record profits in times of shocks, this presents a real challenge for resilience. Internationally coordinated windfall profit taxes can be an additional tool to address this misalignment between private incentives and the public interest.

## Background

The frequency of significant price fluctuations in international commodity markets has been significantly higher in the past 20 years than in the previous 20 years (see Figures 1 & 2). In the context of climate change and geopolitical tensions, price shocks triggered by production or trade disruptions are likely to occur more frequently in the future.

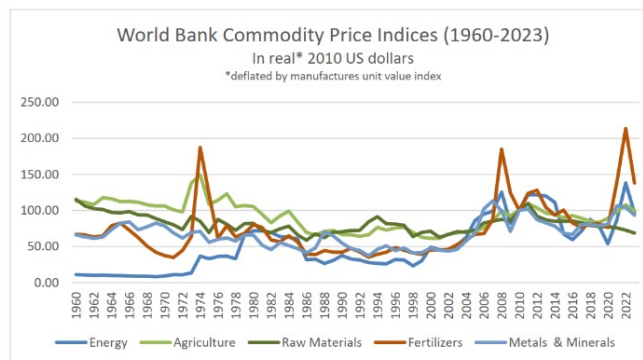


Figure 1: World Bank commodity price indices (1960-2023)

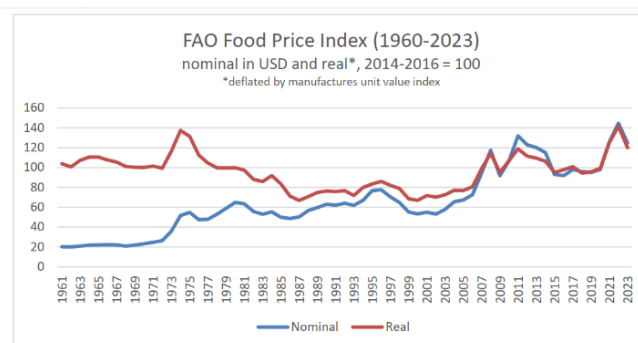


Figure 2: FAO food price index (1960-2023)

The current policy framework for international commodity markets is based on the assumption that free price fluctuations are an *efficient* means to balance supply and demand. However, this assumption hardly holds true for the price shocks of the past two decades. We can observe increasing volatilities, and there is a risk of inefficient overshooting of prices. Moreover, price shocks have devastating humanitarian, political, and macroeconomic consequences that are not considered in microeconomic efficiency calculations.

### 1. In reality price shocks are often inefficient.

Theoretical models that predict the private sector will optimally cushion price shocks without state support rely on very restrictive assumptions about market participants' behavior: Market participants, on average, have rational expectations, no market power, and do not base their decisions on what they think other market participants will

do. In reality, commodity markets are characterized by fundamental uncertainty, which makes rational production and storage decisions difficult. They are dominated by market participants with informational advantages (e.g., very large agricultural trading companies) who profit from increasing price instability (UNCTAD, 2023, pp. 72-99; Hietland, 2024). Commodity markets also repeatedly show symptoms of speculative herd behavior, which amplifies price fluctuations (Kornher et al., 2022; Rees and Rungcharoenkitkul, 2021; Gibbs and Ross, 2023). Political reactions, such as export restrictions or panic buying by state actors, can further amplify price shocks.

The result is that commodity markets may overreact strongly in situations of uncertainty and crises, and the free market does not provide the most efficient mechanism to balance supply and demand. Whether private companies will increase storage in anticipation of more frequent price shocks and use it to cushion price shocks remains to be seen. However, since large agricultural traders benefit from price instability, this is unlikely and bullwhip effects are pervasive in times of crisis.

## *2. Price shocks in commodity markets can leave devastating and lasting humanitarian, political, and macro-economic damage.*

Price shocks in commodity markets translate into cost shocks for manufacturing companies further down the supply chain. As we have seen in recent years, many manufacturing companies were able to pass on input cost shocks protecting or even increasing their profit margins (as a % of sales, e.g., Weber and Wasner, 2023; van Huellen and Ferrando, 2023; Jobst and Duthoit, 2023). Commodity price shocks thus were propagated through the supply chain, being multiplied at each stage of the value chain by the profit margin of the processing company. This led to general inflation, which we call “sellers’ inflation.” Poorer households in Germany were more affected by this sellers’ inflation than wealthy ones (Endres and Tober, 2022). Sharp price increases in essential goods, such as food and energy, have led to a cost-of-living crisis for

many. These macroeconomic and humanitarian consequences were even more severe in poorer countries. Twenty years of progress in combating global hunger were undone in just two years by the price explosions (FAO, 2022; IMF, 2023). Furthermore, the price explosion in agricultural inputs such as fertilizers and food exacerbated the already precarious debt situation of import-dependent countries in the Global South and led to currency devaluations (UNCTAD, 2023; World Bank, 2024).

In the face of rising inflation, central banks worldwide increased their interest rates. This exacerbated the distributional effects of inflation both in Germany and internationally and prevented important investments, especially in green technologies and infrastructure, that are urgently needed to combat climate change (World Bank, 2024). To defend their competitiveness and stabilize purchasing power, many wealthy countries resorted to unconventional fiscal measures (Dao et al., 2023). Poor countries often lack the fiscal means for these measures and had to increase interest rates more significantly to avoid capital flight. As a result, global economic growth remained weak.

## **The Path to a Future-Proof Policy**

Negotiations about international cooperation to stabilize commodity markets last took place in the 1970s as part of the New International Economic Order Agenda. Similar to today a series of price shocks in commodity markets (including food and oil price shocks) led to inflation. This sparked an interest in commodity price stabilization in Global North countries and opened a window of opportunity for this long-standing Global South agenda. **These negotiations came to an abrupt end in the early 1980s when the US central bank chose to fight inflation with the “Volcker Shock,”** triggering a global recession and ushering in neoliberalism. The interest rate increase led to debt crises in the Global South and low growth which, together with structural adjustment programs of the “Washington Consensus,” lowered commodity prices. This reduced the risk of price shocks for the

Global North but limited the development opportunities of the Global South.

**Since the food crises of 2007-2008 and 2011-2013, discussions on commodity price stabilization have returned to the international agenda.**

In 2009, high-level experts advocated for the establishment of physical and virtual international buffer stocks for essential food staples (e.g., von Braun et al., 2009), and the G8 summit in L'Aquila on food security tasked international institutions with examining the feasibility and effectiveness of an international buffer stock system. After only superficial analyses, this recommendation was dropped. In some countries of the Global South, national and regional state buffer stocks have since been established or expanded (European Commission, 2018; FAO, 2021). However, these initiatives have faced resistance from the WTO (Glauber and Sinha, 2021). **Effective buffer stocks are technically and financially demanding institutions and have not been systematically supported by international development aid with financial resources and capacity building** (Galtier and Vindel, 2013). Moreover, international coordination can make buffer stocks more effective thanks to complementarities and prevent purely national stabilization strategies from exacerbating international price shocks for widely traded commodities.

**In light of a future shaped by climate change and geopolitical shifts, a paradigm shift is needed in dealing with commodity price shocks.** Institutions should be established at the regional, national, and international levels to cushion supply and price shocks and thus contribute globally to macroeconomic stability and growth and support a sustainability transformation.

### **Mitigating Extreme Price Fluctuations and Shortages through Public Buffer Stocks**

**International buffer stocks for a few widely traded staple foods (e.g., rice, corn, wheat, vegetable oils) should be established at strategically sen-**

**sible geographical locations and managed by the FAO or a new UN entity created for this purpose.**

This entity would be responsible for monitoring prices, estimating the required size of buffer stocks, and developing and updating commodity-specific intervention strategies. A commercial arm of this entity would undertake the **purchase and sale of commodity stocks through open market operations to stabilize prices.** Market interventions could occur in two steps. First, the information office of the buffer stock entity issues an alert when a global or regional price shock is imminent. This triggers consultations among member states on joint measures to stabilize supply and demand—such as adjusting national reserves or stabilizing shipping in regions affected by trade disruptions. If these measures are insufficient, stockpiles would be released.

Various **financing approaches** could be employed to establish these buffer stocks. **Claims on the physical stocks could be held by central banks as assets against which currency is issued – similar to gold.** This could **reduce the fiscal costs** of building up the buffer stock. Physical buffer stocks could be supplemented by **“virtual” buffer stocks that buy and sell commodity futures to curb speculative price increases and herd behavior,** as proposed by von Braun and Torero after the 07/08 food price crisis (2009).

**Countries in the Global South should be financially and technically supported in their regional and national initiatives to establish public food reserves.** Conditionalties from the **IMF, World Bank,** and other lenders should be designed to strengthen these stabilization measures, not weaken them as is presently often the case. Similarly, clauses in **bilateral trade agreements** should not be used to prevent the establishment of such buffer stocks and WTO rules on agricultural subsidies need to be revised in this regard. **Food reserves can be part of a broad public procurement system that incentivizes more sustainable and diversified cultivation and promotes local and regional markets for smallholder farms. An**

**active agricultural price policy can thus support the transformation of the food system towards greater sustainability, food security, and rural development.**

**Buffer stocks must be complemented by additional measures to curb the volatility of commodity markets. The excessive financialization of markets for essential commodities and speculation in these commodities should be limited.** Greater transparency in agricultural commodity trading can help limit the informational advantages and

financial transaction power of large agricultural trading companies. Additionally, **the financial operations of large agricultural trading companies should be subject to banking regulation**, as UNCTAD has already recommended (UNCTAD, 2023, pp. 72-99). During the recent price shocks, firms in systemically significant sectors like shipping, oil and gas and food reaped record profits. Internationally coordinated **windfall profit taxes** can help prevent this **misalignment of private incentives and the public interest** and hence enhance resilience.

## References

- von Braun, J., Lin, J. and Torero, M. (2009) 'Eliminating Drastic Food Price Spikes. A Three Pronged Approach for Reserves'.
- Dao, M., Dizioli, A., Jackson, C., Gourinchas, P.-O. and Leigh, D. (2023) 'Unconventional Fiscal Policy in Times of High Inflation', *IMF Working Paper*, **23/178**.
- Endres, L. and Tober, S. (2022) *Inflationsmonitor. November 2022*, Institut für Makroökonomie und Konjunkturforschung.
- European Commission (2018) *Using Food Reserves to Enhance Food and Nutrition Security in Developing Countries. Case Studies*, Brussels, Directorate-General for International Cooperation and Development.
- FAO (2021) *Public Food Stockholding A Review of Policies and Practices*, Rome, FAO.
- FAO (2022) *Food Outlook – Biannual Report on Global Food Markets*, FAO.
- Galtier, F. and Vindel, B. (2013) 'Managing Food Price Instability in Developing Countries', *A critical analysis of strategies and instruments. Paris, Agence Française de Développement (AFD)*.
- Gibbs, A. and Ross, M. (2023) 'Top Hedge Funds Made \$1.9bn on Grains before Ukraine War Food Price Spike', *Unearthed* (2023).
- Glauber, J. and Sinha, T. (2021) *Procuring Food Stocks Under World Trade Organization Farm Subsidy Rules. Finding a Permanent Solution*, International Institute for Sustainable Development.
- Hietland, M. (2024) *Hungry for Profits*, Centre for Research on Multinational Corporations (SOMO).
- van Huellen, S. and Ferrando, T. (2023) *Who Is Profiting from the Food Crisis?*, The Left.
- IMF (2023) *G-20 Background Note on the Macroeconomic Impact of Food and Energy Insecurity*, IMF.
- Jobst, A. and Duthoit, A. (2023) *European Food Inflation – Hungry for Profits?*, Munich, Allianz SE.
- Kornher, L., von Braun, J. and Algieri, B. (2022) 'Speculation Risks in Food Commodity Markets in the Context of the 2022 Price Spikes - Implications for Policy', *ZEF Policy Brief*, **40**.
- Rees, D. and Rungcharoenkitkul, P. (2021) *Bottlenecks: Causes and Macroeconomic Implications*, Bank of International Settlements.
- UNCTAD (2023) *Trade and Development Report 2023: Growth, Debt, and Climate: Realigning the Global Financial Architecture.*, UNCTAD.
- Von Braun, J. and Torero, M. (2009) *Implementing Physical and Virtual Food Reserves to Protect the Poor and Prevent Market Failure*, IFPRI.
- Weber, I. M. and Wasner, E. (2023) 'Sellers' Inflation, Profits and Conflict: Why Can Large Firms Hike Prices in an Emergency?', *Review of Keynesian Economics*, **11**, 183–213.
- World Bank (2024) *Global Economic Prospects, January 2024*, Washington D.C., The World Bank.

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