

Financialization in the Food System:

Issues of Policy and Discourse

by

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Abstract

Financialization in the food system, or the process that increases financial influence in the global economy and food system, is a social problem with broad inequitable social consequences, shaped by a handful of powerful actors. This Capstone provides an assessment of historical and contemporary policy decisions and political discourse that contribute to financialization of the food system. Using the paradigm of critical inquiry, I evaluate this problem by using literature analysis and critical discourse analysis methodologies. Specifically, this research focuses on policy decisions and political discourse surrounding financialization of the food system using the frameworks of neoliberalism, uneven development, and discourse. My findings show that deregulation in economic policy and neoliberal discourse facilitate the coupling of food to finance capital and lead to concentration of wealth and power. This concentration benefits a small group of corporations and people while placing the most vulnerable in society at a socioeconomic disadvantage. With this knowledge, points of intervention can be identified in order to work towards remediating the social problem of food system financialization. In conclusion, transformative policy changes must be considered to create meaningful social change with regard to financialization of the food system.

Keywords: financialization, policy, discourse, food system, neoliberalism, uneven development, investment

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Abbreviations

CFMA	Commodity Futures Modernization Act
CFTC	Commodity Futures Trade Commission
CRQ	Constitutive Research Question
FAO	Food and Agriculture Organization
ORQ	Overall Research Question
OTC	Over The Counter

One—Introduction

A nation will not survive morally or economically when so few have so much and so many have so little.

– Bernie Sanders

This Capstone addresses the social problem of financialization of the food system by examining how our current food system has become intertwined with speculation and investments in financial markets. New investment opportunities have emerged that undermine humans' ability to use food for its original purpose. The components of human sustenance and survival are placed into asset classes that contribute to wealth building and power generation. This results in grievous social consequences and inequities.

The social problem of food system financialization is relevant to social justice because food is an essential component of human survival and ability to thrive. Currently, there is a vast gap in equitable access to foods that provide opportunity to thrive. Many people who experience lower socioeconomic status face obstacles, such as money and time, in accessing nutritionally-dense food. At the same time, they are presented with endless choices of ultra-processed foods, made widely available in part through the process of financialization. Further, aspects of financialization, such as speculation, increase the prices of the often 'cheap' processed options by tying food-related commodities to market fluctuations associated with speculative investment. This results in the necessity of spending more of one's income, which may already be stretched thin, on food for survival. These conditions are due in part to uneven development within our

global financial markets and food system, which are inadequately regulated and reward the wealthy.

While many suffer from the consequences of financialization, some with capital or political power profit off the upward concentration of wealth generated by financialization. Financialization of the food system supports the social and economic relations that intensify and maintain this problem. I respond to this issue by asking about the policy decisions and political discourse that enable and exacerbate this social problem. My interest in these dynamics stems from a curiosity about power, wealth concentration, and class relations.

The research problem of this Capstone is better understanding how policy and political discourse facilitate the processes of financialization, which leads to power and wealth concentration and social inequities. Addressing this research problem is crucial to increasing social justice because it challenges dominant, unjust social frameworks and seeks to remedy inequitable access to food. My Capstone contributes to that goal by highlighting how the problem of financialization is reproduced and implemented through policy and shaped by discourse that sustains or exacerbates the social problem of food system financialization.

This research addresses financialization of the food system by asking about the social and economic processes that enable it so that we can better understand how the current state of financialization maintains power for a select few, and how to change the system to benefit a broader swath of humanity. I aim to understand how food system financialization is facilitated through policy decisions and politics, with political discourse falling under the umbrella of politics. Uncovering these answers will help to identify intertwined causes of oppression within the food system and reveal points of intervention to work towards social justice at policy levels.

This chapter provides an introduction to my Capstone research. Chapter Two articulates the background and significance of my social problem of financialization by explaining the domain of food systems and society, clarifying the concept of social problems, and highlighting consequences of financialization. Chapter Three provides the methods and methodologies I use in my research and introduces my overall research question and constitutive research questions. Chapter Four explains my research findings, which show that powerful actors across the globe shape the social and economic relations that enable financialization through policies and political discourse, and provides analyses of those findings throughout. Chapter Five concludes this Capstone with a reflection on the broader scope of inquiry into food systems and society.

Two—Background and Significance

This chapter explains the background of my Capstone research and its significance for identifying social problems and increasing social justice in the food system. To begin, I elaborate on the domain and avenue of my study: food systems and society. I then identify my chosen topic of interest within food systems and society: financialization. In the next section, I explain that social problems are present in the food system and that some are related to social justice, while providing definitions for social problem and social justice. Following that, I explain the social problem this Capstone research addresses, financialization, and provide examples of its existence, causes, and consequences in the food system. In the final section, I articulate aspects of the social problem of financialization that I wish to study, in the form of a research problem, which focuses on understanding the influence of policy and discourse in financialization and power concentration. Next, I describe my overall research question, which is the interrogative form of my research problem. I conclude with my Capstone’s research statement, which is that my research addresses financialization of the food system by asking about the policies and politics that enable it so that we can better understand how the current state of financialization maintains power for a select few, and how to change the system to benefit a broader swath of humanity.

Domain of Food Systems and Society

My capstone research explores a social problem within the domains of food systems and society. The ‘food system’ is the entire encapsulation of interacting elements surrounding food within society. This includes but is not limited to: food production and distribution, consumption, agro-ecology, marketing, diet quality and health outcomes, cultural influence on a local scale, cultural acceptability on a global scale, policies and political influence, social ecology, global

markets, political economies, and equitable access or lack thereof to individually appropriate food (Brouwer et al. 2020, 2; Neff and Lawrence 2014, 3-4; Gladek et al. 2017, 12-13). The food system exists within and as a result of society and social structures, thus problems arising in the realm of food systems cannot be separated from social relations or treated as external to social and economic systems.

Financialization of the food system is a problem involving social relations within the food system as mentioned above. For the purpose of this Capstone, food system financialization is defined as a process that increases financial influence in the global economy and food system (Lawrence 2017, 780), carried out by a variety of actors, including but not limited to industrial corporations, finance capital investors, and market participants. Financialization is clearly related to food systems and society because it involves a range of the aforementioned aspects of a food system such as global markets, policies, food production, and political economy. The next section elaborates on how this topic is relevant to social justice within the domain of food systems and society because social problems with inequitable consequences arise from the processes of financialization in the food system.

Social Problems and Social Justice in Food Systems and Society

Considering that the food system is inextricably intertwined within society and that social problems are prevalent in society, it stands to reason that social problems arise within the domain of food systems. In order to thoroughly examine social problems within the food system, we must first clarify what constitutes a social problem. While there are many explanations as to what a social problem is, this Capstone subscribes to a specific definition of 'social problem'. A social problem is an issue that negatively affects an individual or group of people within a society (Alessio 2011, 3-8). The origins of said problem reach beyond individual choices and are

comprised of one or more societal causes (Alessio 2011, 9-14). Solutions will extend past any single individual's actions and involve systemic change (Alessio 2011, 15-16). The passage of time and influence of powerful societal forces exacerbate and entrench social problems and make it onerous to tease apart the web of factors that continue to uphold them (Alessio 2011, 2). Some social problems have social causes and social consequences that are related to social justice, as explained in the next section.

Social justice is the primary goal when addressing social problems in food systems and society in order to achieve positive social change. Articulating a definition of social justice helps to clarify goals in addressing social problems and creating positive social change. Social justice is a condition in which all people have equitable access to basic human rights, including but not limited to life-long access to nutritious foods, safe housing, healthcare, and representation in society (Ferguson 2019). It also includes institutions and policies that fairly disseminate power such that everyone has the opportunity to lead a healthy, safe, and thriving life that extends beyond baseline human needs (Levy 2019). Social justice requires identifying and removing the root cause of any social injustice to effectively enable all of the above. A clear definition of social justice is of utmost importance when evaluating problems within the food system, as the process of this work is to identify and address social problems when conditions of social justice are not met.

This Capstone focuses on the social problem of financialization within the food system through the lens of social justice, specifically as related to the distribution of wealth and power, and the generation and evolution of policies. Financialization is a political economic issue, tied to finance and finance capital, which creates and exacerbates equity issues within the food system. Finance capital is capital (usually cash or liquid assets) that is invested in order to create

profit from money, rather than generating profit from the sale or exchange of a tangible product. Financialization in the food system occurs when finance capital is invested in sectors of the food system in order to generate a future profit. This process creates a new and influential “middle man” in the food system, in the form of finance capital. The presence of financialization in the food system via financial capital creates new inequities visible within the operations of the global food network.

Financialization results in the socially unjust consequences of power concentration in the food system. Concentration describes a market’s composition in terms of how many firms share and control it, within the food system in this case, and the impacts it has upon competition and price control (Howard 2016, 3-4). Stimulated by capital investment, corporations along food commodity chains merge and consolidate power, resulting in a concentrated market of oligopolies (Hendrickson et al. 2020). An oligopoly is a market comprised of a few large corporations that dominate price control and limit competition (Howard 2016, 3). Oligopolies have increased market power and the ability to influence the amount and types of food that are available. This type of increased market power can be leveraged through investment in profit-seeking from many points along food supply chains, including appropriationism and substitutionism.

Appropriationism and substitutionism are concepts that describe historical patterns of investment and industrialization of food supply chains. These concepts illustrate how opportunities for profit-minded companies to expand and combine into larger, more powerful companies emerge. Appropriationism describes the fragmentation of farm production processes, which are transformed into investment opportunities and sold back to farms as inputs (Goodman and Redclift 1991; Guthman 2010,58). For example, where farms once saved seed and produced

fertilizer from animal-based agriculture, they now purchase seeds and nitrogen fertilizer. Substitutionism refers to the industrial production of food, wherein agricultural produce is substituted with manufactured commodity inputs (Goodman and Redclift 1991, 91-92). For example, where farms once produced complex products like butter, they now sell oil seeds which can be variously combined in processing facilities based on market value to make margarine. This results in the transfer of profits from agriculture to industry (Goodman and Redclift 1991), as well as in the excess production of highly processed foods, which are associated with poor health outcomes related to diet (Otero et al. 2015). As a result of these processes, food and its associated agricultural and industrial inputs have been transformed to primarily have abstracted trade or exchange value, rather than physical use value, which allows for corporate concentration in the food system (Howard 2016, 3-6). Ultimately, this network functions as an opportunity to transform food production into asset markets and away from a method of meeting basic human needs.

Financialization results in food insecurity and poor diet-related health outcomes that disproportionately affect those in poverty or those with lower economic status. Through lack of accountability in the processes of financialization, the costs and harms of its consequences, such as price volatility, are socialized and affect those who live in poverty. People of lower socioeconomic status are simultaneously often unable to participate in the current economic system of investments and suffer from the consequences of food being treated as an asset rather than a right. In the global north, the predicament of economic restriction translates to limited access to nutritionally-dense foods. Financialization supports industrial production of processed food products that are not nutritious, but highly profitable (Darmon and Drewnowski 2015;

Otero 2018). Additionally, with oligopolization comes a decrease in price competition (Howard 2016, 5), which can lead to increased prices and further contribute to issues of food insecurity.

Financialization also results in displacement of small-scale producers from their land. For example, the spread of a western diet that is meat-heavy and highly processed takes up more land as economies across the globe expand and modernize (Lawrence 2017,781-2). Financialization leads to land grabs, some of which are purely speculative, on behalf of wealthy actors or nations, which then increase the displacement of smallholder farmers from land used for subsistence farming (Clapp 2015, 312). Additionally, nations that are land-poor but oil-rich often use sovereign wealth funds to invest in land across the globe in an attempt to ensure food security within their own countries by exporting the food back to themselves. In the global south, this presents as loss of access to land used for subsistence farming and reduced control over the food system to which farmers contribute and on which they depend (Guttal et al. 2011; Daniel and Mittal 2010).

As demonstrated by the social consequences of financialization, this issue has a clear tie to social justice. Groups who are oppressed as a result of this problem face the troubling fact that they do not have the same amount of power or leverage as those who are privileged in this system, such as investors and other financial stakeholders or owners. Often, people with higher socioeconomic status are more likely to participate in and benefit from the social problem of financialization through investments that use the food system as a source of return on investment of financial capital. Examples of this exist in investment avenues such as corporate stock options, pensions, or index funds (Clapp 2015, 311-312). Actors with power in this system profit indirectly through investment opportunities or directly through land acquisitions, while people are exploited and suffer via land grabs, speculation, and price volatility (Clapp 2015).

Financialization exacerbates the consequences of classifying food and its associated inputs as asset classes instead of human rights, along with helping to maintain power and generate wealth for a select few, who then likely influence policy decisions.

With such a large number of financial actors participating in the convoluted network of global agricultural investment, it is now even more difficult to determine whom to hold responsible for what damages. There is also a reluctance on behalf of governments to act in accordance with public interest concerning this social problem and its consequences (Marsden et al. 2018). Processes of financialization provide incentives to maintain policies, and vice versa, that privilege capitalist aims at the expense of food system equity.

Capstone Research Problem and Overall Research Question

In order to address the social problem of food system financialization, this Capstone research focuses on policy, power, and their associated consequences for financialization. An aspect of financialization that I focus on as my research problem is better understanding how policy and political discourse facilitate the financialization in the food system, which leads to power and wealth concentration and the social inequities described above. To develop this understanding, I examine policies, regulations, and deregulations that influence global and national markets, economies, and the financial actors within them, as well as relevant discourse. This research problem is relevant to social justice because it highlights how the function of the global food system is altered through policy in a way that results in concentration of wealth and power in the food system, as well as price volatility and food insecurity (Lawrence 2017, 780-785). Through this process, the food system is tied more closely to incorporeal financial markets and further uncoupled from its functional use, and as a result, decreases access to food as a right and increases the classification of food as an asset class. When food is treated as an asset class

and subject to the influence of financial capital, it may have the consequence of putting this basic human need out of the reach of those without the resources to purchase or produce it. The threat posed by food system financialization to meeting basic human needs is a social justice issue.

Given this research problem, my overall research question asks: how do U.S. and global policies and politics facilitate or disrupt food system financialization and concentration?

Since policy helps to create and maintain this social problem, it can also help to solve the social consequences and harms of financialization through improved or new policies. This research addresses the social problem of food system financialization by asking about the policies and politics that enable it so that we can better understand how financialization of the food system maintains power for a select few, and how to change it to benefit a broader swath of humanity.

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In summary, this chapter described how financialization is a social problem with social causes and consequences, and that it needs to be addressed through the lens of social justice. The research problem I articulated asks how policy and discourse facilitate the social problem of financialization, which leads to power and wealth concentration along with other social inequities. Thus, the purpose of this Capstone research is to determine how financialization of the food system is reproduced and sustained in order to benefit few and disadvantage many. The next chapter focuses on the methodology and methods I will use to address my research problem.

Three—Methodology and Methods

This chapter provides a detailed explanation of my approach to this Capstone's research and the methodologies and methods I will use to address the social problem of financialization in the food system. The first section in this chapter, Capstone Research Paradigm, provides background on how epistemology and ontology shape research paradigms and their impacts on research results. This section also includes an explanation of my own research paradigm, critical inquiry, and my positionality statement. The next section, Capstone Research Questions, states my overall research question and how this question addresses my social problem and research problem within my research paradigm. It also introduces my constitutive research questions, both of which address an aspect of my overall research question, and explains the conceptual frameworks of neoliberalism, uneven development, and discourse that inform these questions. The last section, Capstone Research Design, elaborates upon my chosen methods and methodologies for answering my research questions. I conclude the chapter with a summary and transition to the Research Applications and Contributions chapter.

Capstone Research Paradigm

In this section, I first provide background information on ontology and epistemology. Then, I elaborate upon how they influence research paradigms and provide examples. Next, I explain my research paradigm and my accompanying ontological and epistemological perspectives. I conclude and transition to the next section by offering my positionality.

The point of research, broadly, is to learn more about the world. There are many approaches to research among the different schools of science, but ontology and epistemology influence all of them. Ontology refers to what a researcher believes constitutes reality - i.e., what can be known (Grix 2002, 177). An ontological perspective influences epistemology.

Epistemology is a branch of philosophy focused on theories of knowledge that describe the ways in which a researcher believes knowledge of reality can be learned (Grix 2002, 177-8).

Ontology and epistemology work together to influence different fields of study and corresponding research paradigms. For example, a positivist research paradigm posits that, ontologically, a single reality exists and that, epistemologically, it can be objectively understood by adhering rigorously to the scientific method (Lincoln 2018, 110-131). The positivist research paradigm's ontological position that there is a single reality means that one believes reality exists independently of social interactions. What follows is a positivist epistemology that emphasizes a detached, observing researcher whose goal is an accurate and unmediated description of that reality.

A contrasting research paradigm is that of critical inquiry, informed by critical theory. Critical inquiry is a research paradigm that seeks to learn about oppressive circumstances in order to work towards liberation and social justice through transformation and emancipation (Lincoln 2018, 110). A critical researcher evaluates social relations with regard to structural power struggles and oppressive conditions. They may be driven by an ontology of historical realism that sees society's varied values as hardened over time (Lincoln 2018, 110-131) based on dynamics of privilege and oppression that build different realities for different people. Their epistemology may favor results that are value-mediated, meaning the goal is to understand social structures and remove oppressive structures with the knowledge gained (Lincoln 2018, 110-131). As demonstrated, research produces different outcomes based on a researcher's paradigm.

My research paradigm is that of critical inquiry. Through critical inquiry, I seek to reveal how social power structures lead to oppressive outcomes. My ontology is influenced by a mix of critical theory and constructivism. In line with critical theory, I believe that social structures like

cultural and gender norms exist and are shaped and solidified over time based on dominant group discourse and action. I also believe that some aspects of social relations are constructed and deconstructed on a more regular basis, in line with constructivism. A social construction is a phenomenon developed through social and societal interactions and systems of power, rather than a naturally arising truth, and can be altered through social interactions (Crossley 2005). For example, each person's 'reality' is at least partially self-created *and* different from another's reality. This means that multiple realities constantly interact with each other, re-creating and co-creating realities at all times. Since reality is constantly constructed and thus can be changed, critical inquiry seeks to identify where change can occur in structural systems in order to achieve social justice. For the purposes of this Capstone, financialization is understood as a socially constructed relation that can be deconstructed with the help of critical inquiry.

My epistemology is also closely linked to critical theory in that my findings are value-mediated and I believe that acknowledging my subjectivity, or situatedness, will lead to research outcomes that are more likely to achieve social justice. Situated research provides nuance and an opportunity for understanding in a more holistic and subjective manner than claiming only objectivity in research, because more perspectives are considered when conducting research. To deny the existence of subjectivity in scientific research would deny what encompasses human experiences, social relations, and social structures. Including or acknowledging situatedness in research can lead to working outside of pre-defined parameters, influence research design, and help to increase understanding of problems through "policy relevant research" (Jenson and Glasmeier 2010, 82-83).

My positionality is the subjectivity that influences my research. My background is that of lower-class, white, female. The gender and the class status I grew up in influenced my interest in

systems of power. I value dissection of the social relations that uphold oppressive power structures in order to more equitably distribute power and wealth.

I chose to focus on this social problem, research problem, and research question because I have an interest in systems of power that uphold oppressive structures, and policy. I would ultimately like to contribute work to this field that reveals details about the networks of power and influence that create social justice issues, and offer suggestions for how to achieve social change. The research questions contained in this capstone are informed by my positionality, which influences my research questions and will contribute to my goal of understanding systems of power. In summary, the purpose of my research is to evaluate social structures with the goal of social justice in mind, and doing so relies heavily on the research paradigm of critical inquiry. The next section introduces my constitutive research questions and elaborates conceptual frameworks relevant for addressing them.

Capstone Research Questions

This section, Capstone Research Questions, provides the basis of my research questions that contribute to my overall research question. First, I articulate core details of the social problem, research problem, research statement, and my overall research question. Then, I pose two constitutive research questions relevant to answering my overall research question, which encompasses policy and politics. Finally, I elaborate on the conceptual frameworks of neoliberalism, uneven development, and discourse applied in my Capstone research.

In brief, I will provide a summary of the foundational elements of my Capstone research, which I elaborated upon in the previous chapter. This Capstone's social problem is financialization in the food system, which leads to unequal divisions of power, uncoupling of food from its original purpose, corporate consolidation, and price volatility. These consequences

of transforming food into an asset class through deregulation of the financial market include placing those already disadvantaged in society at risk of becoming food insecure. My research problem focuses on investigating the mechanisms through which policies and politics paved the way for deregulation of the food system, which led to the coupling of food and finance, along with corporate consolidation. This research addresses the social problem of financialization by asking about the policies and politics that enable it so that we can better understand how financialization of the food system maintains power for a select few and how to change it to benefit a broader swath of humanity.

My overall research question (ORQ) is: how do U.S. and global policies and politics facilitate or disrupt food system financialization and concentration? This research question addresses my social problem of financialization in the food system and my research problem of better understanding the mechanisms that enable and reproduce financialization and corporate concentration. I address this question in accordance with my research paradigm of critical inquiry by examining social structures that maintain oppressive circumstances while concentrating power upwards. Understanding these processes will enable the construction or transformation of a more socially-just food system.

To answer my ORQ, I have developed two constitutive research questions (CRQs) that will collectively contribute to addressing my ORQ. My first CRQ is: Through what mechanisms have U.S. policy decisions facilitated food system financialization? This CRQ addresses causes of my chosen social problem and will contribute to answering my ORQ by assessing policies that have facilitated food system financialization. My second CRQ is: In what way does U.S. and global political discourse involving food system policy decisions support or disrupt financialization? This CRQ addresses causes of my chosen social problem and will contribute to

answering my ORQ by assessing how political discourse has facilitated food system financialization and concentration. Identifying political discourse is crucial to understanding policy decisions. Together, my CRQs will address my ORQ by providing a detailed understanding of the mechanisms behind financialization.

CRQ 1: Policy - Through what mechanisms have U.S. policy decisions facilitated food system financialization?

The conceptual frameworks that inform this CRQ are neoliberalism and uneven development. Neoliberalism is a political ideology that emphasizes free-market policies, a lack of state mediations, and individual rights and responsibilities over the collective (Oleschuk 2020, 2). It values individual liberties, private property, and enforces the belief that market mechanisms have a “self-regulating capacity” (Barlow and Thow 2021, 3) to efficiently allocate resources. Neoliberalism heavily emphasizes the idea that state interventions are ineffective and dangerous (Barlow and Thow 2021, 3).

Uneven development in the food system is a concept which posits that purposeful and strategic efforts were made to develop and manipulate a food system that benefits and sustains wealth and power. This is achieved in part through colonial patterns of agricultural development and food system intervention enacted via imperialism and capitalism (Davis 2001; Friedmann 2008; Moore 2017; Guthman 2011). Specifically, uneven development is reproduced via practices of substitutionism and appropriationism, which facilitate investment in the food chain and agricultural market. Further, human geographers consider uneven development to be an inevitable “manifestation of the capitalist mode of production” (Christophers 2009, 12). In this way, uneven development is the expected result of capitalism, rather than an anomaly, because development in one place is inextricably linked to underdevelopment in another place

(Christophers 2009, 12). For the purpose of this Capstone, the focus is on mechanisms of uneven development that reproduce inequities, such as through financial markets tied to agriculture and the capitalist economy itself. I suspect financialization is an extension of neoliberalism and uneven development, and this CRQ seeks to understand how policy enacts or supports it. While this CRQ focuses on policy, the next CRQ will center on politics and more specifically, political discourse.

CRQ 2: Politics – In what way does U.S. and global political discourse involving food system policy decisions support or disrupt financialization?

The conceptual frameworks that inform this CRQ are discourse and neoliberalism. The explanation of neoliberalism as a conceptual framework from above applies here. Discourse is a concept that refers to conversation and ideas surrounding a field or topic. It can be formed, controlled, and reformed in social structures while also informing social structures, often under the influence of institutional powers (Bennett 2010, 91-93; Allen 2004, 81). Political discourse is a method of using power dynamics to shape how “reality” is presented in society (Allen 2004, 81). This construction of reality is achieved by influencing the very definitions of problems or points of intervention in the food system, what parts of those problems are addressed, and what is ignored (Allen 2004, 57). By focusing on political discourse, I will analyze how powerful actors in our food system (e.g., politicians, lobbyists, people with corporate and/or financial power) shape conversations that involve policy decisions that affect the food system.

I would like to understand what kind of discourse influences decision-making about policy implementation and investment opportunities related to financialization of the food system. The places where this kind of political discourse occurs are where the future of the food system is being decided. Understanding the extent to which financialization is supported in

discourse is crucial to determining where points of intervention can be created. In summary, I will use neoliberalism, uneven development, and discourse as conceptual frameworks through which to inform, view, and answer my CRQs as they relate to my ORQ and the social problem of financialization.

Capstone Research Design

This section explains the methodology and methods used to answer my two constitutive research questions (CRQs), under the umbrella of my overall research question (ORQ). My ORQ is: how do U.S. and global policies and politics facilitate or disrupt food system financialization and concentration? For each separate CRQ, I will explain my unit of analysis, methodological approach, methods, and strategy for data collection and analysis.

My first CRQ was: Through what mechanisms have U.S. policy decisions facilitated food system financialization? The unit of analysis was policy. By policy, I mean the “authoritative allocation of values” wherein the state is complicit with the interests of powerfully entrenched actors (Blackmore and Lauder 2005, 97-98). My methodological approach in addressing this unit of analysis was to apply a literature analysis. A literature analysis is a methodology wherein the research technique relies on reviewing literature in order to address a literature-based research problem (Montuori 2005). Literature analysis was useful in analyzing historical and contemporary policy decisions that contribute to financialization because I reviewed policies that were represented in and discussed in academic literature. I limited my scope to literature that reviewed U.S. policy decisions made beginning in 1980 and forward, as markets and corporations became increasingly deregulated since that time. My unit of observation was academic publications related to financial regulations in the food system and consolidation among agriculture and food corporations. I collected sources from the academic database

SCOPUS. I used annotation as a strategy for data collection, and took a deductive approach to categorization of data, concentrated on U.S. policy drivers of financialization and consolidation. To organize and analyze the collected data, I used analytical criteria developed from my conceptual frameworks of neoliberalism and uneven development.

My conceptual frameworks of neoliberalism and uneven development helped to characterize policy decisions that involve or cause food system financialization through their corresponding analytical criteria. Analytical criteria that helped me to identify policy that reflected neoliberalism were: an emphasis on individualization of responsibility and choice, anti-state regulation or deemphasis on state interventions (i.e., deregulation), policy that prioritizes market self-correction, and a decoupling of social effects from policy decisions (Barlow 2021). Analytical criteria that identified policy that reproduces uneven development were: policy that supports and reproduces the current system of substitutionism and appropriationism, and policy that supports the function of uneven development, which is the occurrence of underdevelopment whenever development occurs. Substitutionism was identified through policies that facilitate investment by powerful food system actors in downstream food supply chains. Appropriationism was identified through policies that facilitate investment in agricultural production. Uneven development is associated with a capitalist mode of production which requires wealth and poverty to exist simultaneously. Thus, I located policies that enable the development of the wealthy at the expense of the poor, which reproduces capitalist relations in the food system. Through this research, I learned about the mechanisms that created and maintain financialization and concentration in the food system.

My second CRQ was: In what way does U.S. and global political discourse involving food system policy decisions support or disrupt financialization? My unit of analysis was

discourse about the food system and financialization as it relates to policies that influence the future of the food system. My methodological approach in addressing this unit of analysis was to implement a critical discourse analysis to evaluate political discourse concerning policy.

Discourse analysis, specifically critical discourse analysis, aims to “expose veiled power structures” (Bergstrom et al. 2017, 222) through examination of information representation and delivery. Discourse analysis was pertinent to understanding how politics influence financialization because it focused on analysis of discourse that often operates “outside our awareness” (Allen 2004, 81). This helped explain how financialization became dominant and pervasive in politics over time. Ultimately, discourse analysis helped to reveal power dynamics and political processes that support financialization within the food system.

I limited my scope to discourse about U.S. and global policy decisions made beginning in 2000 and forward, specifically involving government actors and transnational agencies who were involved with decision-making or recommendations. The time frame of this scope was set as such because major financial policy decisions were made in the year 2000, and I was interested the voices that influenced these decisions and the voices that responded to the consequences. My units of observation were explanations in articles from media that represented political agendas related to regulations within the financial sector as they pertained to the food system, in addition to policy briefs presented by global organizations. This included conversations by U.S. politicians and individuals with considerable monetary and political power about regulation decisions along with recommendations by powerful global agencies. I collected sources from media publications such as news journals that covered policy decision-making and the relevant conversations that surrounded it, as well as publications released by transnational organizations. I located these sources through searches of policy briefs, policy-focused news outlets, transcripts

of congressional committee hearings, and books. I selected a sample by locating sources that directly referenced financial policy decisions that could impact the food system, or recommendations that related to the food system.

I used annotation as a strategy for data collection and took an inductive approach to categorization of data as I gathered it and found themes and commonalities such as the main interests supporting financialization, and prevalent debates. Analytical criteria that identified discourse surrounding policy decisions that involved financialization of the food system were: rationales for and discourses about policy decisions that were connected to an ideology, such as neoliberalism. Analytical criteria that identified neoliberalism in discourse surrounding policy decisions are the same as CRQ1. I learned more about how systems of power drove political and public discourse surrounding financial policies with relation to the food system.

This section, Capstone Research Design, restated my CRQs and explained the methodologies and methods I used in my Capstone research. This Capstone research used methodologies of literature analysis and critical discourse analysis to address my two CRQs, under my ORQ, which asked how financialization and concentration are influenced by policy and politics. Ultimately, progress made on answering my ORQ helped to address the social problem of financialization.

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This Methodology and Methods chapter covered my philosophical and academic approaches to research. I provided background on research paradigms, my own positionality, two constitutive research questions that contribute to answering my overall research question, and the methodologies and methods I will use to answer those questions. The next chapter, Research

Applications and Contributions, will provide results produced from my research and my analysis, along with explanation of how this Capstone will contribute to my field.

Four—Research Applications and Contribution

This chapter provides answers to my research questions and explains how this work contributes to social justice and social change in food systems and society. It begins with a re-explanation of my Capstone's CRQs and their relevance to my ORQ, and my ORQ's relevance to my social and research problems. I then present the results from my research and an interpretive analysis for each CRQ. Additionally, I summarize each analysis explaining how the CRQ addresses my ORQ. Next, the Contribution section reviews key highlights from my Background and Significance chapter, explains the contribution of this Capstone's research towards social justice in food systems and society, and suggests directions for future work. I conclude with a transition to the Conclusion chapter.

My overall research question (ORQ) asks: How do U.S. and global policies and politics facilitate or disrupt food system financialization and concentration? This ORQ addresses my social problem of financialization of the food system and research problem by asking about how policy and political discourse facilitate the processes of financialization, which leads to power and wealth concentration, along with social inequities. My two CRQs focus on an analysis of mechanisms that drive financialization. My first CRQ asks: Through what mechanisms have U.S. policy decisions facilitated food system financialization? This CRQ will help to answer the aspect of my ORQ that focuses on policies. My second CRQ asks: In what way does U.S. and global political discourse involving food system policy decisions support or disrupt financialization? This CRQ will help to answer the aspect of my ORQ that focuses on politics. The results from my CRQ research and corresponding analyses are provided in the following section.

Research Findings

This section presents results and analyses from this Capstone's research. For each CRQ, I present the results of my findings with analyses throughout. I conclude each analysis by stating how the research and analysis contribute to answering my ORQ.

CRQ 1: Policy - Through what mechanisms have U.S. policy decisions facilitated food system financialization?

Financialization is a social problem that, by definition, has social causes, which include policy. Through my research findings, I identify key policies that enable financialization of the food system. These include the Commodity Futures Modernization Act of 2000, index funds, and industry speculation and hedging. I then explain, through my analysis, how these policies support neoliberal ideologies and reproduce uneven development.

Market deregulation heavily influences the deepening relationship between finance and food. Regulation of futures trade with regard to agricultural commodities was tight until the 1980s saw deregulation of financial policies that encourage the liberalization and opening of markets and allows for commodity futures trade (Ghosh 2010, 77). The 2000 Commodity Futures Modernization Act (CFMA) is a prominent policy decision that enables financial speculation within the agricultural system (Lawrence 2017, 780). This policy decision allows agriculture-linked financial products to be sold with little regulation.

The CFMA legitimized over-the-counter (OTC) derivatives, which before this were considered the same as illegal contracts. Derivatives are a variation on futures contracts, which are financial agreements between two parties wherein a specified amount of a commodity will be exchanged in the future for a price that is agreed upon in the present (Chadwick 2017, 631). In agriculture, underlying assets on which a derivative bases its value are commodities such as corn,

pigs, wheat, chemical inputs, or seeds. These new, OTC derivatives operate outside of regulated futures exchanges (Chadwick 2017, 631). As a result, agricultural derivatives are traded “independently of real-world food markets” and are “highly financialized” (Lawrence 2017, 781).

Deregulation of commodity futures exchanges paved the way for the development of index funds, which now exist for the commodity sector and more specifically, for agriculture. Commodity index funds track the collective performance of a group of commodity futures (Clapp and Isakson 2018, 440). Investors can buy shares of commodity index funds (agricultural products comprise about one-third of the value) or specific agricultural indexes such as the kind first released by BlackRock in 2007 (Clapp 2015, 311). The agriculture-specific index includes agriculture inputs such as feed and fertilizer, land, food processors, commodity futures, and trading companies (Clapp 2015, 311). Index funds are now the primary source of speculation and capital participation in “food commodity markets” (Chadwick 2017, 632).

Commodity index funds allow investors to profit from commodities without actually purchasing a commodity futures contract, which leads to an increase in speculation. Commodity future contracts are contracts that set a price agreement for a specific amount of a commodity for future delivery, whereas index funds capture the growth of a specific basket of investments through a portfolio designed to track a market index. These speculators collectively influence the market and therefore distort commodity prices in such a way that does not reflect their value, and leads to price volatility (Chadwick 2017, 646-647). Index funds allow for large amounts of capital to be funneled into commodity markets, regardless of supply or demand for the commodity, which means index funds operate independently of pertinent market status (Chadwick 2017, 648). Because of these “high frequency trading technologies”, 60-70 percent of

price changes in commodities are caused by “self-generated” activities instead of relevant information about supply or demand for the actual commodity (Chadwick 2017, 648). This was evident in the agriculture investment boom of 2006-2011, where the amount invested in agriculture commodities grew from \$65 billion to \$126 billion (Clapp and Isakson 2018, 440). This translated as “virtual hoarding” of agricultural stocks and led to price volatility because it became difficult to accurately determine prices (Clapp and Isakson 2018, 440).

The policy decisions and processes that enable over-the-counter derivatives and commodity index funds manifest as modern-day uneven development in the food system through generation of wealth in certain areas of the world and creation of poverty in others. This type of uneven development is facilitated through appropriationism and substitutionism. Policies such as the CFMA and index funds create opportunities for appropriationism and substitutionism by encouraging financial investment and speculation in agriculture and downstream food commodity chains. Investments in the processes of farm production, such as fertilizer and seeds, constitute appropriationism while investments in the industrial production of food, such as commodity inputs for highly processed foods, are an example of substitutionism. While these types of investments deal directly with the components of food production, some investment avenues, such as speculation, take a less direct route.

Speculation is the act of buying or selling assets based on calculated risk with the intent of profiting from the purchase or sale. Speculation is commonly thought of as necessary in an economy to maintain some liquidity, but in reality, excessive speculation is enacted by powerful financial actors who control large swaths of the market. In the past, the agricultural market was limited to or at least mostly included farmers and people involved in food production (Chadwick 2017, 631). Now, most of futures trading is done for investment portfolios. Thus, investors

influence and profit from these sectors without being directly involved (Clapp 2015, 311). Through investment in a variety of food system components, financialization transforms the production of food and food itself into financial products or assets. Since these efforts were made in order to benefit the economically powerful, uneven development occurred across the world and thus helped to create and maintain third world nations, poverty, and inequities in food access. While recently-enabled speculation in agriculture enriched some, others suffered under these policies.

The liberalization of finance and agriculture through neoliberal policy decisions have forced countries in the Global South to become dependent on international commodity markets for access to food, and as a result, they experience food insecurity based on market changes. This is particularly true for poor communities of low-income countries (Chadwick 2017, 629). For example, during the boom in agricultural investing, food prices across the globe increased by 83% from 2005-2008 (Lawrence 2017, 780-1). This price increase affected the poorest in the world the most, as they depended on imported food that became unaffordable. During the global food crisis of 2007-2011, food prices not only hit historic highs in 2008, but they also rapidly deflated in 2009, which had disastrous effects on small farmers and laborers who relied on agricultural revenue for survival (Chadwick 2017, 629). These small-holders do not have subsidy protections like large corporate farms in wealthy countries do, who are seemingly too big to fail and directly benefit from the CFMA and other policies of liberalization such as indexes and speculation. This speaks to the socialized risk that neoliberal policies within the financial markets and agriculture create, through price volatility in this case. Uneven development is reflected in these scenarios wherein populations who were already poor ended up bearing the

brunt of high food prices and food insecurity; meanwhile wealth was concentrated in already-wealthy countries during the food crisis.

Financialization distorts the food system by prioritizing investment opportunities over food as a basic human right. Spurred on by financialization, commodities now derive their value from the price of derivatives, when it should instead be the exact opposite – commodity derivatives are supposed to derive value from the underlying assets (Chadwick 2017, 631). This distortion allows for large-scale, long-term investments into agricultural sectors through avenues such as pension fund investments or university endowments (Clapp and Isakson 2018, 439-40). The driving factor behind the fact that investment avenues are held in higher regard than food as a right is neoliberalism. Neoliberalism puts ‘faith’ in both the market and corporations to respond or act responsibly in society, and that is simply not how our capitalist system functions. Without regulation, which neoliberal policy avoids, capitalism will continue its growth trajectory in a way that maintains historically inequitable social consequences.

Large and economically-powerful companies within the agri-food sector also benefit from utilizing both hedging and speculation (enabled by the CFMA) to minimize business risk and increase their profits. This is the case with the world’s largest group of grain traders, known as ABCD (Archer Daniels Midland, Bunge, Cargill, and Louis Dreyfus) (Lawrence 2017, 781; Clapp and Isakson 2018,443-45). Some of these large agribusinesses own their own hedge funds, as is the case with Cargill and Louis Dreyfus (Chadwick 2017; Salerno 2017; Clapp and Isakson 2018). Cargill has a subsidiary company called Black River Asset Management LLC, which specializes in commodity derivatives trading (Chadwick 2017, 645; Salerno 2017). Louis Dreyfus also owns a hedge fund, called Alpha, that prioritizes agricultural investments, including farmland (Clapp and Isakson 2018, 444). This combination of owning the food commodity itself

and speculating in the market with their own capital further concentrates power among a few corporations. Through these processes, modern financial markets reproduce uneven development through financialization, profiting from volatility, no matter the negative impact on human lives.

The problem of financialization of the food system exists in reverse order, as well, whereby financial institutions influence agricultural industry. Popular and powerful asset management firms (e.g., Blackrock, Vanguard, Fidelity) have significant equity in six of the most powerful agricultural seed and chemical companies (Clapp and Isakson 2018, 445-446). These comingled interests lead to mergers and power consolidations (Clapp and Isakson 2018). This power and wealth concentration is, in part, a result of neoliberal policy decisions that deregulate the market, such as the CFMA, and exacerbate uneven development in the economy that concentrates power and socializes risk, especially among those with less market power.

Neoliberalism and deregulation play a large role in financialization. The U.S. functions under the guiding force of neoliberalism, and this is especially visible in policy decisions that favor increasingly deregulated financial markets across the globe. Neoliberal policies such as the ones identified in this Capstone are sold as fair and common-sense methods to ensure an equitable arena in the economy and society, in general. In reality, they create inequitable consequences as described above, which negatively affect those most vulnerable in society with little to no regulation, and result in the concentration of power and wealth upwards. In order to remedy the social problem of financialization of the food system, the global economy must be radically restructured to protect humans from the socialized costs of global financial markets that benefit the already powerful. This CRQ's findings contribute to my ORQ by addressing the policies that drive it and their consequences. The next CRQ will address the political aspect of my ORQ.

CRQ 2: Politics - In what way does U.S. and global political discourse involving food system policy decisions support or disrupt financialization?

CRQ 2 responds to the research problem by analyzing how political discourse enables financialization. In answering this question, I focus the first section on the discourse surrounding an economic policy decision of 2000 called the Commodity Futures Modernization Act (CFMA), which greatly impacted the global food system. The second section of CRQ2 reviews discourse associated with the United Nations' Food and Agriculture Organization, a powerful voice in global decision-making processes, as they pertain to food system issues and financialization.

Commodity Futures Modernization Act Discourse.

I found that relatively little political discourse about the deregulatory policy decision of the CFMA emerged publicly in 2000. I suspect this is because the CFMA bill was snuck into a larger 11,000-page Congressional conference report at the end of the year 2000 during a lame duck session (Blumenthal 2011; Smallberg 2014). This part of my CRQ will reveal and analyze discourse from a few governmental members involved with the CFMA.

Very little opposition emerged in discourse involving the CFMA, with one notable exception. In the two years leading up to the CFMA bill introduction, Brooksley Born, Chairman of the Commodity Futures Trade Commission at the time, fought for derivative regulations. Born memorably stated that "An unregulated derivatives market could pose grave dangers to our economy" (Blumenthal 2011). Her efforts, however, were opposed and derailed by finance and government officials from both Democratic and Republican Parties (Blumenthal 2011; Smallberg 2014).

Born left her post willingly as the head of the Commodity Futures Trade Commission (CFTC) in 1999 and was replaced by William Rainer, who was sympathetic to the neoliberal cause of deregulation (Blumenthal 2011). As a result, the path was clear for the President's Working Group on Financial Markets to publish a report calling for "no regulations" on derivatives (Blumenthal 2011). Meanwhile, Republican Senators and Representatives, led by Rep. Thomas Ewing, began the work on crafting deregulatory language that would become the CFMA (Blumenthal 2011). While it is not clear whether chairman William Rainer spoke publicly in favor of the CFMA, it does not appear he made attempts to wrangle any amount of regulation from the Trade Commission or Congress in the way his predecessor did.

The CFMA bill was purposefully hidden in a massive document with little time for review in an era where the public was distracted with a presidential election. Thus began the deregulation of futures markets and expansion of the reach of financialization, which included aspects of the food system, as it was tied up in financial markets. Deregulatory efforts had support from both Republicans and Democrats, and important members of the Clinton Administration, such as Treasury Secretary Robert Rubin and later, Treasury Secretary Larry Summers (Block 2009; Smallberg 2014). In emails obtained by the Project on Government Oversight, a senior advisor on Clinton's National Economic Council, Sarah Rosen, decried the Treasury Department's position that a CFTC proposal for discussion of regulation would be too harmful to the market by saying, "By this argument, we could never discuss possible regulation of any market because it might chill the market in anticipation of what the regulator 'might do'" (Smallberg 2014). Importantly, statements against major efforts to deregulate derivatives markets were made rather quietly, through internal email exchanges. While Republicans introduced the CFMA and fought for it in Congress, Democrats silently voted for it (Blumenthal 2011).

Deregulation was not without more overt supporters, however. Alan Greenspan, chairman of the Federal Reserve, had great influence in Congress and through his public discourse was crucial in ensuring that the CFTC was stripped of regulatory powers (Goodman 2008). This paved the way for the CFMA to pass. Greenspan worked tirelessly as a proponent of market self-regulation, insisted on faith in financial markets to act responsibly, and appeared unwilling to entertain conversations of regulation (Goodman 2008). Greenspan's talking points reflected the position that market regulation was an adequate form of regulation. For example, he once said, "Risks in financial markets, including derivatives markets, are being regulated by private parties...there is nothing involved in federal regulation per se which makes it superior to market regulation" (Goodman 2008). A Capitol Hill aide was once quoted, when speaking of Greenspan's perspective, that he "viewed the derivatives market as akin to 'the way the Europeans once viewed the New World. It was a virgin market. A beautiful, unregulated, free market.'" (McLean and Nocera 2010, 97).

Discourse among government officials shows that while there was some pushback to deregulation, silence served as a powerful form of political discourse in allowing for policy action without impediment. Ultimately, political discourse does not have to be loud, overt speech that states explicitly who fights for what; it can exist as silence while action occurs. In this case, silence ultimately supports neoliberal ideologies of unfettered capitalism, deregulated markets, and a lack of governmental intervention in the economy. These actions and the accompanying political discourse lead to a concentration of power and wealth in corporations and people who control, and have the ability to participate in, the markets. Concurrently, those with little socioeconomic power are left to suffer the negative consequences of price volatility and food insecurity. While the discourse and silence of U.S. governmental members influenced policy

decisions related to deregulation, global organizations such as the Food and Agriculture Organization of the United Nations (FAO) also contribute to policy discourse.

FAO Reports.

The second component of research findings for CRQ 2 reports on and analyzes discourses from the FAO, a United Nations agency whose aim is to attain food security and access to healthy food for all people. The agency often releases reports on food security across the globe, identifying issues that affect food security and suggesting points of intervention. This analysis focuses on three reports from the FAO.

The first report analyzed is an FAO report from 2008 titled “Soaring Food Prices: Facts, Perspectives, Impacts and Actions Required” which advocates for policy responses to soaring food prices. They recommend short-term mitigation of the effects of the price boom through a consumer-driven shift to cheaper foods. FAO (2008) states, “Clearly these effects can be mitigated by the extent to which consumers are able shift consumption towards less expensive foods” (31). Additionally, they suggest implementing carefully designed emergency social safety nets that do not impede the private sector because “it is crucial that safety net programmes do not impede the formation of a private marketing sector by driving out nascent, indigenous, private sector input suppliers” (FAO 2008, 44-45). This report’s proposed short-term policy responses emphasize consumer responsibility and business growth opportunities.

The FAO (2008) also calls for longer-term policy responses. They suggest an increase in sustainable technology used for intensification of agriculture by “generating and enabling farmers to apply sustainable technologies for agricultural intensification that will continue to meet the food needs of future generations in the face of rising population and effective demand,

tightening availability of land and water resources, and increased risks associated with climate change processes” (43). Further, they posit that more investment in agriculture will improve the functioning of markets by stating that “there is ample scope for substantial increases in agricultural production and productivity” and “support needs to focus particularly on enabling poor rural producers – those least able to respond to changing market signals – to expand their production and marketed supply” (FAO 2008, 46). There is very clearly a focus on productivity across the agricultural sector and adoption of intensification practices by poor producers.

Overall, this report exhibits a stance that discourages governmental intervention by using anti-tax language and negating the possible effectiveness of market regulations. In summary, the FAO (2008) suggested consumers adapt purchasing strategies in response to rising food prices, agricultural industry be protected from price volatility, and agricultural production increased in ways that do not disturb underlying and inequitable distribution of resources and opportunities in the food system.

The second document analyzed is an FAO policy brief from 2010 titled “Price Surges in Food Markets”. In it, the organization addresses futures markets and speculation by examining the impact they may have had on the food pricing increase of 2006-2008, as well as speculates on the effects of regulations to mitigate problems. The brief highlights competing hypotheses over whether or not speculation in commodity futures affects pricing. It reveals that some economists claim that futures markets provide a “stabilizing effect” and posits that through the stabilizing effect, “speculation would even accelerate the process of finding an equilibrium price” (FAO 2010). Conversely, the report provides an opposite viewpoint from an economist who asserts that increased investment in avenues such as index funds distort prices because the commodities are no longer tied to accurate information about actually-existing commodities

(FAO 2010). This is due to the fact that index funds invest “large amounts of money” and “hold futures contracts for a long time” which may make them “less likely to react to changes in market fundamentals” (FAO 2010). Ultimately, the FAO concludes that “empirical evidence for both hypotheses is inconclusive” (2010). Therefore, they recommend that rather than banning speculative trading, a proper response would be to improve transparency of trading and investigate suspicious behavior, adding that commodity futures are now integral to food markets (FAO 2010).

In 2011, a large policy report called “Price Volatility in Food and Agricultural Markets: Policy Responses” addressing food and agricultural market price volatility was released by a group of transnational organizations comprised of the FAO, the World Trade Organization, the World Bank, the International Monetary Fund, the International Fund for Agricultural Development, the Organisation for Economic Co-operation and Development, the United Nations Conference on Trade and Development, the World Food Programme, the International Food Policy Research Institute, and the UN High Level Task Force on Global Food and Nutrition Security. In this report, the group identifies possible causes of the systemic food issues of the time and suggests policy responses. The authors concede that investments in agricultural derivatives increased greatly in the mid-2000s (FAO 2011, 11), but point out the disagreement surrounding what role financial speculation and investment in financial derivatives markets played in price volatility. They do, however, emphasize the perspective that speculation in derivatives could be helpful, saying that “well functioning derivatives markets for agricultural commodities, could play a significant role in reducing or smoothing price fluctuations – indeed, it is one of the primary functions of commodity futures markets” (FAO 2011, 11). The authors (FAO 2011) assert that more research is needed to “assist regulators in their reflections about whether

regulatory responses are needed and the nature and scale of those responses” (21) before positing a response in the realm of market regulation.

The report asserts that agricultural futures markets now function as asset classes for investors and that this development is beneficial, along with speculation, as they benefit commercial hedgers (FAO 2011, 21). Commercial hedgers are organizations that utilize derivatives to secure the price of specific commodities used in their businesses (Chen 2021). The authors (FAO 2011) state that speculators absorb price variation risks and “by doing so, they provide the market liquidity which enables commercial hedgers to find counterparties in a relatively costless manner” (21). They suggest that higher agricultural prices might be influenced by, among other causes, rising oil prices via investment in indexes that contain multiple commodities in the same basket (FAO 2011, 9). Together, these suggestions indicate an unwillingness to assign blame to speculation in agricultural derivatives and support for those who engage in it.

Prominent policy measures proposed by the group as a means to address price volatility are to increase investments in “agricultural productivity and growth” in low-income countries and investment in a trust fund managed by the World Bank which seeks to mitigate food insecurity and the effects of climate change on agricultural processes (FAO 2011, 14:16). The group (FAO 2011) insists that “investing in agricultural productivity growth and resiliency in low income countries is paramount to addressing local food price volatility” (14) and that “private sector investment also needs to be encouraged at all stages in the value chain” (15). With regard to the trust fund, the authors (FAO 2011) insist there is a need to “increase and sustain the financing of such bodies in order that they may continue to invest today in the techniques and innovations that will be needed to deal with the food security and climate challenges” (16).

Additionally, they stress the necessity of private sector investment throughout the entire food system because it will allow for “private sector actors...to respond more profitably to rising prices” along with generation and adaptation of better technologies as “priority interventions” (FAO 2011, 16). The discourse surrounding possible policy measures to mitigate price fluctuations relies heavily on funneling money into agriculture investments that focus on increased production methods and profitability for already-powerful food system actors.

There is irony in the discourse among the most powerful organizations across the globe. It suggests that low-income countries adopt production-intensive practices, investments in which likely contributed to a global food crisis that was exacerbated by policy decisions to open up financial market to more investment avenues. Still, organizations such as the FAO call for an increase in investments and prioritize technology generation, but mention little about changing economic policies that they admit might have contributed to the global food issues in the first place. When viewed through the conceptual framework of neoliberalism, it seems there is an effort to rope more countries into the ever-churning machine of capitalism, in addition to increasing monetary and technological participation of countries already heavily involved, because that is what will continue to sustain the powers that currently benefit from this system.

Each of the three reports analyzed here indicate that the FAO upholds neoliberal ideologies that lead to inequitable access to food, while claiming their purpose is to ensure food security. Even in the aftermath of a financial crisis that resulted in food price volatility and food insecurity, loyalty to ideology wins out against policy decisions that would be beneficial to societal health. This is particularly evident in the lack of discourse on the benefits of re-regulating markets in the economy, a complete absence of transformational economic language, and an emphasis on consumer responsibility.

It is in this discourse that the economy and economic relationships are produced and reproduced. The economy does not exist outside of and separate from the study of economics, as many of the references to economists' positions on futures trading would suggest. Economists help to produce the economy, rather than *only* objectively describe it (Mitchell 2006, 1116-7). Often, an economy is formed in support of a technology's creation and advancement, rather than as a response to market demands (Mitchell 2006, 1118-9). This ties directly to the social problem of financialization, as financialization of the food system is not a natural occurrence, but rather is a result of social processes that have led to the development of independent sectors and the creation of investment opportunities. This CRQ addresses the politics aspect of my ORQ by analyzing how political discourse frames and responds to social problems, such as through the lens of neoliberalism. The following section will explain the contribution of this Capstone research to society.

Contribution

This section reviews the contribution of this Capstone's research to social justice in food systems and society. I rearticulate my social problem, research problem, and overall research question. Then, I discuss how my CRQs address my ORQ and social problem. I explain how this research and analysis contributes to the work of social justice through a better understanding of financialization in the food system. To conclude, I suggest directions of future work.

The goal of this Capstone research is to respond to the social problem of financialization of the food system, articulated in my Background and Significance chapter. I identified financialization of the food system as a social problem because it transforms food into an asset class and decouples it from its use value of consumption, which ultimately results in power and wealth concentration along with social harms and food-access inequities. My research problem

addresses an aspect of the social problem of food system financialization, focusing on how policy and political discourse facilitate the processes of financialization. In order to respond to my research problem, I created the overall research question (ORQ) which asks: How do U.S. and global policies and politics facilitate or disrupt food system financialization and concentration? Both of my constitutive research questions address a different aspect of my ORQ, policy or politics, and in turn, help to address my research problem. Understanding how financialization is facilitated can help to address its negative effects by highlighting possible points of intervention such as policy changes. The data generated from my CRQ research add more information and context, which contribute to an understanding of the social problem of financialization.

This Capstone contributes to social justice within food systems and society. It does so by providing an analysis of the development of financialization through both policy and political discourse. This research culminates in a better understanding of the policy background that shaped the coupling of finance and food. It does so by reviewing specific policy decisions that enable and uphold financialization while increasing wealth concentration for few, and disadvantaging many. It also provides an overview of how discourse and resulting policy are often shaped by political powers for the benefit of a select few in society. Prominently, government officials and transnational organizations such as the FAO influence policy decisions through discourse. This information allows us to better determine the next steps to take towards social change through an understanding of historical and contemporary policy decisions and political discourse.

This analysis and understanding leads me to several recommendations for future work. First, financialization should be clearly positioned as a cause of food system inequity and food

insecurity. Although deregulation directly involves financialization as the latest extension of neoliberal policies, and financialization leads to food security issues, most current policy recommendations and discourse do not address food insecurity in a way that positions financialization as a cause. Critiquing broad neoliberal policies *and* specific food policies influenced by neoliberalism will be useful approaches to solving this social problem. Second, strict regulation of financial markets will help to reduce the concentrated power that currently exists in our economy and food system. However, it may be useful to research a complete alternative to our current market and food system and how that would function, since a central theme in a functioning capitalist system is that of booms, busts, and reforms, which continuously cycle and reproduce systemic inequities.

Third, this research suggests the importance of critically reflecting on and altering dominant understandings of the concept of economy. Financialization in the food system relies on our current concept of economy, in that many believe both the economy and financialization just *exist* without direct influence or purposeful creation. To many, it is only ‘natural’ to include agriculture-related sectors in investment funds and speculation, where natural refers to a hegemonic belief that everything that can be made profitable should be and will be eventually. If we rethink the economy and rethink food as a human right rather than as an asset class or input for industry, we could work towards social justice in the food system by decoupling food from the financial market. This would require reevaluating processes that many believe to be an unavoidable result of markets and economies as ‘natural’ objects.

Additionally, critical research should be done to analyze how politicians and people with political power on opposite sides of the political spectrum may support the same results, which concentrate wealth and power upwards. This research could contribute to changing public

discourse in order to be more accepting of economic and social policies that are inclusive and geared towards redistribution rather than concentration. This future work could increase social justice by identifying where in our societal structures intervention would be helpful in order to best redistribute power and wealth.

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This chapter focused on the results of my CRQ research and corresponding analyses. I restated elements of my Background and Significance chapter foundational to my research on social justice in food systems and society. I also suggested future directions for work suggested by this Capstone research. The next chapter, Conclusion, considers more broadly what I learned throughout my research and how this work applies to social justice and change.

Five—Conclusion

In this chapter, I summarize crucial realizations involving the influence that epistemologies have in framing or revealing social problems. To do so, I address the role that critical inquiry plays and emphasize how hegemonic ideologies influence societal norms and my own approach to research. I conclude by stating how societal structures are shaped and reinforced by power, which often leads to oppression and manifests in policy decisions.

While conducting this Capstone research I realized there is an epistemological divide among disciplines, rather than gaps in knowledge, in considering how societal problems should be addressed. Different schools of thought or fields have their own interpretations of what is “knowable” and how, and this shapes discourse. For example, as was revealed in my research, economists disagree on the extent to which speculation influenced price volatility, which in turn influences what they consider ‘knowable’ and thus addressable in relation to the problem. Since financialization and speculation could not be conclusively determined the causes of food price volatility and insecurity, its role could not be addressed. Examples such as this reverberate throughout the food system and shape how problems are acknowledged and defined in addition to what research is funded and what policies are developed.

Critical inquiry provides a unique opportunity to better address these problems by reflecting on, observing, and then challenging dominant epistemological frameworks that permeate the world of economics and social thought. Critical inquiry offers ways of framing social problems relative to social justice and may help to merge fields that usually do not collaborate. For example, if an economist adopted a critical inquiry approach, they may be more likely to partner with a social scientist who can render systemic societal issues that influence

society and the economy ‘knowable’, and develop research that aims to alleviate root causes of social problems.

Another key insight from this research was learning that our assumed social reality is reinforced by dominant political powers and engrained social norms. This reality is often viewed as common sense or unalterable and relies on the acceptance of or subordination to hegemonic ideologies. I now have more tools and language to question frameworks or structures within the food system and society often taken as immovable norms, but are in fact be constructs. It is crucial then, to me, to question common-sense norms, of my own and others, that may be contributing to injustice. Creating positive social change can be initiated by imagining new and more socially-just realities.

Fourth, I now think more deeply about the underpinnings of our current societal structures and institutions and how they contribute to injustice in our food system. I learned more about the extent and depth to which colonial agriculture and western imperialism, have contributed to our global food system development and systemic oppression. Additionally, my approach to academics and work is now influenced by the ideas that hegemony, epistemology, discourse, and science are all relational and influenced by one another. In turn, they all have the potential to influence both social injustice *and* positive social change.

The lens through which I view science as a way of knowing things was challenged through my Capstone research. I realized the epistemologies of fields that are generally considered the “hard” sciences may contribute to the exclusion of social sciences being taken seriously in certain fields of research or gaining funding sources. I think this exacerbates social injustice in the food system because of a reluctance to include critical inquiry through a social justice approach in research and policy development. Evaluation of epistemologies and their

influence on problem framing is critical in the development of work that is geared towards challenging dominant frameworks and improving social justice.

My perspectives on the food system in relation to social justice and society were reinforced by what I learned about the role of power in politics and the development of policy. My research confirmed that many public policies in the food system and beyond are not influenced solely by what would actually benefit the public. Rather, there are many self-interested and powerful forces at play in decisions made in the world of politics and policy. The ideas surrounding how society, science, and social justice movements develop, function, and change can be fluid and influenced. That very knowledge should be utilized to continue asking questions about why things 'are the way they are' and to challenge dominant beliefs and frameworks.

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