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Financialisation and sustainable diets

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Introduction

Financial markets, financial actors, and financial motives shape food systems in important ways, and are enmeshed across all stages of food supply chains, though they are not always discernible to the average consumer. The recent development of farmland Real Estate Investment Trusts (REITS), wherein financial enterprises acquire parcels of farmland and pay investors dividends based on the associated rental and mortgage earnings, is one example of how the food system has become increasingly tethered to the world of finance. Another example is ACRE Africa, a micro-insurance enterprise that markets weather-based derivatives to small-scale farmers in the name of "climate proofing" their agricultural operations. At the consumer level, "buy now pay later" apps are expanding into grocery retail—where users pay a fraction of an item's purchase price at the till and spread out the remaining payments over several weeks. Though these examples may appear unrelated, they each demonstrate the growing influence of financial markets and players within food systems. They are part of the broader process of "financialisation," a concept that refers to the growing share of finance in the global economy, including food production, processing, and retail in ways that influence the sustainability of our diets.

The concept of financialisation gained attention at the turn of the 21st century. In arguably the most cited definition, Gerald Epstein (2005), defines financialisation as "the increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operation of the economy and its governing institutions, both at the national and international levels" (p. 3). After the 2007–2008 food crisis, during which dramatic spikes in world food prices coincided with rising financial speculation in agricultural commodities, food scholars began to explore the relationship between financialisation and sustainability outcomes in the food system (Burch & Lawrence, 2013; Clapp, 2009; Clapp & Isakson, 2018; Ghosh, 2010; Isakson, 2014). Scholars identified ways in which financial investments by large-scale institutional investors—such as pension funds, sovereign wealth funds, and hedge funds—were tied not just to food price volatility but also large-scale investments in farmland. These investments were widely criticised for harming farmer livelihoods and exacerbating food insecurity (Fairbairn, 2020; Sommerville & Magnan, 2015). The growing power and concentration of agri-food corporations is also, in part, fuelled by the growing power of financial actors. Shareholders often pressure corporations to merge or acquire new businesses to increase profits (Clapp, 2019). These strategies concentrate corporate control and increase big food and agri-businesses' leverage over producers and consumers, giving them power to dictate how and what food is produced (Howard, 2016).

As research on financialisation in food economies has deepened, researchers have further teased out the complex relationship between food and finance to identify ways to improve sustainability outcomes (Stephens, 2021). At its core, the literature on financialisation in the food system highlights the winners and losers so that those seeking to improve outcomes in our food systems can identify leverage points and advance more sustainable solutions. This chapter contributes to this literature by examining how financialisation of food and food systems impact the pace or path of sustainable diets. We demonstrate that pressures to maximise financial returns, coupled with the introduction of novel financial instruments that channel investment into food systems, encourage expanding the scale and deepening the industrialisation of food production while externalising costs. We also discuss how greater financialisation has further marginalised smaller scale sustainable production and distribution systems. Finally, by teasing out the dynamics of financialisation, we emphasise the need for public policies and collective action to ensure more sustainable diets, rather than solely viewing them as an individual responsibility.

In exploring these dynamics, this chapter draws on the list of characteristics and attributes of sustainable diets introduced in chapter one. As we delineate the ways in which financialisation ripples through the food system, it becomes clear that all five characteristics of sustainable diets are affected. By the end of this chapter, readers will have a greater grasp of how the rather abstract concept of financialisation touches on every link in the food supply chain with profound consequences on the sustainability of our diets.

Financialisation and sustainable diets

Often understood as a product of individual choice and responsibility, sustainable diets are being recast as a broader systemic issue—one that considers how diets are shaped by the industrialisation of food systems and the challenges that it poses for social and ecological sustainability (Lang, 2021). Because many of the financial instruments and incentives tied to food system activities have a tendency to encourage industrial practices, financialisation is a relevant focal point for those seeking to understand the forces contributing to unsustainable diets. Likewise, policies that address financialisation in the food system can work to promote more sustainable diets. This conceptual broadening of sustainable diets to include forces that influence a range of activities across food systems allows for linkages to be made between larger structural forces like financialisation and the multi-factor criteria of sustainable diets, as identified in the following:

The FAO defined sustainable diets as diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimising natural and human resources.

(FAO, 2012, para 3)

To begin to tease out some of the ways in which financialisation affects the sustainability of diets, it is instructive to follow the typical categorisation found in the scholarly literature on the ways in which financialisation reshapes economies in general. Specifically, van der Zwan (2014) identifies three general conceptualisations of financialisation, which Clapp and Isakson (2018) have applied in their analysis of financialisation in food systems: (1) The accumulation of capital in the agri-food sector is increasingly tied to financial activities rather than the actual production and trade of food; (2) the everyday activities of food provisioning are increasingly mediated by financial logics and products; and (3) the growing prioritisation of shareholder value by firms in the food system. Conceptualising financialisation in this way can be helpful in terms of grasping the breadth, depth, and complexity of financialisation in the food system. Below we elaborate on these categories and provide concrete examples of the ways that food systems have been shaped by these various aspects of financialisation through the lens of sustainable diets.

Capital accumulation via financial investment in food system activities

The food and agriculture sectors have become a growing target for capital accumulation in the last two decades, as part of a broader trend of rapid growth in financial investment since the 1980s (Greenwood & Scharfstein, 2013; Philippon, 2013). The growth of the financial sector means that corporate profits are increasingly generated through financial channels rather than through the productive activities of the trade and manufacturing sectors. Financial investment in the food sector grew sharply in the context of the 2007–2008 food and financial crises, as the agriculture sector was deemed by many investors as a "safe haven" for investment in an otherwise unpredictable economic climate. Rising and volatile world food prices at that time presented opportunities for speculative investment. Meanwhile, narratives of food scarcity drove up land and food prices further, signalling a potential for significant capital accumulation. These trends have worked to undermine the sustainability of diets.

Agricultural Commodity Markets

There is a long history between finance and agriculture, dating back to the origins of commodity futures markets in the 1600s. However, the nature of that relationship has changed considerably over time, trending in the direction of greater speculative activity. Neoliberal restructuring in the 1980s and 1990s, which included the loosening of regulations on participation in derivatives markets, allowed for the development of new kinds of financial investment vehicles, such as commodity index funds, that allow investors to bet on the direction of an index of commodity prices without having to own physical commodities. Demand for these types of financial investment products increased sharply in the early 2000s, creating upward pressure on commodity prices. The risks of allowing more speculative investors to participate in agricultural commodity markets were realised in 2007–2008 and 2011–2012 when world food prices rose sharply and compromised people's access to food, particularly those who spend a large proportion of their income on food (Clapp et al., 2021).

Though financialisation was one driver of the food crisis, it was not the only one. Other factors like poor wheat harvests at the time and greater demand for biofuels also contributed to rising prices (Jarosz, 2009). The dominant narrative tended towards productionism, a philosophy that takes production as the "sole norm for ethically evaluating agriculture" (Thompson, 2005). Thus, rather than reining in speculative financial investment in agricultural commodity markets in the wake of the crisis, governments sought to remedy the situation by increasing agricultural production and supply in a bid to put downward pressure on food prices (Clapp et al., 2021). They did so by encouraging greater private sector investment in agricultural production, which even further tightened the link between financial actors and food systems. The private sector responded by channelling investments into speculative financial activities like agricultural commodity markets and farmland, contributing to greater financialisation in the food system. Indeed, some argue that "the 2007–09 food crisis can be seen as a key moment when financialisation became more deeply entrenched in the food system" (Clapp et al., 2021, p. 275). This entrenchment has created a more vulnerable global food system, one that is characterised by greater corporate control and an undermining of states' role in safeguarding food security, as became apparent with the disrupted food supply chains during the COVID-19 pandemic (Clapp et al., 2021).

Unstable and rising food prices present obvious challenges for food security. Particularly for poor consumers, an increase in food prices can have devastating impacts on a family's ability to feed itself. In this context, financialisation compromises the sustainable diets requirement of being economically accessible.

Farmland Acquisitions

The 2007–2008 spike in world food prices helped to give rise to the so-called "farmland rush" that began capturing headlines in 2008. Hoping to capitalise on the perceived scarcity of food while also seeking refuge from falling asset values elsewhere in the global economy, financial actors of various stripes developed and invested in a growing array of farmland-based investment vehicles.

Most investments in farmland have been concentrated in the "developed" countries of North America, Australia, and New Zealand. Yet investors have also channelled significant funds into Brazilian farmland and other so-called "transition" countries in South America, Africa, and Eastern Europe (Cotula, 2012). These investments have been facilitated by the creation of a variety of novel investment vehicles in recent years, including private equity funds that specialise in farmland investment, publicly listed farming ventures, farmland-focused REITs, and "crowdsourced" fractional investment platforms (Fairbairn, 2020).

The emergence of these new investment vehicles and the flow of funds into them have been facilitated by regulatory changes over the past two decades that have loosened restrictions on farmland transactions and ownership. At the same time, financiers' ability to access land is often predicated upon the hardships faced by contemporary farmers. Confronted with rising input prices, increasingly adverse weather, unpredictable commodity prices, the erosion of social benefits, and growing debt burdens, studies suggest that the farmers who transfer their land to investors are generally forced to do so by adverse socio-economic conditions (Clapp & Isakson, 2018; Ouma, 2020; Sippel et al., 2017; Sommerville & Magnan, 2015). Meanwhile, the influx of deep-pocketed investors has driven up farmland prices in many markets, making it prohibitively expensive for existing producers to expand their operations and pricing the aspiring-farmers, particularly those interested in labour-intensive agroecological practices, out of the market. (Desmarais et al., 2017; Magnan & Sunley, 2017; Rotz et al., 2019).

The recent flood of investment in newly developed farmland-based financial products has changed how agricultural producers relate to the land, heightening pressure to maximise returns. In order to squeeze returns sufficient to satisfy fickle investors out of higher-priced farmland, many investment funds have pushed for the intensification of industrial agricultural practices, which are harmful to life enhancing ecosystems. In their rush to generate immediate returns in Eastern Europe and South America, for instance, publicly listed farmland companies deployed cookie-cutter industrial practices that were poorly-suited for local environmental conditions (Kuns et al., 2016; Sosa Varrotti & Gras, 2021). In Canada, financial landlords prefer to rent their lands to the most capitalised farmers, whom they believe have the most potential to pay high rental fees. Not surprisingly, farmers on rented land have expanded cultivation into sensitive environments in order to maximise returns while opting for short-term fixes like the increased application of fertilisers over longer-term investments in soil health (Rotz et al., 2019). Growing financial control over farmland is also associated with less diversity on farms, especially in a limited number of globally traded "flex crops" like oilseeds, corn, and sugarcane that can variously be used as animal feed, biofuel feedstock, or as a handful of the so-called "ingredient crops" that make up the bulk of the highly processed foods on supermarket shelves (Borras et al., 2016; HighQuest, 2010; Rotz et al., 2019).

Financial priorities increasingly shape everyday agricultural and food provisioning activities

Individuals increasingly rely on financial tools and services to achieve the everyday activities of economic provisioning and are progressively motivated by financial incentives in their daily lives through mass marketed tools such as apps for credit and stock-trading. As states and employers scale back social programs and benefits, individuals are increasingly tasked with managing their own security through individual retirement savings and private insurance. This downloading of risk onto individuals is also prevalent in the food and agriculture sector as the neoliberal roll-backs of state support for agricultural producers exposed farmers throughout the world to new risks (Martin & Clapp, 2015). Since the early 2000s, there has been a proliferation of derivative products that purportedly empower farmers to manage the everyday risks of agricultural production (Clapp & Isakson, 2018). Likewise, as workers' wages have remained stagnant in many contexts, food retailers are increasingly providing financial products like credit cards and other banking services that facilitate food purchases. While such products may improve immediate access to food for cash-strapped consumers, the following examples demonstrate how they also contribute to growing levels of household debt and introduce risks that can affect people's ability to access healthy food over time.

Index-based agricultural insurance

Farmers face innumerable risks, some of the more obvious ones being price uncertainty and inclement weather. Recognising the unique value of the food and agriculture sectors to their populations, governments around the world have traditionally intervened in commodity markets to ensure more stable domestic prices and provide safeguards against severe weather events (Martin & Clapp, 2015). However, under neoliberal restructuring governments throughout the world have scaled back their involvement in the sector while market-based approaches have been rolled-out as the preferred approach to agricultural risk management (Clapp & Isakson, 2018). Index-based agricultural insurance (IBAI) is one such market-based tool. Even though it is called "insurance," IBAI is more appropriately understood as a derivative: Indemnity payments are not based on the actual losses that farmers suffer in their fields, but rather an index of environmental measures (e.g., quantity of rainfall) that are *correlated* with agricultural performance. In practice, the correlation between indices and agricultural outcomes can be quite weak, meaning that farmers still bear substantial risks. Nonetheless, IBAI products have been widely marketed to small-scale and poor farmers throughout the Global South for over a decade.

Proponents maintain that IBAI improves poor farmers' access to insurance since it eliminates the need for costly practices like field-level assessments. The lower cost of IBAI, however, comes with reduced security for farmers. An inherent risk of IBAI is that policyholders might suffer losses in their fields, yet weather measurements may not be sufficient to trigger an indemnity payment. Nonetheless, the promise of security that IBAI proponents promote may encourage farmers to take on additional risks that could have the paradoxical effect of exacerbating their vulnerability while simultaneously threatening sustainable diets (Isakson, 2015; Müller et al., 2017). Studies in Kenya (Sibiko & Qaim, 2020), Ethiopia (Vargas Hill & Viceisza, 2012), and Ghana (Karlan et al., 2014), for instance, have linked IBAI with the increased use of chemical fertilisers and other agrichemicals that can compromise soil and water quality. Moreover, a growing number of IBAI products encourage farmers to adopt commercial inputs by bundling insurance contracts with agricultural loans or the purchase of hybrid seed varieties that are less adaptive to environmental change (Mercer et al., 2012). While such changes may contribute to short-term increases in farmers' incomes and agricultural yields, they also increase dependence upon purchased inputs and compromise the functioning of agricultural ecosystems. Thus, the financialisation of the everyday practice of agricultural risk management may very well exacerbate the vulnerability of marginalised agricultural producers to economic and environmental shocks, thereby hindering progress on sustainable diets.

Grocery credit

Big grocery retailers are becoming some of the most powerful actors in food supply chains and have expanded into financial services, which is impacting the way people buy food as well as the types of food that they have access to (Burch & Lawrence, 2005). Large grocery retailers are increasingly offering banking services, mortgages, prepaid debit cards, and credit cards linked to loyalty programs. Retailers view these services as fulfilling a societal function as they benefit populations that are typically underserved by mainstream banks (Clapp & Isakson, 2018). However, the expansion of these programs creates a risk that customers will become dependent on these retailers not only for their food supply but also for access to credit. Grocery retailer credit and loyalty schemes also incentivise consumers to purchase their food exclusively from supermarkets, which tend to stock more processed and packaged foods than traditional markets and therefore influence the types of food consumers eat (Hawkes, 2008).

One of the more recent developments in financialisation of grocery retail is "buy now pay later" (BNPL) schemes. Unlike credit cards, there is no interest on borrowing for BNPL schemes, although they do charge late fees on late payments (Cooke, 2022). BNPL schemes initially emerged to provide credit to users for large, one-off expensive purchases. However, they have recently branched into the food sector. Zilch is one such company that offers BNPL plans, which explicitly encourages users to purchase highly processed foods such as Sainsbury's pizza (Cooke, 2022). This peculiar form of financialisation has the potential to encourage the consumption of unhealthy ultra-processed foods high in salt, sugar, and fat in addition to further fuelling consumer debt, which could threaten people's access to food over time.

The prioritisation of shareholder value

A third category of financialisation relates to shareholder value and pertains to the ways that financial pressures encourage companies that operate across food supply chains to prioritise decisions that will maximise profits for their shareholders. The shareholder revolution arose in the 1980s and tied firm performance to the compensation of executives through stock options. By the late 1990s, the shareholder value model of corporate governance became conventional wisdom and spread around the world, gaining prominence not only in North America but also Europe, Japan, and emerging economies (Blair, 2003, p. 56). As shareholders receive their dividends quarterly, this model tends to result in more short-term value creation rather than long term investments in innovation (Schmidt, 2016). As this section explains, the prioritisation of shareholder value has serious implications for sustainable diets by encouraging firms to undertake strategic decisions that undermine food system sustainability.

Ultra-processed foods

Financial pressure on food manufacturers has informed the quality of food made available to consumers (Clapp & Isakson, 2018). Firms are attempting to increase returns in multiple ways. One way to create "value-added" is through processing and ultra-processing food. Ultra-processed foods are defined as

> industrial formulations made entirely or mostly from substances extracted from foods (e.g. oils, fats, sugar, starch and proteins), derived from food constituents (e.g. hydrogenated fats and modified starch), or synthesised in laboratories from food substrates or other organic sources (e.g. flavour enhancers, colours, and several food additives used to make the product hyper-palatable).
>
> (Baker & Friel, 2016; Monteiro et al., 2019)

These foods tend to be high in fat, salt, and glycaemic load and are designed to promote consumption (Baker & Friel, 2016).

In his exposé *Salt, Sugar, Fat: How the Food Giants Hooked Us*, Michael Moss (2014) demonstrated how demanding shareholders have pushed for the production of unhealthy ultra-processed processed foods. He recounted, for instance, how, under pressure from health advocates and government regulators, Campbell had spent several years working to reduce the sodium content of its soups. Yet in 2011, amidst falling share values and complaints from stock analysts, the company hired a new CEO who assured shareholders that she would boost sales by increasing the salt content of their soups. Her announcement earned the praise of financial analysts and immediately boosted the company's share value. The moral of the story is that financial actors want consumers to remain "hooked" on ultra-processed foods that may generate higher returns to shareholders but are also associated with the growing incidence of obesity and diet-related non-communicable diseases around the world (Baker & Friel, 2016).

Supermarketisation

One of the primary strategies big agri-food organisations have taken to maximise shareholder value is via mergers and acquisitions, which have led to a smaller number of powerful corporations dominating the food value chain. As noted above, food retailers in particular have increased their prominence in recent years and are in a uniquely powerful position as they are positioned between consumers and producers (Howard, 2016). The huge size of many food retail firms provides them with considerable influence over the price and quality of food produced. Burch and Lawrence (2005) outline strategies that retailers employ to maximise shareholder value that also undermine the availability of sustainable diets: (1) They streamline sourcing by reducing the number of suppliers; (2) they cut back on labour and increase workloads; and (3) they scale back on their sustainability commitments.

Mergers and acquisitions in grocery retailing have taken place not just in industrialised countries but also in lower and middle income countries, spurring a "supermarket revolution" in the latter, where supermarkets are rapidly replacing more traditional open-air and smaller scale markets (Kimenju, 2014). This supermarketisation is influencing diets in these regions in profound ways. Supermarkets tend to supply more highly processed foods, often in larger packaging sizes than what is available in traditional retail formats like wet markets and smaller shops. A growth in supermarketisation can marginalise smaller purveyors who often sell their products in open air markets, impacting livelihoods along the food supply chain.

Supermarketisation has been identified by analysts as a major force in the nutrition transition that is occurring around the world towards more energy-dense and processed foods (Baker & Friel, 2016). The financial pressures driving supermarketisation as a means to satisfy shareholders' desire for investment returns continues to spur mergers and acquisitions in the sector. In 2017, for example, the hedge fund Jana Partners acquired a majority share in the North American grocery chain Whole Foods and, in a successful bid to generate immediate returns on its shares, engineered Whole Foods' acquisition by Amazon. While the change in ownership reportedly netted Jana Partners some US $300 million in profits, analysts have reported a decline in the quality and service of the grocery chain, while it shifted away from local suppliers and focused more on national suppliers (; Banker, 2019; Bonazzo, 2018; Thomas, 2017). The grocery retail market is highly concentrated in most countries. In Canada, for example, the five largest grocery chains command over 80% of the food retail market (CBAN, 2020). As the grocery retail sector becomes more concentrated in many countries, these firms have considerable power to shape the kinds of food environments that are available to consumers. By encouraging more mergers and acquisitions in the sector, financialisation is an important driver of detrimental dietary shifts worldwide.

Conclusion

This chapter has mapped out the key ways in which growing financialisation in food systems shapes the availability and accessibility of sustainable diets. The growing roles of financial actors, institutions, and motives in activities all across the food system have resulted in a number of specific dynamics that undermine sustainability. The development of new financial investment tools linked to the food system has increased the participation of speculative investors who are seeking to accumulate capital within the sector. The increase in this type of investment has been associated with higher and more volatile food prices that has placed healthy and sustainable foods out of the reach of many, as well as the global land rush that has displaced farmers and encouraged industrial agricultural production on a global scale. The rise of new kinds of insurance and credit schemes, for both farmers and consumers, by private actors at both the production and retail ends of the food system, have facilitated the entrenchment of financial incentives in daily life while also undermining sustainable food production and access to healthy and sustainable diets. Meanwhile, the prioritisation of shareholder value within large corporations that dominate food systems has encouraged both the growth of ultra-processed foods on offer as well as a global supermarketisation of food retail, both of which undermine the availability of healthy and sustainable food options.

This broader, structural perspective on the role of finance in food systems highlights that there are limits to focusing on individual responsibility for choosing sustainable diets. A wider view shows that broader forces beyond an individual's control, such as financialisation within food systems, can undermine both the availability and affordability of healthy and sustainable foods. These dynamics are not easily visible for average consumers, which draws attention to the need for wider public policies to address the ways in which such dynamics can weaken public health and sustainability. Such policies might include improved regulations to address the types of financial pressures driving unsustainable production and consumption patterns, such as placing regulatory limits on financial speculation on agricultural commodities and farmland (Clapp & Isakson, 2018). Other measures, such as encouragement of more alternative financial investment initiatives like impact investments that promote more sustainable food systems, can also reduce the pressures of mainstream financialisation that contribute to unsustainable diets (Stephens, 2021a). Impact investments are those that seek financial as well as measurable social and environmental returns. Some impact investors are focusing on the food system in an effort to improve sustainability, which could support transitions towards more sustainable diets. However, at present their contributions remain incremental at best as they only represent a small fraction of investments in the food system and do not challenge the structures of the dominant neoliberal regime (Stephens, 2021b). There is a need for more research into how financial investments can be reoriented to contribute to more sustainable diets.

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