Food and the Global Political Economy

Madison Powers

The globalization of commodity sourcing, food production, and retail sales has expanded over the last forty years, and it has sparked debates about the distributive fairness and human rights implications of the way the global political economy is structured. The centerpiece of the debate is the set of interrelated challenges involved in sustainably feeding the world by midcentury. Multiple reports prepared by governments, academic researchers, and international organizations have inventoried these challenges.[1] The Food and Agriculture Organization (FAO), for example, warns that "degradation and deepening scarcity of land and water resources . . . pos[es] a profound challenge to the task of feeding a world population expected to reach 9 billion people by 2050."[2] Nearly all of the assessments conclude that the response to these challenges will require more than a portfolio of technological solutions.

The U.K. government's Foresight report *The Future of Food and Farming*, for example, defines the challenges as ones requiring institutional solutions to the "interacting drivers" affecting the global food system over the next forty years. Issues that it suggests need to be addressed include:

- "Governance of the food system at both national and international levels"
- "The globalisation of markets" and "the emergence and continued growth of new food superpowers"
- "A trend for consolidation in the private sector with the emergence of a limited number of very large transnational companies in agribusiness, in the fisheries sector, and in the food processing, distribution and retail sectors"

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- "Production subsidies, trade restrictions and other market interventions"; and
- "The control of increasing areas of land for food production (such as in Africa) . . . influenced by both past and future land-purchase and leasing agreements—involving both sovereign wealth funds and business"[3]

In other words, the report brings to the forefront of discussion the drivers of food system change, rooted in patterns of market organization and the key institutions of the global political economy.

The global political economy, as Robert Gilpin defines it, focuses on "the interaction of the market and powerful actors such as states, multinational firms, and international organizations."[4] His widely influential definition goes beyond an older emphasis on the relation between markets and the legal and political institutions of the individual states within which those markets are embedded. More important is the explanation he gives for his expanded definition, which takes account of the multiple exogenous influences on domestic markets and national distributive outcomes.[5] For example, geopolitically powerful and economically advantaged states play an important role in shaping economic activities and incentive structures far beyond their own borders. They exercise their power to shape the trade, capital investment, labor, and taxation rules that individual entrepreneurs, multinational firms, and less advantaged states must follow. These rules generally reflect the political and economic "interests of dominant states and their citizens."[6] The underlying vision of the national interest, he argues, often reflects the views of business elites in those societies.[7]

Equally important is the fact that various nonstate entities exercise some of the powers historically possessed by states. These state-like entities include multinational corporations, hedge funds and other institutional investors, and supranational institutions such as the World Bank and the International Monetary Fund. To varying degrees, they exercise some of the capacities of states, but they answer to other constituencies such as shareholders, customers, and financial backers, instead of citizens. Often, the state-like capacities acquired by private sector entities are augmented by their ability to enlist state support for their own economic purposes, and equally significant is the recent revival of state enterprises (for example, in China) that blur the line between state institutions and private profit-seeking entities.[8]

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Food production figures centrally in many of these broader debates, for reasons cited in the FAO's *The State of Food Insecurity in the World 2009* report, the U.K. government's Foresight report, and many other publications. In this essay, I will explore four examples of trends pertinent to global agricultural markets, elaborate on the key normative issues they raise, and set the stage for a discussion of alternative visions for the global political economy.

The Globalization of Trade in Agriculture

The first trend is that protective tariffs and agricultural production subsidies are among the most contested issues in global trade discussions. International trade in food and agricultural products has grown in absolute terms nearly fivefold from 1990 to 2017.[9] However, agricultural trade rules (along with rules dealing with some aspects of intellectual property) have never been incorporated into the global trade rules pertaining to other goods and services regulated and enforced by the World Trade Organization (WTO). For more than twenty-five years, agricultural export subsidies, tariffs, and other trade policies have been governed by the Agreement on Agriculture (AoA). It was created as an interim arrangement, intended to last until some permanent multilateral agreement could be reached. But as of the beginning of 2021, negotiations remain at an impasse and the underlying economic conditions fueling the controversies are largely unchanged.[10]

Issues of fairness and power are at the heart of these enduring trade disputes and the various criticisms of the AoA's framework. A key provision (known as the peace clause) allows less economically developed nations to maintain some protectionist policies for the sake of national food security goals and for satisfying their human rights responsibilities to their citizens by limiting their exposure to international legal challenges. On one hand, the United States and some other economically developed nations contend that these policies were designed for economic conditions that no longer hold, and moreover, that many of the policies are not used to advance legitimate food security goals.

On the other hand, some low- and middle-income countries complain that the AoA is unfair to them inasmuch as it allows member nations of the Organisation for Economic Cooperation and Development to retain far more trade-restrictive protectionist policies that serve no purpose beyond perpetuating their global market advantages.[11] Moreover, they say that the unfairness of these asymmetric trade

rules is compounded by the fact that many developed nations dump their excess food production in poor nations at prices below the cost of local production. This practice, many observers conclude, further disadvantages local farmers by destroying their ability to compete effectively in their own markets and, as a consequence, undermines the long-term ability of countries to sustain local productive capacities essential to domestic food security.[12]

Global Competition for Agricultural Resources

The second trend up for discussion is the emerging scarcity of farmland and other resources upon which the livelihoods of individuals and the food security goals of nations depend. The perception of scarcity is reflected in the increase in large-scale global land acquisitions and global price increases over the last two decades.

The Intergovernmental Panel on Climate Change (IPCC) recently issued a report on the status of global land, noting the competing uses of land for food, feed, fiber, fuel, and freshwater are likely to increase given the growing global population and expectations of an expanding economy.[13] However, options for expanding the human land footprint are becoming more limited. More than 70 percent of the Earth's ice-free land (including habitable and uninhabitable land) has been transformed in varying degrees by human activities.[14] A recent assessment of evidence by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) estimates that more than 75 percent of Earth's habitable land areas are degraded—by desertification, pollution, erosion, deforestation, and the like—to such a degree that the wellbeing of 3.2 billion people is now at risk.[15] Under a "business as usual" scenario for land use, that proportion is projected to rise to 95 percent by 2050.[16]

The FAO, IPCC, and IPBES all concur that agriculture is the primary driver of land degradation, declining water quality and availability, deforestation, and terrestrial biodiversity loss—in addition to accounting for roughly a quarter of all greenhouse gas emissions. These damages are not merely bad for the environment; they undermine the sustainability of food production. In other words, existing practices and the institutions that support them are ecologically self-undermining insofar as they exhaust the necessary resource base or degrade the environmental conditions upon which the continued existence of those practices depends.

Issues of sustainability are closely linked to issues of justice. The environmental destruction and resource depletion of a country is fundamentally at odds with the country's ability to fulfill its human rights responsibilities to its citizens.[17] Widely recognized human rights to food, water, and subsistence, along with rights pertaining to health and a livable environment, are implicated when countries lack effective control, or fail to exercise sufficient oversight over their natural resources and environment.[18] More generally, threats to human rights arise whenever host political institutions do not take appropriate steps to combat unfairness in the distribution of advantages, power, risks, and opportunities.[19] For example, rights to food, water, subsistence, and the protection of health and environment are easily thwarted by systems that fail to protect common pool resources such as water and air quality, or lack adequate economic regulations for policing transactions that can have harmful environmental spillover effects.

Concerns rooted in the recognition of the link between human rights deficits and underlying structurally unfair socioeconomic conditions are prompted by the fact that the most aggressive pursuit of land and water resources around the world over the last decades has been concentrated in countries where land is relatively cheap, governments are welcoming, land acquisition laws are lax, and regulatory oversight is weak. Critics compare the effects of what many call a "global land rush" to the natural resource curse, the name given to the portfolio of adverse consequences of foreign investment in extractive industries such as oil and minerals. For example, they charge that foreign investors in both mining and large-scale agriculture enterprises extract high profits, deplete resources, produce goods primarily for export to the global affluent, invest little for the improvement of the local economy or relief from poverty, leave behind environmental degradation, convert smallholders to low-wage informal sector workers, and dispossess many traditional landholders.[20]

The first big uptick in the current global land acquisition trend began a few years before the Great Recession and briefly plateaued with the economic downturn that followed. But after the global recovery accelerated in 2012, the pace and scale of such acquisitions increased even more, especially in Africa, and it expanded deeper into new locations, including Argentina, Brazil, and Romania.[21]

Market Concentration and Supply Chain Management

The third trend is that one of the most consequential changes in the global organization of agricultural production over the last forty years has been the

concentration of market power in the hands of a decreasing number of producers, commodity buyers, and retailers. Today, for example, 50 percent of seeds are produced by just four companies, over 70 percent of fertilizers and pesticides are produced by six agrochemical manufacturers, and 75 percent of the global grain trade is controlled by four agrobusiness conglomerates.[22] In the United States, 83 percent of the beef and 66 percent of the pork are processed by four meat-packing companies.[23] Global livestock production is more regionalized than other agricultural products, but the same oligopolistic patterns among manufacturers of production inputs (for instance, fertilizers and pesticides), commodity traders, and meat processors are found in every region of the world. All of these products are concentrated in fewer corporate hands as a result of countless waves of corporate mergers and acquisitions beginning in the late 1970s and intensifying in recent years. For example, more than 70 percent of the global pesticide and seed markets were controlled by four firms in 2018, down from six in the mid-1990s, already far more concentrated than it was in the late 1970s when ownership of seeds and pesticides was more widely dispersed.[24]

In addition, markets characterized by a small, concentrated pool of global buyers—an oligopsony—have been enormously important in bringing about a fundamental transformation in global supply chains. Large-scale purchasers of food for retail grocery chains, fast food outlets, and other multinational food processors have been the primary drivers. Small pools of buyers now dominate decision-making within the global supply of food, with "lead firms" linking producers in almost every country to consumers all over the world.[25] In most regional markets, oligopsony is now the most prevalent model of market organization.[26]

A traditional objection to oligopsony is its potential for increasing consumer costs. However, the primary concerns often lie elsewhere. The first and most immediate impact of this concentration has been on the way production is organized. Market concentration among buyers is responsible for the rapid disappearance of traditional "spot markets"—the traditional form of market organization that gets its name from the physical marketplaces where independent producers and potential buyers meet and reach a commodity sales agreement "on the spot." Instead, in recent decades, many of the major agricultural commodities in the United States, and increasingly elsewhere, are produced under exclusive sales contracts entered into with purchasers on behalf of the even smaller number of global buyers. The shift has been gradual but profound.

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By 2003, almost 40 percent of all U.S. agriculture was produced under contract. A growing share of fruits and vegetables in the United States is produced on contract with "first handlers"—the packers or food-processing companies—which agree in advance to purchase of a farmer's entire crop at predetermined prices. Similarly, 40 percent of cattle are sold through "captive supply chain" contracts between feedlots and a specific meat-packer.[27] An astounding 95 percent of chicken consumed in the United States is now produced under contract with "integrators," who control every aspect of production, from the supply of chicks and feed to the management and delivery of broilers (the term for any chickens bred and raised specifically for meat production).[28]

Purchasers utilize "hierarchical supply chain contracts" that allow them to exercise control over every aspect of the supply chain without having to invest directly in production. Such control is valued by purchasers as a way to restrain and stabilize commodity prices, minimize the need for future rounds of market negotiation, and ensure a reliable supply of standardized agricultural products sufficient to meet the requirements of a global enterprise.[29]

Contract agriculture grew in importance as vertical integration fell out of favor across a range of industries, beginning with the international garment-manufacturing sector. In addition to the reasons already noted, an important impetus for the shift was the recognition that investment at the commodity production stage is the least profitable and most risky component of any business. Agricultural commodity production is an especially risky venture because of weather variability and product perishability.[30] Vertical integration—owning every stage of production, from seed to shelf, for example—thus became less attractive because the combination of low profit margins and high risk at the production stage of the enterprise reduces the overall rate of profitability on capital investment.

Vertically integrated ownership has not disappeared entirely, and it would be precipitous to predict the future after the retrenchment of global integration during the early stages of the COVID-19 pandemic. But supply chain management, achieved through a series of contracts, grew in favor and continues to grow because it also serves many other critical business goals associated with the geographic elongation of supply chains, within and across nations. While these supply chains open up opportunities for lowering production costs, businesses need to address new challenges that arise from operation in multiple jurisdictions. Contract agriculture allows agribusiness to avoid the risks associated with changes

in legal and regulatory climates, stranded assets in politically unstable countries, superannuation of production technology, and long-term financial commitment to fixed workforce pools and pension obligations.[31] In other words, the contract model offers maximum flexibility and enhanced profitability for purchasers. However, the flip side of the coin is an increase in economic precariousness for farmers, reduced bargaining power for workers, and diminished accountability to local communities.

The effective exclusion of small farmers from lucrative global markets is one of the most significant results of contract agriculture under oligopolistic market conditions. The farmers are forced to expand their operations to make it worthwhile for purchasers to offer them a production contract. A familiar refrain is "Big only buys from big." Small farmers often lack the resources for expansion, and even when they are able to expand their operations, they are often forced to sell to one of a very small number of buyers whose market dominance enables them to dictate prices and drive down farm income, sometimes below the costs of production. For some products, paradigmatically in the broiler industry, the evidence of marginal and declining rewards available at the commodity production stage of the supply chain is quite dramatic. In the United States, many producers are in debt for sums of over a million dollars, even though their net income is only slightly above the poverty level.[32]

More generally, much of what is known about the broader social consequences of contract agriculture under oligopolistic market conditions comes from the examination of chicken production in the United States, where the business model is most extensively developed. In 1950, 95 percent of broiler producers were independent, with more than 1.6 million chicken farmers spread across the country.[33] Less than thirty years later, the industry was dominated by a handful of chicken processors with operations concentrated in a few localities in the Southern United States, leaving only 10 percent of the broilers in the country being produced by independent farmers.[34]

Contract production under oligopolistic market conditions has made it possible to shift many other burdens of production to local communities. The underlying incentive structure of the "Southern Model," as it is now known, is exemplified by the characteristics of the typical processing sites. The areas selected by the major industry players offer an abundance of farmers with only marginally productive operations, a substantial pool of flexible labor, low prevailing wages, a lack of unions, and weak environmental and worker safety laws.[35]

The geographic concentration of contract agriculture in predominately poor and disempowered communities also has significant effects on the livelihoods of all workers in the areas where the facilities are concentrated. Aided by the lack of unions or strong labor protection laws, labor patterns generally involve a shift away from formal arrangements for full-time employment and a decline in the prevailing wage of the region's workforce. Regular shifts and full-week work hours, unemployment insurance, workers' compensation benefits, and other forms of workforce security all become less common, thereby increasing worker insecurity and vulnerability to lost wages and uncompensated health losses.[36]

Local communities also suffer uncompensated adverse environmental effects —"negative externalities," in the parlance of economists—of geographically concentrated agriculture. The concentration of chicken, hog, and large-scale crop production operations routinely overwhelms the capacity of rivers, streams, air, and soil to absorb and dilute the pollution, and many of these health hazards remain unabated because of a lack of regulatory oversight.[37]

Unsurprisingly, the enormous corporate advantages of the contract production model have led to its expansion well beyond the United States. In addition, it has enjoyed strong support from the World Bank and other economic development agencies that promote it as a vehicle for poverty relief among the rural poor and as a mechanism for small landholders in the developing world to enter into potentially lucrative global agricultural commodities markets.[38] However, widely cited reviews of a large body of literature show mixed results for farmers in these countries, even when the contract production model contributes to growth in GDP.[39] Critics of the global expansion of the contract model cite these mixed results, as well as the evidence from the U.S. experience, as reasons for caution. Their concerns stem from the global parallels in the concentration of market power among buyers located within similar geographic sites that gives buyers advantages due to the vulnerability of small farmers, the local workforce, and their communities.

The Effects of the Global Financial Sector

The fourth trend related to global agricultural markets is the trend toward financialization—the growing share of the financial services sector within the global economy and its staggering influence on other sectors—which has led many observers to label the current era of capitalist organization "financial capitalism."

The size and influence of the sector confers upon private owners of concentrated capital an immense power to determine what gets produced, where, by whom, the conditions of state oversight, and the location and terms by which profits are accumulated and taxed.

The financial services sector, as long as its power is held in check, is widely thought to be essential to the functioning of the global economy.[40] However, there are two especially significant adverse impacts associated with the growth and influence of a heterogeneous collection of hedge funds, private equity funds, and investment brokers, international tax consultants, and state-sponsored tax havens—the core elements of what is known as the "shadow banking system." They have fueled a seismic shift in taxation and capital accumulation by corporations and propelled a global frenzy of speculative investments, including in farmland and water resource acquisitions.

The first issue is the problem of tax competition. An international cadre of over ten thousand lawyers, accountants, and wealth-preservation consultants cater to transnational corporations seeking to deposit their profits in jurisdictions that have tailored their laws to offer lower corporate tax rates (or no corporate tax), shielding their financial records from other taxing authorities, and the ability to conduct financial transactions with few restrictions and little oversight on the source and disposition of the deposited funds.[41] The mechanisms are often enormously complex, but the essential point is that multinational corporations get to pick the country where they declare their profits and shelter their wealth by creating "offshore" corporations.

For example, a Dutch wholesaler might buy agricultural commodities from Brazil and, ultimately, they get sold for a profit to a British retail grocery chain. However, neither the Brazilian nor the British tax authorities would be able to tax the revenues because the commodity is sold at purchase price to a holding company in Luxembourg, where the profit appears on its books as a sales transaction in that jurisdiction and is taxed at minimal rates. Often, the holding company is referred to as a "shell" corporation because it is created solely for the purpose of reducing or avoiding taxes and escaping strict financial regulations in the countries where the company conducts most of its business or derives most of its income.[42]

It is important to note that the use of tax havens and shell corporations in international business practices is not of marginal economic significance, clustered in poverty-stricken or corrupt island nations, or utilized mainly by drug cartels and

other criminal syndicates to hide their ill-gotten gains. Luxembourg, the Netherlands, Hong Kong, Switzerland, and Ireland are among the world's largest tax havens. The Cayman Islands are among the most well-known tax havens, but the British crown appoints its governors, its laws are subject to British approval, and its legal disputes are resolved under British law.[43] Moreover, an estimated 40 percent of all multinational corporate profits is routed through tax havens, and for the multinationals based in the United States, the number is 60 percent.[44] This means that much of the wealth generated from legal global trade is deposited in offshore accounts, insulated from scrutiny, and sheltered from high taxation rates.[45]

A second problem, facilitated and magnified by the legal conduits provided by the tax haven industry, is the speculative investment frenzy fueled by portfolio managers, pension funds, and hedge funds. There are many facets to this complex phenomenon, but here is one example that affects global agriculture.[46] Banks, and especially the institutions that make up the largely unregulated shadow-banking industry, are responsible for the proliferation of highly risky securitized financial instruments. These instruments, known as derivatives, are contracts that give purchasers the rights to future proceeds of investments. They are named for the fact that market value is based on the expected yield derived from the underlying bundle of assets. The underlying assets can include a mix of high-risk investments, such as "junk bonds," overleveraged real estate loans, and any other assets, including agricultural and water resources, and even the sovereign debt of debt-ridden nations. These are all folded together into tradable, high interest–yielding derivative contracts. These contracts are either resold to other banking institutions or institutional investors, such as other hedge funds, diversified mutual equity funds, university endowments, and pensions, all equally eager to take big risks for greater returns than most other market transactions provide.[47]

An indicator of how speculative these investments are is the fact that the total value of financial exposures from derivative contracts alone is estimated at somewhere between two and three times the total market value of all assets in the world.[48] The financial sector has created a global debt casino, affecting not only the players but also the people who neither consented to nor know of the risks to which they are being subjected.

Here are a few examples of the consequences. The speculative activities of financial institutions not only deprive nations of tax revenue when filtered through tax havens but also increase the concentration of capital in the hidden portfolios of

the global rich, stifle innovation and crowd out more productive uses of assets, increase the systemic risk of financial collapse of the global economy, accelerate the extraction of dwindling resources from lower-income countries, and drive up asset prices—including of farmland—beyond the reach of local residents.[49]

Alternative Solutions

The breadth and depth of challenges involved in feeding the planet, deeply rooted in the structure of the global political economy, are exemplified in the market practices and policy responses surveyed. These activities are at odds with the goal of ensuring that the global system of food production is both ecologically sustainable and structured in a way that facilitates the secure realization of basic human rights. The range of suggested solutions runs the gamut, some focusing largely on markets and others concentrating on political institutional reform.

For more than forty years, some version of market fundamentalism—as Joseph Stiglitz and others call it—has been the dominant view of how the global political economy should be organized.[50] The rationales for it differ (and often overlap), but their core belief is that a robust protection of market liberties is the fundamental principle of social organization.[51] In a nutshell, market fundamentalism is the view that competitive markets tend to be self-regulating and socially beneficial. In the long run, markets, unfettered by state interference, will not only produce maximally efficient outcomes, advocates argue, but also underwrite a form of social organization that best promotes individual freedom, improvement of social welfare, economic fairness, and social stability. Its most famous proponents, including Milton Friedman and Friedrich Hayek, at times emphasize one or another of these free market rationales, but they share a strong presumption in favor of promarket solutions to virtually all social problems. In particular, they advocate for a portfolio of neoliberal market-oriented policies, including deregulation, free trade, and privatization. Margaret Thatcher, for example, championed this view in her well-known claim that there is "no other alternative."[52]

One strand of criticism of market fundamentalism is attuned to the global competition for agricultural resources and the closing window for responding to declining ecological conditions. It takes its cue from John Maynard Keynes's riposte "But this *long run* is a misleading guide to current affairs. In the long run we are all dead."[53] Another strand of criticism is more attuned to the human rights dimension of current conditions. Joseph Stiglitz observes that

while markets might produce considerable social benefits for quite a few people, "market processes may, by themselves, leave many people with too few resources to survive," and government, therefore, has an essential role "in ensuring social justice" for everyone affected by market organization.[54]

Other opponents of market fundamentalism argue that the flaw in the global political economy is inherent in the "logic of capitalism." Their claim is that problems of economic injustice and ecological unsustainability stem from the private sector's relentless efforts to maximize profits, indifferent to distributive consequences, resource depletion, ecological degradation, and a destabilized climate system.[55]

For the sake of argument, let us suppose that the logic of capitalism argument has some diagnostic merit. The problem, however, is that it runs into a temporal problem similar to what Keynes highlighted for market fundamentalism. Humanity's response to the challenges of creating a more just and sustainable global system of food production cannot wait until every evil that might be attributed to capitalism is eliminated. Capitalism has proved to be highly resilient.

The temporal problem, then, suggests the need to turn our attention to the reform of the political institutions in which markets are embedded. This might mean, for example, restraining the most predatory and ecologically self-defeating market practices. Traditional suggestions along these lines include anti-trust enforcement designed to combat market concentration, better land rights protections, environmental regulations on land use and pollution, and more oversight of the financial sector. However, solutions of this sort run into jurisdictional and practical constraints. Capital is highly concentrated, mobile, and fortified by legal maneuvers that shield it from scrutiny and taxation. It also has considerable economic leverage over governments; for example, through the threat of capital flight to stifle domestic social justice objectives pursued through regulation or taxation.[56]

A more fundamental problem for the market-reformist position is the fact that many ecological problems affecting the economic basis of the global food system, such as resource scarcity and ecological degradation, are global in origin and often beyond the institutional capacities and jurisdictional reach of even the most prosperous, self-sufficient, and well-organized states to address effectively in isolation. These jurisdictional and practical limitations, built into the DNA of the system of sovereign states, lead some political theorists to endorse the creation of a global government, or new supranational institutions that selectively strip states of

their sovereignty over matters that affect the entire planet and can be solved only at the level of global governance. Climate change is one example. However, there are two problems with these solutions.

First, problems such as climate change cannot be disaggregated into discrete policy silos. Agriculture offers a case in point. It accounts for a quarter of all greenhouse gas emissions—more than any other sector, including transportation and energy production. Any serious proposal for disaggregating sovereignty, at least for matters of great planetary consequence, would require a breathtaking reordering of political power relations and centralized control over nearly every facet of production involving greenhouse gas emissions from all sources.

This brings us to the second point. Just as it seems unlikely that capitalism will come to a timely end, deep incursions on state sovereignty seem equally improbable, if, for example, the rise of secessionist movements and internal fractures within the European Union are good indicators.

What then happens if our near-term prospects leave in place the existing combination of economically vulnerable, jurisdictionally limited, and politically constrained states and hypermobile, politically unaccountable, and highly concentrated capital? I can only offer a rather brief and tentative suggestion for escaping from this predicament, at least insofar as it pertains to problems with the global food system. There are two parts to the suggestion. First, our conception of human rights needs to be updated, such that environmental rights, broadly construed, are moved to the forefront. In practical terms, this would mean that the preservation of land, water, and other common pool resources, protection of land rights, and legal constraints on economically predatory and ecologically unsustainable market practices become the central policy instruments through which basic human rights to food, water, subsistence, and a habitable planet are secured.

Second, our conception of the primary mechanisms for human rights enforcement must be revised. The dominant state-centric approach emphasizes the special status of the claims of citizens against their own states for the protection and promotion of their basic human rights.[57] But, for reasons already noted, that vision now seems dated and incomplete. Because many of the threats to human rights are exogenous, given the realities of the global political economy, states need to be empowered to better regulate their own domestic socioeconomic conditions—and much more—in order to fulfill their responsibilities for the human rights of their citizens. Specifically, they need to be able to claim and enforce rights

against other states and state-like entities that substantially threaten the human rights of their citizens from the outside.[58]

For example, states need to be able to protect their own citizens from seriously disadvantageous rules governing interstate economic relations, external interference with domestic social justice initiatives, and the unconsented-to imposition of highly consequential environmental spillover effects. How might a mechanism for such protections be created? One answer, of course, is through international law, but asymmetric geopolitical power relations make the creation of that sort of legal remedy unlikely. An alternative approach would involve setting up coordinated efforts of multiple states that enable them to press their demands collectively, thereby creating solidarity and the augmented bargaining power that individual states acting alone lack. I can think of no better arena in which to explore this alternative than the nexus of economic and ecological concerns that will determine the future of the global food system.

NOTES

[1] See, for example, Food and Agriculture Organization of the United Nations (FAO), *The State of Food Insecurity in the World 2009: Economic Crises—Impacts and Lessons Learned* (Rome: FAO, 2009); World Bank, *World Development Report 2008: Agriculture for Development* (Washington, D.C.: World Bank, October 2007); and H. Charles J. Godfray, John R. Beddington, Ian R. Crute, Lawrence Haddad, David Lawrence, James F. Muir, Jules Pretty, Sherman Robinson, Sandy M. Thomas, and Camilla Toulmi, "Food Security: The Challenge of Feeding 9 Billion People," *Science* 327, no. 5967 (February 12, 2010), pp. 812–18. According to another influential study, agricultural production will have to increase by 60 percent by 2050 from the levels of 2005–2006. According to the same study, in developing countries the expected increase will be of the order of 77 percent. See Organisation for Economic Cooperation and Development (OECD), *Global Food Security: Challenges for the Food and Agricultural System* (Paris: OECD Publishing, June 19, 2013), p. 38, www.oecd-ilibrary.org/agriculture-and-food/global-food-security_9789264195363-en. Another study that discusses a range of estimates, including some of the higher-end projections, is Government Office for Science, *The Future of Food and Farming: Challenges and Choices for Global Sustainability* (London: Government Office for Science, 2011), assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/288088/11-547-future-of-food-and-farming-summary.pdf.

[2] "The State of the World's Land and Water Resources for Food and Agriculture (SOLAW) Launched at FAO Headquarters," "Land & Water," FAO, n.d., www.fao.org/land-water/news-archive/news-detail/en/c/267297/.

[3] Government Office for Science, *The Future of Food and Farming*, pp. 14, 54, 15.

[4] Robert Gilpin, *Global Political Economy: Understanding the International Economic Order* (Princeton, N.J.: Princeton University Press, 2001), pp. 17–18.

[5] Ibid., p. 129.

[6] Ibid., p. 22.

[7] Ibid., p. 18.

[8] Ibid., pp. 38–40.

[9] World Trade Organization (WTO), *2018 WTO World Trade Statistical Review* (Geneva: WTO, 2017).

[10] WTO talks on "agricultural domestic support" are scheduled to resume at the Twelfth Ministerial Conference, tentatively slated for June 2021. The conference's plans are available at: "Twelfth Ministerial Conference," International Institute for Sustainable Development, n.d., sdg.iisd.org/events/twelfth-wto-ministerial-conference/.

[11] Stefan Tangermann, "Farming Support: The Truth behind the Numbers," *OECD Observer* 243 (May 2004), pp. 38–39.

[12] Oxfam, *Rigged Rules and Double Standards: Trade, Globalisation, and the Fight against Poverty* (Oxford: Oxfam, 2002), oxfamilibrary.openrepository.com/bitstream/handle/10546/112391/cr-rigged-rules-double-standards-010502-en.pdf;jsessionid=34F60861406798DDB883120B0A616D7A?sequence=18; and "Towards New Rules for Agricultural Markets?," *Bridges* 19, no. 42, International Centre for Trade and Sustainable Development, December 10, 2015, ictsd.iisd.org/bridges-news/bridges/news/towards-new-rules-for-agricultural-markets.

[13] Intergovernmental Panel on Climate Change, *Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems; Summary for Policymakers*, ed. P. R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, et al. (IPCC, 2019), www.ipcc.ch/srccl/chapter/summary-for-policymakers/#:~:text=This%20Summary%20for%20Policymakers%20(SPM,Action%20in%20the%20near%2Dterm.

[14] Ibid.

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[31] Mark Wever, Petronella Maria Wognum, Jacques H. Trienekens, and Simon Willem Frederik Omta, "Supply Chain-Wide Consequences of Transaction Risks and Their Contractual Solutions: Towards an Extended Transaction Cost Economics Framework," *Journal of Supply Chain Management* 48, no. 1 (January 2012), pp. 73–91.

[32] C. Robert Taylor and David A. Domina, "Restoring Economic Health to Contract Poultry Production" (report prepared for the Joint U.S. Department of Justice and U.S. Department of Agriculture/GIPSA Public Workshop on Competition Issues in the Poultry Industry, Normal, Alabama, May 21, 2010), www.dominalaw.com/documents/Restoring-Economic-Health-to-Contract-Poultry-Production.pdf.

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[38] World Bank, *World Development Report 2008*; and Per Pinstrup-Anderson and Derrill D. Watson II, *Food Policy for Developing Countries: The Role of Government in Global, National, and Local Food Systems* (Ithaca, N.Y.: Cornell University Press, 2011), pp. 178–79.

[39] Marc F. Bellemare and Jeffrey R. Bloem, "Does Contract Farming Improve Welfare? A Review," *World Development* 112 (December 2018), pp. 259–71. www.sciencedirect.com/science/article/abs/pii/S0305750X18303188?via%3Dihub; and Martin Prowse, *Contract Farming in Developing Countries—A Review* (Paris: Agence Française de Développement, February 2012), www.afd.fr/en/ressources/contract-farming-developing-countries-review.

[40] The standard argument is that the sector serves two major functions. It directs funds from savers and potential investors to companies and borrowers who need capital for socially beneficial productive activities, and it plays an essential role in risk management; for example, by vetting creditworthy enterprises and weeding out inefficient practices.

[41] Brooke Harrington, *Capital without Borders: Wealth Managers and the One Percent* (Cambridge, Mass.: Harvard University Press, 2016).

[42] Emmanuel Saez and Gabriel Zucman, *The Triumph of Injustice: How the Rich Dodge Taxes and How to Make Them Pay* (New York: W. W. Norton, 2019).

[43] Nicholas Shaxson, *The Finance Curse: How Global Finance Is Making Us All Poorer* (London: Penguin Random House, 2018), pp. 63–66.

[44] Thomas Tørsløv, Ludvig Wier, and Gabriel Zucman, "The Missing Profit of Nations" (working paper 24701, revised April 20, 2020, National Bureau of Economic Research), missingprofits.world/.

[45] How much tax competition reduces the revenue to various types of countries (for example, as categorized by GDP) is a matter of ongoing controversy, but there is widespread agreement that some countries are adversely affected, and that most countries experience a loss in capacity to regulate their own economies due to the hypermobility of global capital. See Dev Kar and Sarah Freitas, "Illicit Financial Flows from Developing Countries: 2001–2010," Global Financial Integrity, December 15, 2012, www.gfintegrity.org/report/illicit-financial-flows-from-developing-countries-2001-2010/. Good discussions of both normative and empirical issues are found in Philipp Genschel, "Globalization, Tax Competition and the Welfare State," *Politics & Society* 30, no. 2 (June 2002), pp. 245–72; Peter

Dietsch, "Tax Competition and Its Effects on Domestic and Global Justice," in Ayelet Banai, Miriam Ronzoni, and Christian Schemmel, eds., *Social Justice, Global Dynamics: Theoretical and Empirical Perspectives* (Oxford: Routledge, 2011); and Gabriel Zucman, *The Hidden Wealth of Nations: The Scourge of Tax Havens*, trans. Teresa Lavender and intro. Thomas Piketty (University of Chicago Press, 2015).

[46] Research in this area is still in its infancy, largely because so many of these activities are not publicly disclosed or disclosed in nontransparent ways. For the best, most up-to-date, and wide-ranging account of how the shadow banking system works in relation to agriculture, see Jennifer Clapp, *Food*, pp. 141–76.

[47] A list of pension funds and university endowment funds that have direct investments in farmland is available in the article "The Global Farmland Grab by Pension Funds Needs to Stop" (GRAIN, November 13, 2018, www.grain.org/article/entries/6059-the-global-farmland-grab-by-pension-funds-needs-to-stop). This regularly updated, partial list does not include ownership stakes in derivatives or other investment portfolios that include farmland assets.

[48] Bank for International Statistics, *Semi-Annual Derivative Statistics, June 2017;* and Credit Suisse, *Global Wealth Report, 2016*.

[49] For a discussion of the ways finance-driven speculation crowds out productive investments and innovation, see Mariana Mazzucato, "Financing Innovation: Creative Destruction vs. Destructive Creation," *Industrial and Corporate Change* 22, no. 4 (August 2013), pp. 851–67. For a critique from an ecological perspective, see Tim Hayward, *Global Justice and Finance* (Oxford: Oxford University Press, 2019), pp. 54–70.

[50] See, for example, Dani Rodrik, *The Globalization Paradox: Democracy and the Future of the World Economy* (New York: W. W. Norton, 2011), pp. xx, 65–66, 165–70; and Joseph E. Stiglitz, "Joseph E. Stiglitz: Biographical," Nobel Prize, last updated December 2002, www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2001/stiglitz-bio.html. The phrase "market fundamentalism" has been popularized by George Soros, who likened the curious faith placed in largely self-regulating, or at the very least socially beneficial, markets to the fervor and faith characteristic of a religious movement. George Soros, *On Globalization* (New York: Public Affairs, 2002).

[51] The neoliberal political project has been characterized in various, though not necessarily incompatible, ways. Quinn Slobodian describes neoliberalism—what I take to be the policy and institutional expression of market-fundamentalist ideas—as a political project aimed at breaking barriers to international capital flow and putting the brakes on incipient distributive justice movements, especially those originating in the Global South. See Quinn Slobodian, *Globalists: The End of Empire and the Birth of Neoliberalism* (Cambridge, Mass.: Harvard University Press, 2018). David Harvey argues that neoliberalism is a "political project to reestablish conditions for capital accumulation and restore the power of economic elites." David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005), p. 19. He documents in great detail the scope of activism and the stated aims of advocacy groups and philanthropists in the United States from the early 1970s to the early 1990s. Ibid., pp. 43–54.

[52] Thatcher's frequent use of the phrase "there is no alternative" to free market capitalism in her public speeches is now memorialized in the acronym, TINA. See Nick Robinson, "Economy: There is no alternative (TINA) is back," BBC News, March 7, 2013. www.bbc.com/news/uk-politics-21703018.

[53] John Maynard Keynes, *A Tract on Monetary Reform* (London: MacMillan, 1923), p. 80.

[54] Joseph Stiglitz, *Globalization and Its Discontents* (New York: W. W. Norton, 2003), p. 218.

[55] Fred Magdoff, "Ecological Civilization," *Monthly Review* 62, no. 8 (January 2011), pp. 1–25, at p. 20.

[56] Miriam Ronzoni, "The Global Order: A Case of Background Injustice? A Practice-Dependent Account," *Philosophy & Public Affairs* 37, no. 3 (Summer 2009), pp. 229–56.

[57] Thomas Pogge, *World Poverty and Human Rights*, 2nd ed. (Cambridge, U.K.: Polity, 2008), pp. 58–76.

[58] For a discussion of the reciprocal rights claims of states, grounded in the responsibilities of each state for the human rights of its own citizens in relation to climate change, see Madison Powers, "Ethical Challenges Posed by Climate Change: An Overview," in Dale E. Miller and Ben Eggleston, eds., *Moral Theory and Climate Change: Ethical Perspectives on a Warming Planet* (London: Routledge, 2020), pp. 35–57. For similar arguments regarding socioeconomic matters, see Miriam Ronzoni and Laura Valentini, "Global Justice and the Role of the State: A Critical Survey," in Thom Brooks, ed., *The Oxford Handbook of Global Justice* (New York: Oxford University Press, 2020), pp. 15–35.

Abstract: As part of the roundtable, "Ethics and the Future of the Global Food System," this essay examines how the key decisions within the global system of food production are shaped by the

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organization of the global political economy. The understanding of the global political economy follows standard definitions that focus on the dominant market practices and the institutional structures within which those practices are embedded. I identify examples of market practices and institutional policies that structurally impair the ability of states to secure the human rights of their citizens, and explain specific issues of structural injustice raised by each example. The conclusion provides a survey of a range of alternative solutions for transforming the global political economy and creating the conditions for a more just and ecologically sustainable food system. Ultimately, our conception of human rights and the mechanisms for their protection and enforcement must change in order to address the scale and gravity of problems affecting the future of agriculture and our ability to feed the world.

Keywords: global political economy, food, markets, sustainability, agriculture, trade, supply chain, financialization, commodities