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Towards a third food regime: behind the transformation

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Abstract Food regime theory focuses upon the dynamics, and agents, of change in capitalist food and farming systems. Its exponents have been able to identify relatively stable periods of capital accumulation in the agri-food industries, along with the periods of transition. Recently, scholars have argued that—following a first food regime based upon colonial trade in bulk commodities like wheat and sugar, and a second food regime typified by industrial agriculture and manufactured foods—there is an emerging third food regime. This new regime is one that is lead by global corporations that are profiting from the re-organisation of agri-food chains. The delivery of 'fresh/healthy' foods is one manifestation; another is the sale, by supermarkets, of ready-meals and other own-brand products. This paper argues that behind the movement to a putative Third Food Regime are changes to the financial system. 'Financialisation'—the increased influence of finance capital on the agri-food system—not only provides new opportunities for profit-making by hedge funds and private equity consortia, but also creates a situation in which agri-food companies, including food manufacturers, international commodity traders and supermarkets, may benefit. Supermarkets for example, are moving into banking, and are altering their role as they move from being retailers of products, into the provision of capital. Food regime theory needs to consider what lies 'behind' the transformation of food and fibre production, to examine not only the role of finance capital in re-shaping relations up and down the agri-food supply chain, but also investigating the tendency for agri-food capitals to seek profits from financial transactions.

Keywords Food regimes · Agri-food theory · Supermarkets · Financialisation · Fresh and healthy foods · Own brand foods

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Introduction

Recent discussions of food regime theory have reached an *impasse*, reflected in the numerous attempts to explain the transition from a second to a third food regime and to delineate the form and content of that putative regime. More than a decade ago Le Heron and Roche (1995, 1996) considered the emerging regime was one based upon the so-called 'clean and green' aspects of food—that is, freshness and 'naturalness'. For Pritchard (1998) the main characteristics were those of the international coordination of 'flows' of both commodities and of finance capital. Later, Friedmann (2005) wrote of the increasing power of the food retail sector's ability to restructure agri-food supply chains and argued that we are witnessing the growth of a 'corporate-environmental food regime', coinciding with the emergence of so-called 'green capitalism'. According to McMichael (2005, p. 294) this latter updating of food regime theory by Friedmann was one undertaken in 'politico-normative' terms. He asked social theorists to treat the food regime as 'a vector of the social reproduction of capital on a world scale, and as a lens focusing on the social fact of dispossession' (McMichael 2005, p. 294)—an

important focus, given evidence that the neoliberal food regime is increasing inequalities between the North and South (Pechlaner and Otero 2008). McMichael (2005) wrote that in a world where control of finance had moved beyond the nation state, investment strategies by bodies such as the IMF produced conditions for corporate access to new lands and peoples, stimulating profit-making but also producing social dislocation and environmental degradation. Any emerging regime would therefore be one exhibiting a central tension between the corporate imperative for global agri-food expansion and the desire of marginalised peoples for food sovereignty.

Despite these differing trajectories in food regimes theory and the criticisms raised by researchers such as Goodman and Redclift (1991) and Goodman and Watts (1994), the overall premise—that understanding the historico-political contours of different periods can help to explain the structures and processes of global food production and consumption (see Goodwin 2006)—remains intact. But what can be said that is new? What might help to overcome the apparent *impasse* in food regime theorisation? In 2005 we published a paper in which we argued that a third food regime was emerging on the back of a radical transformation of agri-food supply chains (Burch and Lawrence 2005). This involved a shift in the locus of control over the establishment and management of such chains from the manufacturing sector to the retail sector dominated by the large global supermarkets chains such as Wal-Mart, Tesco and Carrefour. This shift had resulted in a food system that was governed by a neoliberal mode or regulation, characterised by flexible production and the international sourcing of a wide and diverse range of food products on terms set by the international retailers, and increasingly organised around a set of concerns based on convenience, choice, health and 'wellness', freshness and innovation. Such products, including 'ready meals' and other convenience foods, were increasingly being marketed under supermarket 'own brand' (or private) labels rather than the brand labels of established food manufacturers. We also argued that, within this framework, the apparent polarities that had been adopted by some researchers as they attempted to understand and explain developments in the modern food system (for example, fast food versus slow food, organic versus conventional, natural versus industrial), were not ideal types in opposition, but were, instead, elements of a single food regime characterised by choice, diversity, flexibility, and a concern for health, freshness, convenience and other attributes desired by a variety of consumers.

This paper was largely descriptive, and only outlined a profile of a third food regime based on the leading role of the supermarkets; it did not *explain* how this came about, and certainly did not locate the transformation within a framework of food regime theory. Moreover, our acceptance of the view that supermarkets were the 'new masters of the food system' (Winson 1993) and the main locus of control in terms of the establishment and management of supply chains, tended to diminish the importance of new actors who were challenging the dominant role of the retail sector (see Burch and Lawrence 2007). It is clear, for example, that the food service sector—including not only the companies which supply foodstuffs to schools, hospitals, prisons, airlines and other public and private institutions, but also the restaurants which are increasingly providing meals away from home and the rapidly growing home delivery services which are increasingly doing the opposite—competes strongly with the supermarkets, in terms both of supplying final foods to consumers and of exerting influence over the supply chain.

Equally importantly, it has also become increasingly clear that the financial sector and private capital markets have become a major source of influence and control over the wider economy in most developed countries and, therefore, also over the activities of the global food system (Burch 2007). We now argue that, notwithstanding the financial crisis that began in the autumn of 2008, the activities of the banks, finance houses, insurance companies, sovereign wealth funds, private equity consortia, hedge funds, superannuation funds and other financial agencies—together with the disposition of the financial resources they control through futures markets, leveraged buy-outs, derivatives and other financial instruments—go beyond anything that has been seen before. The purpose of derivatives, in particular, is to escape tax regulation, standards of accountability and restrictions on investments (Braithwaite 2008). What we are now witnessing, we suggest, is a process of 'financialisation' in which finance capital is not simply underwriting the corporate control of land and resources overseas by companies in the agri-food supply chain, but is emerging as part of a wider process in which finance capital is directly and independently applied in a variety of ways—that is, in speculation as well as productive investment. Financialisation refers to 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 (Epstein 2002, p. 3).

As we seek to demonstrate below, all these aspects of financialisation have impacted significantly on the operation of agri-food supply chains of the leading industrialised countries and could advantageously be incorporated into a new explanatory model of the food system. In focusing upon financialisation, we hope to contribute to opening up

a pathway which will resolve some of the problems encountered in the wider debate about food regimes.

Our initial assumption is that a third food regime can only be adequately understood in terms of the operations and development of the wider capitalist system—of which the food system is but one component. Such an approach is reflective of the way in which the earlier analysis of the first and second regimes was conducted, where developments and changes contributed to a specific analysis of capitalist development at large and, more significantly, were understood in terms of, and contributed to, the recurring crises in the capitalist system. We therefore discuss the post-World War II developments in the wider capitalist system at some length, before applying this analysis to the agri-food system.

In summary, the questions we seek to address in this paper are:

(1) How can the analysis of the third regime be reframed in a way which is consistent with the earlier theoretical approaches to the first and second regimes, and which allows for the analysis of food regimes within a framework of capitalist development and crisis? and;
(2) Can such a framework deal effectively with the issues we have raised concerning the control and organisation of the agri-food supply chain, and the role in particular of financial agencies and instruments in explaining recent developments?

We emphasise that these questions are not yet fully answered. Nevertheless, we hope that this contribution will stimulate further discussion about the elements that need to be included in a composite analytical framework that seeks to reveal and explain the dynamics of change in the global agri-food system.

The decline of the second regime of accumulation

We take as our starting point the decline of the second regime and the developments within western capitalism which this set in train. How do we explain this decline and how do we begin to understand what followed? These issues need to be considered in some detail as they hold the key to the emergence of the third food regime.

Our main focus is on the experience of the UK and the US in the post-World War II era, and the decline of the 'Keynesian consensus'. In this context, we draw attention to a number of important and inter-related factors, in particular the decline in the rate of profit in the post-War period and the transformation in models of corporate governance, as causal factors leading to current processes of financialisation.

The decline in the rate of profit

In the aftermath of World War II, US and British capital faced major, but differing, challenges. The war had cost Britain dearly, not just in terms of lives lost, but also in terms of the destruction of physical and social infrastructure and a diminishing access to the international and imperial resources which had long underwritten British economic performance. The process of decolonisation revealed deep divisions within British capitalism between those fractions of (national and commercial) capital based on a declining imperial system, and the more globally-focused fractions which saw increased prospects for growth and new markets in the expanding European Common Market and beyond.

At the same time as different fractions of UK capital were attempting to come to terms with the new post-War loss of Empire, British capital as a whole was also facing the problems generated by the commitment to the welfare state and interventionist economic policies which were the core of the post-War Keynesian consensus. This issue was at the heart of the prescient study by Glyn and Sutcliffe (1972) entitled *British Capitalism, Workers and the Profits Squeeze* in which it was argued that, in the case of Britain, the long period of post-war stability based on the application of Keynesian economics, high levels of public expenditure, full employment, and a commitment to the welfare state, had created the conditions in which workers were able to gain significant increases in money wages and social income. While output overall was increasing as a result of the adoption of Keynesian policies, the share of income going to capital was declining relative to the share going to labour. There was, as a consequence, a squeeze on profits which, in an increasingly competitive global environment, British capital could not sustain and which could only be redressed by a major social transformation involving a shift of power back towards capital (Glyn and Sutcliffe 1972; Matthews 1998).

In Britain, attempts to reverse the declining rate of profits and to restore to historically-given levels the share of income received by capital involved a number of strategies. Among other things, there occurred a direct attack on the gains made by labour in the immediate post-war years. The mechanisms included restrictions on trade unions, the rolling back of the welfare state, reduced levels of public expenditure on social services, and a reduction in the scale and scope of public enterprises. All these elements were part of a neoliberal agenda exemplified by Thatcherite policies in the UK from 1979 (and with a somewhat different emphasis, 'Reaganomics' in the US from 1980) (Stilwell 2002). This neoliberal agenda was designed to remove the perceived fetters on capital accumulation and roll back the gains made by labour by disciplining the

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workforce via redistribution of wealth and income (Heynen et al. 2007). As Matthews (1998, p. 393) explains:

> The shift in bargaining power resulted from a combination of factors: from deregulation of capital markets allowing capital to migrate, from a growing reserve army of unemployed (especially in manufacturing and generally in reengineered sectors), from active government policies to reduce union power, from the increase in the potential working population, and from the insecurity of contracts.

While the adoption of a Thatcherite policy agenda in the UK was designed to reverse the gains made by labour it could not, and was not intended to, restore Britain to its former pre-eminence as a major manufacturing country. What it did, though, was to lay the groundwork for a renewal of British capitalism, this time on the basis of a strong financial sector and the dominance of that fraction of capital associated with the provision of financial services at the global level. As Friedland (2004) reminds us, of the three main components of production—land, labour and capital—it is capital that is the most mobile, and is more readily globalised. The process of financialisation, associated with enhanced capital mobility, is a key characteristic of the neoliberal regime of accumulation (Krippner 2005; Tickell 2006).

The same end point was also arrived at in the US, although via a different path. Krippner (2005) asserts that while US companies experienced a crisis in profitability in the 1970s resulting from labour militancy and growing international competition, this did not result in a direct attack on the organised labour movement or on working-class living standards, as occurred in the UK. Rather:

> non-financial firms responded to falling returns on investment by withdrawing capital from production and diverting it to financial markets (Krippner 2005, p. 182).

The best example of this is the transition of the General Electric Company (GE) from a major manufacturing concern in the electrical, aircraft engineering and consumer goods sectors, to a company with a major focus on finance. In 1980, GE generated 92% of its profit from manufacturing but, in the first quarter of 2008, GE's financial businesses, which include personal finance and commercial loans, accounted for 56% of the company's profits (*Wall Street Journal* 2008). In the US, then, the restructuring of 'non-financial companies'—defined as those companies engaged in manufacturing or the provision of services (but excluding finance, insurance and real estate)—differed from the experience of the UK manufacturing sector and only partly occurred as a result of US companies relocating their operations overseas (Krippner 2005). Although coming from a different starting point, the crisis in US capital also set in train a process of the 'financialisation' of the US economy where profits were increasingly generated from financial channels, rather than through trade in commodities (Krippner 2005, p. 181).

The transition from the post-War Keynesian consensus to a neoliberal regime of accumulation in both the UK and the US involved more than just a shift in investment patterns; it also led to radical changes in terms of models of corporate governance. As the financial sector came to exert control over the manufacturing and other sectors, the interests of shareholders—now mostly consisting of large fund managers, superannuation and insurance companies, hedge funds and other institutional investors—were increasingly given priority over the interests of other 'stakeholders'. This has, in recent times, formed part of the 'heightened financial fragility' that has contributed to falling rates of profit and to global financial crisis (see Lucarelli 2008).

Changing models of corporate governance

One of the major contradictions of capitalism is the separation of ownership from control within the capitalist enterprise (Stilwell 2002). While the emergence of the publicly-listed company and the growth of shareholder capitalism underpinned the development of the capitalist system by making available vast amounts of capital for investment, it also led to the emergence of the company chief executive officer who might—or might not—hold some shares in the enterprise (and certainly did not 'own' it), but who nevertheless controlled the corporation. However, this created a conflict of interest between the shareholders ('the principles') and the managers or executives ('the agents'), about how the corporation should be managed, and to what end (Galbraith 1967).

While the primary responsibility of company managers in the UK and the US was ostensibly to their shareholders,[1] nevertheless over time the 'soulful corporation' (Berle and Means 1932) came to interpret this mandate broadly, and in a way which led corporate executives to pursue a number of additional goals, such as stability and longevity (Galbraith 1967). More recently, this has become a commitment to a range of social goals which are often reflected in the creatively-worded statements of corporate social responsibility that are such a prominent feature of contemporary public relations (Ruggie 2003; Allen et al. 2007).

[1] On the arguments regarding 'varieties of capitalism' and the differences between the flexible and 'impatient capital' of the Anglo-American model, and the longer term perspectives evident in Germany, Japan or France, see Allen et al. (2007) and Plender (2003).

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However, in both the US and the UK, the pattern of corporate ownership has gradually changed over the post-World War II period, from a largely individual base to an institutional base. In 1963, for example, individuals accounted for 54.0% of UK share ownership while institutional investors (banks, insurance companies, pension funds, unit trusts, and so forth) accounted for 30.3%. By 2003, the pattern of distribution was 14.9 and 51.0% respectively (Pike 2006). As a consequence of the growing involvement of institutional investors in the ownership of shares, there have been major changes in the ways corporations are governed. Beginning in the 1980s there has been a shift from a model of 'stakeholder capitalism' to a model of 'shareholder capitalism' in the UK and the US, in which 'shareholder value has emerged … as the main measure of firm performance and (the) dominant framework for management agency' (Pike 2006, p. 203). According to Rossman (2007, p. 5):

> What this means in practice is that the real economy of goods and services has been subordinated to the competitive logic of global financial markets. Food companies, for example, are no longer simply competing in yoghurt, or carbonated drinks or processed meats. They are competing on financial markets to deliver the fastest and biggest possible rates of return to 'impatient' financial capital.

At the heart of this change is the principle of 'shareholder value', which is described by O'Neill (2001) as the investment community's 'contemporary anthem'. As Williams (2000) explains, it represents the primacy of the process of financialisation over industrial capital:

> [Financialisation] reworks the hierarchy of management objectives as it reorients the firm; if firms have to organise process and please consumers in the product market, they must also now satisfy professional fund managers and meet the expectations of the capital market. The result is a new form of [financial] competition of all against all whereby every quoted firm must compete as an investment to meet the same standard of financial performance (Williams 2000, p. 6).

These institutional investors are concentrated in the centres of 'shareholder capitalism'—London and New York—where the majority of the institutions of financialisation (the hedge funds, superannuation funds, merchant banks, private equity consortia, investment banks, insurance companies, sovereign wealth funds, and commodity futures traders) are to be found. There are only two key financial activities—cross-border bank lending and maritime insurance—in which the UK and the US do not account for 50% of the total (IFSL Research 2008).

We now turn to a discussion of the ways in which the growth of processes of financialisation within these two centres increasingly impacts upon global systems of food production, distribution and consumption, and gives effect to the notion of a third food regime.

The financialisation of food and agriculture

The financial institutions and instruments we have discussed above have become increasingly involved at all points of the agri-food system and are increasingly investing in activities in which they have never before been involved—including farmland, input supplies, storage and logistics, inspection and certification, food production and processing, commodity trading, retailing and food services, and much more. Six examples should serve to illustrate the range of agri-food investments undertaken by the financial services sector in recent years:

First, in recent years, hundreds of investment, superannuation and hedge funds have been established for the purpose of investing in farmland throughout the world. For example, in 2006 the fund manager Schroders established its US$6b Alternative Solutions Agriculture Fund, which aimed to generate high returns from investments in grains, livestock, coffee, sugar, equities and financial instruments. In 2008, it also established the Agricultural Land Fund in order to purchase agricultural land and land related industries through investment in private equity companies, and farm management businesses (*Investment Week* 2008). Similarly, the UK-based Emergent Asset Management (EAM) established its African Agricultural Land Fund in 2008, with assets in excess of U$500m, in order to offer investors the chance to invest in 'modern management disciplines and … improved farmland techniques' in the sub-Saharan agricultural sector (EAM 2009a). EAM launched an additional sub-fund in 2009:

> with investments diversified across both geographically and across agricultural sectors—including crops, biofuels, livestock, game farming and timber. Returns, based on those successfully achieved through a 4-year pilot project, are projected to be in excess of 25% per annum, for the Fund's 5-year term (EAM 2009b).

Second, a large number of funds have also been established to invest in the agricultural inputs and logistics sectors. In 2008, for example, the Ospraie Special Opportunity Fund, a US-based vehicle operated by the hedge fund manager Ospraie Management, purchased 66 grain elevators from Conagra for US$21b as well as 57 fertilizer

distribution centres, barges and ships (*International Herald Tribune* 2008). CF Eclectica, a UK-based fund manager, operates a long-term investment vehicle called the CF Eclectica Agricultural Fund, which invests in farming input suppliers, such as tractors manufacturers and fertiliser suppliers (*Financial Times* 2008a).

Third, in an unprecedented move for a merchant bank, Goldman Sachs made a direct investment in China's agri-food sector in 2006, through the purchase of a 13% holding in Yurun Food Group, the country's second largest meat and poultry processor. This shift into direct investments in hard assets was reinforced in 2008, when Goldman Sachs invested a further US$300m for the purchase of ten poultry farms in China (*South China Morning Post* 2008).

Fourth, increasingly, private equity firms have also taken an interest in companies in the agri-food sector and are currently active at all points of the supply chain. In 2007, for example, the private equity group 3i, the thirteenth largest private equity investor in the world, acquired Inspicio PLC, the largest food testing and certification group in the UK. Inspicio was valued at US$467m, and operated in 130 countries (IUF 2007a). Premier Food Group, the UK's largest food group was owned by the private equity operators Hicks, Muse, Tate and Furst from 1999 until 2004, when it was re-floated on the stock market. But, following a cash crisis in November 2008 flowing from its high debt levels, private equity again came to invest in the company when Warburg Pincus purchased a 10% holding in March 2009, with an option to increase this to 20%. At the same time, the Premier Food Group sold its French bakery subsidiaries to the French private equity partners Cerea Capital and Banexi Capital for £45m (*Eurofood* 2009; *The Guardian* 2009a). In other cases, the Cadbury Schweppes soft drink business was acquired by Blackstone and Lion Capital, two of the world's largest private equity companies, in 2005 (*Beverage Daily* 2005), while in the food service sector, Burger King and Gate Gourmet (the second largest airline catering company in the world), rank among the larger private equity takeovers in recent years (Burch 2007).

Fifth, in 2009, the International Finance Corporation, an arm of the World Bank, undertook a major initiative when it began to contribute to the agricultural investment funds set up by hedge fund and private equity managers. In February 2009, for example, the IFC joined forces with Altima Partners LLP, a hedge fund sponsor which manages the Altima One World Agricultural Fund, with assets of US$625m. The IFC contributed US$75m (its largest equity investment in agribusiness) to set up a parallel fund—the Altima One World Development Fund—which will participate in private equity investments in 'emerging markets' alongside Altima's One World investment vehicle, with the aim of increasing food supply through the use of 'modern technology and best practices'.[2]

Finally, sovereign wealth funds (SWFs) are investment funds which have been established by governments from accumulated surpluses, often from key commodities such as oil. Abu Dhabi, Norway, China, Singapore, Saudi Arabia, Libya and South Korea are among those who have established SWFs which, in 2007, were valued at US$2,382b (*The Economist* 2007a, b). Most of these funds have been invested in resource, infrastructure and property projects. In recent years, though, there has been a significant level of investment in the agri-food sector. In many cases, the aim of such investments is to grow food for the investor country and increase its own food security, and in other instances to produce bio-fuels. Saudi Arabia, for example, has set up a US$566m company to invest in agriculture in the Sudan, Pakistan and Kazakhstan. The Qatar Investment Authority is doing likewise with joint ventures in Vietnam, while Abu Dhabi has initiated a project involving food production on 28,000 ha in northern Sudan.[3]

The examples cited above demonstrate the extent to which the financial sector is coming to be involved at all points of the agri-food agri-food supply chain. In order to elaborate on these cases, the remainder of this section is devoted to a more detailed analysis of the process of financialisation, and to look more closely at the activities of two instruments of financialisation—hedge funds and private equity companies.

Hedge funds

A hedge fund is an investment vehicle which manages funds on behalf of a limited number of usually very wealthy clients (generally no more than about 100) who are required to make a large minimum investment. Under US

[2] The IFC director for Global Agribusiness, Oscar Chemerinski, stated that 'Agribusiness private equity funds investing in farmland are just emerging as an asset class. We are glad to work with Altima Partners in creating new opportunities for emerging markets to expand their food production' (Commodity Online 2009). The portfolio manager of the Altima One World Agricultural Fund is David C. Nelson, who in 2008, was also appointed a director of Smithfield Foods, the global manufacturer of pork, ham, turkey and other products, with sales in 2007 of US$12b (Smithfield Foods 2009).

[3] See also *Investment Week* (2008), for an indication of trends in respect of global investment in agriculture in the Third World and elsewhere. Such investments have proved to be very controversial, with critics arguing that by acquiring access to land for domestic food and biofuels, wealthy countries are engaging in 'land grabs' in the Third World which will seriously undermine the food security of poor people. GRAIN is one of a number of NGO's which has started to campaign on this issue, and is documenting dozens of such cases. See http://www.grain.org/front.

Law—and the US accounts for 66% of hedge fund assets, the UK some 22% (IFSL Research 2008)—hedge funds are not subject to the same regulatory oversight as superannuation funds, unit trusts and other public investment vehicles. As such, they tend to adopt a range of techniques and practices—short selling, futures trading, swaps and derivatives trading—which involve a high degree of risk. The managers of hedge funds usually charge a management fee but may also take a share of any profits generated by their activities.

Among other activities, hedge funds have increasingly engaged in futures trading in a range of commodities. There are some 64 commodities which are traded on international markets, ranging from corn and cocoa, to crude oil, rare metals, industrial metals and polypropylene. Of the commodities currently traded on markets such as New York, Chicago and London, there are 18 key agricultural commodities: corn, oats, rough rice, soybean, soybean meal, soybean oil, wheat, cocoa, coffee, cotton, sugar, lean hogs, bacon, live cattle, feeder cattle, wool, palm oil and rubber.

Most futures trading has, in the past, been conducted by end users of particular commodities, as they seek to ensure access to supplies at an assured price, some time in the future. However, hedge funds are increasingly utilising futures markets as a speculative investment opportunity. Indeed, it has been suggested that the significant price increases for a range of commodities in 2008 resulted not from a shortage of supply or an increase in demand, but from the entry into the futures market of hedge funds seeking a safe investment opportunity at a time of financial turbulence (Wahl 2009). Instability in global credit and share markets, combined with a gradual de-regulation of agricultural commodities futures trading (initiated by the Commodities Futures Trading Commission [CFTC]—the US regulating agency with responsibility for managing futures markets)—resulted in hedge funds increasingly turning to agricultural commodities futures to seek out secure investments and large gains. Between 2003 and 2008, the volume of speculative investments made by hedge funds into commodity futures trading increased from US$13b to US$260b (*Toronto Globe and Mail* 2008). The important question becomes: how did this affect other futures markets in basic foodstuffs such as rice and wheat? The large increases in the prices of commodities in 2008 has been attributed to a number of causal factors, including the increasing demand for value-added food products by consumers in India and China and increasing demand for bio-fuels (Loewenberg 2008; United Nations Environment Programme [UNEP] 2009). But few observers have drawn attention to the huge increase in commodity futures trading by hedge funds, despite the fact that there is evidence neither of a shortfall in the production of rice and other staples in recent years, nor of any unusual increase in consumption. There is little doubt that the increased speculative investment by a range of financial instruments contributes significantly to increases in the price of food staples. This becomes especially problematic when hedge funds and other investors engage in 'short selling', that is, selling commodities or stocks they do not own, in the expectation that they can make a profit from the difference between the price that was agreed and the price at which they might have to deliver actual physical commodities.

It is likely that the financial crisis 2008/2009 will result in the collapse of some hedge funds, but many will survive and will continue to engage in commodity speculation. In the absence of new regulations to eliminate such speculation, hedge funds may still retain a capacity to influence commodity markets through the techniques of short selling and market manipulation.

Private equity takeovers

Private equity companies operate by purchasing or taking over companies which are publicly-listed on the stock market, liquidating the shares and removing them from the public arena. The company which is taken over is effectively 'privatised' and once de-listed from the stock market, is no longer subject to the kind of scrutiny and regulatory requirements to which a publicly-listed company must adhere. As a private company, it is no longer required to produce annual reports or audited accounts, or to make public its financial position.

The private equity consortium is usually based on the establishment of a limited partnership between a 'general' partner who 'has unlimited liability for the debts and obligations of the partnership, and one or more 'limited' partners who make available loans and other forms of finance, and whose liability is restricted to the amount of their investment' (Commonwealth of Australia 2007, p. 6). The general partner is the private equity fund manager, such as the Texas Pacific Group (TPG) or Kohlberg Kravis Roberts (KKR), which usually takes responsibility for the management of a company once it has been taken over. The limited partners are the other investors in the fund—banks, fund managers, finance houses and others—and do not usually get involved in the day-to-day operation of the business.

As noted earlier, the aim of a take-over by a private equity partnership is to 'realise shareholder value' for the new owners over a 3–5 year time frame, by leveraging the assets of a company in the short term and making capital gains. There are three main mechanisms open to the private equity owner to 'realise shareholder value': (1) it can sell some of the assets of the company it has acquired; (2) it can

restructure, or 'turn around' a company in order to improve its performance and make it a more attractive proposition when it comes to be re-floated on the stock exchange (among other things, the private equity owners may seek to improve operational efficiency, to 'downsize' the workforce, introduce flexible and contract-based employment arrangements, outsource of key activities, and try to exclude trade unions from the workplace); or, (3) or it can leverage some of the existing assets of a company in order to borrow against the value of those assets (Burch and Lawrence 2007; IUF 2007a, b; Rossman and Greenfield 2006).

Usually, the private equity company adopts all three mechanisms for realising shareholder value. This was the case with the private UK supermarket chain Somerfield, when it was taken over in 2005 by a consortium consisting of Apax Partners Worldwide (an international private equity group), Barclays Capital (the investment arm of the UK Barclays Bank PLC), the Icelandic investment bank Kaupthing, and the Tchenguiz family trust (owned by the property developers Robert and Vincent Tchenguiz). At the time of the £1.8b purchase, Somerfield supermarket chain was the sixth largest supermarket in the UK, with some 1,300 retail outlets—800 supermarkets operating under the Somerfield masthead, and about 500 Kwik-Save convenience stores. While the Kwik-Save stores were operating at a loss in 2005, the Somerfield Group as a whole generated after-tax profits of £63m. It held 7% of the UK grocery market, and had an annual turnover of £4.7b (*The Newcastle Chronicle and Journal* 2005).

Not long after the takeover, the consortium began realising some of the assets of the company through the strategies discussed earlier. The new owners sold 248 Kwik-Save stores to a number of retailers, including the discount supermarket chains Netto, Lidl and Aldi, for some £300m, while retaining ownership of just 102 stores which were converted to the Somerfield brand.

In terms of the second strategy for 'realising shareholder value', the new private equity owners sought to improve operational efficiency by reducing the number of its suppliers to the supermarket along with the range of products it stocked. By October 2006, the number of ambient product lines available in Somerfield's conventional stores had been cut from 15,000 to 7,000, while the number of lines carried by the convenience stores was reduced to 2,500. With the halving of its range of products on offer, the Somerfield Group also had a much-reduced supply chain to operate and subsequently closed a number of distribution centres with a loss of 990 jobs. The private equity owners also dismissed 500 of the 1,800 people employed at the company's headquarters in Bristol. Of 141 staff in the IT sector, up to 120 jobs were eliminated with the decision to outsource these functions to a subsidiary of the Tata conglomerate in India—for a saving of £2m. Perhaps the most significant indicator of the intentions and outlook of the new owners of the Somerfield chain was demonstrated by their decision in May 2006 to withdraw from the Ethical Trading Initiative (ETI) on the grounds that the company needed to 'reconsider its short and medium term business priorities'. The ETI was established in 1998 as a co-operative initiative between the UK Department of International Development, and UK retailers, brand owners, NGOs and trade unions, in the hope of setting decent labour standards in those less-developed countries supplying products to developed country outlets.

In terms of the third strategy for realising shareholder value, the owners of Somerfield began to 'leverage' the existing assets of the supermarket chain in order to generate new income streams. Like most supermarkets, Somerfield owned, or held long-term leases over, major retail outlets located in prime sites, which were usually undervalued insofar as they were seen only as a cost of doing business in the retail sector, rather than an asset which could be used to generate further income. The importance of a retailer's High Street assets was recognised by the property developer and private equity partner Robert Tchenguiz, who sought to leverage Somerfield's property holdings and 'unlock shareholder value' through the adoption of the 'Opco/Propco' model of corporate financial organisation. In this model, the retail company is split into two—an operating company (the 'Opco') which continues to operate as a retail company, and a property company (the 'Propco'), which takes over the property assets.

The Opco/Propco model enabled the private equity owners to put a market valuation on Somerfield's property portfolio, which was estimated to have a market value of some £1.3b (*Property Week* 2007). This allowed Somerfields' owners to raise additional funds by using the property as security over a £850m bond sale backed by Barclays Bank, the London branch of Citibank and the Royal Bank of Scotland. The proceeds were in part applied to reducing the outstanding debt incurred in purchasing the supermarket, but the larger part enabled (the company's) shareholders to see a decent (but unspecified) return on their investment. The board also sanctioned a bonus of more than £10m for management and staff (*Grocer* 2007).

The final act in realising shareholder value was for the private equity partners to sell the restructured company, either by a stock market flotation, or by selling the whole company to another interested company, such as a major retailer. While the sub-prime mortgage crisis in the US which signaled the end of cheap credit made an early disposal difficult, nevertheless Somerfield had been performing well and had moved from a pre-tax loss of

£618m in the year to April 2006, to a pre-tax profit of £227m by April 2007. The chain was eventually sold to the UK Cooperative Group for £1.56b in July 2008, as that organisation—once the leader in Britain's retail sector—sought to re-establish a significant role for itself. The private equity partners received almost twice what they paid for Somerfield in 2005 (*Financial Times* 2008b).

Despite the financial crisis of late 2008, and the problems that some private equity consortia are experiencing, this sector remains viable. Private equity investments peaked at some US$540b in 2006–7 in 2007, and declined to US$163b in the following year, as a consequence of the global credit crisis which emerged in 2007. This decline mainly affected the 'mega-deals' involving sums of US$10b and more. At the same time, there is still a good deal of activity in smaller buyouts, while the existing assets of private equity companies are such that they still account for a significant level of economic activity.[4] More importantly, though—along with some hedge funds—some of the more astute private equity companies have been able to sustain themselves by adapting to the changed conditions. For example, the Blackstone Group, the largest private equity company in the world, took the unusual step (for a private equity company) of listing itself on the stock exchange. In 2007 it sold some 12% of the company, raising US$4.1b from its initial public offering. (In a separate deal, Blackstone sold 9.7% of the company to China's sovereign wealth fund for US$3b, see BBC News 2007). These transactions meant that Blackstone was no longer dependent upon credit markets for capital for take-overs and acquisitions. As a consequence, by 2008, Blackstone relied on private equity buy-outs for only 29% of its profits. KKR soon followed Blackstone, and both companies, along with other private equity firms and hedge funds, have moved into dealing in 'distressed' companies experiencing debt problems as a result of the credit crisis of 2008. In recent years, private equity companies have raised some US$40b to invest in distressed debt, and along with hedge funds, operate over 150 investment vehicles specialising in 'distressed companies' (see *Dow Jones Newswires* 2007; *Financial Times* 2008c; *Washington Post* 2008).

[4] For example, Kohlberg Kravis Roberts (KKR), one of the largest private equity companies in the world, owns 35 companies with a combined $95b in annual revenue and more than 500,000 employees. If the portfolio holdings of KKR constituted one publicly traded corporation, it would be the tenth largest company in the Fortune 500 (*Behind the Buyouts* 2008).

Financialisation, the agri-food system and the third food regime

The position that we have sought to establish is that—despite the financial meltdown of 2008—the dominance of finance capital, which is symptomatic of the latest phase of capitalist development, has led to the emergence of a financialised food regime. It is our contention that, from the late 1960s, control over the establishment and management of agri-food supply chains began to pass from the food manufacturers to the supermarkets, which were to introduce innovations in both logistical systems as well as product range. New, cheap, fresh and innovative foods, often marketed as supermarket 'own brand' products, consolidated control by the retail sector as it began to intensify production within domestic production sites. This resulted in the introduction of flexible systems of production based on contracts, extensive shift work, and continuous production (Burch and Lawrence 2005). In a development which paralleled the earlier shift of manufacturing to the global South, these systems were then 'exported' to production sites all over the world. In this way, many developing countries have been incorporated into the supply chain as sources of cheap processed foodstuffs and of fresh fruit and vegetables demanded by consumers in the North. The new intensive systems of production introduced into the less developed countries reflect the energy-intensive and capital-intensive nature of western production systems. Moreover, they involve long supply chains which generate the significant energy and environmental costs identified by McMichael and Friedmann (2007).

What is new, though, is the role played by a number of financial institutions and instruments that have the capacity to re-organise various stages of the agri-food supply chain, and to alter the terms and conditions under which other actors in the chain can operate. In the case of the private equity company, for example, we see a fraction of capital which views the agri-food company—whether it is a third-party auditor, an input supplier, a farm operator, a food manufacturer or a retailer—as a bundle of resources which provide opportunities for a quick profit. This may, or may not, involve a restructuring but will, eventually, return the enterprise to the share market and then move on to another bundle of resources. The hedge fund, like the private equity consortium, sees in global commodity markets, an opportunity for a quick speculative profit, while the merchant bank sees an investment in poultry farms in China as a sound investment at a time when opportunities in the takeovers and acquisitions sector dry up. The sovereign wealth fund sees land in the South as a source of food security, or as a productive resource which can be used to produce bio-fuels for domestic consumers (Addison 2009).

It should be noted that the process of financialisation does not simply involve institutions in the finance sector coming to dominate the agri-food sector. What is evident is that there is also a process of 'financialisation in reverse'. What the finance sector has taught the production and retail sectors is that there is money to be made in manipulating the financial resources which agri-food companies have at their disposal. We argue that the impact of finance capital has led other actors in the agri-food supply chain to act like the private equity companies, hedge funds and fund managers—in short, to behave like finance capital. We know, for example, that supermarkets have always used their market power to act as *rentiers*, in terms of their capacity to charge for shelf space, to extract payments from suppliers for special offers, to demand discounts from suppliers (Burch and Lawrence 2005). But the demonstration effect of leveraging retail property in order to raise investment capital, as practiced by the private equity owners of Somerfield, has not been lost of other players in the agri-food system. In 2007, for example, Tesco sold the freehold title to more than 50 UK supermarkets for £1b, including 16 stores which it sold to a joint venture company established between Tesco itself and the British Airways pension fund (*Insurance Business Review* 2007). Tesco planned to sell about 30% of all freehold titles in order to generate the resources it needed to invest in its planned expansion throughout Asia and Europe. Similarly, in 2006, Woolworths in Australia sold its 24 key distribution centres to Australian Prime Property Fund (APPF) and SAITeys McMahon—companies owned by the Lend Lease Corporation for A$846m—and then leased them back. Woolworths not only divested itself of a non-core asset which required the employment of staff with skills in property management, but used the proceeds from this sale to pay back debt (*The Age* 2006).

In another example of 'financialisation in reverse', both Tesco and Sainsbury in the UK have established banks in partnership with the Royal Bank of Scotland (RBS) and the Halifax Bank of Scotland (HBS), respectively, offering a wide array of financial products including loans, life and vehicle insurance, credit and store cards and more (*Citywire* 2007). The case of Tesco is a prime example of the extent to which the financial crisis of late 2008 has brought about the demise of some companies, but provided new opportunities for others. When the RBOS experienced difficulty in 2008, Tesco was able to purchase the RBS share in their joint bank enterprise very cheaply, enabling Tesco to develop proposals to move into offering the full range of banking facilities through its in-store banks (*The Guardian* 2008; Reuters 2009).

We are aware of the proposition that by moving into banking, supermarkets are simply diversifying and, through the provision of credit cards and loyalty cards, are generating a capacity to monitor sales and customer demands. However, seen in the context of other aspects of supermarket behaviour, banking operations are also becoming increasingly important as a way of initiating new forms of financial operation. Like all supermarkets, Tesco makes delayed payments to its suppliers. In 1998, the time between delivery and payment was 20–30 days. By 2008 it was 88 days and growing (*Daily Mail* 2008). In 2006–2007, UK Tesco had a turnover of £47b and registered a profit of £2.5b. Delayed payments of 88 days on only half of that volume of turnover would amount to £15.4b that Tesco would have access to and control over. If held by Tesco in its own bank or used as working capital at a notional 5% interest, this would represent a £295m windfall to the company, or some 12% of total UK net profit in that year. Of course, this calculation would have to be made across all of Tesco's global operations in order to estimate the true value of the company's banking operations.

Moreover, there seems to be a clear trend on the part of many retailers to move into banking. In Australia, Woolworths set itself up as a credit provider in 2008 by introducing a credit card in association with the Hong Kong and Shanghai Banking Corporation (HSBC) and Mastercard. The CEO of Woolworths, Michael Luscombe, indicated that the credit card was merely an 'entry point' which would enable the retailer to move into the broader area of financial services (*The Australian* 2008). Wal-Mart has banking operations in Mexico and is seeking approval to do the same in the US while, in Japan, the Aeon Supermarkets established banking operations in 2007.

The food manufacturing sector is also increasingly able to exploit opportunities for rent-seeking behaviour. The practice of transfer pricing, by which transnational companies manipulate pricing and payments for patent use, brand names or intermediate inputs between subsidiaries in order to maximise profits in low-tax regimes, has long been standard business practice and was critically analysed by Vaitsos in the 1970s (Vaitsos 1972). In the context of agri-food companies, Pritchard (1999) has drawn attention to the capacity of food processors to generate rental income from licensing of brand names, and the opportunities for such rent-seeking behaviour are greatly increased as national agri-food systems are transformed into global food systems. More recently, Diageo, the global beverage company which owns brands such as Johnnie Walker and Guinness, transferred the ownership of these and other brand to its Dutch subsidiary in order to reduce its tax liability on earnings received from the payment of royalties by subsidiaries operating in higher taxing production sites (*The Guardian* 2009b). This trend will intensify as food manufacturers—in response to the challenge posed by supermarket 'own brand' products—increasingly shift into

the production of 'wellness foods', such as nutraceuticals and functional foods. Such product lines not only blur the distinction between food and pharmaceutical products, but are increasingly subject to patent protection, which is likely to further encourage the practice of transfer pricing and therefore generate new rental income streams (Burch and Lawrence 2009).

There are numerous other examples of agri-food companies behaving like finance companies and exploiting the opportunities made possible by this 'financialisation in reverse'. For example, in 2005, Wal-Mart invested US$25m to create a private equity company to invest in supplier diversity (Allbusiness 2005), while in 2008 Louis Dreyfus Commodities invested US$65m to establish Calyx Agro Ltd, a private equity investment vehicle which buys, operates and sells land in Latin America (Reuters 2008). Cargill, the international grain trader and food processor, and the largest privately-owned company in the US, has long been involved in a range of financial activities which are largely unrelated to its core business. The company established Cargill Value Investors in 1987, with a particular focus on distressed companies and indebted assets, including corporate and residential loans and securities. In 2006, this fund was re-launched as CarVal Investors, with US$8b under management (*Minneapolis St. Paul Business Journal* 2006). In 2003, Cargill established Black River Asset Management, a global hedge fund with US$10b of assets under management. Black River not only trades in equities and commodities, but also operates a private equity arm with investments in the energy sector worldwide. In 2006, Cargill and Black River Asset Management jointly launched another hedge fund, LaCrosse Global Fund Services, with US$6b in assets under management (UKDATA 2008; Cargill 2006).

Discussion and conclusions

We suggest that the developments we have discussed so far—finance institutions becoming increasingly involved in the agri-food system while agri-food companies come increasingly to behave like financial institutions—may well provide us with the outline of a new financialised third food regime, although how this will eventually unfold is not yet clear. But food regime theory does direct our attention to a number of possibilities and enables us to delineate which scenarios are feasible and which are not. Thus, we might argue that of all the actors identified within a financialised food regime, it is the retailers who are best positioned to exploit the 'benefits' of financialisation. The supermarkets are now not only able to move into new areas of retailing, such as the sale of petrol and consumer goods, but are also able to leverage their extensive property holdings, establish banks and insurance companies, and make available credit, loans and mortgages in the long term pursuit of shareholder interests. Equally importantly, the ability to generate financial resources from the system of delayed payments to suppliers means that they are accessing finance capital at zero cost—capital which can then be used to earn interest when applied within their banking system.

Yet, a very different scenario is possible if the model of shareholder capitalism prevails within the agri-food system. If these shareholders largely comprise the new financial institutions—such as the hedge funds, private equity consortia and the sovereign wealth funds—the exercise of power within the agri-food system will become dependent upon the future trajectories of these large investment funds. If, for example, their activities mainly serve the primary sector through, say, investments in biofuels, or if they seek to manipulate the food supply in a world in which there is increasing competition for food resources, this may well come at the expense of the power exercised by producers and consumers in the global South, and the retail sector everywhere.

In this paper, we have approached this issue from a perspective which argues that the development of capitalism in the post-war period has made possible certain choices, and closed off other options. According to this view, the financialisation of the agri-food system is not in itself a corporate strategy, although it does mediate what strategic possibilities are available to the capitalist enterprise. For example, we would argue that the 'Anglo-American' variety of capitalism offers less scope for the exercise of corporate social responsibility, or the 'greening' of production, than is the case with French or German companies (recall the speed and ease with which the private equity owners of Somerfield supermarkets abandoned its commitment to the Ethical Trading Initiative, as indicated earlier). From this perspective, it is the process of financialisation which 'frames' other social processes. Given this, it is our view that the analysis of a third food regime can be most effectively undertaken through the lens of the financial institutions and instruments which delineate the boundaries of corporate action.

References

Addison, K. 2009. Rice land grabs undermine food sovereignty in Africa. http://www.mailarchive.com/sustainablelorgbiofuel@sustainablelists.org/msg760.html. Accessed 24 Mar 2009.
Allbusiness. 2005. Wal-Mart creates private equity fund to boost supplier diversity. http://www.allbusiness.com/retail-trade/food-stores/4259569-1.html. Accessed 19 Mar 2009.
Allen, F., E. Carletti, and R. Marquez. 2007. Stakeholder capitalism, corporate governance and firm value. European Corporate

Governance Institute—Finance Research Paper Series No. 190. http://www.ecgi.org. Accessed 20 June 2008.

BBC News. 2007. China buys $3bn. Blackstone stake, May 21. http://news.bbc.co.uk/2/hi/business/6675453.stm Accessed 23 Mar 2009.

Behind the Buyouts. 2008. Kohlberg, Kravis, Roberts and Company (KKR), a project of the Service Union Employees International Union. http://www.behindthebuyouts.org/kkr/. Accessed 3 April 2009.

Berle, A., and G. Means. 1932. *The modern corporation and private property*. London: Harcourt, Brace and World.

Beverage Daily. 2005. Cadbury Schweppes sells European soft drinks arm. http://www.beveragedaily.com/Financial/Cadbury-Schweppes-sells-European-soft-drinks-arm. Accessed 19 Mar 2009.

Braithwaite, J. 2008. *Regulatory capitalism: How it works, ideas for making it better*. Cheltenham, UK: Edward Elgar.

Burch, D. 2007. Private equity companies and the agri-food sector. Agri-food Research Network Annual Conference, University of Queensland, Nov 25–29.

Burch, D., and G. Lawrence. 2005. Supermarket own brands, supply chains and the transformation of the agri-food system. *International Journal of Sociology of Agriculture and Food* 13(1): 1–18.

Burch, D., and G. Lawrence. 2007. Supermarket own brands, new foods and the reconfiguration of agri-food supply chains. In *Supermarkets and agri-food supply chains: Transformations in the production and consumption of foods*, ed. D. Burch, and G. Lawrence, 100–128. London: Edward Elgar.

Burch, D., and G. Lawrence. 2009. The ‘wellness’ phenomenon: Implications for global agri-food systems. In *Food security, nutrition and sustainability: New challenges, future options*, ed. G. Lawrence, K. Lyons, and T. Wallington. London: Earthscan.

Cargill. 2006. LaCrosse Global Fund Services launches as independent hedge fund service provider and administrator, Oct 17. http://www.allbusiness.com/personal-finance/investing/3913250-1.html.

Citywire. 2007. Troubled Sainsbury bank becomes joint venture with HBOS, Feb 9.

Commodity Online. 2009. IFC provides $75m support for Altima Fund, Feb 16. http://www.commodityonline.com/news/IFC-provides-$75-mn-support-for-Altima-Agri-Fund-15218-3-1.html. Accessed 30 Mar 2009.

Commonwealth of Australia. 2007. *Senate standing committee on economics: Private equity investment in Australia*. Canberra: AGPS.

Daily Mail. 2008. Big names wait even longer to pay their bills threatening future of thousands of small suppliers, Oct 22.

Dow Jones Newswires. 2007. Blackstone Group rallies 15% on NYSE, June 23.

EAM (Emergent Asset Management) 2009a. African land fund. http://www.eaml.net/templates/Emergent/content.asp?PageId=296. Accessed 9 Mar 2009.

EAM (Emergent Asset Management). 2009b. Emergent news. http://www.eaml.net/templates/Emergent/news.asp?PageID=304. Accessed 19 Mar 2009.

Epstein, G. 2002. Financialization, rentier interests and central bank policy. Political Economy Research Institute Conference on Financialization in the World Economy, Dec 7–8, Amherst, Mass. http://www.peri.umass.edu/fileadmin/pdf/financial/fin_Epstein.pdf. Accessed 24 May 2009.

Eurofood. 2009. Premier Foods unveils key to financial resilience, Mar 11.

Financial Times. 2008a. Profiting from food crisis can be hard to stomach, April 26.

Financial Times. 2008b. Somerfield sellers doubled initial investment, July 16.

Financial Times. 2008c. Private equity funds focus on distressed debt, Aug 12.

Friedland, W. 2004. Agrifood globalization and commodity systems. *International Journal of Sociology of Agriculture and Food* 12: 1–12.

Friedmann, H. 2005. From colonialism to green capitalism: Social movements and emergence of food regimes. In *New directions in the sociology of global development*, ed. F. Buttel, and P. McMichael, 227–264. Amsterdam: Elsevier.

Galbraith, J. 1967. *The new industrial state*. London: Hamish Hamilton.

Glyn, A., and B. Sutcliffe. 1972. *British capitalism, workers and the profits squeeze*. Harmondsworth: Penguin.

Goodman, D., and M. Redclift. 1991. *The international farm crisis*. London: Macmillan.

Goodman, D., and M. Watts. 1994. Reconfiguring the rural, or fording the divide? *Journal of Peasant Studies* 22(1): 1–49.

Goodwin, M. 2006. Regulating rurality? Rural studies and the regulation approach. In *Handbook of rural studies*, ed. P. Cloke, T. Marsden, and P. Mooney, 304–316. London: Sage.

Grocer. 2007. Will refinance plan put an end to break-up speculation? June 2.

Heynen, N., J. McCarthy, S. Prudham, and P. Robbins. 2007. Introduction: False promises. In *Neoliberal environments: False promises and unnatural consequences*, ed. N. Heynen, J. McCarthy, S. Prudham, and P. Robbins, 1–21. London: Routledge.

IFSL Research. 2008. International financial markets in the UK. http://www.ifsl.org.uk?research/upload/IFM_IN_THE_UK_05_2008.pdf. Accessed 27 May 2008.

Insurance Business Review. 2007. Tesco sells 16 stores to BA pension fund. http://www.insurance-business-review.com/article_news.asp?guid=77CFAC6D-7B1C-426F-A97F-BBC68ADA07C8. Accessed 22 July 2008.

International Herald Tribune. 2008. Demand for food has big investors betting the farm, June 6.

Investment Week. 2008. Schroders launch agricultural land trust, July 7.

IUF (International Union of Foodworkers). 2007a. Private equity’s growing reach in food testing. http://www.iufdocuments.org/buyoutwatch/2007/12/private_equitys_growing_reach.html. Accessed 20 June 2008.

IUF (International Union of Foodworkers). 2007b. Private equity advances in agriculture. http://www.iufdocuments.org/buyoutwatch/2007/09/private_equity_advances_in_agr.html. Accessed 20 June 2008.

Krippner, G. 2005. The financialisation of the American economy. *Socio-Economic Review* 3: 173–208.

Le Heron, R., and M. Roche. 1995. A ‘Fresh’ place in food’s space. *Area* 27(1): 23–33.

Le Heron, R., and M. Roche. 1996. Globalisation, sustainability and apple orcharding, Hawkes Bay, New Zealand. *Economic Geography* 72: 376–397.

Loewenberg, S. 2008. Global food crisis looks set to continue. *The Lancet* 327(9645): 1209–1210.

Lucarelli, B. 2008. The United States Empire of debt: The roots of the current financial crisis. *Journal of Australian Political Economy* 62: 16–38.

Matthews, R. 1998. The myth of global competition and the nature of work. *Journal of Organizational Change Management* 2(5): 378–398.

McMichael, P. 2005. Global development and the corporate food regime. In *New directions in the sociology of global development*, ed. F. Buttel, and P. McMichael, 265–299. Amsterdam: Elsevier.

McMichael, P., and H. Friedmann. 2007. Situating the retailing revolution. In *Supermarkets and agri-food supply chains:*

10.1007/s10460-009-9219-4 http://link.springer.com.ez45.periodicos.capes.gov.br/content/...

Transformations in the production and consumption of foods, ed. D. Burch, and G. Lawrence, 291–319. London: Edward Elgar.
Minneapolis St. Paul Business Journal. 2006. Cargill hedge fund targets $4 billion for investments, Nov 3.
Newcastle Chronicle and Journal. 2005. Grocery chain sales backed, Oct 15.
O'Neill, P. 2001. Financial narratives of the modern corporation. *Journal of Economic Geography* 1: 181–199.
Pechlaner, G., and G. Otero. 2008. The third food regime: Neoliberal globalism and agricultural biotechnology in North America. *Sociologia Ruralis* 48(4): 351–371.
Pike, A. 2006. 'Shareholder value' versus the regions: The closure of the Vaux Brewery in Sunderland. *Journal of Economic Geography* 6(2): 201–222.
Plender, J. 2003. *Going off the rails: Global capital and the crisis of legitimacy*. New York: Wiley.
Pritchard, W. 1998. The emerging contours of the third food regime: Evidence from Australian dairy and wheat sectors. *Economic Geography* 74(1): 64–74.
Pritchard, W. 1999. Switzerland's billabong? Brand management in the global food system and Nestle Australia. In *Restructuring global and regional agriculture: Transformations in Australasian agri-food economies and spaces*, ed. D. Burch, J. Goss, and G. Lawrence, 23–40. Aldershot: Ashgate.
Property Week. 2007. Somerfield's £1.3bn. supermarket switch, June 8.
Reuters. 2008. Louis Dreyfus commodities completes initial equity financing for Calyx Agro. http://www.reuters.com/article/pressRelease/idUS246112? 13-May-2008? PRN20080513. Accessed 19 Mar 2009.
Reuters. 2009. Tesco plans bank branches in 30 stores, Mar 29. http://uk.reuters.com/article/businessNews/idUKTRE52S0O320090329. Accessed 2 April 2009.
Rossman, P. 2007. The impact of leverage buyouts in the European food industry. Paper delivered at the Private equity funds: The harsh realities seminar, European Parliament, Brussels, April 19. http://www.iufdocuments.org/www/documents/PSE%20presentation%2019-04-07. Accessed 24 May 2009.
Rossman, P., and G. Greenfield. 2006. *Financialisation: New routes to profit, new challenges for trade unions*. Geneva: Global Labour Institute and the International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations.
Ruggie, J. 2003. Taking embedded liberalism global. In *Taming globalization: Frontiers of governance*, ed. D. Held, and M. Koenig-Archibugi, 93–129. Cambridge: Polity.
Smithfield Foods. 2009. Company directors. http://investors.smithfieldfoods.com/directors.cfm. Accessed 19 Mar 2009.
South China Morning Post. 2008. Goldman Sachs pays US$300m for poultry farms, Aug 4.
Stilwell, F. 2002. *Political economy: The contest of economic ideas*. Melbourne: Oxford.
The Age. 2006. Woolworths to sell distribution centres, June 14.
The Australian. 2008. Woolies ready to cash in on card, August 19.
The Economist. 2007a. The world's most expensive club. http://www.economist.com/finance/displaystory.cfm?story_id=9230598. Accessed 18 July 2008.
The Economist. 2007b. The New Rothschilds, 27 Sept.
The Guardian. 2008. Financial Services: Tesco pays £950 m to buy out RBS stake in bank, July 29.
The Guardian. 2009a. Private equity buys 10% slice of Premier Foods, Mar 5.
The Guardian. 2009b. Firms' secret tax avoidance schemes cost UK billions, Feb 3.
Tickell, A. 2006. Global financial architecture transitions: Mutations through 'roll-back' neoliberalism to technocratic fixes. In *Globalization's contradictions: Geographies of discipline, destruction and transformation*, ed. D. Conway, and N. Heynen, 39–48. London: Routledge.
Toronto Globe and Mail. 2008. Feeding frenzy, 31 May.
UKDATA. 2008. *Black River Asset Management: Full report*. London: UKDATA.
United Nations Environment Programme (UNEP). 2009. *The environmental food crisis: The environment's role in averting future food crises*. Geneva: UNEP.
Vaitsos, C. 1972. Patents re-visited: Their function in developing countries. *The Journal of Development Studies* 9: 71–97.
Wahl, P. 2009. *Food speculation: The main factor of the price bubble of 2008*. Berlin: World Economy, Ecology and Development.
Wall Street Journal. 2008. Has the financial industry's heyday come and gone? April 28.
Washington Post. 2008. Sovereign funds become big speculators; pools of foreign wealth move into commodities, Aug 12.
Williams, K. 2000. From shareholder value to present day capitalism. *Economy and Society* 29(1): 1–12.
Winson, A. 1993. *The intimate commodity*. Ontario: Garamond Press.

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