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Review of *Food Crises and the WTO* by Baris Karapinar and Christian Häberli (eds.)

Kathryn Bowen*

INTRODUCTION

The 2007–2008 food crisis was characterized by a sharp increase in world prices for major agricultural commodities, including wheat, rice, maize, and oilseed crops.¹ Prices for staple commodities reached their highest point in nearly three decades, leading to riots and political protests in more than thirty countries.² Increases in food prices up to the first quarter of 2008 pushed an additional 100 million people into poverty and eliminated almost seven years of progress in long-term poverty reduction.³

Compiled in 2010, *Food Crises and the WTO* provides a comprehensive account of the 2008 crisis, including an analysis of the event's causes, consequences, and potential responses. The work focuses specifically on the relationship between food price shocks and the multilateral trading system in the context of economic development, trade regulation, technology policy, and environmental sustainability. Edited by Baris Karapinar and Christian Häberli, *Food Crises* is divided into two thematic sections. The first section is composed of five chapters concerning the structural and cyclical causes of the 2008 crisis as well as its impact on food security and poverty. Section one also provides a comparative analysis of the 2008 spike and those occurring in years past. The second section addresses the role of international trade and the World Trade Organization (WTO) in regulating and responding to the 2008 crisis, the empirical impact of the multilateral trading system on agricultural markets, and the trading system's potential for improving food access. Section two also offers an initial assessment of the Doha Development Agenda (DDA) in light of the results of the WTO Ministerial Conference, covers applicable WTO doctrine

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1. For the purposes of this review, the 2007–2008 food crisis will be referred to as the “2008 crisis.”

2. Baris Karapinar, *Introduction* to FOOD CRISES AND THE WTO 1 (Baris Karapinar & Christian Häberli eds., 2010).

3. Will Martin & Maros Ivanic, *The Food Price Crisis, Poverty and Agricultural Trade Policy*, in FOOD CRISES AND THE WTO, *supra* note 2, at 25, 44.

and case law, and provides an account of relevant agricultural legislation in the European Union and the United States.

In their conclusion, Karapinar and Häberli build on the distinct arguments of each contributing author and offer a wide range of policy recommendations to address price volatility and food insecurity. The editors' "global policy agenda" provides areas ripe for reform from a practitioner perspective along with a useful starting point for the research agenda in trade. The editors could nonetheless increase the utility of their recommendations by specifying methods for implementation and identifying "low-hanging fruit," including, for example, the establishment of *ex ante* safety-net programs. In addition, clearer linkages between the causes of and solutions to food scarcity could better expose the mutually constitutive nature of international trade and food security. The following summary of *Food Crises* therefore adopts a thematic approach to the contributing authors' explanations of the general causes, consequences, and possible responses to the 2008 crisis.

I. SUMMARY

A. *Causes of the 2008 Crisis*

1. *Classifying the Causes*

In general, the contributing authors classify the demand- and supply-side pressures precipitating the 2008 crisis into "seasonal and cyclical," "speculative," and "structural" trends.⁴ As elaborated by Wayne Jones, Armelle Elasri, and Susan Prowse, "seasonal and cyclical" factors contributing to the 2008 crisis included adverse weather conditions, a declining U.S. dollar, and low agricultural stocks. "Speculative" factors, including excessive pricing bubbles and raised expectations, resulted in hoarding, uncertainty, and instability in agricultural markets. "Structural" factors, like climate change, energy policies, rising incomes, and dietary changes, have gradually increased food demand, lowered supply, and elevated commodity prices over time.⁵ In chapter six, Josef Schmidhuber and Ira Matuschke attribute the 2008 price spike primarily to acute seasonal, cyclical, and speculative factors, and the longer-term upward shift in agriculture prices to more gradual, structural factors.⁶

4. Susan Prowse, *Responses by the International Trade and Aid Community to Food Security*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 273, 275.

5. *Id.*

6. Josef Schmidhuber & Ira Matuschke, *Shift and Swing Factors and the Special Role of Weather and Climate*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 136, 138.

2. Causes in Comparative Perspective

In chapter three, Eugenio Díaz-Bonilla places the 2008 crisis and its precipitating factors in comparative perspective, examining specifically the 2008 crisis relative to the 1973–1974 price spike.⁷ He notes that agricultural price spikes are associated with strong growth, expansionary monetary policies, and a weak dollar.⁸ These macroeconomic features have empirically led agricultural demand to outstrip supply and reduced agricultural stocks to “crisis” levels when coupled with adverse weather conditions. He finds conversely that slow growth, tight monetary policies, and an appreciating dollar have led to rapid declines in agricultural prices by abruptly increasing supply or deflating demand.⁹

Díaz-Bonilla explains that these macroeconomic trends produced both the 1973–1974 and the 2008 shocks.¹⁰ In 2007, adverse weather conditions, an abrupt increase in demand, and low publicly available stocks compounded the negative price effects of expansionary monetary policies and a depreciating U.S. dollar. The author cites several developments in the mid-1990s and early 2000s that contributed to increased liquidity and a global “tilt” towards expansion, including a more active Chinese labor market, the emergence of parallel banking and financial structures, and a downward pressure on developing countries’ interest rates.¹¹ Expansionary policies and a devaluation of the U.S. dollar led to the upward pressure on commodity prices that precipitated the crisis, and speculative activity compounded volatility as investors began to turn to commodities as “inflation hedges.”¹² Similarly, Jones and Elasri argue that a weak U.S. dollar favored an “artificial” rise in world wheat prices over 2007–2008 and that structural factors, including low stocks in grains and oils, urbanization, economic growth, and an expanding population, were also at play in 1970s crisis.¹³

3. What Is Different?

An unprecedented increase in the demand for grain and oilseed for use as biofuels may represent the most significant factor distinguishing the food price spike of 2008 from past crises. Jones and Elasri largely attribute the recent upward shift in food prices to this fast-growing demand.¹⁴ In chapter six,

7. Eugenio Díaz-Bonilla, *Globalization of Agriculture and Food Crises, Then and Now*, in FOOD CRISES AND THE WTO 49, *supra* note 2, at 49.

8. *Id.*

9. *Id.*

10. *Id.* at 77.

11. *Id.* at 68–69.

12. *Id.* at 70.

13. *Id.*

14. Wayne Jones & Armelle Elasri, *Rising Food Prices: Causes, Consequences, and Policy Responses*, in FOOD CRISES AND THE WTO, *supra* note 2, at 109, 114.

Schmidhuber and Matuschke proffer that the rapid expansion of biofuel production may subsequently upend the general principle that demand-related pressures are largely unrelated to price shocks.¹⁵ Schmidhuber and Matuschke describe this increase in demand as “sudden and massive” and as marking a “clear departure” from the patterns of gradual growth in demand for food and feed that have historically been driven by structural population and income trends.¹⁶ For example, approximately twelve percent of all maize produced was used to manufacture ethanol in 2007.¹⁷ In chapter four, Akinwumi Adesina attributes increased demand and its attendant price effects in Africa to generous biofuel support policies in the United States and EU.¹⁸

Schmidhuber and Matuschke distinguish the 2008 shock in terms of the prominent role that commodity speculation played in precipitating the crisis. They explain that speculators and large institutional investors became increasingly interested in agricultural commodities on futures markets as global equity and property markets became less attractive.¹⁹ Between 2005 and 2008, non-commercial traders almost doubled their share in open interests in corn, wheat, and soybean futures markets.²⁰ Díaz-Bonilla similarly argues in chapter three that traders aggravated market volatility in 2007 when they turned to agricultural commodities as inflation hedges in the absence of profitable alternative investments.²¹

Finally, Schmidhuber and Matuschke suggest that the dramatic increase in oil prices beginning in 2003 contributed significantly to the food price shock.²² The abrupt increase in oil prices impacted agriculture in two ways. First, average input prices for agriculture doubled as prices of some fertilizers increased by 160% relative to prices in the first quarter of 2007. Second, the oil price shock reverberated through the transportation sector, massively increasing average freight rates and effectively “re-regionalizing” agricultural markets. The fragmentation of transportation disabled the safety valve effect of international trade on agricultural prices, preventing local surpluses from compensating local deficits.²³

Analyzing the causes of the 2008 crisis provides important insights into future crises. First, economists and policymakers seem to agree on the dominant cyclical and structural factors that contributed to the 2008 price spike. Jones and

15. Schmidhuber & Matuschke, *supra* note 6, at 142.

16. *Id.*

17. *Id.* at 143 (citing a 2008 study by the Food and Agriculture Organization of the United Nations).

18. Akinwumi A. Adesina, *Solving the Food Crisis in Africa: Achieving an African Green Revolution*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 81, 104.

19. Schmidhuber & Matuschke, *supra* note 6, at 144.

20. *Id.*

21. Díaz-Bonilla, *supra* note 7, at 49.

22. Schmidhuber & Matuschke, *supra* note 6, at 141.

23. *Id.*

Elasri argue that the leading factors of the crisis, including expansionary monetary policies, the decline of the dollar, low stocks, and adverse weather conditions, did not appear to come as a surprise to food security experts, who seemed to have anticipated an upward shift in commodity prices given longer-term structural changes in dietary preferences and population trends. Conversely, more recent developments, including increased demand for biofuels, market speculation, and oil price volatility, seem to have taken policymakers in developed and developing countries by surprise. Supply shortages sparked abrupt and largely counterproductive policy responses, including export restrictions and price controls on commodities, that further aggravated market volatility.²⁴ Novel contributing causes, and their effects, may therefore change the context of future food crises. The consequences of the 2008 crisis should further illuminate the changing landscape of food security.

B. Short-Term Consequences of the 2008 Crisis

The 2008 crisis saw huge increases in the number of hungry persons. Price increases “profoundly affected” the “bottom billion,” pushing an additional seventy-five million persons below the hunger threshold.²⁵ Jones and Elasri explain that the food price crisis disproportionately affected developing countries, which accounted for approximately three-quarters of the rise in the global Consumer Price Index.²⁶ The urban poor in developing countries were the hardest hit due to a lack of land access and an absence in food self-sufficiency.²⁷ In addition, the crisis further reduced the likelihood that the Millennium Development Goals will be achieved by 2015.²⁸

Using an impressive empirical analysis in chapter two, Will Martin and Maros Ivanic demonstrate that the 2008 crisis will bear negatively on international efforts to reduce poverty. The authors use price increases for seven staple commodities in nine low-income countries to study the effects of the 2008 crisis on the poor, an inquiry that incorporates information on household consumption patterns and the production of major agricultural commodities.²⁹ Martin and Ivanic connect poor households’ high expenditure on staple foods with the massive increase in poverty caused by the crisis.³⁰ Their finding that small producers are often net purchasers of staple commodities contravenes the

24. Jones & Elasri, *supra* note 14, at 127.

25. Karapinar, *supra* note 2, at 4–5.

26. Jones & Elasri, *supra* note 14, at 122.

27. *Id.*

28. Karapinar, *supra* note 2, at 4–5.

29. Martin & Ivanic, *supra* note 3, at 26 (examining price trends for maize, wheat, dairy products, rice, sugar, beef, and chicken in Bolivia, Cambodia, Madagascar, Malawi, Nicaragua, Pakistan, Peru, Vietnam, and Zambia).

30. *Id.*

conventional wisdom that price increases benefit poor farmers in developing countries.³¹

Michael Hermann and Ralf Peters' analysis squares with Martin and Ivanic's argument. Hermann and Peters argue that commodity exporters on the whole have failed to reap the benefits of higher prices. The authors find that the majority of poor households in developing countries will experience short-term losses, despite some gains in the medium- and long-term. These losses in turn may seriously impact progress towards the poverty-related Millennium Development Goals.³²

In addition, increases in hunger and poverty have had far-reaching political implications.³³ Protests and riots in the developing world contributed to national instability in low-income food-deficit countries, including regime change in Haiti.³⁴ Jones and Elasri moreover suggest that higher food prices may undermine confidence in international mechanisms for ensuring food security in the longer term.³⁵ They argue that a subsequent turn away from agricultural trade liberalization could correspond with a return to domestic strategies for increased production. The resulting Balkanization of commodity markets could further exacerbate food insecurity and global agricultural growth.³⁶

Some nonetheless argue that a return to higher prices could provide relief to farmers from the decades-long decline in real food prices.³⁷ Jones and Elasri note that higher prices and improved profitability could increase the ease with which developing countries attract public and private investment to their agricultural sectors.³⁸ However, the authors caution that such benefits must be examined in the context of the severely negative effect of price spikes on the urban poor, a demographic that has suffered disproportionately from price increases.

C. Long- and Medium-Term Prospects for Food Security

The medium- and long-term effects of the 2008 crisis are similarly profound. In chapter five, Jones and Elasri describe recent price trends and future projections of stock-to-use ratios, predicting that prices will remain high *vis-à-vis* comparable prices over the past decade but below 2008 peak levels.³⁹

31. *Id.* at 44 (attributing such findings to studies that incorporate financial linkages through increases in total employment).

32. Michael Herrmann & Ralf H. Peters, *Impact of the Food Crisis on Developing Countries and Implications for Agricultural Trade Policy*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 242, 244.

33. Schmidhuber & Matuschke, *supra* note 6, at 137.

34. Karapinar, *supra* note 2, at 1.

35. Jones & Elasri, *supra* note 14, at 124.

36. *Id.*

37. *Id.* at 133.

38. *Id.*

39. *Id.* at 115 (assuming stable weather, policy and economic conditions, average real

They predict that prices should stabilize in the medium-term due to the largely transitory nature of seasonal, cyclical, and speculative factors. At the same time, the authors explain that the structural factors underpinning elevated prices, including climate, population, and dietary changes, will remain constant or grow.⁴⁰

Jones and Elasri use a compelling counterfactual to argue that the demand for biofuels represents one factor that will bear heavily on price effects over the medium-term, with production anticipated to double over the next ten years. The authors show that coarse grain prices would be twelve percent lower, and vegetable oil prices fifteen percent lower, in the absence of biofuel demand increases.⁴¹ Jones and Elasri therefore predict that prices will remain on average thirty-five percent to sixty percent higher than the past decade. A price decline in real terms may occur over the longer-term, however, with productivity gains and increasing trade competition eventually overtaking demand.⁴² The authors conclude that the food crisis will have strongly negative repercussions on overall levels of hunger and poverty as the urban poor in major food-importing developing countries will be forced to spend an increasing share of their income on food.⁴³

Over the longer-term, food price trends will depend largely on growth in the developing world and interactions between agriculture and energy markets. The linkages between potential energy sources and agricultural markets are complex. In comparative perspective, the issues posed by climate change and energy will complicate recovery from the 2008 crisis. In the 1970s, energy markets impacted agricultural prices only in relation to the production, processing, and transportation of agricultural products.⁴⁴ Díaz-Bonilla explains that new sources of oil supply and production are not as readily available as they once were given climate constraints.⁴⁵ He accordingly argues that new sources of sustainable energy will be integral to the alleviation of poverty and hunger in the future.⁴⁶ Schmidhuber and Matuschke anticipate that the longer-term downward trend in real prices will be halted by increased demand for food as fuel.⁴⁷

In addition, climate change will impact all four dimensions of food security: availability, stability, utilization, and access to food.⁴⁸ The average rise

commodity prices).

40. *Id.* at 118.

41. *Id.* at 120.

42. *Id.*

43. *Id.* at 123.

44. Díaz-Bonilla, *supra* note 7, at 78.

45. *Id.*

46. *Id.*

47. Schmidhuber & Matuschke, *supra* note 6, at 142 (assuming that energy prices remain high and feedstock production for energy remains economically viable).

48. *Id.* at 136.

in temperatures will directly alter food production by changing growing conditions and increasing the severity and frequency of weather-related price shocks. The majority of studies conclude that climate change will increase the number of persons at risk of hunger and malnutrition, ranging anywhere from a five percent to twenty-six percent increase in the number of undernourished people in 2080, although the extent of the increase will depend largely on parallel socioeconomic developments.⁴⁹

Climate change may hit Sub-Saharan Africa the hardest, particularly in terms of increased weather variability and food production. The Sahel, home to 75 to 250 million people, will become drier and at risk for droughts more severe than those that crippled the region in the 1970s.⁵⁰ In addition, an increase in climate-induced flooding has the potential to wipe out entire communities and large swaths of productive land across Southern Africa.⁵¹ The total economic impact of climate change in Africa could consequently be as high as 133 billion USD, with agriculture experiencing an estimated loss of 132 billion USD.⁵² While parallel socioeconomic developments may contribute even more significantly to the worsening food security situation in Africa, responses to climate change will need to be fully integrated into national planning strategies.⁵³

D. Solutions

Strategies to reduce the propensity for future food crises are complex and likely contentious. In the immediate wake of the 2008 price spike, governments around the world intervened quickly to stem the most adverse impacts of price increases. Export restrictions and price controls were imposed by almost one quarter of developing countries monitored by the World Bank in 2008.⁵⁴ Martin and Ivanic caution against price-insulating policies that, while providing some degree of short-term relief to consumers, contribute to greater volatility in world agricultural markets.⁵⁵ Prowse also cites export bans as one example which, if widely adopted, would contract global supply, push prices upward, and aggravate global food insecurity.⁵⁶ Martin and Ivanic caution that such ad hoc measures threaten to balkanize agricultural markets, reducing confidence in external markets and causing countries to turn inwards to ensure their access to needed commodities.⁵⁷

49. *Id.* at 156.

50. *See* Adesina, *supra* note 18, at 104.

51. *Id.*

52. *Id.*

53. *See* Schmidhuber & Matuschke, *supra* note 6, at 156. *See also* Adesina, *supra* note 18, at 104.

54. Jones & Elasri, *supra* note 14, at 127.

55. Martin & Ivanic, *supra* note 3, at 45.

56. Prowse, *supra* note 4, at 279.

57. Martin & Ivanic, *supra* note 3, at 45.

Martin, Ivanic, and Prowse highlight the potential of safety net measures and food aid in responding to acute crises and as alternatives to risky trade measures.⁵⁸ The three authors agree that safety-net measures and food-distribution programs target those in need without aggravating market volatility and creating negative production incentives by lowering domestic prices. At the same time, Prowse notes that such programs need be established *ex ante*, or prior to the emergence of future crises, in order to effectively address supply issues.⁵⁹ In addition, Prowse argues that existing mechanisms for the distribution of food aid must be improved. Moves toward medium-term agricultural investment notwithstanding, she finds that future food price volatility will create even greater demand for potentially destructive short-term policy responses.⁶⁰ She argues in particular for a cash-based, *ex ante*-determined international support facility that would be de-linked from agricultural trade liberalization and that could respond to exogenous shocks in prices of global food staples.⁶¹ Her argument that food aid should be provided in cash, as opposed to in-kind contributions, is premised on the widespread criticism that the latter reduces food access in times of scarcity by undercutting small producers in developing countries.⁶²

In the medium- and long-term, efforts toward market liberalization by both developed and developing countries could reduce agricultural volatility and improve food security. In particular, OECD countries must reduce levels of farm support. While the United States and EU have made substantial reforms since the late 1990s, David Orden explains in chapter nine that subsidies tied to prices and production still overwhelmingly distort global agricultural markets.⁶³ Citing OECD analysis, Jones and Elasri indicate that the United States has spent 11 billion USD annually on biofuel support policies, a figure that is anticipated to increase to 25 billion USD by 2017.⁶⁴ Massive spending to increase biofuel production has created major supply and demand imbalances in cereals and vegetable oils.⁶⁵ Jones and Elasri argue counterfactually that the use of feedstock commodities, and grains in particular, would be substantially lower in the absence of such subsidies.⁶⁶ Moreover, prices for coarse grains would be five percent to seven percent lower than baseline assumptions in the absence of such subsidies, and prices for vegetable oils would be on average sixteen percent

58. *See id.*; Prowse, *supra* note 4, at 293.

59. *Id.*

60. Prowse, *supra* note 4, at 281.

61. *Id.* at 293.

62. Christian Häberli, *Food Security and WTO Rules*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 297, 306.

63. Bill David Orden, *WTO Disciplines and Economic Dimensions of the 2008 US Farm Bill*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 220, 220–21.

64. Jones & Elasri, *supra* note 14, at 132.

65. *Id.*

66. *Id.*

lower.⁶⁷ In examining the impact of food crises on developing countries, Herrman and Peters argue that the current state of high commodity prices may offer a window of opportunity by increasing agricultural producers' incomes in industrialized countries.⁶⁸ Notwithstanding, Orden's findings suggest that the decision to introduce and maintain subsidies is overwhelmingly political, and commodity price fluctuations are unlikely to change agricultural support policies.⁶⁹

With regard to market reforms to be undertaken by developing countries, some criticize the WTO's provision of flexible rules for developing-country exports as distorting agricultural markets. Examining agricultural policies under the DDA in chapter seven, Kym Anderson attributes global market volatility in part to the WTO's "special products" exception and the Special Safeguard Mechanism.⁷⁰ He proposes instead that developing countries be encouraged to open their markets to international competition and rely on domestic policy measures like taxation to raise revenue.⁷¹

Many believe that a new WTO agreement in agriculture could provide a forum both to negotiate reductions in farm supports by developed countries and to encourage liberalization by developing countries. At the same time, high prices have been couched as a reason to forgo further liberalization, as it could push prices further upward.⁷² A new agreement, however, would likely have favorable effects on prices and food security. Martin and Ivanic explain that current proposals, including those tabled at Doha, involve significant liberalization of agriculture in industrialized countries and very limited liberalization in developing countries. The authors explain that this balance increases opportunities for the latter to export non-staple agricultural products, which could contribute to poverty reduction and global price stability.⁷³

Notwithstanding, Orden contends in chapter nine that the prospects appear slim for reaching such an agreement.⁷⁴ Orden argues that even in a high price environment, like that of mid-2008, any significant adjustments to farm support legislation would be politically impossible. Many of Doha's provisions face tough resistance from domestic farm lobbies in the United States, which have had a string of recent successes in lobbying for higher payments.⁷⁵ For example, proposals to include ethanol subsidies in "notified agricultural support" under

67. *Id.* at 132–33.

68. Herrman & Peters, *supra* note 32, at 261.

69. Orden, *supra* note 63, at 221.

70. Kym Anderson, *Agricultural Policies: Past, Present and Prospective under Doha*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 167, 182.

71. *Id.*; *see also* Martin & Ivanic, *supra* note 3, at 43.

72. Martin & Ivanic, *supra* note 3, at 43.

73. *Id.*

74. Orden, *supra* note 63, at 235–36.

75. *Id.*

Doha would create compliance problems by the United States, given its creation of massive price supports coupled to ethanol production.⁷⁶

One area in which there seems to be substantial consensus is the need for increased investments in agricultural research and development, institutions, and infrastructure. Even assuming successful trade reforms, constraints on farm productivity and capacity could disable developing countries from fully exploiting the potential gains from market liberalization.⁷⁷ Low levels of agricultural productivity correspond with low levels of agricultural output, which is also to blame for vulnerability to food insecurity.⁷⁸ Hermann and Peters cite a study sampling 171 countries, finding that at least twenty-four (of which nineteen are least-developed countries) have “strong but underutilized agricultural potential.”⁷⁹ Such countries are food insecure despite their large share of agriculture in GDP, agricultural labor forces, and agricultural land.

In chapter four, Adesina explains that this brand of agricultural underdevelopment is especially problematic for Africa, where underinvestment in rural infrastructure, research and development, agricultural extension, and market support systems has inhibited growth and contributed to food insecurity.⁸⁰ In order to improve agricultural investment, Adesina and others argue that developing country governments will have to become creative in securing capital. High prices again may be beneficial toward this end, creating increased revenue to be reinvested in government initiatives.⁸¹ Moreover, government-led taxing initiatives, public-private partnerships, and overseas development assistance are proffered by Adesina, Hermann and Peters, and Karapinar and Häberli as potential means to direct new funds towards agricultural investment.⁸² Adesina in particular calls for a “Green Revolution” in Africa to assist countries in raising agricultural productivity, and he cites a corresponding need for stakeholders to focus on policies expanding value-added processing, developing rural input markets, and scaling-up innovative financing to leverage commercial banks to support agriculture.

II.

DISCUSSION

Food Crises and the WTO provides a range of economic, institutional, and environmental perspectives on the 2008 price spike’s implications in historical

76. *Id.* at 238.

77. Prowse, *supra* note 4, at 290.

78. Herrman & Peters, *supra* note 32, at 252.

79. *Id.*

80. Adesina, *supra* note 18, at 83.

81. Hermann & Peters, *supra* note 32, at 256.

82. Adesina, *supra* note 18, at 93, 100–02; Hermann & Peters, *supra* note 32, at 258; Baris Karapinar & Christian Häberli, *Conclusions and Policy Recommendations*, in *FOOD CRISES AND THE WTO*, *supra* note 2, at 323, 328

context. The book examines potential causes of and solutions to the longer-term, structural issues of food insecurity and malnutrition. In the concluding chapter, Karapinar and Häberli propose a “global policy agenda” with twenty specific recommendations to alleviate both current and future food crises.⁸³ The recommendations, ranging from calls for increased investment in agricultural research and development to reformation of the WTO rules on agriculture, provide a useful starting point for scholars and policymakers in identifying areas for reform.

The central findings of *Food Crises* have been re-confirmed since its publication. Scholars maintain that the 2008 spike exposed for the first time the intersecting trends of increased food demand, low levels of public stocks, extreme weather conditions, speculative investment, and biofuel support policies.⁸⁴ Moreover, the 2008 crisis revealed the deeply integrated nature of commodity and energy markets and the necessity of market regulation in the context of globalization and increased food scarcity.⁸⁵ While some argue that recent price spikes may only be a result of transient factors, most food security experts agree that the 2008 crisis ushered in a new norm of “high and volatile prices, low food supplies and structural deficits.”⁸⁶ In either case, uncertainty remains the primary feature of the new food price environment.⁸⁷ In summer 2012, prices of several agricultural commodity prices surged.⁸⁸ This run-up of prices represented the third such price increase in the past five years.⁸⁹ Moreover, prices remain high relative to historical trends.⁹⁰

Recent analysis has underscored the negative effects of high food prices on net food purchasers.⁹¹ The Food and Agriculture Organization’s (FAO) 2012 State of Food Insecurity measurement index suggests that elevated prices have increased the number of undernourished persons, reduced diet quality, and undermined the ability of poor consumers to spend on health care and education.⁹² Price volatility has been further aggravated by increases in biofuel consumption between 2007 and 2011, and new disciplines on related support policies appear unlikely.⁹³

83. Karapinar & Häberli, *supra* note 82, at 323.

84. Bipul Chatterjee & Sophia Murphy, *Trade and Food Security*, in STRENGTHENING THE MULTILATERAL TRADING SYSTEM 38, 43 (Dec. 2013), available at http://e15initiative.org/wp-content/uploads/2014/03/AG_Proposals_Analysis.pdf.

85. *Id.* at 38.

86. Seth Meyer & Joseph Schmidhuber, *Has the Treadmill Changed Direction*, in STRENGTHENING THE MULTILATERAL TRADING SYSTEM 7, 15 (Dec. 2013), available at http://e15initiative.org/wp-content/uploads/2014/03/AG_Proposals_Analysis.pdf.

87. *Id.* at 19.

88. *Id.* at 16.

89. *Id.*

90. *Id.*

91. *Id.*

92. *Id.*

93. *Id.* at 19; Jean-Christophe Bureau & Sébastien Jean, *Do Yesterday’s Disciplines Fit*

The 2008 crisis in large part complicated already difficult WTO negotiations on agriculture by breeding a general distrust of the multilateral trade agenda's ability to facilitate food access in times of scarcity.⁹⁴ The effects of the crisis linger on while agricultural protectionism has been on the rise. As of June 2012, The Global Trade Alert Database reported approximately 1340 non-tariff measures that "almost certainly worsened the treatment of some foreign commercial interest[s]" implemented since November 2008, with discriminatory measures disproportionately targeting agricultural commodities.⁹⁵ In contrast, only 553 reported measures had neutral or positive effects on foreign commercial interests. WTO data also suggests that agricultural products remain disproportionately targeted by technical barriers to trade, which have seen marked increases.⁹⁶ Real support has also increased within emerging countries, with support to farmers in China doubling between 2007 and 2010.⁹⁷ Finally, the increasing frequency of export restrictions, coupled with developing countries' recent push to include food sovereignty proposals in the work program of the 2012 UN Committee on World Food Security, demonstrate a definite distrust of the multilateral trading system in ensuring food access.⁹⁸

Trends in developed countries are equally troublesome. By replacing decoupled support with shallow loss, countercyclical and insurance payments, the most recent U.S. Farm Bill will cause "significant" trade distortions and further isolate U.S. producers from any potential decline in world prices.⁹⁹ WTO domestic support provisions are unlikely to be responsive as they lack specific disciplines on biofuel support policies. These developments bode poorly for a new round of successful DDA negotiations, particularly in light of calls by the WTO Director-General for the United States to play a "leadership role" in getting Doha back on track.¹⁰⁰

Nevertheless, one positive effect of the 2008 crisis has been to redouble interest and investment in agricultural research and development.¹⁰¹ The World Bank recently reiterated the need for increased investment in agriculture, and the FAO recommended "massive aggregate production increases" accompanied by measures to improve food access for the poor, reduce waste, and implement

Today's Farm Trade 18, 18 (Dec. 2013), available at http://e15initiative.org/wp-content/uploads/2014/03/AG_Proposals_Analysis.pdf.

94. Chatterjee & Murphy, *supra* note 84, at 38.

95. Bureau & Jean, *supra* note 93, at 22.

96. *Id.* at 23.

97. *Id.* at 27.

98. *Id.* at 38.

99. Michael Best & Friedrich LLP, *5-Year Congressional Farm Bill Signed into Law* (Feb. 20, 2014), available at <http://www.lexology.com/library/detail.aspx?g=d8222c7a-0b7a-4a8c-ac6a-b9cf97bada1c>; Bureau & Jean, *supra* note 93, at 26.

100. Roberto Azevedo *Urges U.S. to Push for Doha Finish*, POLITICO (Mar. 21, 2014), available at <http://www.politico.com/story/2014/03/roberto-azevedo-wto-doha-us-104896.html>.

101. Chatterjee & Murphy, *supra* note 84, at 38.

social safety nets.¹⁰² Also, and in spite of the prevailing price uncertainty, a “Bali package” was successfully concluded in early 2014 at the World Trade Organization’s Ninth Ministerial Conference.¹⁰³ The Bali package included agreements on a number of issues relating to agriculture and development, including arrangements for tariff quota administrations, a political commitment to keep export subsidies low, a statement committing WTO members to improve market access for the cotton products of least-developed countries (LDCs), and an agreement to negotiate a work program by the end of 2014 for conclusion of the Doha Round.¹⁰⁴ While these agreements represent progress in multilateral talks over agriculture, Bali unfortunately left unresolved the extent of subsidy cuts and tariff reductions to be undertaken by WTO members as part of the DDA negotiations, which have been stalled since 2008.¹⁰⁵

In order to facilitate the difficult work of the practitioner community, *Food Crises* could more explicitly connect the pervasive, structural causes of food crises with specific solutions. The issue of agricultural lobbies provides one example. Orden explains that resistance by powerful domestic agricultural interests will likely block future multilateral efforts to reduce agricultural price supports or initiate wide-ranging reforms to the WTO’s rules on agriculture.¹⁰⁶ Häberli points out that these interests are also likely responsible for the U.S. policy of providing food aid in-kind as opposed to in-cash.¹⁰⁷ Prowse suggests that such policies contribute to U.S. agricultural commodities being dumped globally, which debilitates small producers in emerging markets and creates local price volatility.¹⁰⁸ Moreover, increasing support to biofuels will frustrate price support reforms where they likely will be needed most.¹⁰⁹ U.S. agricultural interests therefore represent a structural cause of market volatility by contributing to food dumping, opposition to cash-based food aid, and U.S. resistance to the DDA. The ability of such interests to influence domestic and global decisions on agriculture must be addressed before meaningful progress towards achieving global food security can be made. From a practitioner perspective, specific solutions would be of great use in resolving this underlying cause of food insecurity. While the authors articulate the need to “reduce developed country domestic support” and “reconsider biofuels support policies”

102. *Id.*

103. *Ninth WTO Ministerial Conference*, WORLD TRADE ORGANIZATION, available at <https://mc9.wto.org/>.

104. *The post-Bali trade Strategy*, EURO. VOICE (Feb. 20, 2014), available at <http://www.europeanvoice.com/article/imported/the-post-bali-trade-strategy/79755.aspx>; see also POLITICO, *supra* note 100.

105. *Id.*; Meyer & Schmidhuber, *supra* note 86.

106. See Orden, *supra* note 63, at 235–36.

107. Häberli, *supra* note 62, at 331.

108. Prowse, *supra* note 4, at 277.

109. *Id.*

in their recommendations, they do not go so far as to provide a specific means by which to do so.¹¹⁰

Similarly, *Food Crises* would benefit from greater precision in its discussion of solutions to the parallel problems of acute food crisis and structural food insecurity. While addressing both the short- and long-term dynamics of agricultural markets is essential, the drivers of each may be distinct. For example, reducing the frequency of export bans would reduce market volatility in times of low availability of public stocks but would do little to create long-term self-sufficiency and food access by net food-importing countries. On the other hand, greater investment in agricultural research and development would improve food access in the future but would be unlikely to mitigate the severity of price spikes in the short to medium-term. Similarly, increasing the prevalence of measures to provide cash-based food aid on a “best endeavor” basis would help to prevent starvation in the next crisis, but what may really be needed in the long-term is an *ex ante* mechanism of international support policies that is de-linked from trade liberalization and instead automatically responds to exogenous price shocks in staple goods.¹¹¹ The authors therefore need to take care in differentiating each of these issues and their corresponding recommendations. In this regard, *Food Crises* might have been better served by sequencing its recommendations in terms of short- and longer-term policy goals or distinguishing low-hanging fruit from higher-level objectives. For example, investing in small farms or climate adaptation technology may be more easily achieved than unblocking Doha negotiations. Similarly, “invest[ing] in global public goods” seems to be a much greater undertaking in terms of temporal and financial costs relative to “provid[ing] food aid” as a short-term response.

Ultimately, *Food Crises* provides a wide-ranging and comprehensive account of the 2008 crisis, including its causes, consequences, and responses. The book offers scholars and policymakers a wide breadth of information regarding the 2008 spike and a variety of thematic and empirical perspectives from which to analyze the crisis. Moving forward, the editors’ “global policy agenda” can provide a useful starting point for developing a dual-pronged approach to the research agenda for trade.¹¹² Scholars have increasingly called for a shift in focus to practical solutions that would (i) “ensure that trade policy measures protect consumers from the negative impacts of higher and more volatile prices” on the one hand; and (ii) “enable small producers in developing countries to harness the benefits of higher prices” on the other.¹¹³ Practical proposals are therefore needed to better protect consumers from the impacts of supply controls, export restrictions, and taxes on commodities. At the same time, improving the ability of small farmers to access infrastructure and inputs,

110. Karapinar & Häberli, *supra* note 82, at 333–34 and 336–37.

111. Prowse, *supra* note 4, at 293.

112. Seth Meyer & Joseph Schmidhuber, *supra* note 86.

113. *Id.*

manage their production risks, and better preserve their resource base would greatly benefit producers.¹¹⁴

114. *Id.*