Earthscan Food and Agriculture

THE FINANCIALIZATION OF AGRI-FOOD SYSTEMS

CONTESTED TRANSFORMATIONS

Edited by

Hilde Bjørkhaug, André Magnan and Geoffrey Lawrence

ROUTLEDGE

The Financialization of Agri-Food Systems

Financialization is the increased influence of financial actors and logics on social and economic life, and is one of the key drivers transforming food systems and rural economies around the world. The premise of this book is that the actions of financial actors, and their financial logics, are transforming agri-food systems in profound ways. It is shown that although financialization is a powerful dynamic, some recent developments suggest that the rollout of financialization is contradictory and uneven in different spaces and markets. The book examines cases in which state regulation or re-regulation and social movement resistance are setting roadblocks or speed bumps in the path of financialization, resulting in a 'cooling off' of investment, as well as the other side of the argument where there is evidence of a 'heating up'. The authors address not only the limits to financialization, but also the mechanisms through which financial entities are able to penetrate and re-shape agri-food industries.

This book provides both a comparative analysis of financialization blending, and empirical findings with conceptual insights. It explores the connection between financialization, food systems, and rural transformation by critically examining: the concept of financialization and how food and farming are being financialized; the impacts of financialization in the food industry; and financialization in farming and forestry – along with the impacts this has on rural people and communities. This is a timely book, bringing together concrete case studies, from around the globe, to reveal the operations and impacts of finance capital in the 'space' of agri-food.

Hilde Bjørkhaug is Research Professor at Ruralis – Institute for Rural and Regional Research, Trondheim, Norway.

André Magnan is Associate Professor in the Department of Sociology and Social Studies at the University of Regina, Canada.

Geoffrey Lawrence is Emeritus Professor of Sociology in the School of Social Science at The University of Queensland, Australia.

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Contributors

Jonathan Almanza holds a Bachelor of Agricultural Economics degree from Antonio Narro Autonomous Agrarian University in Saltillo, Mexico. He also has a Masters of Economics and Innovation Management from the Polytechnic University of Madrid, Spain. His main research topics include globalization, transnational corporations and technological change in the agri-food sector.

Reidar Almås is Emeritus Professor of Rural Sociology and Regional Policy at the Norwegian University of Science and Technology in Trondheim, Norway. He is currently senior researcher at RURALIS – Institute for Rural and Regional Research, previously the Centre for Rural Research – of which he was the founder. He has published and co-published 20 books and his scientific works spans the areas of agri-food restructuring, agricultural policy, work accidents and work environment in agriculture, agricultural history, globalization and localization, and rural and regional development. He was President of the International Rural Sociology Association from 2008 to 2012.

Hilde Bjørkhaug is research professor at RURALIS, Institute for Rural and Regional Research in Trondheim, Norway. Her research interests are on aspects of agricultural restructuring, family farming and the role of small and medium farms on food and nutrition security. She also studies changes in the agri-food value chain including questions on ethics, power relations, policy and financialization. Her current project portfolio examines the transition to the bio-economy. She is an active member of the European Society for Rural Sociology and member of the executive board of the International Sociological Association's Research Committee 40 (the sociology of agriculture and food).

Michaela Böhme is a doctoral candidate at the Collaborative Research Centre 'Processes of Spatialization under the Global Condition' at Leipzig University, where she also completed an MA in Global Studies with an area focus on China. Set against the background of China's emerging global food security strategy, her PhD research explores the entangled interests and motive forces shaping Chinese investment in Australian farmland and agricultural resources. She is also interested in the political economy of China's development, the broader issues of multi-polarity, and the globalization of food and agriculture.

Jostein Brobakk is a political scientist and researcher at RURALIS, Institute for Rural and Regional Research and PhD candidate at The Norwegian University of Science and Technology, Trondheim Norway. He has been a visiting scholar at the University of Waterloo, Ontario, Canada, and has worked on several projects funded by the Norwegian Research Council on agriculture and climate change, and the valuation of farmland in a global context. His main research interests are within policy regime development, governance of the agri-food sector, and the effects of climate change on agricultural regimes and policy.

Douglas H. Constance is Professor of Sociology at Sam Houston State University in Huntsville, Texas, USA. His current research examines the impacts of the globalization of the conventional agri-food system on rural communities and alternative agri-food systems. He has numerous journal articles, book chapters, and books on these topics. His most recent co-edited book is *Alternative Agrifood Movements: Patterns of Convergence and Divergence* (Emerald Press, 2014). He is past president of the Southern Rural Sociological Association (2003) and the Agriculture, Food, and Human Values Society (2008).

Marion W. Dixon is Professorial Lecturer in the School of International Service at American University in Washington, DC. Her research centres on agriculture and food system change, with a focus on North Africa. She is currently writing a book, *Food and Revolt: Egypt, Ecology, Frontiers*, that investigates the development of a corporate agri-food system and the implications for food security and political stability in Egypt. In another project, she is researching the socioecological history of chemical fertilizer and the role of phosphate rock frontiers in that history. Her recently published and forthcoming publications are in the journals *Comparative Studies of South Asia*, *Geoforum*, and *Journal of Agrarian Change*.

Cynthia Gharios is a PhD candidate at the Graduate School Global and Area Studies at the University of Leipzig. Her research focuses on the reorientation of food security strategies of oil-rich countries from the Gulf Cooperation Council (GCC), and on understanding the multidimensional strategies of food investors from the GCC in other Arab World countries. She has previously worked on agrarian transformation in Lebanon, and is currently involved in a project on agricultural war damage in Yemen.

Midori Hiraga is a PhD candidate for International Political Economy of Food in the Graduate School of Economics, Kyoto University, Japan.

She achieved an MSc (Food and Nutrition Policy) from the Centre for Food Policy, City University London, UK. Her research is focused upon the political economy on provisioning vegetable oils for an industrial mass diet. She is now researching the historical case of the transformation, in Japan, of vegetable oils into everyday foodstuffs, including the developing trajectory, along with the current structure, of the global vegetable oil complex.

Geoffrey Lawrence is Emeritus Professor of Sociology at The University of Queensland, Australia. His work spans the areas of agri-food restructuring, neoliberal globalization, financialization, and food security. During his academic career Geoff has raised some $15 million in research grants and has published 25 books and over 500 journal articles and book chapters. Books include the co-edited *Food Security, Nutrition and Sustainability* and the co-authored *THINK Sociology*. He was President of the International Rural Sociology Association (2012–2016). He is a Life Member of the Australian Sociological Association and an elected Fellow of the Academy of Social Sciences in Australia.

Jana Lindbloom is a researcher at the Institute of Sociology at the Slovak Academy of Sciences in Bratislava. Her research focuses on economic sociology, organization studies, alternative organizations, property relations, post-socialist transformation, and public debates on agriculture and land. She has also written about qualitative research methods, mainly ethnomethodology.

André Magnan is Associate Professor in the Department of Sociology and Social Studies at the University of Regina, Canada. His interests include the sociology of agri-food systems, globalization and development, and sociological theory. André's research examines how social, economic, and political changes are affecting agricultural sectors and rural communities. His 2016 book, *When Wheat Was King*, examined the history and politics of grain marketing on the Canadian prairies. He has published several journal articles and book chapters on the financialization of farmland in Canada and Australia. He is currently involved in a four-year research project on financialization and land politics in Western Canada, funded by the Social Science and Humanities Research Council.

Francisco Martínez is Researcher and Professor at the Centre of Socio-economic Research at the Autonomous University of Coahuila and Professor in the Department of Agricultural Economics at the Antonio Narro Autonomous Agrarian University in Saltillo, Coahuila. Mexico. Dr Martínez's work focuses on the following topics: Globalization of the economy and society; Globalization, Plant Genetic Resources and Rural Development; and, Globalization and the Poultry Industry. Dr Martínez is the author of numerous publications on these topics.

Bruce Muirhead is Professor of History and Associate Vice President, Oversight and Analysis, at the University of Waterloo in Ontario, Canada. He has written extensively on Canadian trade negotiations since World War II, as well as Canadian politics, diplomacy and economic development. Bruce's more recent work has focused on the evolution of Canadian agricultural policy, and especially dairy and egg supply management. He is the Egg Farmers of Canada Chair in Public Policy, where his research focuses on issues surrounding the relevance and usefulness of supply management by comparing the Canadian system with those found in comparable sectors in Australia, NZ, the UK and the US.

Jodey Nurse-Gupta is a post-doctoral fellow in the Department of History at the University of Waterloo. She is currently researching the history of Canada's supply-managed dairy, egg, and poultry industries. Central to her work is the examination of asymmetrical power relations among stakeholders in agricultural marketing systems and the polarized agricultural policies that have emerged in the twentieth and twenty-first centuries. She has also written on topics of gender and women's history in agricultural organizations, and she recently completed a study of women's leadership roles in the Canadian egg farming industry.

Stefan Ouma is Assistant Professor in Economic Geography at Goethe University, Frankfurt. His research explores the socialities, materialities, and practicalities of global economic connections. It combines interests in global political economy with the ambition to explore these 'macro issues' in the minutiae of everyday economic life. Stefan has been working on agricultural commodity chains and marketization processes in Kenya and Ghana, logistical infrastructures in West Africa, and the rise of farmland and agriculture as an 'alternative asset class', with a geographical focus on Tanzania and New Zealand. Recent publications on the finance-driven land rush include 'Situating global finance in the Land Rush debate: A critical review' (*Geoforum* 57, 2014) and 'From financialization to operations of capital: Historicizing and disentangling the finance–farmland-nexus' (*Geoforum* 72, 2016). He is also the author of *Assembling Export Markets: The Making and Unmaking of Global Food Connections in West Africa* (Wiley-Blackwell, 2015).

Sarah Ruth Sippel holds a PhD in geography and is a Senior Researcher at the University of Leipzig, Germany, and an Honorary Senior Research Fellow with the School of Social Science at the University of Queensland, Australia. She leads a four-year research project on imaginations of land (C04, SFB 1199) funded by the German Research Foundation. She has intensively worked on the interlinkages between export agriculture, rural livelihood security, and labour migration in North Africa and the Western Mediterranean. Sarah's current research explores the nexus between global food security and financialization of natural resources, especially in the Australian context, as well emerging forms of solidarities within global agri-food systems.

Elin Slätmo is a Senior Research Fellow at the research centre Nordregio, established by the Nordic Council of Ministers. With a background and PhD in human geography her key research interests are social-environmental studies of governance of natural resources, sustainability, and the actors involved in negotiations around the use of land. With the ambition to develop conceptual and applied knowledge about the relationship between humans and the environment concerning norms, practices and power, she primarily conducts research in contexts of the global North.

Kiah Smith, PhD, is a sociologist and Research Fellow in the School of Social Science, The University of Queensland, Australia. Her research spans food security and food justice, climate change, resilience, ethical trade, gender, livelihoods and the green economy. She currently works on an ARC Discovery project exploring financialization, agribusiness, land and food security in Australia. Previously, Kiah was a research analyst with the United Nations Research Institute for Social Development. She is also a *Future Earth* Fellow, member of the ISA RC40 and RC09, TASA, and the Australasian Agrifood Research Network, and co-convenor of the Brisbane Fair Food Alliance (a civic food collective). She is the author of *Ethical Trade, Gender and Sustainable Livelihoods.*

Melanie Sommerville is a PhD Candidate in the Department of Geography at the University of British Columbia, Vancouver, Canada. Her research examines the social and ecological transformation of agriculture in (post)colonial settings. Melanie's dissertation, *Agrarian Repair,* explores new alliances between white-dominated finance and agribusiness capital and racialized, marginalized, communities in Canada (First Nation people) and South Africa (rural black populations). She has written widely on agricultural financialization and related topics, has a background in policy, continues to consult in the agricultural sector, and has recently commenced a postdoctoral fellowship in the Department of Geography and Planning, University of Toronto.

Steven Wolf is Associate Professor in the Department of Natural Resources at Cornell University, New York State. He studies the political economy of land and the environment with a particular focus on the challenges of securing public goods from landscapes characterized by strong private property rights claims. Current analyses focus on carbon offsetting from cropping systems and habitat exchanges that provide offsets to oil/gas and mining interests to conserve populations of at-risk species. Steven recently co-edited – with Alessandro Bonanno – *The Neoliberal Regime in Agri-Food: Crisis, Resilience and Restructuring* (2014) and, more recently, *Resistance to the Neoliberal Agri-Food Regime: A Critical Analysis* (2017).

Preface

This book developed out of working groups on financialization held during the Congresses of the European Society for Rural Sociology and the International Rural Sociology Association. In 2016, the editors of this book co-hosted sessions on the financialization of agri-food systems at the IRSA World Congress in Toronto. Scholars from this and previous meetings were invited to submit papers to this collection.

Hilde Bjørkhaug, André Magnan and Geoffrey Lawrence have appreciated the collaboration of the authors who have contributed to the realization of this book. We have benefited from Professor Hugh Campbell's advice and involvement at various times during the book's preparation. We also recognize the advice and assistance of Amy Johnston, Editorial Assistant, and Tim Hardwick, Senior Commissioning Editor at Earthscan Food and Agriculture Series from Routledge.

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1 Introduction: the financialization of agri-food

Hilde Bjørkhaug, André Magnan and Geoffrey Lawrence

In December, 2017, a headline in the *Australian Financial Review* trumpeted 'Agricultural cycle on fire: Australian farmland returns closing in on 17 per cent' (Cranston, 2017). The article described a recent boom in the returns on financial investments in Australian farm properties, as land values and livestock prices rose considerably. The figures are courtesy of the National Council of Real Estate Investment Fiduciaries (NCREIF), which has developed a new instrument called the Australian Farmland Index, compiled by tracking the performance of a set of benchmark properties. By collecting and publishing these data, the organization is providing valuable information to global investors. The figures allow pension funds and other investors to, for instance, compare the returns of Australian farmland to US farmland, and allocate their funds accordingly.

This story provides one example of how the agri-food system is becoming 'financialized' as actors, such as specialized farmland investment managers, and intermediaries, such as the NCREIF, are introducing new logics into the rural land market. For decades, agriculture was considered a poor investment – certainly, it was rare for institutional investors to be interested in buying farmland. This began to change in the mid-2000s, not only in Australia, but in many countries around the world, as investors began cobbling together agricultural portfolios by buying farm properties and other agricultural assets. Once considered somewhat exotic, the 'farmland asset class' has become increasingly mainstream thanks to a number of factors, including global economic conditions, the emergence of farmland investment experts and boosters, the development of myriad new investment models, and the growing influence of benchmarking tools like the 'farmland index' (Conrad, 2018).

For some years now, scholars have been documenting the financialization of agriculture and food at national and international scales and all along the 'food chain' – from agricultural inputs, to farmland and agricultural production, processing, the international trade in food commodities, and retail. Financialization can be defined as the process through which financial actors, logics, and processes exert increasing influence over economic and social life (see Epstein, 2005). This basic definition is necessarily broad since financialization can, and has, occurred in many social and historical contexts. In order to 'unpack' what financialization means in any given instance, we must understand the wider social context in which these processes unfold and focus on what real people are doing and why. The concept of financialization is a useful shorthand term for a range of related transformations affecting agriculture and food (Fairbairn, 2015a). However, as the contributors to this volume show, financialization is far from a monolithic or homogeneous process, with many variations across time, space, and sub-sectors.

In this introductory chapter, we provide a 'big picture' framework for understanding the financialization of agri-food. We first describe the historical and social context in which the world of finance has come to exert more influence over agriculture and food. We then survey the state of knowledge on the financialization of agri-food and suggest some of the most important intellectual and substantive questions that have yet to be adequately addressed. Finally, we provide an overview of the contributions to this volume and their potential for advancing our knowledge of food, agriculture, and finance.

Historical and social context

Finance is a fundamental feature of the capitalist political economy. Historically, finance was most closely associated with the banking sector and its role in providing credit to capitalist enterprises. Arrighi (1994) argues that the importance of finance to the capitalist world economy has ebbed and flowed through a series of historical phases. Periods of material expansion – in which production of commodities is the main engine of accumulation – have been followed by periods during which major capitalist powers have turned increasingly to financial activities to increase their wealth. Arrighi (1994) as well as thinkers such as Harry Magdoff and Paul Sweezy (see Foster, 2007 for a review), Epstein (2005), and Krippner (2005) have argued that the global economy has been undergoing a period of financialization since the 1970s. In the last few decades, the size of the financial sector relative to the rest of the economy has grown dramatically and there has been an explosion in the number and variety of financial intermediaries, instruments, and products. There has also been a cultural shift towards 'shareholder value' in capitalist enterprises, that is, businesses prioritizing the return on capital for shareholders above all other considerations. Financialization has touched all sectors of the global economy, and agri-food is no exception.

As noted, there is a long history of interaction between finance and food. Beginning in the eighteenth century, food traders established the first commodity exchanges, and in the mid-1800s new instruments such as futures contracts for grain were introduced (Cronon, 1991; Clapp, 2016). Through most of the twentieth century, the state played a key role in mediating the relationship between food and finance (Martin and Clapp, 2015). Governments provided cheap credit to farmers and regulated commodity exchanges to prevent destructive speculation by private actors. These measures stabilized agriculture, providing a framework for its industrialization and commercialization. Since the 1980s, however, deregulatory moves led by the US opened more space for financial actors to participate in key nodes of the agri-food chain. Most importantly, the US gradually loosened the rules restricting the activities of non-commercial speculators in commodity exchanges, partly in response to financial innovations such as commodity index funds (CIFs)[1] (Clapp, 2016; Schmidt, 2016). The Commodity Futures Modernization Act of 2000 consolidated this trend by exempting firms selling 'over the counter' derivatives from regulatory oversight. This meant that financial firms could participate in these markets without facing the strict 'position limits' that had traditionally restricted the role of speculators in the market. Throughout the 1990s and 2000s, financial firms massively expanded their involvement in the food commodities trade. By 2011, non-commercial traders represented 61 per cent of the trade in wheat futures, compared to only 12 per cent in 1990, and agricultural assets held by financial investors reached US$126 billion (Clapp, 2016, p. 151).

The financialization of the food commodity trade became the object of great controversy during the global 'food crisis' of 2007–8. As international prices for basic food staples like wheat, maize, and rice reached record highs, some economists and market insiders suggested that financial speculation had contributed to the phenomenon. While it is difficult to disentangle the many factors that led to the food crisis, there is strong evidence to suggest that financial speculation did contribute to the price spike and to food price volatility (Field, 2016; Schmidt, 2016, pp. 92–104). As Schmidt (2016, p. 3) explains, financial actors had succeeded, through a mix of innovation and political influence, in turning food commodities into a financial asset. This subsequently allowed financial players to 'dominate markets and determine the direction of prices in the short term'. The food crisis had devastating consequences for vulnerable people in many countries, and the episode led to much closer scrutiny of CIFs.

It was around the time of the global food crisis that activists and scholars began to document the role of financial actors in large-scale land acquisitions, referred to by critics as 'land grabs' (GRAIN, 2008). Like investment in food commodities, financial investment in farmland is driven by a narrative that suggests that, with a growing world population and increasing affluence in places like China, global demand for food will increase sharply in coming decades. In turn, this demand will drive up land prices, providing an opportunity for investors to realise healthy financial returns by purchasing farms. Despite the perception that states and state-owned entities are behind 'land grabbing', the vast majority of documented *deals* involve private or public investors (Nolte *et al.*, 2016).

A range of investors including hedge funds, pensions, wealthy individuals, and other institutional money managers, have acquired large tracts of farmland (Daniel, 2012; Fairbairn, 2014). Between 2006 and 2016, financial actors invested approximately US$45 billion in farmland globally, and that this figure has been growing by 8–10 per cent per year (de Lapérousse, 2016). By another measure, it is estimated that overseas investors concluded deals totalling 42.4 million hectares in low and middle-income countries between 2000 and 2016 (Nolte *et al.*, 2016).

There is evidence that financial interest in agri-food has waned to some extent in recent years. For instance, investment in commodity derivatives, which include exposure to food prices, peaked in 2011 at US$448 billion and had declined to US$276 billion by the end of 2014 (Clapp, 2016, pp. 151–152). In terms of large-scale land investments, Nolte *et al.* (2016, pp. 12–13) report that the number of concluded deals tracked in the Land Matrix database levelled off between 2012 and 2016.[2] Despite these indications of a slowdown in the rate of financialization, it is clear that financial entities have become prominent players in the agri-food sector. There has been a qualitative shift in the organization of the agri-food sector, which will persist through the ebb and flow of investor activity.

The transformations highlighted above have profound implications for consumers, farmers, and food workers. As we have seen, financial flows can dramatically alter the price of food, with far-reaching impacts on food security. Farmland investment flows are changing the structure of land ownership, with control over land passing from family-owned operations to corporations, investment funds, and specialized farmland managers. The financialization of agriculture influences production patterns, as investment logics shape the types of crops grown, land management practices, and farming practices. Private equity takeovers of supermarket chains can lead to layoffs and other forms of corporate restructuring that affect workers. For these reasons, and many more, agri-food scholars are compelled to better understand the financialization of food.

The state of scholarly knowledge on agri-food financialization

The ways in which financial actors were making forays into various parts of the global agri-food sector was outlined by Burch and Lawrence (2009). They did so by drawing together early reports of the financialization of farmland, farm inputs and logistics, the food commodities trade, and food retailing. They likewise provided evidence of how agri-food companies were leveraging their own resources to engage in financial activities, a phenomenon called 'financialization in reverse'. The theoretical contribution was to interpret these trends in terms of the restructuring of the global food system under a third 'food regime'. In doing so, they connected financialization to the broader dynamics of the capitalist world economy.

Since Burch and Lawrence's article, scholars have done a substantial amount of work to broaden the scope of analysis, integrate other intellectual traditions, explore case studies, and improve the methodologies used in understanding financialization. Several scholars have contributed to refining how the financialization of agri-food is occurring. Williams (2014) argued that it is wrong to think of finance 'colonizing' agriculture and food and that it is more appropriate to consider financialization as a complex social process involving actors from many backgrounds developing new practices, relations, and technologies. Here, he suggests, certain ideas from social studies of finance can be used to provide a more nuanced understanding of financialization. In a related vein, Ouma (2015) urged scholars to avoid overly abstract portrayals of financialization and focus instead on the real actors and everyday dimensions that accomplish these social and economic changes. Williams, Ouma, and others thus caution against an overly structuralist approach to financialization, one that suggests that the process is monolithic or inevitable.

A number of scholars have helped think through the nature of land as a financial asset. Li (2014, p. 591) argues that, because of its unique characteristics, land is an 'awkward, resistant or incomplete commodity'. As a result, the process of turning land into a financial asset requires 'cultural work', which is accomplished by financial actors who develop discourses and technologies that make land seem like an appealing investment. Because of the political sensitivities around farmland and food production, farmland investment is an inherently risky activity (Li, 2015). Similarly, Ouma (2015, p. 226) has argued that farmland 'cannot *easily* be turned into just another asset class' (our emphasis), and in subsequent work has sought to open various 'black boxes' that help us understand the on-the-ground work involved in joining the worlds of finance and agriculture (see Chapter 5, this volume). For her part, Fairbairn (2014) has shown that investors are well aware of the dual nature of farmland as a 'productive asset' (as the foundation for food production) and a 'financial asset' (as a means of capturing income streams and capital returns). These arguments could reasonably be extended more generally to food, which Winson (1994) called an 'intimate commodity' in his classic work. Although food is bought, sold, and traded like other goods, its fundamental role in social reproduction, culture, and human well-being means that its commodification is always incomplete, always contested.

Financialization takes different forms in various social contexts and subsectors – depending on the motivations, knowledge, and identity of key actors. Scholars have been at pains to explore the different models under which agri-food resources are harnessed to financial accumulation. Burch and Lawrence (2013) documented the strategies of private equity firms in the retail sector. Scholars such as Isakson (2015) and Breger Bush (2012) have looked at how financial firms and development agencies have introduced financial derivatives intended to protect small producers in the global South from weather and price shocks. In the literature on the financialization of farmland, scholars recognize a whole range of models including 'own operate', 'own lease-out', joint venture models, publicly traded companies, and farmland real estate investment trusts that give investors direct or indirect access to land, food production, or both (Fairbairn, 2014; Magnan, 2015; Kuns *et al.*, 2016). Knuth (2015) explains how investors can diverge quite significantly in their tolerance for risk, time horizons, and strategies which, in turn, affects where and how they invest in agriculture. Sippel (2015) has examined the behaviour of sovereign wealth funds in the financialization of agri-food, concluding that they blend strategic objectives like food security with commercial goals in complex and often opaque ways. Others have examined the role of intermediaries such as farmland investment fund managers in forging the link between finance and farming (Ducastel and Anseeuw, 2016; Anseeuw *et al.*, 2017).

Taking into account its complexity and specificity, scholars have come to understand financialization as a political process. For instance, Clapp's (2014, 2016) work has helped theorize how financialization shapes power relations in the global food system. As she has argued, financialization is only the latest in a series of developments that contribute to 'distancing' in the food system. Distancing occurs when social structures increase the social and geographical distance between actors, in turn affecting how and to what extent actors can influence those social structures. For Clapp (2014, p. 798), financialization 'has added a layer of complexity to agri-food markets' by introducing new actors and new instruments that have a great deal of influence over food and farming, but may be far removed from its on-the-ground realities. This, in turn influences the political context in which competing actors seek to shape food systems. Schmidt (2016, p. 26) describes financialization as a process in which 'finance breaks down barriers to penetrate new markets in order to increase profits'. This generally proceeds in two phases. During the first, financial actors innovate in order to bypass existing barriers to their activities or create altogether new products. In the second phase, finance uses its political clout to legitimize and justify its activities (Schmidt, 2016, p. 26). Indeed, legitimizing discourses have played a key role in the rollout of new financial vehicles involved in agriculture and food (Larder *et al.*, 2015).

Given their impacts, it is no wonder that financialization processes have caused some degree of anxiety – in certain cases, resistance – among governments, local communities, and food system actors in a wide range of social and geographical contexts. In the US, regulators tightened Dodd-Frank Act rules around speculating in food commodities in 2010, only to see these reforms promptly challenged by industry lobbying (Clapp, 2016, pp. 156–157). Governments in Canada (Magnan, Chapter 6, this volume), Australia (Sippel, 2015), Brazil (Fairbairn, 2015b), and New Zealand (Kirk, 2017) have increased oversight over farmland investment, and in some cases tightened ownership rules, often in response to public backlash. In some countries, particularly in the developing world, grassroots opposition to large-scale land deals have derailed investment projects (Nolte *et al.*, 2016). Resistance and contestation have thus shaped the course of financialization – ensuring that its rollout has been partial and uneven.

This admittedly selective review of the literature on the financialization of the agri-food sector provides a glimpse of an increasingly mature, sophisticated, and diversified body of knowledge. There are nonetheless a number of substantive and theoretical questions that deserve more attention. First, the financialization of farmland has received much more attention than that of the financialization of other segments of the food chain like agricultural inputs, risk management, food service, retail, and restaurants. Second, though scholars have begun to do so (see for example, Sippel *et al.*, 2017), there is a need for more studies of the concrete impacts of financialization on local communities, farm sectors, and businesses. These must be sensitive to the historical and social contexts in which financialization is occurring. Third, there are some broad conceptual and empirical questions that have yet to be adequately addressed. What are the limits and contradictions of financialization in the agri-food sector? How does financialization relate to macro structures like neoliberalism, globalization, and capitalism? How does financialization create new identities, practices, and norms? Bridging the macro and the micro, the theoretical and the empirical, will provide a more robust conceptual framework for understanding the on-going transformations that are occurring.

Purpose and scope of this book

The premise of this book is that the actions of financial actors, and their financial logics, is transforming agri-food systems and rural economies around the world, and in profound ways. In recent years, scholars have examined how financialization is restructuring different 'nodes' in the food chain and the 'food regime' at large. In the global South, large-scale land purchases have been implicated in 'de-peasantization' as capital seeks land for biofuel, rubber, and oil palm production and similar forces are at work in the global North where private equity firms and developers, in purchasing land for investment, are threatening the future livelihoods of family farmers. Along the agri-food value chain, products of both Southern and Northern financialization enter global trade and markets. Chapters in this book explore the connection between financialization, food systems, and rural transformation by critically examining: the concept of financialization and how food and farming are being financialized; the impacts of financialization in the food industry; and, financialization in farming and forestry – along with the impacts this has on rural people and communities.

Although financialization is a powerful dynamic, some recent developments suggest that the rollout of financialization is contradictory and uneven in different spaces and markets. In some cases, state regulation or re-regulation and social movement resistance are setting roadblocks or speed bumps in the path of financialization, resulting in a 'cooling off' of investment. But, in other instances, there is evidence of a 'heating up'. The book examines such cases, addressing not only the limits to financialization, but also the mechanisms through which financial entities are able to penetrate and re-shape agri-food industries.

While a number of important, single-authored and single-focused, books – such as Frederick Kaufman's *Bet the Farm* (2012), Luigi Russi's *Hungry Capital* (2013) and Ted Schmidt's *The Political Economy of Food and Finance* (2016) – have provided critical insights into the operation of finance in the arenas of farming and food production, there is none, to date, that has brought together concrete case studies, from around the globe, to reveal the operations and impacts of finance capital in the 'space' of agri-food. This book provides a comparative analysis of financialization blending, as it does, empirical findings with conceptual insights. Contributors reveal which national and international forces are promoting financialization, which policy settings support its growth, and what effects it is having at the local level.

The themes of the book

The book comprises three parts. In Part I 'How are food and farming being "financialized"', contributors trace the dynamics of change as financial actors identify and act upon profit-making opportunities in the agri-food sector. In Part II 'Financialization of the food industry' selected case studies demonstrate the high level of corporate control in agri-food globalization and the extent to which finance has altered food production and has contributed to the 'massification' of diets. Part III 'Financialization of farming and forestry' provides further case studies on the motives and impacts of finance's move into the rural sector. Part III's case studies indicate how farm and forestry restructuring is occurring under the influence of the finance sector, the extent to which institutional investment is reshaping rural space, along with the consequences of such transformations. While the three parts deal with separate concerns in relation to financialization, many of the chapters throughout the book have clear overlaps. There are concerns, for example, about how globalization and neoliberalism have played their role in fostering financial penetration of the food and farming sectors, of how the state's actions have encouraged (yet, in some cases, restricted) the ambitions of financial entities, and the actions of people to oppose the excesses of changes wrought by global finance.

This introductory chapter sets out to identify the reasons why social science has begun to provide a critical understanding of the process of financialization. In Part I, Lawrence and Smith examine the concept of 'financialization' dealing, in particular, with the criticisms it has engendered. Financialization stands accused of being: a nebulous term, devoid of conceptual clarity; a catch-all concept that is incapable of revealing the highly differentiated practices and processes that are part of the world of finance; a totalizing notion which, taken to its logical conclusion, predicts the 'financialization of everything'; a concept that lacks both historical significance and empirical specificity; and, in not capturing the mathematical intricacies of financial transactions, actually obscures what is going on in the world of finance. In response to these, and other claims, the authors argue that, conceptually, financialization has utility in helping to 'ground' somewhat abstract notions like value, risk and financial flows as well as to uncover the internal dynamics of finance, itself. A focus upon new actors (such as hedge funds, private equity groups, and sovereign wealth funds), new investment vehicles (derivatives, index funds and the like) and new outcomes (for example, changes to position limits and the conversion of farmland into a liquid asset) provides insights on contemporary change over-and-above what can be achieved by the use of such concepts as globalization or neoliberalism/neoliberalization. The authors conclude that – while it remains underdeveloped – the concept of financialization has efficacy in explaining how new forms of capital accumulation are emerging, along with their impacts.

In Chapter 3, Bjørkhaug and Brobakk identify the difficulties faced by public investment funds as they seek to generate strong financial returns while, at the same time, seeking to maximize social and environmental benefit. The authors track the investment history of two Norwegian funds – the Norwegian Government Pension Fund – Global (GPFG) and the Norwegian Investment Fund for Developing Countries (Norfund). While GPFG evinces a desire to invest for the financial benefit of future generations, its charter precludes it from giving consideration to such important issues as climate change or food security in its decision-making. It is supposed to be a non-political actor that concentrates upon profit generation – moving in and out of investments to maximize income. In contrast, Norfund co-invests in local start-up companies and funds activities aimed at spurring business growth in the developing world – in an effort (in a political sense) to counter traditional, but often unsuccessful, development aid programmes. It acts as a 'responsible' investor, respecting labour rights, environmental regulations and societal norms and values. Yet, GPFG is hardly politically neutral pushing, as it does, for Norway's broader geopolitical interests. Likewise, Norfund has been accused of using tax havens and of orchestrating land grabs. As Bjørkhaug and Brobakk argue, both funds are part of a financialized global economy and, as such, have found that their desires for profit maximization clash with what would be ethically, socially, and environmentally sound investment strategies.

As with Chapter 3, Chapter 4 examines the growing presence and influence of one of today's key actors in global investments – sovereign wealth funds (SWFs). According to Sippel, Böhme and Gharios, concerns about food availability in a number of nations has resulted in a new form of agro-security mercantilism, that is, the acquisition of farmlands in offshore locations as a means of producing foods for eventual repatriation to the investing nation. The most obvious form of this 'strategic financialization' is intervention in the purchase of farms by many SWFs. These funds are also making strategic purchases of firms along agri-food chains which vertically integrate their activities and assist in fulfilling domestic food policy goals. Importantly, the SWFs often join forces with other forms of capital to co-invest in agri-food industries, making the issues of ownership and control complex and the purposes of investment sometimes difficult to determine. Nevertheless, through the activities of SWFs, states are increasing their influence in global food chains even though resistance and backlash from 'host' nations has been prevalent and has limited investment opportunities. SWFs from China and the Gulf States are chosen as exemplars of state-led overseas investment in food and farming.

The 'black box' of finance-gone-farming is opened by Ouma in Chapter 5. Ouma employs the term 'assetization', rather than financialization, to capture the process whereby farmland is turned into an asset class that can yield an income stream for finance. Eschewing what he considers to be 'abstract and disembodied' narratives about farmland purchases, Ouma identifies institutional investors (pension funds and insurance companies) as the key global actors, followed by investment banks, SWFs, transnational agribusiness corporations and high net worth individuals. The investment vehicles they employ are sophisticated and there are multiple investment rationalities that guide their investments. Not surprisingly, therefore, talk of some generalized 'land-grab' is overdrawn. While 'frontier' regions in Africa, South America and Central and Eastern Europe (known for cheap land) were a favoured target in an earlier phase, today it is more expensive farmland in nations such as Canada, Brazil, Australia and New Zealand. In all cases, investors must be cognizant of risk/returns, the existence and enforcement of property rights, the capital liquidity requirements of investors, opportunities for assetization, and investment timelines – including possible timetables for shifting capital out of the investment. Investment is a complicated business, with intermediaries playing an important role in delivering intelligence to guide purchases. It is also risky, and evidence is provided that points to a less than enthusiastic effort on the part of many institutional investors to fully embrace farmlands as a new asset class. Ouma concludes by positioning current-day attempts at understanding the assetization of farmland as part of a more general project of (re)politicizing the operations of the finance sector and, therefore, of ensuring the activities of finance receive closer greater public scrutiny.

In recognition of the recent attractiveness of farmland investment by the finance sector in the global North, Magnan, in Chapter 6, selects Canada and Australia to examine media and public discourses about the costs/benefits of investment, the state's role in regulating activity, investor motives, and the future of farming. In his analysis of the discussions and debates between 2008 and 2014, Magnan reveals that while there were national similarities in the so-called 'farmland controversy', there were also differences relating to the socio-cultural – and economic and political – makeup of each nation. The sanctity of domestic ownership of land differed, for example. While the law does not prohibit foreign ownership of land in Australia, in Saskatchewan (as the quintessential farming province in Canada) foreign ownership of land is banned. Yet, the media in both nations generally agreed with the proposition that non-farm capital is required if farming is to become more productive – which was construed, by the finance sector, to be a 'win-win' for the investors and for the farmers whose land they acquired. In response, a prominent farmer-based discourse in Canada was that institutional ownership would result in the control of agriculture by wealthy corporations, to the detriment of the local farming community, and rural society more generally. This outcome was much less of a concern in Australia. What was of concern in Australia was the lack of transparency relating to farm purchases by overseas entities, particularly Chinese state-owned enterprises. Public opposition led to the tightening of rules relating to disclosure of sales and to the lowering of the financial threshold used to judge whether an investment was in the public interest. The tightening of rules was not something backed by financial stakeholders in Saskatchewan who pointed to the already rigid regime and who predicted that capital would be driven elsewhere in the face of increased regulation. In both Canada and Australia, those supporting the continued financialization of agriculture drew upon discourses of productivity improvements, 'feeding the world' and helping family farmers to increase their flexibility. In contrast, those opposing financialization identified lack of transparency in farmland transactions, the differential power relations between large-scale investors and farmers whose land was being targeted, and the undisclosed motivations of 'foreigners' as some of the reasons to scrutinize – and potentially limit – new investments.

In Part II, 'Financialization of the food industry', Dixon's chapter examines finance, food and political tumult in Egypt. In Chapter 7 she takes, as a starting point, the food-inspired uprisings of 2007–8 and 2011 and traces them back to the increasing power of finance and agribusiness during the 1990s. Economic power became consolidated in the hands of the corporations and family and business groups, whose priorities and actions were at odds with the food needs of the majority of Egypt's citizens. Dixon identifies finance capital as a political class whose global activities impact directly on domestic class relations. In Egypt's case, family businesses and those running the state were tied closely together by economic interests, education and intermarriage. Their wealth was obtained through global sources but, as it accumulated, so their domestic hold on power weakened. Why did this happen? According to Dixon, following Egypt's membership of the WTO in 1995, the economic reforms pushed through in the early 1990s – including the privatization of banks, the floating of the exchange rate, the re-opening of the stock exchange and the establishment of various trade agreements – led to a rush of foreign investment into Egypt. Private equity firms increased their influence. The outcome was the entrenchment of corporate-style agriculture at the expense of the production of locally available staples. Dependency upon imported foods increased dramatically. And, although exports of agro-food commodities increased (in line with Egypt's policy of improving external income), imports grew at a higher rate, leading to terms-of-trade vulnerabilities. When global food prices increased in the 'crisis' years, food insecurity could not be easily curtailed by domestic government intervention. As a consequence, thousands of people took to the streets to vent their anger. Importantly, Dixon indicates that food costs as a percentage of income continue to remain high and the corporate food model remains entrenched. She predicts, in these circumstances, that should food prices again escalate, another series of protests is likely to eventuate.

Hiraga, in Chapter 8, discusses the rise in the popularity of 'flex' crops – such as soy and palm oil – as investment targets for Japanese and foreign transnationals. She traces the role of the Japanese *sogo-shosha* (general trading companies) in investing and trading in vegetable oils throughout Asia. Aided by Japan's financial conglomerates (*zaibatsu*), the borrowing and investment strategies of the *sogo-shosha* have promoted the financialization of the global vegetable oil complex. In particular, they are very active in South–South trading as part of the so-called corporate (or third) food regime. Hiraga contends that *zaibatsu* and *sogo-shosha* – originally established to foster industrial development in Japan – have had particular success in the agri-food industries. They were active investors in the Manchurian soybean industry before World War I, consolidated their position post-World War II, and – in a more liberal economic era – are now pursuing global strategies in quest of profit-making in the provision of a range of foods and food inputs for the industrial diet. The state's unswerving role in promoting the activities of the *zaibatsu* and *sogo-shosha* is seen to be a significant factor in their success and has been of positive assistance in the financialization of food in Japan.

In Chapter 9 Almanza, Constance and Martínez re-work the idea of 'land grabs' in their discussion of 'poultry grabs'. Land grabs represent an attempt by capital to identify and purchase so-called 'underdeveloped' farmlands and to profit from food price increases, the growing demand for agro-fuels, and from land speculation. Forced eviction has been a feature, but so too has the incorporation of local labour via waged work, contract farming and other mechanisms aimed at harnessing local resources in the profit-making circuits of capital driven by the new owners. Poultry grabs display this latter feature. Through vertical and horizontal integration, concentration in the industry has led to the creation of few, very large, firms with these firms incorporating smaller players via production contracts. The large firms profit not through the ownership of land and chicken-raising facilities, but through grower contracts and the exploitation of cheap non-union labour. They also strongly embrace financialization. JBS, for example, has grown to become the largest meat company in the world through its affiliation with J&F Investimentos, a private investment holding company, and BNDES, the Brazilian Development Bank. The authors describe the tactics of JBS in agri-food acquisitions but also detail its recent fall from grace linked to business and political scandals in Brazil. The lesson is that state power has been crucial in creating the neoliberal conditions under which mergers, acquisitions and portfolio diversification could occur within Brazilian agribusiness, allowing JBS to expand its operations both nationally and globally. Financialization has facilitated the acquisitions that have been crucial to JBS's success.

One of the main financial actors in food-sector restructuring has been private equity. Private equity firms are renowned for 'discovering' underperforming firms, purchasing them, reorganizing their management and asset base and worker profile to increase profits and/or reduce costs, and then to re-sell those firms for a higher price than the original purchase. The general aim is to turn over a profit from the sale in a relatively short period of time. In Chapter 10 Almås examines the role of private equity in the food sector of Norway. While private equity has operated in the wider global economy with limited scrutiny, its presence in Norway has been given careful attention by the state. Norway, like other Nordic nations, has had a long history of farmer-owned cooperatives, labour unionism, and a tradition of strong state intervention. When private equity sought to enter the chicken industry it found itself somewhat shackled – having to work closely with a Norwegian farmer-owned cooperative. Instead of implementing the usual tactic of purchase/restructure/sell, firms were operating in a partially deregulated environment where their hands were tied. They had to abide by stringent Norwegian regulations and to respect labour laws and environmental regulations which limited the extent to which they could profit from a quick move in/move out strategy. In other words, the Norwegian food companies were not easy targets for private equity firms, leading Almås to posit that strong regulation at the national level can be a fetter on the activities of finance capital, and to the processes which 'financialize' the food industry.

Sommerville's chapter on recent agri-food financialization in Canada's prairie provinces begins Part III of the book. In Chapter 11, Sommerville addresses two points raised by Brett Christophers (2015) in his critique of the concept of financialization – that it has limited power in explaining socio-economic change, and that financial involvement in the economy has strong historic roots and is not something ‘new’, as its adherents claim. In examining the agrarian development of the province of Saskatchewan, Sommerville outlines the role that finance has played, revealing the continuities from older to newer forms of investment. In recent times, farms have been under pressure to consolidate and new financial entities have recognized the opportunities to promote restructuring. The latter have provided crop insurance, equipment financing, forward contracts and derivatives – as part of a growing array of financial products that are at one-and-the-same time assisting farmers to stay in business, while making them more financially vulnerable. She also notes the disconnection between the new investors’ desire for relatively quick financial gains and the need in agriculture for ‘patient capital’ to help to ride the bumps of weather and markets. In a similar vein to other contributors to this book, Sommerville warns of viewing financialization as a ‘steamroller’ that is on an unstoppable path of changing the nature of farming: by understanding local actions and practices it can be seen that farmers are ‘key agents’ in determining the trajectories of finance in farming. She believes that a more comprehensive story about prairie agrarian transformation will be achieved by researchers who study the cultural aspects of financialization, specifically the ways finance has increased its influence over the identities, and lived aspects of daily life, of farmers and others in the provinces.

In Chapter 12, Muirhead and Nurse-Gupta argue that Canada’s governance of dairy, egg and poultry production through the supply management system is hindering financialization in these sectors. The model discourages foreign ownership and agribusiness takeovers of production primarily the result of not yielding to what critics would call appropriate economies of scale. It achieves this as a result of production controls managed through quotas, import restrictions and the annual negotiation of price. The numbers tell the story; an average dairy herd in Canada is about 80 cows, and for eggs, laying flocks are approximately 22,000 hens, numbers regarded as too small-scale in the Western corporate faming perspective. This enables these farms to be defined as family farms in the purest sense, and this regulated system delivers acceptable prices for both producers and consumers that are negotiated among stakeholders and that result in a sustainable income for the former. The system was implemented in the 1960s and 1970s to provide the state with assurances that it would not need to offer costly subsidies to producers who now had stability of income to make astute long-term investments in their operations. Elsewhere, the period was characterized by overproduction, price volatility and price collapse, none of which affected this Canadian paradigm. Muirhead and Nurse-Gupta demonstrate that Canadian governments over time have appreciated the supply-managed sectors’ ability to self-manage without subsidies.

The system is presently facing intense pressure in trade negotiations given the high tariffs that protect its functioning and the surfeit of, for example, global dairy product especially in the United States which supports price but not production control. As well, as Muirhead and Nurse-Gupta argue, opposition comes from critics for ideological reasons – those opposing any regulation and who believe in the sanctity of the 'free market'. The authors conclude that the passive blockage of foreign takeovers and the maintenance of a family farming system has served the country well and is a critical bulwark against the financialization of the Canadian dairy, egg and poultry sectors in that it asserts a Canadian concern for the country's food security and sovereignty.

Chapter 13 examines the reshaping of farmland ownership and use in Slovakia. The former socialist state has three types of farms – large agribusiness enterprises established after the privatization of socialist state farms and collective farms, individual and family farms, and cooperatives. Two types of new investors have entered farming in recent years – those wanting to farm, and those wanting to acquire land for its potential capital gain. Those purchasing farms are a mix of foreign and local investors. Lindbloom contends that farmland has become attractive to investors because of Slovakia's entry to the EU which, through concessions, subsidies and payments, has placed a platform under rural investment. There are four 'pathways' for entry of capital – incorporation into a farm in financial difficulty, direct purchase, 'hostile takeover' and involvement through invitation. Lindbloom details the 'messiness' that occurs when outside 'intangible' capital seeks to invest in a tangible resource such as farmland. She reports on the complexity, relationality and contingency in the various deals that have occurred, suggesting that the variety of pathways and actors (especially intermediaries) creates a multifaceted picture of the financialization of farmland.

In Chapter 14, Slätmo reveals how the Swedish state has sought to alter the Swedish Land Acquisition Act in ways that will allow corporate capital to increase its investment in farmland. In past decades Swedish farmland has been primarily owned by individuals, many of whom do not work the land (only 30 per cent of the land is owned by 'active' farmers). In other words, some 70 per cent of the land is controlled by absentee owners who are not directly connected to the land and its output. The Swedish government received a report in 2015 that the current Land Acquisition Act hindered competitiveness in the agricultural sector and has sought to introduce that a more 'competitive', neoliberal, approach to drive productivity in the farm sector. This entails freeing up land for corporate investment, on the premise that more capital needs to be injected into Swedish agriculture. Slätmo interviewed farmers, politicians, representatives of NGOs, researchers, consultants and an array of rural and urban residents in an effort to establish the extent of support for the proposed changes to the Act. While it was generally acknowledged that capital was, indeed, a scarce resource and was much needed in farming, there were different views as to how that capital could be utilized. Unlike those in the policy and business spheres who readily supported changes to the Act to encourage corporate investment, farmers (and their affiliated organizations) did not think external capital should be employed to change land ownership structures to 'corporatize' farming but, rather, to meet seasonal difficulties, to enable farm succession, to support farming culture, and to ensure supply of healthy and affordable foods. The Act is currently under investigation and it is not known whether the proposed changes will come to fruition.

The final chapter in the book provides a case study of the role institutional investors played in helping to halt the ecologically-damaging process of forestland 'parcelization'. Institutional investors' ambitions to continue to pursue logging and papermaking were tempered by the activities of the state and demands of forest communities as they sought novel governance arrangements that would both allow for economic development, while preserving biodiversity and environmental integrity. Wolf's case study, in Chapter 15, demonstrates that cooperation between a variety of actors (state agencies, civil society groups, local communities and institutional investors) helped to stem the process of landscape fragmentation and community displacement, thereby providing a positive development outcome for the Adirondacks. The State of New York required funds from investors interested in owning timberland and the arrangements that were concluded resulted in a multifunctional forest landscape. In this case, 'financialization' cannot be construed as having the negative outcomes that are reported in much of the pre-existing 'land grab' and 'green grab' literature. Wolf reminds us that the role of finance in land development is complex: in the case of the Adirondacks institutional investors helped to place an economic platform under forest communities, while addressing concerns of state agencies and NGOs about ecological risks and problems.

Conclusion

The (neo)liberalization of business and trade, the privatization of state assets and the watering down of finance and banking regulations have, in concert, promoted capitalist development. As the chapters in this book reveal, the state is increasingly involved in facilitating financialization across the world. Financialized economic activities are not only being deployed by financial institutions, but also by national and private investment funds (SWFs) and state-backed organizations, for commercial purposes, for development, and for aid, among a host of other purposes. The 2008 food crisis changed agri-food policy rhetoric, turning what was previously considered 'hidden' protectionist policies of some Northern states into 'food security' discourse, where attempts were made to ensure a secure food supply in the face of global uncertainties. Some states have actively appropriated farmland abroad, while countries with food surpluses have supported financialization – within neoliberal globalization – as a mechanism to sell greater volumes of food in the global marketplace. Either way, the farming and food sectors have remained very attractive sites for investment.

Previous research has shown, and studies in this book show, that financialization of the agri-food system raises many ethical and moral questions. When nation-states help to facilitate financialization it is important that they weigh up impacts upon small and medium scale farms and food businesses and those who occupy lands (either legally or illegally). Throughout the book, authors shed light on some of the least-explored financialized parts of the food system, including the investors, their tactics, and the communities that are affected. Many contributors demonstrate that the poor and least powerful can readily become more marginalized as financialization proceeds. It is hoped that the book will contribute to a more nuanced understanding of the contours and impacts of the current, financialized, global agri-food system.

Notes

1 Commodity index funds are financial products that bundle together the value of a basket of commodities, typically including oil, metals, and agricultural products.

2 The Land Matrix is an open-source database of large-scale land deals (www.landmatrix.org/en/). The authors of the report caution that the levelling off of land deals concluded could be explained by a lag in reporting.

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