Global Food Value Chains

A Conceptual Guide

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This book aims to introduce a new framework of analysis for competition law and policy, but also the broader field of regulation of the food economy, drawing on the concept of global value chains. These global value chains (henceforth ‘GVCs’) are structures of organisation of economic activity, which are characterised by their “systemic, coordination-driven nature”. They rely on various systems of transnational governance and different sorts of linkages, some traditional such as contract law, others novel and relying on corporate law, property law or some more informal mechanisms, relying on information technology. For instance, GVCs are becoming a primary conduit for the transfer of intellectual property (‘IP’) globally, with the creators of intellectual products relying less on traditional IP regimes to enable them to limit access to their material, and more on a combination of contractual rights and technological protections.

GVCs are prevalent in the global economy. As a joint report from the OECD, WTO and World Bank indicates, in 2013, “between 30% and 60% of G20 countries’ exports consist of intermediate inputs traded within GVCs”. Sobel-Read goes as far as arguing that “the most important paradigm for understanding the global economy, and the political and social relationships that both guide it and stem from it, is no longer the template of the market but rather the role of global value chains”, “corporate action, in the form of global value chains not only driving but also

2 Ibid.
defining, and therefore creating, the market”. Indeed, value creation is increasingly structured around GVCs, which permit the simultaneous and coordinated transnational production and distribution of a very large array of products that each stage of the supply chain has to manage effectively, without this necessarily involving vertical integration by ownership.

Although the tool was initially framed so as to help policy-makers to design industrial strategies geared towards a greater participation of firms, active in their jurisdiction, to the global economy, we think that its descriptive potential is wider than that. By exploring the sequences of tangible and intangible value adding activities, “from conception and production to end use”, GVC analysis offers a picture of global industries both “from the top-down”, by examining for instance “how ‘lead firms ’ govern their global-scale affiliate and supplier networks”, but also from “the bottom-up”, asking “how these business decisions affect the trajectory of economic and social ‘upgrading’ or ‘downgrading’ in specific countries”.

This mapping approach examines various dimensions: (i) the input-output structure of a GVC, by focusing on the process of transformation of raw materials and factors of inputs of production to final products, (ii) the geographic scope of GVCs which explains the degree of global dispersion of the chain, (iii) the governance structure of the GVC, which delves into the issue of control of the chain, (iv) the upgrading, which describes “the dynamic movement within the value chain” and “how producers shift between different stages of the chain”, (v) the local (or global) institutional context in which the value chain is embedded, including regulation and self-regulation, (vi) industry stakeholders that may be various local (but also global) actors of the value chain that interact to achieve industry upgrading. These may not only be companies, but also industry associations, workers, educational or research institutions, government agencies and ministerial departments. All these actors are involved to a certain degree in the operation of the global value chains and influence their development.

With some exceptions, GVCs have not been systematically explored by competition law scholars. The concept nevertheless offers an important analytical potential. The most obvious one relates to the transnational dimension it brings forward, calling for a “transnational coordination” between “destination states” and “producer states”, with this coordination being pursued at global, regional or bilateral...
A deeper impact could be the re-conceptualisation of the way competition law deals with vertical integration or quasi-integration, but also more generally the competitive process. Traditionally, the relation between the different levels of a vertical supply chain has been thought of as complementary, with competition authorities rarely seeing any reason to intervene, unless one of the segments disposes of considerable market power and engages in acts of exclusion, for instance, by raising the costs of its rivals upstream or downstream. This approach tends to ignore the allocation of the revenues engendered by the supply chain between the various partners (what some have called “vertical competition”), as an issue external to the exclusive focus of competition law on economic efficiency. In contrast, the GVC approach recognises that issues relating to the distribution of the total surplus value of the chain also take a prominent role in the relation between the various economic actors participating in the supply chain, especially as supply chain management, even if it is flexible, facilitates the crystallisation of their position (and share). By dissecting the chain-wide coordination of various economic activities, the GVC approach also better describes the systemic nature of GVCs; each part of the chain has an impact upon the other parts. Finally, the focus on value creation accepts that value does not only relate to profits made by economic activity in product markets, but also includes all forms of value creation in modern financial capitalism, in particular the appreciation of assets in futures markets, which is of particular importance in view of the financialisation of the food value chain.

The GVC approach provides a theoretical framework that enables us to understand how the global division and integration of labour in the world economy has evolved over time and, more importantly, how the distribution of awards, from the total surplus value, is allocated between the various segments of the chain. The starting point for the development of this framework was the growing importance of new global corporations, such as buyers (e.g. big retail) constituting “buyer-driven

9 See R. Steiner, “Intrabrand Competition-Stepchild of Antitrust”, (1991) 36, The Antitrust Bulletin, 155-200; Sobel-Read (1), who notes that “one consequence of these evolving strategies is that competition in the global marketplace is becoming increasingly vertical rather than horizontal. In other words, the most effective path for a clothing supplier in Reebok’s value chain is often not to switch to a slightly better contract with a competing brand such as Adidas but instead to advance to higher value-added work within its existing value chain for Reebok. Such work can include the performance of additional activities (e.g. assembly in addition to cutting) or the performance of current activities for a more profitable market (e.g. cutting high-performance cotton rather than standard cotton)”.

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global commodity chains”. These powerful lead firms are usually located in industrialized countries and interact with economically less powerful suppliers present in the developing countries. Contrary to traditional Neo-classical price theory analysis, and more in vogue with transaction cost economics (‘TCE’) and economics of organisation, the GVC approach enables competition authorities to focus not only on issues of horizontal market power and concentration at each segment of the chain, but also to engage with the vertical links between the various actors with the aim to understand how and whether “lead” actors can capture value. Their focus is on the distribution of the value generated by the chain, rather than the maximisation of the surplus (efficiency) as such.

GVC’s “holistic view” of global industries centres on the governance of the value chain, that is, how some actors can shape the distribution of profits and risks in the chain. Taking a political economy perspective, the GVC approach explores the way economic actors may maintain or improve (“upgrade”) their position in the global value chain, “economic upgrading” being defined as “the process by which economic actors—firms and workers—move from low-value to relatively high-value activities in GVC”. Concerns over global competitiveness, employment, investment in quality competition and long-term consumer interest may weigh in on the decision of competition authorities to explore the dynamics of global value chains and the way issues of distribution may be included in competition law assessments. We consider that such an approach contributes to understanding the challenges transnational production raises to competition law enforcement. This is particularly the case in the context of GVCs affecting developing or emergent economies, which is a topic that has attracted some attention in view of the necessity to promote a political economy framework that will enable local firms to participate in GVCs and, thus, to capture value or to “upgrade” existing capabilities and to create “domestic” added value.

The approach is also helpful in order to examine the organisation of the global food system in global food value chains, which forms the object of our study. The food supply chain is generally depicted as being composed of three main levels: agricultural production, industrial processing and wholesale or retail distribution. At a closer look, however, the food supply chain becomes more complex; it involves a number of other stages and links that add value to the chain either in the form of goods or services inputs. The food industry is heavily dependent on scarce resources like arable land, water and genetic resources (a limited biodiversity). At each level of the supply chain, firms, as well as other organisational forms, perform specific activities in the supplying of goods and/or services. Moreover, at the same level there may be one or more firms performing the same or complementary activities thereby adding specific value at

their stage of activity. The food supply chain, as a whole, originates, therefore, even before the agricultural sector, with the factor market (for example, the seed provider), and ends with the final consumer. The power relations in the global food value chain are characterised by international actors and local producers operating within the geographic area determined by the logistics of the product. Issues of distribution of the total surplus value of the global food chain are, thus, paramount and should inevitably influence competition law enforcement.

The agricultural commodities generally undergo a processing stage before being distributed. However, in some cases they are sold directly to consumers (direct chain) or through the sole mediation of the wholesale industry (short supply chain). The length of the supply chain depends on how many stages of transformation or commercialisation the product undergoes before reaching the final consumer (Figure 1.1).

A simplified description of the structural organization of the supply chain is generally based on the relationships between producers and suppliers, on one hand,
and suppliers and retailers, on the other. Typically, at production level, the relationship between market actors spans from a spot market exchange to a full ownership integration. Within this range, there are different types of contractual relationships, which contribute to the definition of the governance model adopted by the supply chain. In particular, marketing agreements and production agreements are the categories under which different relationships between contractors and growers are defined.

At distribution level, instead, there are generally three types of wholesalers around which the supply chain is structured: a) merchant wholesalers; b) manufacturers’ branches and offices; and c) brokers and agents.

Along the food supply chain, firms perform their activities together with and in compliance to governmental agencies and NGOs-managed regulatory regimes and certifications. In this perspective, production, services and monitoring activities, all bundle in the same value chain that brings the product to the final consumer. Consequently, one may add to the concept of ‘length’ of the supply chain that of ‘width’, aiming to describe the situation in which actors that are situated at the same level of the value chain perform similar or complementary activities, adding specific value at their stage of activity. However, some of the actors may simultaneously perform the same activity for different levels of the supply chain. This is the case, for instance, of the certification agencies, which verify the activity of both suppliers and sub-processors, thus blurring the significance of the distinction between width and length. The characteristics and number of firms involved in the different segments of the food value chain vary considerably:

The profitability and structure of the various segments of the value chain also vary. Some segments are characterised by intense levels of competition and consequently lower profitability, while others are more concentrated (Figure 1.2).

The recent pandemic Covid-19 has challenged the resilience of this global organisation of value chains. The various global value chains had to respond to two types of simultaneous shocks. On the supply side, food prices surged, first as a result of climate change and the occurrence of infectious diseases of animals and plants at a regional level, second, as a result of the disruption because of Covid-19 and the lock-downs affecting farm labour and export restrictions to important disruptions of food production and distribution, along the food supply

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14 Food supply chains are generally presented as characterised by a structure characterized by two bottlenecks, one at supply level and the second at retail level, see for instance South Centre, ‘Rebalancing the Supply Chain: Buyer Power, Commodities and Competition Policy’ (2005) South Centre.


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On the demand side, panic buying has quickly depleted stockpiles, with empty shelves appearing in supermarkets, thus further fuelling panic. As food safety, at a national level, becomes a key concern for governments, this may alter to a certain extent the policy followed with regard to certain dimensions of the governance of the food value chain, for instance by focusing on key logistic bottlenecks, facilitating the coordination between the different segments of the food value chain, or by enabling...
farmers’ access to markets through e-commerce channels. The e-commerce purchase rate of food or groceries in Europe, but also other parts of the world, has increased significantly in recent years, and this trend has accelerated with the Covid-19 pandemic, due to the consumer lockdown and other restrictive measures.

The book focuses on global value chains, because of our emphasis on the issues of distribution of the total surplus value of the chain and inequality of bargaining power in the context of these transnational supply chains, which, according to us, competition law should tackle. Hence, the use of the terminology of GVCs carries, for us, normative implications. Yet, we also envision this book as an opportunity to engage with competition law work focusing on global food supply chains as an economic phenomenon of interest for competition law.

We engage with the traditional competition law framework that has been mainly used by competition authorities in guiding their action in this area and assess if it is up to the task. We explore other alternatives on offer, including the value chain approach, and examine their comparative advantages and disadvantages. In order to do this we take a political economy perspective and also explore the issue of the global governance of food value chains, focusing on the interaction of competition law principles with other public policy objectives at a local and a global scale. As the food value chain is still to a large extent global, it may be subject to intense transnational regulations and the application of various competition laws and other forms of regulation.

Although we aim to take a broader perspective than price theory in the conceptualization of competitive interactions between economic actors involved in food production and commercialisation, we have chosen not to incorporate in this analysis the broader macro-perspective of “food regimes”. We recognize that this

22. In some countries, online commerce of food and groceries has expanded to cover a significant part of the market, with the Netherlands leading in Europe with one-third of final consumers having bought food or groceries online in 2019. See, statistics available at www.statista.com/statistics/915391/e-commerce-purchase-rate-of-food-or-groceries-in-europe-by-country/.
theoretical framework may offer useful insights in understanding the important structural changes of the governance of food systems the last decades, with the rise of the globalization of food production and consumption (the de-nationalisation of food systems and the emergence of an international food order which largely operates on the basis of transnational food value chains) and the increasing financialisation of food with the emergence of a “corporate food regime”. Although we recognize that the quest for “food sovereignty” may be an important driving force for the action of various public authorities involved in the regulation of economic activities in the food sector, we consider that if we had prominently integrated this concern in a competition law and policy setting, the clash of sovereigns that will have surely emerged would have made more difficult our effort to develop common understandings and practices among competition law authorities in BRICS and around the world. That said, we recognize that “food sovereignty” concerns may, in reality, at least influence the enforcement activity of competition law authorities, in particular with regard to global mergers and conduct that further internationalises the food production and commercialisation system, away from its domestic “roots”, and that it might explain some of their enforcement priorities, and the design of remedies imposed for competition law infringements, for instance with regard to global mergers. We can therefore consider it as useful background information and a possible independent variable, although we have not taken it systematically into account in this book.

Our starting point is that as all markets, food markets cannot be analysed abstractly without realising that they are embedded in social relations, not only between consumers and producers or retailers, but also between other sociological categories


of actors that are present in various fields of activity, sometimes invisible from the specific market where the economic exchange about food took place and the price was presumably formed. These could even go beyond the economic sphere and touch upon the political or the cultural fields. Furthermore, the social importance of food renders these markets, and their regulation, particularly sensitive to politics. For instance, farmers and their struggle for land re-distribution and economic independence has profoundly influenced the political and economic constitution of modern capitalist societies and to a large extent explains the emergence of antitrust law, the last decades of the 20th century.

This joint political economy and economic sociology perspective is supplemented by the important body of knowledge in industrial organisation and agricultural economics in order to delve into the following issues: How do the incentives of farmers, suppliers and retailers align with those of consumers? What is the current state of learning with regard to price transmission across the chain? What about the transmission of other parameters of competition (e.g. quality, safety)? Should one abandon an efficiency focused approach or one focusing on “consumer welfare” for one that emphasises the “fair” distribution of the surplus value or other public interest aims? Would a GVC approach focusing on the distribution and allocation of the surplus value among the many actors in the chain arrive at different results, with regard to the actors and interests “worthy” of competition law protection? How

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20 In reality, the process of price formation is quite complex, the global price of a food staple being set not by actual exchange on a market (actual prices), but also by “futures” and “prothetic” prices, such as different global price indexes that also take into account subsidies and the expectations of financial investors, which structure the various exchanges and become the actual world price of the food staple, in question. For a fascinating analysis with regard to global cotton markets, see K. Çalışkan, Market Threads: How Cotton Farmers and Traders Create a Global Commodity (Princeton Univ. press 2010), Chap. 1 & 2 in particular.

21 See N. Fligstein, The Architecture of Markets – An Economic Sociology of Twenty-First-Century Capitalist Societies (Princeton University Press, 2001), highlighting the importance of studying markets also as political and cultural fields, markets being social constructions that require extensive institutional support. One may also add that in some cultural contexts, certain types of food may have both nutritional and sacralization functions (or only the second).

22 K. Polanyi, The Great Transformation: The Political and Economic Origins of our Time (first published 1944, Beacon Press, 2001). According to Polanyi, the disembeddedness of the market from other spheres of social activity has been achieved only because it has been followed by a counter movement, various social groups (or society) attempting to re-embed market forces in social institutions and thereby to regulate the market mechanism (the so called “double movement”). Social movements, such as those initiated by farmers have played an important role in this respect.

23 In the US, the so called “Granger movement” was established in 1867 by Oliver Hudson Kelley, with the aim to unite the farmers against the monopolistic practices of railroads and elevators and to institute for themselves cooperative methods of buying and selling: S.J. Buck, The Granger Movement – A Study of Agricultural Organization and its Political, Economic, and Social Manifestations 1870–1880 (Harvard Univ. Press, 1933); T.J. DiLorenzo, The Origins of Antitrust: An Interest Group Perspective (1985) 5 International Review of Law and Economics 73.