

## **From organized to disorganized capitalism?**

### **Market versus non-market coordination in Spain's dairy chain**

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*Conventional wisdom has it that the food economy has transitioned from organized to disorganized capitalism. An era of extensive State intervention between around 1930 and 1980 would have been followed by an era of deregulation and increasing coordination through markets after around 1980. This article uses the case of Spain's dairy chain to propose an alternative view. In the case under study there certainly were elements of State-coordinated capitalism between 1952 and 1986, as well as elements of deregulation and liberalization from 1986 onwards. However, the structure of economic coordination involved some combination of market and non-market mechanisms all the way through. The organized capitalism of the first period was not really so tightly organized, while much of its later "disorganization" was in fact a transition towards a different mode of "organization": one in which the control of non-market coordination shifted from political to corporate hierarchies.*

**Key words:** food system, food regimes, dairy chain, economic governance, Spain

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## INTRODUCTION

Has the food system transitioned from an era of extensive State intervention between around 1930 and 1980 to an era of increasing coordination through markets in the last forty years? Has the post-1945 food regime been followed by a long, chaotic period of institutional instability and structural incoherence? Have we moved, in short, from State-coordinated, “organized” capitalism to market-oriented, “disorganized” capitalism? These questions are important for two reasons. First, they are central to the making of a theoretical discourse on the evolution of the modern food system. Second, they contribute to informing the ongoing political debate on the food economy, especially in relation to its institutional architecture.

This article uses a case study to explore these questions. The case selected is the dairy chain, which (as we will see) provides an excellent occasion to examine both the movement towards greater State intervention between 1920/30 and 1970/80 and the deregulation that has taken place from 1970/80 onwards. More specifically, the case study is about the dairy chain in Spain, where the transition was particularly abrupt due to its coincidence with major political turning points such as the end of the dictatorship of Francisco Franco in 1975 and the country’s entry to the European Economic Community in 1986. This provides a contrast between an era of extensive State, top-down intervention in the dairy chain and a later era of democratization, Europeanization and deregulation.

The article is organized in six sections. A review of literature comes first. A second section presents the theoretical framework that will be used throughout the rest of the article. The third section describes the changing structure of Spain’s dairy chain from the 1950s onwards, focusing on the transition from a short chain composed mostly by farmers to a longer chain dominated by processors and, at a later stage, by retailers. The fourth section presents the evidence that fits the hypothesis that the dairy chain transitioned from organized to disorganized capitalism. A following section brings a set

of qualifications and objections to this hypothesis, in relation to both the first and the second periods. The concluding section summarizes the argument and discusses its implications.

## LITERATURE REVIEW

### *From Organized to Disorganized Capitalism*

Conventional wisdom has it that the food system has transitioned from an era of extensive State intervention between around 1930 and 1980 to an era of increasing coordination through markets after around 1980. The food regime analysis pioneered by Friedmann and McMichael (1989) has often proposed a historical sequence of this kind, placing it within a broader constellation of geopolitical dynamics. After a first food regime that was closely linked to British free-trade imperialism and was broken down by inter-war turbulence, a second food regime in which State intervention was far-reaching would have taken shape in the decades following the Second World War. In turn, after around 1980 this second food regime would have been dismantled by the rise of neoliberalism and its policy agenda of deregulation on both the national and the international scale.

Related strands of literature seem comfortable with this narrative as well. The global value relations approach favoured by Araghi (2009), for instance, contrasts an era of “retreat from classical liberalism” between 1917 and 1975 with a later era of “neoliberal globalization”. Agricultural historians are becoming increasingly interested in this sort of formulation too. Schuurman (2013), for instance, uses the terms popularized by Lash and Urry (1987) to propose that the political economy of Dutch agriculture has transitioned from “organized capitalism” to “disorganized capitalism” –from strong State intervention between 1930 and 1970/80 to an increasing role for the free market as a mechanism of coordination.

It is interesting to note that this narrative is largely immune to the increasing internal tensions to be found within its original core – food regime analysis (see Magnan, 2012, for a review). Here we find much internal debate about, for instance, whether or not a third food regime has emerged in the last few decades. Those who remain skeptical, such as Pritchard (2009) or Friedmann (2016), may perhaps be thought of as those who, with their emphasis on turbulence, path-dependence and transition, are closer to a notion of “disorganized capitalism”. However, those who believe that a third food regime has already emerged are even more explicit in portraying the present time as something widely different from “organized capitalism”. McMichael (2009, 285), for instance, identifies a current “corporate food regime” in which the “organizing principle is the market, not the empire or the State” (see also Pechlaner and Otero 2008, about a “neoliberal food regime”).

#### *The dairy chain in the West as an illustration*

Before going any further in the theoretical analysis of this narrative, it may be useful to illustrate the content embodied in expressions such as “organized capitalism” and “disorganized capitalism”. We will do so by taking the case of the dairy chain in the West as an illustration (the following is based on Moser and Brodbeck 2007 for Switzerland; DuPuis 2002 for the United States; Fenton 1995, Vernon 2000, and Atkins 2010 for Britain; Just 2009, Kjaernes 1995, and Martiin 2010 for Scandinavia; Vatin 1990 for France and Germany; Orland 2005 for Central Europe; den Hartog 1998 for the Netherlands; Segers and Lefebvre 2009 for Belgium; Felice 2004 for Italy; and Freire 2011 for Portugal). During the interwar period, most countries implemented active measures in order to manage the dairy chain. They did so basically for two reasons. First, they wanted to secure consumer access to a regular, cheaply priced and safe milk supply. Once milk became a part of the “nutritional social contract” (Valenze 2011),

governments intervened in order to prevent what until then had been pervading problems, such as shortages, price peaks and fraudulent behaviour by suppliers. Alongside this consumer-centred motivation, governments also wanted to prevent deterioration in the living standard of dairy farmers. Especially in the 1930s, in country after country overproduction and decreasing farmgate prices threatened the economic reproduction of the dairy family farm, and governments tried to do something about it. During the years after the Second World War, State intervention in the dairy chain continued, and it was even reinforced by the creation of the European Economic Community and its Common Agricultural Policy (henceforth, CAP).

The specific measures were of course very different from country to country. Still, we can discern five groups of measures which, combined in different proportions, formed the backbone of organized dairy capitalism. First, governments implemented price policies in order to guarantee minimum farmgate prices, maximum consumer prices, or both of them. Such policies could be direct, as in the case of price fixing by the State, or indirect, as in the case of programmes for the immobilisation of surplus production (i.e. processing surplus liquid milk into powdered milk or butter). Second, governments used different instruments in order to subsidize farmers. Again, these instruments could be direct, as in the case of payments linked to technological modernisation or to public purchases of surplus production at guaranteed prices, or indirect, as in the definition of higher-than-equilibrium farmgate prices in the above mentioned price policies. Third, governments also used an array of protectionist instruments in order to preserve the national market for national producers or, at least, to make it more difficult for foreign producers to enter the domestic market.

Fourth, organized dairy capitalism also comprised measures set to guarantee quality standards for dairy products and for milk in particular. Milk has its own history as a commodity, and setting the biological and chemical standards that define what (exactly) could be considered (and sold as) milk was an important element in dairy policy. Additionally, governments often went further and restricted business competition for

alleged quality reasons. Some governments, for instance, regulated the creation of dairy processors which, in exchange for the concession of a local monopoly, supplied consumers in a given territory with processed milk. Others implemented a similar licensing system for the retailing link of the chain. There were also governments that allocated production quotas to farmers (in this case not so much on quality grounds but in an attempt to prevent overproduction).

Fifth and final measure, it was common for States to promote advertising campaigns that would stimulate the demand for dairy products. At a time when nutritional discourse was dominated by the “newer nutrition” paradigm (see Biltekoff 2012), with its emphasis on proteins, minerals and vitamins, these campaigns used to stress the health benefits that consumers could expect from drinking milk.

Most of these measures were discontinued in the latter part of the twentieth century. Because there had been much national diversity in the details of State regulation, there was also much diversity in the details of later deregulation. Yet, strong internal pressures seem to have played a major part everywhere. Licensing systems and territorial monopolies, in particular, soon became unpopular among national business elites. In this respect, dairy deregulation cannot be separated from the progress made from the 1980s onwards by the neoliberal agenda in the broader political economy of the West (Moser and Brodbeck 2007; Atkins 2010).

In those countries belonging to the European Union, the politics of economic integration became a powerful, additional force against organized national capitalisms. Distinctive national institutions, such as Britain’s Milk Marketing Boards and Italy’s “milk centrals”, were abolished following explicit legislative and judicial action by the EU. The main charge on them was that they were incompatible with the protection of competition within a single European market – the Milk Marketing Boards were monopsonists in the British market for raw milk, while milk centrals were licensed monopolies for the production of pasteurized milk within a given Italian territory (Fenton 1995; Vernon 2000;

Atkins 2010; Felice 2004). Although the EU went on subsidising dairy farmers, the bulk of organized dairy capitalism was discontinued in the late twentieth century.

## THEORETICAL FRAMEWORK

### *Markets versus States?: bringing business organization in*

The conventional wisdom on a transition from organized to disorganized capitalism is implicitly based on Adam Smith's view of markets and States as alternative mechanisms of economic coordination (Smith [1776] 1961). The market would be the realm of decentralized, individual decision-making, while State regulation would represent centralized, collective decision-making. Apparently, a seesaw would be an apt metaphor for the tension between these two opposed mechanisms: the greater the role for the market, the lesser the role for the State, and vice versa. Smith, for instance, advocated a free-market economy with little role for the State. Others of course have made completely different arguments, but it is interesting to note that seesaw-type reasoning has very often been retained as a framework of analysis.

A major theoretical weakness of this perspective is that planned coordination is not undertaken by the State only, but also by other organizations such as firms, households and civil society organizations (Boyer 2005). Among these organizations, it is firms that have been given a more prominent role in the literature. Since firms are also the case that matters most for the empirical analysis developed later in this article, in the remainder of this section we will focus on them.

The role of firms as agents of planned coordination is stressed in a particularly forceful manner by three interconnected intellectual traditions: Marxism, institutionalist economics, and Schumpeterian economics. Karl Marx was probably the first social scientist who contrasted the hierarchical, rational planning that takes place within a firm



with the (formally) free and (potentially) chaotic order of the market (Chang 2014, 132). Contemporary Marxists in fields other than food studies have placed this contrast at the forefront of their analysis. Giovanni Arrighi (1994, 239-300), for instance, argues that the defining feature of the “systemic accumulation cycle” led by the United States during the “long twentieth century” (from 1870 onwards) was the substitution of the market by large corporations involved in planned coordination. The aforementioned Lash and Urry (1987, 3-7) actually define ‘organized capitalism’ (a notion which originally comes from Rudolf Hilferding) in terms that have much to do with business organization, such as the concentration of industrial, banking and commercial capital, the separation of ownership from control, and the growth of new sectors of managerial intelligentsia. As many as seven out of the fourteen variables selected by Lash and Urry in order to define organized capitalism are basically about firms, rather than about the State.

The institutionalist school has also explored the way in which business organization emerges as a distinct mode of coordination. The seminal work by Ronald Coase (1937) originated a vast literature in which the existence of transaction costs in market coordination motivates the creation of firms oriented towards internalizing said costs (see Williamson 1985 for the most influential development of this idea). Later on, John Kenneth Galbraith (1967), in the tradition of the older institutionalism associated to Thorstein Veblen, explored the economy-wide implications of the rise of large, managerial corporations in the United States. In Galbraith’s view, published in the midst of the Cold War, US capitalism resembled Soviet communism in that market coordination was not particularly prominent: while Soviet-type economies featured central State planning, in the United States a vast amount of resources and decisions were coordinated through plans designed by the managerial elites of large corporations.

Neo-Schumpeterian economists, finally, incorporate business organization to the discussion in a particularly systematic way. Inspired by Schumpeter’s observations on the connection between innovation and business organization, researchers such as William Lazonick (1991) and Nick von Tunzelmann (2003) propose a theory of history in

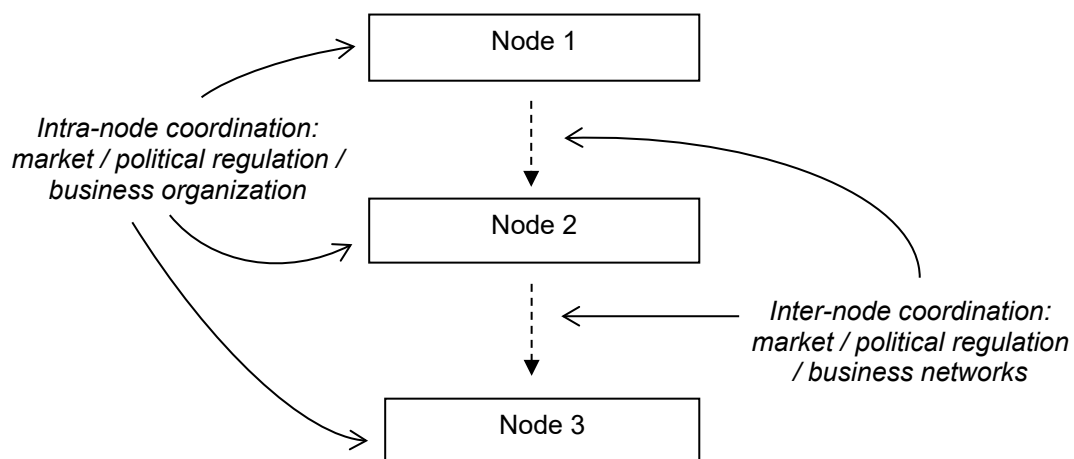
which business organization plays an ever greater role in successive technological revolutions. According to this literature, the shift from the first to the second industrial revolution in the late nineteenth century was based on a parallel shift from decentralized capitalism, in which most coordination took place through impersonal markets, to managerial capitalism, in which corporate hierarchies designed and executed plans that were by their very nature attempts to escape the market (the work by historian Alfred Chandler, 1977, has been particularly influential here). This is not very different from the Marxist and institutional accounts referred to above, but the neo-Schumpeterian literature also highlights an additional dimension of business-led planned coordination. The latter would not be only about vertical decisions taken within each firm considered in isolation, but also about collaboration between firms. The third technological revolution brought about by information technologies in the late twentieth century would have been underpinned by a shift to collaborative capitalism, in which networks of formally independent companies share plans (often controlled by the managerial elite of one of said companies) for collaborating in a relatively stable way through time. This is yet another way in which business organization becomes a distinct mechanism for economic coordination.

*From theory to empirical analysis: a proposed route*

Figure 1 provides a simple illustration of the route from theory to empirical analysis that we will follow next. We will investigate the roles played by the market, the State and business organization as alternative, and often complementary, devices for the economic coordination of the food chain. Because the chain is composed of several different nodes, we will do this at both the intra-node and the inter-node levels. At both levels we will examine first the degree up to which political regulation supersedes the market as mechanism of coordination. Are there any regulations that impact upon

resource allocation and the decisions taken by individuals and firms? These regulations may exert their impact within each of the nodes (i.e. licensing of industrial or commercial monopolies in some sector and/or territory), as well as upon the connection between nodes (i.e. transfer-price fixing by the State).

**Figure 1. Structure and economic coordination in a commodity chain**



We will move next into the area of business-led planned coordination. At the intra-nodal level we will examine the degree up to which the node is dominated by a small number of large firms and, therefore, the planning decisions hierarchically made within said firms are crucial for economic coordination in the node taken as a whole. Conversely, it might be the case that a decentralized firm structure prevails, so that the node is coordinated mostly by some combination of market and State. We will also explore the inter-node level: in terms of the neo-Schumpeterian literature reviewed above, can we find business networks and “collaborative” capitalism”? Are inter-node relations strongly conditioned by non-market agreements between firms belonging to contiguous nodes of the chain? For instance, do processors create stable networks of farm suppliers in which prices and standards are different from those prevailing in the outside-the-network market? We may even explore the possibility that business

networks operate at the inter-node level (i.e. collusive agreements between oligopolistic firms).

The proposal here implies an empirical approach that is perhaps a bit more disaggregated than usual. As a matter of fact, we will pay close attention to the impact of changes in the structure of the food chain upon the character of economic coordination. Most food chains involve a number of sub-chains with partly distinct coordination systems, which implies that changes in the relative importance of each sub-chain may have an influence on the overall structure of coordination. This will lead us to questions such as: does the role played by those sub-chains featuring strong planned coordination increase over time? Or, on the contrary, is structural change led by those sub-chains in which market coordination is dominant?

It should be noted that this framework does not stand in sharp opposition to the framework that is commonly used for the study of the political economy of food. The conventional framework tries to identify distinct historical epochs on the basis of the changing relevance of alternative mechanisms of economic coordination – and so does the framework depicted here. Our framework simply extends the list of mechanisms under study (transforming the Smithian market-versus-State dichotomy into a triangle the third vortex of which is business organization) and prepares the way for a systematic, piece-by-piece empirical analysis.

## FARMERS, PROCESSORS AND RETAILERS IN SPAIN'S DAIRY CHAIN

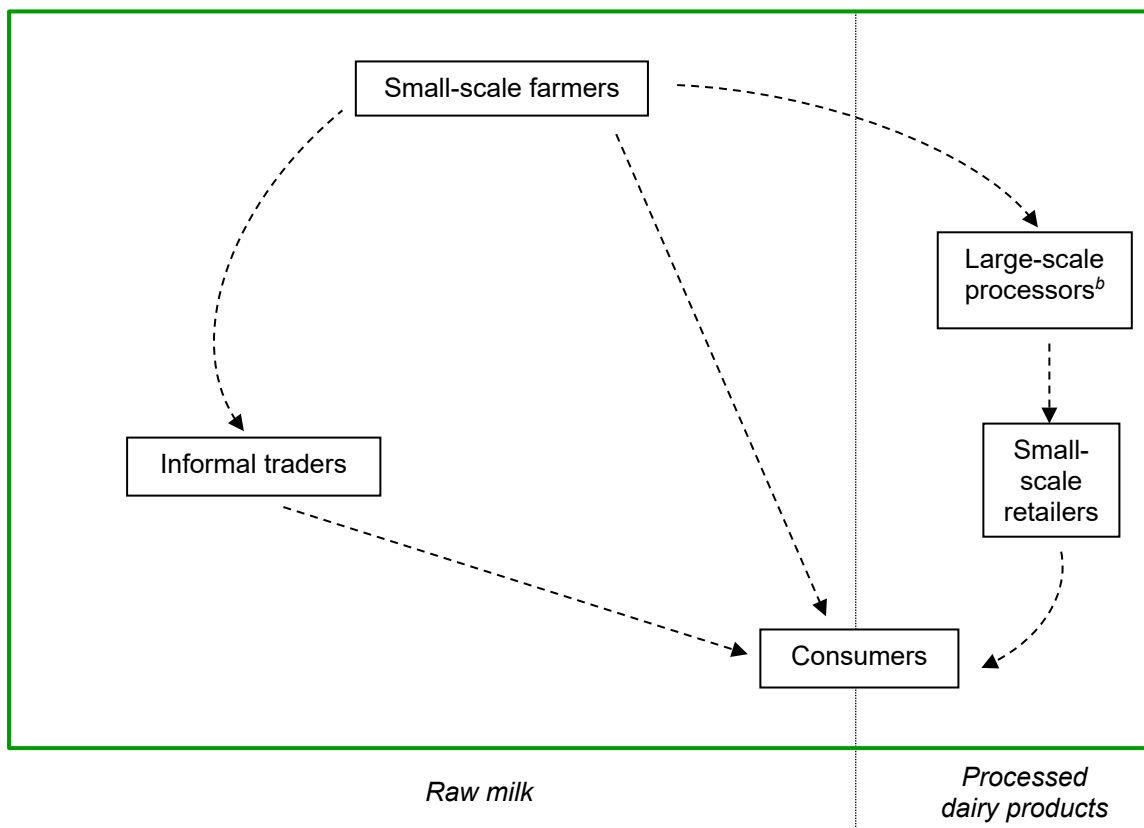
In order to contextualize the analysis of economic coordination, three distinct moments can be identified in the evolution of Spain's dairy chain since the 1950s. At the start of the period, farming was the key link in the chain, and processing was relatively undeveloped. Second, a major dairy processing industry rose in the period 1950/60-1980/90. Finally, from 1980/90 onwards supermarkets have become the key actor.

### *A Relatively Undeveloped Dairy Chain (around 1950)*

The dairy chain was not greatly industrialized around 1950 (figure 2). It is true that there were a few large processing companies (such as, for instance, the Swiss multinational Nestlé). It is also true that the market power held by these firms within their sourcing territory was evident, and had actually fuelled agrarian unrest since at least the 1920s. These processors, however, were specialised in the production of powdered and condensed milk and had barely penetrated the sphere of what was by far the most important component of demand: liquid milk. In the outskirts of large cities there were a few processors of pasteurized milk who exerted some oligopsonistic power on dairy farmers, but their share within total sales was fairly modest and, as a matter of fact, most consumer expenditure was absorbed by raw (rather than processed) milk (Domínguez 2003; Domínguez and Puente 2009; Hernández Adell 2012).

We lack detailed studies of the retailing link of the chain, but it seems that its business structure was very fragmented (Collantes 2016). Small family shops and alternative networks such as farmgate trade and itinerant urban trade by middlemen or by farm populations seem to have prevailed. Moreover, an unknown but probably significant share of demand was satisfied through self-consumption.

**Figure 2. The structure of Spain's dairy chain around 1950<sup>a</sup>**



*Note:* <sup>a</sup> The width of each of the two sections in the figure reflects the relevance of each sub-chain within the dairy chain as a whole (raw milk has a much larger share of the market than processed dairy products; see table 4 below); <sup>b</sup> Except in cheese production, where small producers were dominant.

As a result, most farmers were not connected to any processor. More than 80 per cent of raw milk was used by farmers themselves for purposes of self-consumption, direct sale, domestic preparation of cheese and other dairy products, and calf feeding (table 1). Dairy farming was not a strong part of Spain's agricultural economy anyway. Dairy farmers were a small fraction of the country's agrarian population and concentrated mostly on a tiny strip of Atlantic regions in the northern part of the Iberian Peninsula, where environmental conditions were suitable for the production of cow's milk under organic technologies (especially because high rainfall levels made it easy for farmers to secure feed for their animals). Very small farms employing almost exclusively family labour prevailed. Technology was rudimentary: even though since the late nineteenth

century there had been a move towards more intensive rearing (through the partial substitution of extensive tendering with natural feeding within the barn) and biological innovation, extensive rearing and autochthonous, multi-functional, low-yield breeds prevailed. In a way, it is even misleading to speak about dairy farmers as such – the degree of dairy specialisation was very low and most producers were pursuing a diversified strategy that combined several different lines of production (Domínguez and Puente 1997; Simpson 1995; Gallego 2001; Hernández Adell and Pujol-Andreu 2016).

**Table 1. Patterns of raw milk use (%)**

	1950	1964	1976	1986
Consumption, sale or processing by farmers	57	47	30	20
Calf feeding	24	26	10	4
Sale to processing companies	19	27	60	76

*Sources:* Ministerio de Agricultura (1975; 1976), MAPA (1986). For 1950 and 1964, the sources give information about milk sales to processing companies for the production of second-degree processed products (cheese, butter, condensed milk, etc.), but not for processed liquid milk. This has been estimated through the production of processed liquid milk, which is directly available for 1964 (INE 1964) and can be approximated for 1950 by applying the share of processed milk consumption given by Ovejero (1951, 959) to the total amount of raw milk used for liquid (processed or unprocessed) milk consumption (Ministerio de Agricultura 1975).

This situation was undoubtedly affected by the fact that still by 1950 the Spanish economy was involved in a major crisis. The Civil War of 1936-39 had a strong short-term impact on growth and, in addition, eventually led to the establishment of a dictatorship whose economic record during the 1940s was very poor. The rise to power of General Francisco Franco implied, for instance, a reorientation of Spain's international policy towards autarky and self-sufficiency, which in turn would make it extremely difficult for firms and farms to upgrade their technologies. Around 1950, GDP per capita and labour productivity were still below their respective pre-war peaks. These problems were particularly severe in agriculture and the broader food system. In the particular case of

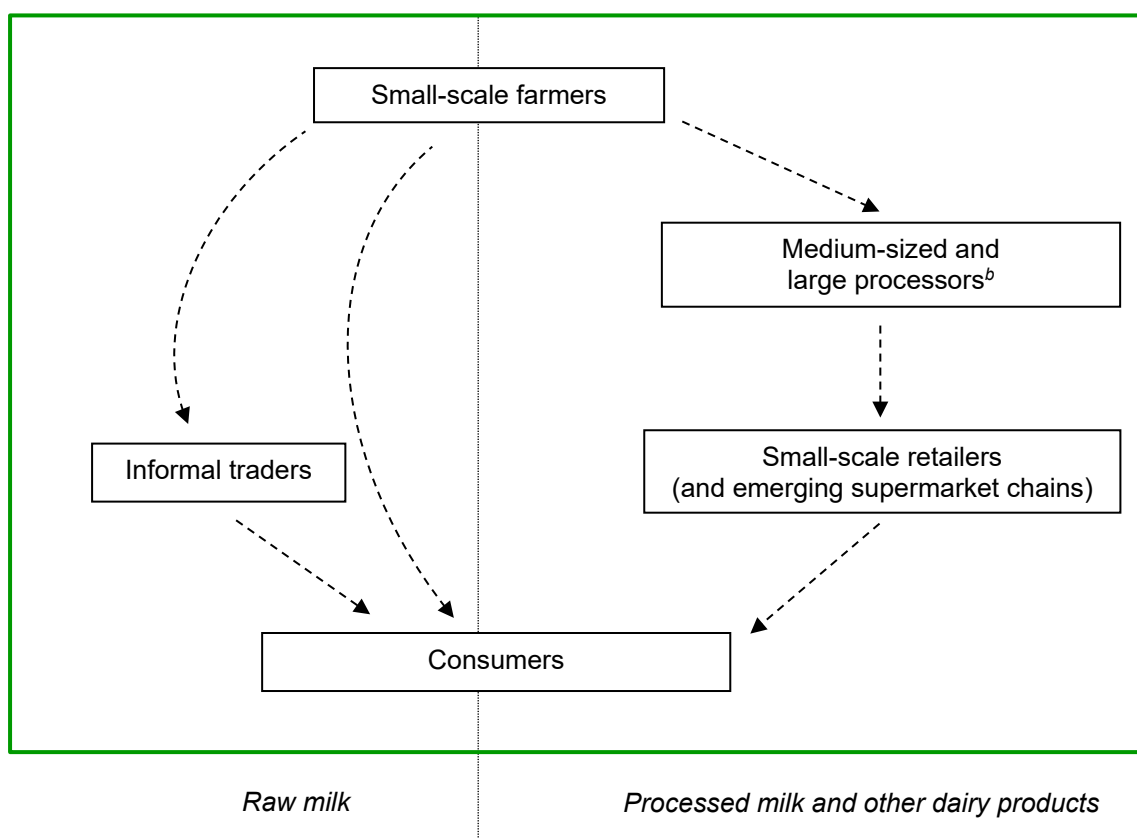
the dairy chain, the moves towards milk processing, land use intensification and biological innovation were all more important in the decades prior to the war than they were during the post-war. This does not mean, however, that prior to the war such moves had ever gained enough momentum to provoke a major transformation of the chain. In structural terms, the situation described for 1950 was not remarkably different to that of the 1930s (Domínguez 2003; Langreo 1995).

### *Dairy Industrialization (1950/60-1980/90)*

The industrialization of the dairy chain took place mostly after the mid-1960s (figure 3). Investment in liquid milk processing rocketed and liquid milk processors, relatively irrelevant until then, became the core of Spain's dairy system. There was much technological upgrading, especially through the incorporation of imported processing machinery. The number of workers employed in the industry increased rapidly, and so did the average business size (table 2). Dairy agribusiness became crucial for Spain's transition to a mass consumption model during this period. The massification of dairy consumption was made possible by the rapid increase in household incomes (which resulted from rapid economic growth and a decrease in social inequality) and the spread of pro-dairy nutritional advice by physicians and the State, but also by the industrialization of the production chain. The greater part of the consumption boom was met by domestic production (figure 4), and the availability of processed milks contributed to improving consumer trust at a time when raw milk was suffering from serious quality problems in many parts of the country (Langreo 1995; Domínguez 2003; Collantes 2015 and 2018).



**Figure 3. The structure of Spain's milk chain around 1980<sup>a</sup>**



*Notes:* <sup>a</sup> The width of each of the two sections in the figure reflects to the relevance of each sub-chain within the dairy chain as a whole (see table 4 below); <sup>b</sup> Mostly medium-sized processors in processed milk production and large processors in the rest of productions (except cheese).

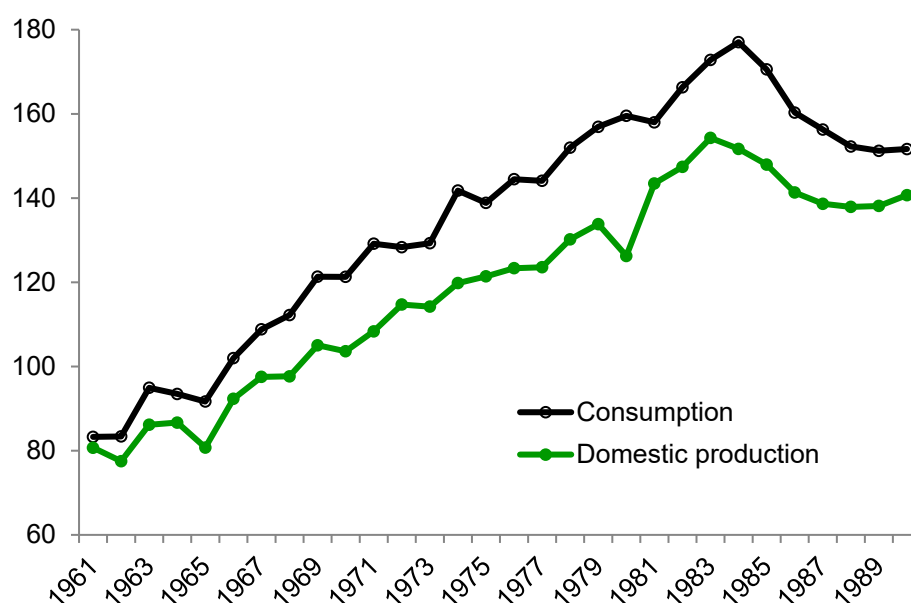
**Table 2. Firm structure and evolution in the dairy chain, 1958-1989**

	1958	1970	1980	1989
Number of farms/plants (thousands)				
Farms				
With dairy cows			304.3 <sup>b</sup>	213.7
Specialised in dairying				88.0 <sup>c</sup>
Processing plants	1.1	1.0	1.2	1.2 <sup>d</sup>
Labour input (thousands)				
Annual Work Units <sup>a</sup> in farms specialized in dairying				144.1 <sup>c</sup>
Workers in processing plants	7.9	16.4	25.5	27.7 <sup>d</sup>
Size of the average farm/plant				
Annual Work Units per farm				1.6 <sup>c</sup>
Workers per processing plant	7.5	16.4	21.5	23.2 <sup>d</sup>

Notes: <sup>a</sup> Labour input, measured in units that equal the number of working hours that a full-time farm worker would do in the course of one year; <sup>b</sup> 1982; <sup>c</sup> 1987; <sup>d</sup> 1990.

Sources: farming: INE (1984-85; 1991); processing: INE (1962; 1975-76; 1981-82; 1991-92). For dairy processing in 1958, I do not give the figures in the source, but a corrected estimation. Because the source was actually a preparatory work for an upcoming manufacturing census, it was probably too exhaustive: as it is acknowledged in its preface, a very large number of farm-based and artisan-type food production units were misleadingly enumerated as food processing plants. My correction retains the data for those units that employed five workers or more, and assumes that the units employing less than five workers had a share in unit numbers and workers numbers that was similar to that in 1970 (which is based on a more reliable source). Considering the trends depicted in the main text of the article, this may entail some downward bias, but one that must be clearly smaller than the upward bias in the original source.

**Figure 4. Consumption and domestic production of dairy products (butter excluded) in Spain, 1961-1990 (primary equivalent kilograms per capita)**



Source: Faostat ([www.fao.org](http://www.fao.org), *Food balance*).

Dairy agribusiness also became ever more crucial for farmers, whose links with processors became much stronger. By the mid-1970s, and in striking contrast with the situation only one decade earlier, selling milk to some processor had by far become the most common strategy in dairy farming (table 1 above). Not only farmers' commercial strategy but dairy farming itself underwent major changes during this period (Briz 1977; Calcedo 1997; Domínguez 2001; Domínguez and Puente 2009; Langreo 1995). It was now that the process of substituting autochthonous, multi-functional breeds with foreign, higher-yielding (mostly Friesian) breeds developed fully. Other productivity-enhancing

innovations included milk-substituting industrial products for the feeding of calves (with a subsequent rise in cows' net milk yield) and milking machines. Although hard data are not available, it seems likely that technological change was joined by some farm restructuring. Similarly to other areas of Spanish agriculture, many small-scale farmers left the sector and the countryside altogether, while many others closed their farms after retiring and finding that they were unable to secure a successor (Abad and Naredo 1997; Collantes and Pinilla 2011). Even so, by the end of the period dairy farms remained fairly small in comparison to their Western European counterparts, as well as to the Spanish processors that they were increasingly connected with (table 2).

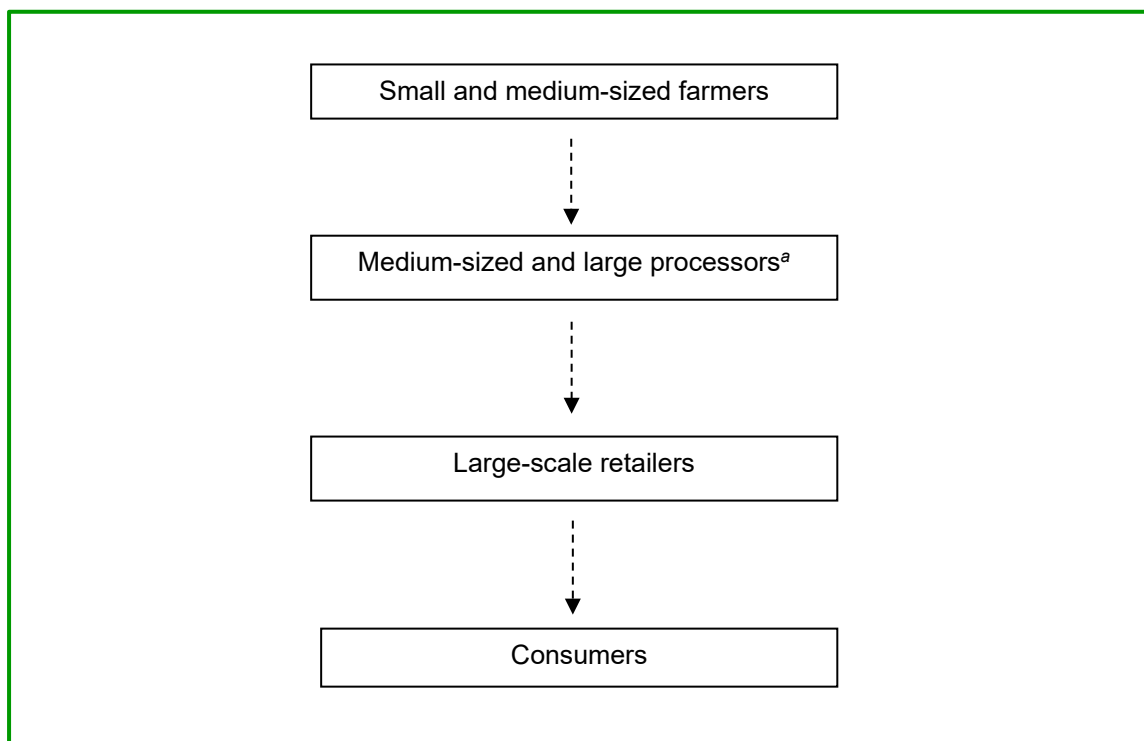
Changes in retailing, however, were more modest, especially before the 1980s. Supermarkets and hypermarkets began to appear in the country's largest cities in the 1970s, but their market share was still not large enough for them to exert a relevant impact on the decisions of processors or farmers. Moreover, consumers seemed to be strongly identified with producer brands, which limited the spread of retailer brands. Finally, as late as 1980 almost 40 per cent of the milk consumed in Spain was still raw milk, most of it commercialised by smaller retailers, itinerant urban middlemen or farm populations. All this made retailers dependent on processors, both in the sense that their advance depended on processors' capacity to expel raw milk from the consumer market and in the sense that their supply of processed milk had to remain strongly linked to producer brands (Collantes 2016).

#### *Retail-Led Restructuring (from 1980/90 onwards)*

In the 1980s and 1990s, a retailing revolution turned supermarkets and hypermarkets into the main actors of the chain (figure 5; table 3). Smaller retailers and alternative networks were nearly expelled from the market, while food service outlets for extra-domestic consumption played a minor role as a potential counterweight to the

increasing power of retailers. Today large retailers, highly concentrated on a small number of business groups (some of them foreign, especially French; some others based on national capital), channel a share of dairy sales that is higher than that in any other chain of the Spanish food system. The retailing revolution resulted from the confluence of at least three factors: first, supermarkets used market power to exert a strong downward pressure on both sourcing and consumer prices; second, supermarkets implemented active strategies of supply chain management that increased such pressure through the creation of stable sourcing networks and the launch of own brands; and, third, there was a congruence between the commercial strategies of supermarkets and consumer behaviour, which was crucial in (for instance) the rise of ultra-high temperature processed milk (as opposed to pasteurized milk) as the dominant variety of milk (Collantes 2016).

**Figure 5. The structure of Spain's milk chain today**



*Note:* <sup>a</sup> The average business size is largest in the refrigerated desserts sub-chain and lowest in the cheese sub-chain, with liquid milk standing in between.

**Table 3. Demand-side concentration in the dairy chain**

	1986	2000	2014
Market shares by retail formats (%) <sup>a</sup>			
Supermarkets and hypermarkets	44 <sup>d</sup>	62	71 <sup>e</sup>
Smaller retailers	25 <sup>d</sup>	7	4 <sup>e</sup>
Consumption outside the home <sup>b</sup>	19 <sup>d</sup>	28	21 <sup>e</sup>
Alternative networks <sup>c</sup>	12 <sup>d</sup>	4	4 <sup>e</sup>
Patterns of raw milk use (%)			
Sale to processing companies	76	92	96
Consumption, sale or processing by farmers	20	5	1
Calf feeding	4	3	3

*Notes:* <sup>a</sup> Includes all dairy products, computed at market prices; there were not any major differences between different types of dairy products; <sup>b</sup> Restaurants, bars, cafeterias, canteens and institutions; <sup>c</sup> Door-to-door sales, farm-gate transactions, self-consumption, company shops and small cooperatives; <sup>d</sup> 1988; <sup>e</sup> 2010.

*Sources:* market shares by retail formats: Collantes (2016); patterns of raw milk use: MAPA (1986; 2001) and Ministerio de Agricultura, Alimentación y Medio Ambiente (2014).

At the same time, a transition took place between a very expansive model of dairy consumption to a much less expansive model in which growth in the demand for cheese and refrigerated desserts could hardly compensate for the fall in the demand for liquid milk (table 4; see Collantes 2015 for details). In combination with a new round of technological innovation in processing and farming, this created strong pressure for the restructuring of both sectors (table 5; figure 6). Employment in processing stagnated and eventually decreased. There was much business concentration in dairy processing: many small- and medium-sized enterprises disappeared or were absorbed by larger enterprises. This was particularly clear in the processed milk sub-chain, but took place in the traditionally more atomized cheese sub-chain as well. Similarly, there was a drastic reduction in the number of farms and in farm labour input. Most farmers who had been involved in milk production retired or reoriented towards other productions, while the remaining dairy farms became larger and more strongly specialized. Supermarket chains, which were also involved in frantic internal restructuring, came to play a major

part in the coordination of business and farm restructuring through their very aggressive price policies.

**Table 4. Consumption of dairy products**

	1958	1964	1980	1990	2000	2006	2012
Dairy-related intake of calories per person and year	181	193	320	337	325	312	297
Breakdown by individual products (percentage share of calorie intake)							
Raw milk	75	64	29	15	2	1	1
Processed milk <sup>a</sup>	4	11	43	51	51	44	37
Preserved milk <sup>b</sup>	8	13	10	5	2	3	3
Cheese	8	7	12	18	18	22	26
Butter	5	4	3	2	3	3	4
Yoghurt <sup>c</sup>	0	0	3	5	9	9	10
Other <sup>d</sup>	0	0	0	4	15	19	20
Total	100	100	100	100	100	100	100

Notes: <sup>a</sup> Pasteurized and sterilized milk; <sup>b</sup> Condensed, powdered and evaporated milk; <sup>c</sup> Includes all fermented milks; <sup>d</sup> Mostly other refrigerated desserts, ice creams and milk shakes.

Source: INE (1959; 1965-95), MAPA (1989-91; 1992-2006), Mercasa (2008-13). See Collantes (2015) for details on source exploitation.

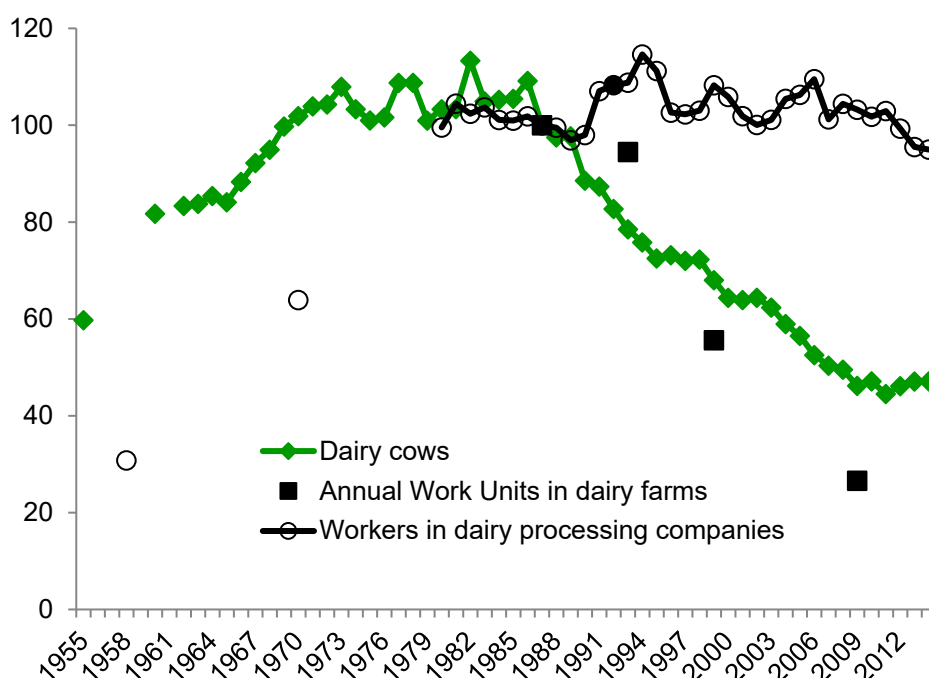
**Table 5. Firm structure and evolution in the dairy chain**

	1989	1999	2009
Number of farms/plants (thousands)			
Farms			
With dairy cows	213.7	78.8	29.5
Specialised in dairying	88.0 <sup>a</sup>	47.9	23.1
Processing plants	1.2 <sup>b</sup>	1.0	1.0
Labour input (thousands)			
Annual Work Units in farms specialised in dairying	144.1 <sup>a</sup>	80.1	38.3
Workers in processing plants	27.7 <sup>b</sup>	27.7	26.5
Size of the average farm/plant			
Annual Work Units per dairy farm	1.6 <sup>a</sup>	1.7	1.7
Workers per processing plant	23.2 <sup>b</sup>	28.4	26.2

Notes: <sup>a</sup> 1987; <sup>b</sup> 1990.

Sources: farming: INE (1989a; 1991; www.ine.es, *Censo Agrario*, 1999 and 2009); processing: INE (1991-92; www.ine.es, *Encuesta Industrial de Empresas*, 1999 and 2009).

**Figure 6. Number of dairy cows, annual work units in dairy farms and workers in processing companies, 1987=100**



Sources: dairy cows: Ministerio de Agricultura (1972), MAPA (1986; 2001), Ministerio de Agricultura, Alimentación y Medio Ambiente (2011; 2014); annual work units in dairy farms: INE (1989a; 1991; www.ine.es, *Censo Agrario*, 1999 and 2009); workers in

processing companies: INE (1962; 1975-76; 1981-82; 1987; 1989b; 1993; 1995; www.ine.es, *Encuesta Industrial de Empresas*, 1993-2014).

Processors have then tried to maintain their profitability by means of two different manoeuvres. With an eye on downstream developments, they have shifted from process-oriented to product-oriented innovation. By starting a new cycle of dairy products (refrigerated desserts, in particular), they have aimed at diversifying sales towards niches that are less mature than that of liquid milk, as well as less exposed to price pressure from supermarkets. Still, output diversification has progressed less than in other European Union countries. Furthermore, supermarkets since the turn of the century have been increasingly active (and rather successful) at creating their own brands (and, therefore, at capturing a substantial share of processing-related profitability) even for these novel products (Langreo 2003 and 2005).

In the meantime, processors have consistently adopted a second manoeuvre, upstream this time: they have increased their price pressure on farmers. The remaining dairy farmers have made substantial investments in order to upgrade their technology (i.e. installation of refrigerated tanks), but still fall short of the productivity results prevailing in North-western Europe and lack any capacity to respond (even if defensively) to downstream pressure (Cabo 2004; Calcedo 2004; Langreo 2005).

## THE RISE AND FALL OF ORGANIZED DAIRY CAPITALISM

The evolution of the market-versus-State tension in Spain's dairy chain is in line with developments in other Western countries. In Spain too we can discern a rise and fall of organized dairy capitalism.



## *The rise*

In the early 1930s, there still were no major State regulations in relation to dairy farming, processing or retailing. While most Western countries had shifted, or were by then shifting, to some variety of organized dairy capitalism, Spain featured a rather simple, decentralized market economy. This did not change substantially even during the 1940s, when the newly established Franco regime implemented interventionist measures that drastically restructured the political economy of most sectors in the Spanish economy. It is true that, as a part of that agenda, the State implemented some quantity-based controls in the sub-chains producing powdered milk and cheese. But, contrary to other major products, milk was not rationed and there was not any systematic milk price policy either. Nor were there subsidies to farmers or quality-oriented policies restricting competition in dairy farming, processing or retailing. Finally, even though physicians and local officers had been spreading the message that milk consumption was good for the health since the late nineteenth century (Nicolau et al. 2010), the State was not involved in systematic, centralized propaganda efforts.

The crucial move towards State-coordinated dairy capitalism took place in 1952, when the Franco regime issued a dairy policy based on so-called “milk centrals” as part of a much broader policy agenda of State intervention in the economy (Clar 2008; Freire and Lanero 2013; see also Ríos-Núñez and Coq-Huelva 2015). The regime had a strong opinion that Spain was facing two related dairy problems: first, consumption (which was actually among the lowest in Europe) was too low in relation to standard dietary advice; and, second, milk quality was very poor as a result of the shortcomings of the traditional, unindustrialized dairy chain. From 1952 onwards, local monopolies for the production of pasteurised milk would be put to tender in every large and medium-sized city. Concessionary firms would be in charge of centralizing the collection of raw milk from local farmers and processing that milk. A monopolistic position would allow them to overcome the scale threshold beyond which milk could be supplied efficiently, cheaply

and safely. This was expected to bring about a major change especially in those regions where, as in the Mediterranean and Andalusia, dairy farming was weak and dairy consumption was consequently very low. Milk centrals would displace the until then dominant, highly decentralized networks for the commercialisation of raw milk for human consumption – networks in which supply was irregular, adulteration frauds were widespread and sanitary requirements were not observed (Langreo 1995; Domínguez 2003).

Milk centrals were the core element of Spain's variety of organized dairy capitalism, but by no means the only one. During the period 1952-1986, Spain also implemented all other pillars of State-coordinated dairy capitalism. First, prices all along the chain came to be fixed by the State (Briz 1977; Langreo 1995). The State fixed the price at which farmers sold their milk to centrals, the price at which centrals sold their processed milk to retailers, and the price at which retailers sold processed milk to consumers. In the particular case of milk centrals, price fixation created a major link between private investment and public interest – or, perhaps more precisely, between private capitals and State coordination.

Second, subsidies were given to farmers and processors in order to support investment in technological modernization (or, in the case of processors only, in order to stimulate their involvement in State plans of market management through surplus immobilisation). Such subsidies were created in the 1960s under Franco and given a stronger and more consistent role in the early 1980s by the early post-Franco government (Briz 1977; Langreo 1995).

Third, there was commercial protectionism all the way through. Protectionism was initially very extreme and even included the use of non-tariff instruments, such as import quotas and the rationing of foreign currency. During the late part of the Franco regime and the early post-Franco years, the State abandoned most non-tariff instruments and there was even a minor trend towards tariff decrease. However, it became increasingly clear to all stakeholders that full liberalization (clearly a potential source of tension

between State and local agribusiness) would only happen when Spain became a member of the European Economic Community (henceforth, EEC). The slow pace of Spain-EEC membership negotiations implied thus the consolidation of a tariff-based variety of protectionism until the late 1980s (Briz 1977; Langreo 1995).

And, fourth and last, the State became involved in an active effort to disseminate the message that a complete and healthy diet required the consumption of large quantities of milk and other dairy products. This effort included projects developed by sector-specific agencies such as the National Dairy Committee (*Comité Nacional Lechero*), but also by the Ministry of Health. The school milk schemes implemented in the 1950s worked in the same direction (Collantes 2017). Although there were differences between Spain's variety of State-coordinated dairy capitalism and others in Western Europe (most notably, a much greater role for discretionary, top-down decision-making), the commonalities are remarkable.

### *The Fall*

In the 1980s, organized dairy capitalism became exposed to deregulation pressure. At the internal level, successive democratic governments actively pursued a policy agenda of liberalization in response to the many, complex and less than effective regulations legated by nearly four decades of dictatorship. (Said policy agenda has in fact been a long-standing element in Spain's democratic regime until today, even in the turbulent social context created by the economic crisis of the early 1990s and the post-2007 great recession; see Maluquer de Motes 2014). This was the context in which the policy of State-fixed dairy prices, which had already been made more flexible in the later part of the Franco regime, was abolished.

At the external level, entry to the EEC in 1986 implied dismantling protectionism in relation to Spain's main foreign competitors, which were quickly able to increase their

exports to a market where national producers (both in farming and in processing) were relatively uncompetitive (Briz et al. 1999). Moreover, it also implied dismantling the political economy of milk centrals, which was viewed by the EEC as a competition-distorting instrument and, therefore, as an obstacle in the way of creating a common market (Langreo 1995). To this deregulation pressure we should add the fact that from the 1980s and 1990s onwards the State has ceased to be so enthusiastic and active about the potential health benefits of dairy consumption. By means of their advertising campaigns food processors have actually become more important than the State in the definition of the social images of products (Collantes 2015).

The only one of the five pillars of organized capitalism that survived was farm subsidies. Entry to the EEC took place at a time when the latter was about to shift from a system of indirect, price-based farm support to a system of direct, payment-based support. In fact, after 1986 Spanish dairy farmers were able to apply for the same kind of subsidies linked to technological upgrading that had been available on a national scale in the years before 1986; and to this they eventually added direct subsidies dependent on farm characteristics –CAP's main policy instrument after the MacSharry reform of the early 1990s (García Grande 2005).

Spanish dairy farmers, however, faced entry to the EEC with great unrest because of the way in which they were integrated into the quota system. The quota system implied the concession to each country, and to each dairy farmer within that country, of a license to produce a given quantity of raw milk (and not more). Spain was given a quota that amounted to barely 80 per cent of its mid-1980s production level: not only was the EEC unwilling to tolerate an eventual conversion of fast-growing Spain into an overproduction country, but it even *de facto* reserved some 20 per cent of the Spanish market for surplus producers from other member States. Deeply dissatisfied with this, the Spanish Ministry of Agriculture refused to apply the quota system and managed to gain a moratorium until 1993. Even after 1993, and up to the early 2000s, it behaved in

an overtly passive way in relation to the (widely known) circulation of “black milk” (milk produced without a quota license) along the dairy chain (Langreo 2005).

All in all, the European Union dismantled the quota system in 2015. Although this is not the place to undertake a full evaluation of its consequences, the end of the quota system may well have exacerbated the drive towards farm restructuring. More specifically, it seems to have removed obstacles for large farms to expand faster, while small farms (operating under a less favourable cost structure) suffer the most from the downward pressure on farm gate prices that has consequently appeared. It might be too early to make a definitive assessment in terms of farmers’ welfare, but in terms of economic coordination the end of the quota system has undoubtedly been the latest success of the pro-deregulation agenda that dominates the market-versus-State tension since the late twentieth century.

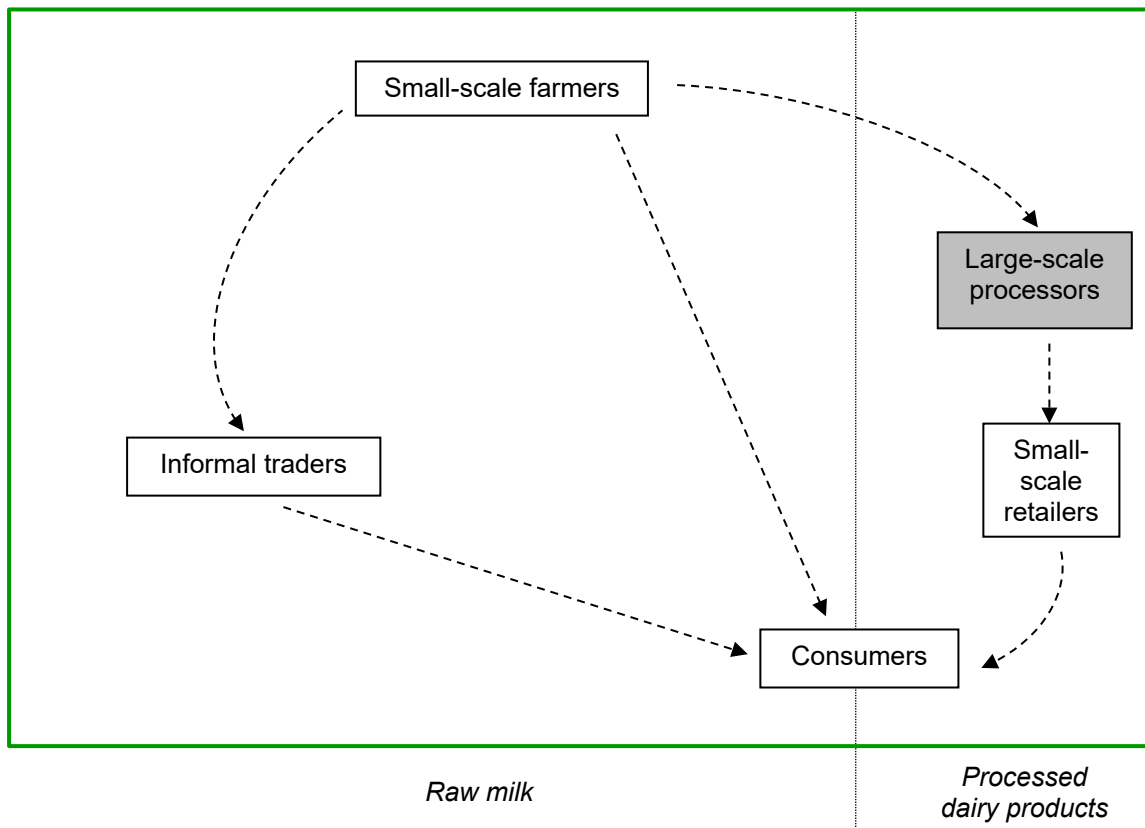
## THE MARKET STRIKES BACK?

So, was there a transition from organized to disorganized capitalism? Between 1952 and 1986, there was indeed a system of political economy that comprised price policies, subsidies to producers, commercial protectionism, licensed monopolies, and demand-side State initiatives. And after 1986 there was a process of deregulation that was driven by both internal and external factors and that dismantled almost all of these policy instruments. Yet, a closer look at the evidence reveals not so sharp a discontinuity. The market as a mechanism for economic coordination was not so absent during the first of our periods. Nor has it been so present during the second of them.

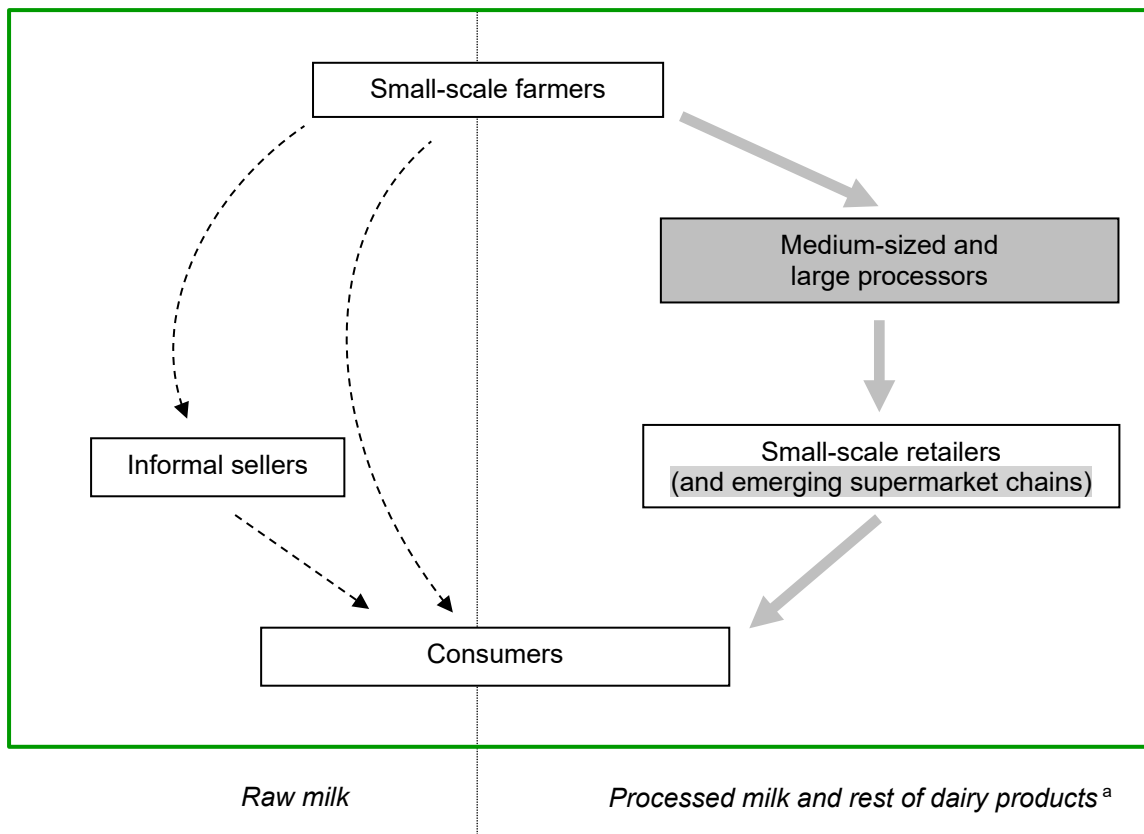
*How Organized was “Organized Capitalism”?*

The active policies of the period 1952-1986 may suggest some version of State-coordinated dairy capitalism, but even so a large part of the sector remained almost exclusively market-coordinated (figures 7 and 8). As late as 1980, almost 40 per cent of the milk consumed in Spain was still raw milk (Collantes 2014). The regulations over milk centrals were applicable only in large and medium-sized cities, which made the sale of raw milk for human consumption perfectly legal in smaller cities and rural areas – a decreasing but still substantial proportion of the population in a late urbanizing country such as Spain. Even in larger cities, networks for the commercialisation of raw milk persisted throughout the period. Their operations were extra-legal, but many consumers prized raw milk's lower price and (Collantes 2015). In this sub-chain there were not any price regulations or production licenses. Nor were there processors with oligopsonistic powers. Raw milk was produced by farmers in conditions close to perfect competition, and sold by those same farmers or by middlemen in conditions that (except for the lack of perfect information) were also close to perfect competition.

Figure 7. Strong elements of non-market coordination (grey area) around 1950



**Figure 8. Strong elements of non-market coordination (grey areas and arrows) around 1980**



*Note:* <sup>a</sup> The grey arrows apply mostly to processed milk, which was dominant in relation to cheese and other processed dairy products.

Moreover, even in the area of processed milk the design details of organized capitalism favoured a reactivation of market mechanisms through the back door. Policymakers focused on pasteurized milk, for which they designed the price and licensing policies presented above. For sterilised milk, however, only price policies (and not territorial monopolies) were implemented – and these price policies were less rigid than those applied to pasteurized milk. This asymmetry was to play a key role in the evolution of Spain's dairy capitalism. As soon as the technology of sterilisation and packaging mitigated some of the flavour problems that had originally harmed the reputation of sterilised milk among consumers, emergent processors began to reallocate resources from the production of pasteurized milk to the production of sterilised milk. In the domain of sterilised milk, a more flexible price policy allowed for higher profit rates,



while the absence of territorial licenses allowed for longer-range business strategies for both the collection of raw milk and the commercialisation of processed milk (Langreo 1995). In other words, although regulation fixed prices along the two sub-chains producing processed milk, it did not comprise any mechanism to prevent resource transfers from one sub-chain to the other.

In consequence, in the real world the major policy instrument of Franco's apparently organized dairy capitalism, the network of licensed local monopolies, never became as extraordinarily important as it was in political discourse or legislation. At the start of the period, the scheme progressed very slowly because in many cities there were not many entrepreneurs who were willing to undertake the required investments under the price conditions fixed by the State. Only after these conditions were revised upwards in the mid-1960s was there substantial progress. By then, however, processors had already found an even more effective way of increasing their profits: reallocating resources towards a less tightly regulated sub-chain: that of sterilised milk (Collantes 2014).

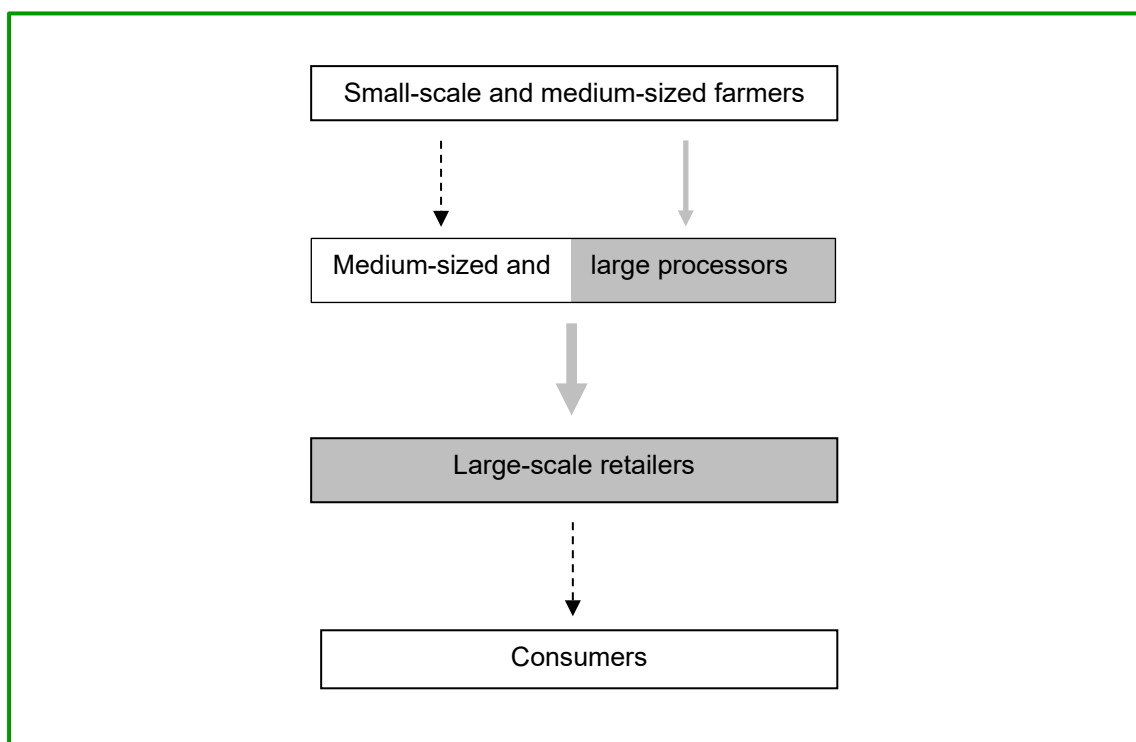
#### *How Disorganized is "Disorganized Capitalism"?*

The market has not been as present either in the post-1986 real world as it might seem from a reading of political discourse or legislation. To start with, the farming link in the chain became subject to the complex regulatory structure of European Union's CAP. Milk quotas were after all a licensing system that aimed at preventing overproduction in a way that implied a restriction of competition. In other words, they belonged to the same family of policy instruments as the milk centrals that (on the basis of different criteria) the Spanish government had been forced to dismantle in 1986: they would not have been out of place in the previous era of State-coordinated dairy capitalism. On the other hand, and as it was commented above, for Spanish dairy farmers incorporation into the CAP

meant that from the early 1990s onwards they were given the right to receive direct payments, a policy instrument that belonged to the same family than the indirect subsidies that had been implicit in the pre-MacSharry price policy. Both milk quotas and subsidies have been exposed to remarkable pressure for elimination (in the first case) or market-friendly reform (in the second case); outcomes which are gradually happening. Still, this market turn seems to be joined by a parallel move towards new forms of public intervention in the dairy chain. In the current decade, both the “dairy complex” implemented by the Spanish government (Royal Decree 1363/2012, *Boletín Oficial del Estado*, 2 October 2012) and the new CAP for the period 2014-2020 are explicit signs of a new direction in dairy policymaking – one in which policymakers search for instruments that improve farmers’ bargaining position within the chain in ways that might call for a lax interpretation of the competition protection legislation.

More importantly, the market has not played a coordinating role as important as around 1950 because the largest retailers and processors have deliberately moved away from the market in their upstream relations with providers (figure 9). It is not only that the main retailers and processors have become so large that they internalize a substantial share of economic decisions under one single vector of managerial planning – that is, managerial capitalism as opposed to an earlier, Smithian world of small, single-function business units. It is also that retailers and processors have implemented strategies of supply management in order to shape upstream decisions.

**Figure 9. Strong elements of non-market coordination (grey areas and arrows) today<sup>a</sup>**



*Note:* <sup>a</sup> A wide grey arrow means very strong non-market coordination; a thinner arrow means a more moderate presence of non-market coordination.

Supermarkets, for instance, have used their considerable market power to fix prices and standards upon their industrial providers. During the last quarter-century, these policies of price and standards have gradually narrowed the scope for processors' business autonomy. The trend has reached a peak after the turn of the century, when retailer brands have eventually become able to capture a substantial share of the markets for liquid milk and refrigerated desserts. As a matter of fact, the case of Spain's leading retailer (the Spanish-owned chain of medium-sized supermarkets Mercadona) shows that the capacity to create relatively stable networks of processors that become fully subordinated to retailer demands, specifications and strategies has become one of the major sources of competitive advantage within the retailing sector (Collantes 2016). These retail-led business networks are certainly controversial, attracting criticism from both those producers who belong to them (who complain about the downscaling of their profit rate) and those who do not (who complain about having been excluded from

mainstream contact with the consumer). One thing is clear for the present discussion, though: these networks entail less, rather than more, market coordination.

The semi-internalisation of upstream providers by large retailers has been replicated by processors in relation to farmers. To begin with, the persistent relevance of cooperative processors (even if lower than in other parts of Western Europe) has favoured the consolidation of relatively stable sourcing networks in some parts of the country. More importantly, both cooperative and private processors have consistently renounced to price warfare against one another (Langreo 1997). The Spanish Commission for Markets and Competition now considers it proved that in the early years of the twenty-first century processors operated as a cartel: they reached agreements over the price that they would pay farmers for their raw milk and over immobilising their respective milk collection networks, so that a farmer who had traditionally belonged to one processor's network would not be accepted into another's (Noceda 2015). These voluntary agreements for the restriction of competition can be read as a new (even if illegal) version of one of the traditional pillars of organized dairy capitalism. The very reaction of Spain's Ministry of Agriculture after competition authorities imposed a heavy fine on most of the country's leading processors –a reaction that stressed the Ministry's fear of the consequences that said fine could have on the viability of the dairy chain as a whole (*EP* 2015a)– reflects the actual limits of neoliberalism among Spanish policymakers.

In summary, two of the three main links in the dairy chain are operating under imperfect (mostly monopolistic) competition, while inter-link relations are commonly coordinated outside (even if complementarily to) the market. The contrast between the political economy of the dairy chain before and after 1986 is then not so sharp. In both cases we find a combination of markets, on the one hand, and supply management strategies, on the other. In both cases such strategies are consciously implemented by hierarchies – political hierarchies in the first case, business hierarchies in the second. In both cases, supply management is an instrument that elites use in the pursuit of their

objectives – political legitimacy in the first case, profitability in the second. In both cases, finally, the design of supply management needs to fit with the prevailing technological conditions and (there where they are present) market signals. The revision of State price policy that took place in the mid-1960s, for instance, was an attempt to make non-market coordination more attuned to market signals, but the relentless change in products, standards and prices that today's supermarkets promote within the sub-chains producing retailer brands can be interpreted in a similar way.

Rather than an actual “disorganization” of dairy capitalism, there was a transition towards a different mode of (partial) “organization”. When, in a recent interview the president of Spain's largest retailer declares that “We are learning that milk does not come from a brick, but from a cow” (*EP* 2015b), he is adopting a perspective that would have been perfectly understandable for the policymakers that gave birth to organized dairy capitalism in 1952, with the qualification that the latter (belonging to a nearly preindustrial era in the dairy chain) would have declared to be learning that milk does not come from a cow but from a pasteurizing plant. For both the policymakers of the past and the leading company directors of the present, using power to coordinate the chain seemed and seems more promising than remaining attached to the textbook idea of a self-regulating market.

## CONCLUSION

Spain's dairy capitalism apparently conforms to conventional wisdom. Once upon a time (in this case, between 1952 and 1986) the State performed many and varied tasks for the coordination of the dairy economy, but in the last decades it has stepped back. Especially after Spain's entry to the European Economic Community, most of the policy instruments of organized capitalism, including price controls and the licensing of local monopolies for the production of pasteurized milk, were dismantled.

That this truly entailed a transition from organized to disorganized capitalism is, however, much less evident, and perhaps misleading. The dairy economy was not really so tightly organized during the era of organized capitalism: as this article has shown, in some domains the role played by the market as a coordination device may have been more prominent in this earlier period than later on. Disorganized capitalism has also been less disorganized than it may seem, and in some areas the reach of non-market mechanisms of economic coordination has become greater than in the past.

It is important to clarify what this might mean for broader debates on the historical political economy of food. The point of this case study has not been to provide a supposedly more precise description of empirical details. In plain terms, the argument is not that there is a prevailing black-and-white narrative, that this is too imprecise, and that the whole issue should be recast in terms of dark grey and light grey. The main point is that we may be getting wrong what the nature of the contrast between the post-1945 period and present time is. According to the analysis in this article, the contrast does not result simply from the substitution of the State by the market, but also (and in no small measure) from the substitution of political elites by corporate elites in the control of (the ever present) non-market coordination. Rather than “disorganization” or a return to the times when the dairy economy was coordinated almost exclusively through the market, there was a transition between two different modes of (partially) “organizing” the dairy economy. In the terms of the evolutionary economics framework adopted by von Tunzelmann (2003), the transition did not only affect the structure of economic coordination, but also (and perhaps more crucially) the control of such coordination.

Is the case considered in this article representative of more general trends? It does not seem that the argument in this article is hugely based on elements that are specific to Spain’s dairy chain. Other Western countries were of course ahead of Spain in the process of dairy industrialization, but even so their share of raw milk in total consumption remained substantial in the two or three decades after the Second World War (de Wilde 1979). Therefore, it is likely that here too the visible side of organized

dairy capitalism coexisted with a less visible side of decentralized market coordination. On the other hand, the unfolding of supply chain management strategies by processors and supermarkets has been common to other Western countries as well (Vorley 2007). As a result, in the later period a highly visible element of deregulation and liberalization seems to have coexisted with a less visible element of non-market, corporate-controlled coordination.

It is, however, more difficult to assess the degree up to which the argument presented in this article holds for other chains in the modern food system. Although State intervention in the food system was far-reaching during the short twentieth century (Moser and Varley 2013), not all food chains were as strongly affected as the dairy chain. And, although retail-led supply management strategies have been pervasive in the later period (Koning 2013), not all food chains were as strongly restructured by them as the dairy chain, particularly in relation to the rise of retailer-brand foods. In consequence, we need careful empirical research on other food chains and other countries in order to perceive the bigger picture beyond political and legal discourse.

An important methodological implication of this case study is that such empirical analysis may allow for a more precise identification of historical eras in the political economy of food. As Bernstein (2016, 638-9) points out, much research in food regime analysis has favoured verification over open-ended investigation. Friedmann (2016, 675) suggests in a similar vein that a more careful empirical analysis may reorient the dominant discourse from the (somewhat reified) third food regime towards a more nuanced consideration of the different trends, tensions and outcomes taking place in different countries and commodity chains. There is in fact a new wave of work going precisely in that direction (see for instance Pritchard et al. 2016, and Winders et al. 2016). The present article suggests that analogous arguments can probably be made, with equally relevant consequences for longer-run interpretations, about the second food regime. Much of the conventional wisdom on the second food regime or organized capitalism as highly coherent, post-1945 configurations is based on a relatively small

number of studies, most of them interpreted with an eye on verifying a discourse focused on the political and the legal rather than on investigating actual practices from below. This is relevant not just as a historical issue, but also because of its influence on our understanding of the present time. As McMichael (2016, 154-6) has argued, much of the debate about whether a third regime has emerged or not depends on the terms of comparison that we choose. A more nuanced, less idealized consideration of the post-1945 food regime would probably lead us to be less exigent about the degree of structural coherence that we demand from the present food regime in order to identify it as such (for a convergent methodological observation, see Bernstein 2016, 643).

A different matter is defining what such food regime or, in the conceptual framework adopted in this article, such system of economic coordination is about. This article is much closer to McMichael's view of a fully-formed corporate food regime than to alternative views of structural incoherence or an insufficiently crystallized new regime (see Magnan 2012 for a review of this debate; see also McMichael 2016, and Friedmann 2016), but it reaches this conclusion through a different conceptual route. Rather than geopolitical conditions (as is intrinsic to food regime analysis), the article has highlighted the strategies of supply chain management that processors and supermarkets have followed in the neoliberal era. Such strategies have been extensively studied within the framework of food regime analysis (Lawrence and Burch 2007; Konefal et al. 2007), but not so much so as part of a broader transition towards network capitalism. In a way, this is what a scholar as influential to political economists of food as Harvey (1990, 159) has in mind when, in a rarely considered part of his work, he suggests that post-Fordist capitalism, with its "flexible responses", becomes more (rather than less) "tightly organized" than its predecessor. This reframing of the analysis is relevant because it highlights the main commonality between present time capitalism and the State-coordinated variety of capitalism that prevailed between 1929/45 and 1973: the long distance that separates both of them from the ideal type of an exclusively market-coordinated capitalism.



This reframing has political implications too, even if they cannot be addressed properly in the remainder of this article. Mainstream economists have experienced as a victory the fact that CAP's last reform in 2013 did not lead to increased public intervention in agricultural markets (see for instance Swinnen 2015). At a time of increasing social unrest in several food chains (including precisely the dairy chain), increasing public intervention was an option favoured by some farm groups. Mainstream economists, however, favour farm support measures that do not have an influence on the free workings of markets, for instance direct payments to farmers. However, if the argument in this article is correct, the alternative before us today is not really between free markets and State intervention. The real question is who controls the non-market mechanisms that, under one form or another, have been playing a major part in the coordination of the food chain since the central part of the twentieth century. Seen from this angle, more State intervention in the food chain does not necessarily represent the kind of ideological, anti-intellectual mistrust of free markets that mainstream economists criticize, but rather a pragmatic way of consolidating some countervailing power in the corporate-led governance of the chain.

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