

Special Communications

WILL EMERGING LOCAL SUPPLY CHAINS BE RESILIENT?

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In France, as in many other countries, one immediate impact of the coronavirus pandemic has been to give a strong impulse to the development of short supply chains in the agri-food sector, chains that are part of the more general hybrid type of organizational arrangements. This response to the pandemic resulted from changes in the strategy of producers as well as in demand from consumers. It raises a few questions to be developed below. First, was this reaction a response to disruptions in the existing long-distance (global) supply chains? Second, does it represent a significant part of the distribution network? Third, now that the pandemic is (slowly) regressing in Europe, do local supply chains look resilient or not? Although we are still far from benefiting of required data to substantiate the arguments, this short essay provides some food-for-thought on these three issues.

A disruption in existing supply chains?

The exponential development of long distance supply chains over the last decades benefited from radical innovations on the technological side and from the increasing demand for diversified agricultural products. On the technological side, containerization, controlled atmosphere, cargo sizes and speed, fuel efficiency and satellite navigation systems have considerably reduced freight costs, enabled long-distance sourcing, and allowed the diversification of the supply base of food for retailers and processors. On the demand side, new patterns of consumption have emerged, with buyers requesting an extended variety of products and becoming health and diet conscious so that they pay increased attention to quality.

Supply chains are part of a larger family of organizational arrangements, identified as ‘hybrids’ in the literature inspired by transaction costs economics. Hybrids are distinct from classic market relations as well as from hierarchical coordination typical of integrated firms in that participants to the arrangement share essential decision rights and even some property rights because they expect to: (1) better deal with uncertainty by pooling resources; (2) benefit from spillover effects; and (3) ease the monitoring of non-contractibility and the allocation of joint rents through relational contracts (Williamson, 1996; Makadok and Coff, 2009; Ménard, 2013).

Concisely, ‘hybrids’ develop because parties expect benefits from jointly calibrating rights, control, and incentives, thus facilitating adaptability and improving performance through lower transaction costs (Ménard and Cabral, 2019). To reach that goal, modalities of governance need being implemented that go beyond the price mechanism while not relying on the hierarchical power that characterize the decision-making process in integrated firms. Different modalities governing hybrids have been identified in supply chains in the agri-food sector, from loose agreements close to market relationships, as in market cooperatives, to the joint creation of strategic centers that share some similarities with hierarchy, as in producers’ groups (Ménard, 2018). Because long-distance supply chains require increasing shared resources and the need to tightly coordinate so as to secure timing and quality of delivery to final consumer, there has been pressure towards more hierarchical modes of governance, often under the leading role of large distributors operating as ‘strategic centers’. Tighter coordination and control are often based on constraining contracts so that links among nodes of the supply chain tend to become quite rigid.¹

Because it has been so sudden and dramatic, with unexpected constraints on transport, storage, and modalities to reach final consumers, the coronavirus pandemic represented a brutal challenge to this organization. Did it disrupt these globalized food supply chains, and if so, how much?

Although very few data are available at this point, advanced indications as well as personal experiences collected from colleagues in France, Italy, Spain, the Netherlands and Germany suggest a remarkable resilience of these chains, although with a significant reallocation of resources. In France, beside the rush on specific products (pasta, rice, flour, and ... toilet paper!) immediately following the announcement of confinement (which began on March 17 and went on until May 11), there were never significant disruptions in the provision of food products, including fruits and vegetables from abroad.

Available data² rather suggest the following evolutions: (1) confinement translated into significant growth of domestic food consumption (up by an estimated 10%), with no inflationary pressure (estimated to a low 0.04% for these products); (2) main gains came from e-commerce, benefiting primarily to medium stores and supermar-

¹ The development of this governance has raised tensions among participants to the supply chains, particularly between producers and highly concentrated distributors (see di Marcontonio and Ciaian, 2017)

² From now on, all data provided come from: Information Resources Inc (IRI), 2010; Chalmin, (2020); FranceAgrimer, 2020; and RMT-Alimentation locale, 2020.

kets (gains estimated to +76%; the ‘click and collect’ phenomenon) while detrimental to hypermarkets (-8% and more); (3) a push on traditional fresh products, related to the explosion of home cooking (+3.2% between March and June, while other (non-food) products recessed by -1.8%); (4) a strong growth of frozen food.

In sum, if we abstract from the impact of closure of restaurants, cafeteria, and other catering services, food consumption remained resilient and so did the supply chains provisioning consumers. It does not mean that nothing new happened!

A significant chunk of the P to C network?

Indeed, behind this apparent resilience of global supply chains, some significant changes went on. The spectacular development of e-commerce did not benefit only medium and large supermarkets. The ‘home cooking’ phenomenon created by the confinement also pushed consumers towards buying much more fresh local products, in response to the closure of restaurants (a significant part of French budgets, particularly among the middle class), fear of contagion that penalized hypermarkets, more appetite for ‘bio’ products considered tastier and safer, and a movement of solidarity with local farmers (comforted by the strategy of medium and supermarkets to advertise ‘products of French origin’, with some spectacular success, e.g., French lamb).

Responding to that demand, producers, consumers and even some specialized stores created specific supply chains (‘groupements de producteurs’, de ‘consommateurs’, de ‘commerçants’, etc.) to short-cut well-established global supply chains and to develop short ones with close links between producers and final consumers. For example, numerous producers rapidly created systems allowing consumers to order directly, through internet or by phone, and to come pick-up their order or to be delivered which generated a boom in the transport logistic on short distance and the reorganization of the allocation of their time by farmers! (RMT, 2020: Bulletins # 3 & 4). Even in supermarkets, the movement towards making available more fresh products from local sources was apparently significant, paired with a shift towards higher quality of products offered (the chain stores heavily advertised these changes). Does it mean that new short supply chains would survive the end of the confinement?

A resilient reorganization of supply chains?

Although there are still no data available to exactly estimate the significance of the phenomenon on global food consumption and notwithstanding perception by city dwellers that direct provision of fresh food was significant, some observable evolutions suggest the other way around.

Retrospectively, what is striking when looking back to the confinement period and its dramatic atmosphere is the resilience of long-distance, global supply chains when it came to delivering food products to final consumers. “All in all, the consumer did not have to pay more for his food and did not suffer any rationing, empty shelves only mirroring his own worries” (Chalmin, 2020, p. 41).

The development of new circuits partially followed changes in demand during the confinement, particularly within specific sectors. For example, the general consumption of meat went down, but with spectacular growth of sales of minced meat, particularly frozen one. Similarly, the consumption of eggs and high quality (label) chicken went up, but it went down for more sophisticated products (e.g., duck or guinea fowl). And the same happened for dairy products, with fresh milk and derivatives for home cooking in high demand while consumption of cheese of protected origin felt dramatically (within the first six weeks of the confinement, drop has been estimated close to 10% of the annual turnover). Most spectacular, though, was the increased demand for fresh fruits and vegetables. It is also a sector that was particularly amenable to the development of short supply chains, France being a significant producer of these perishable products.

However, it is not clear how much alternative local supply chains benefited from that situation besides partially substituting the closure of open markets. Indeed, what is remarkable is that on the supply side, the main beneficiaries of confinement (and of the closure of open markets) have been supermarkets, including for fresh fruits and vegetables with an estimated increase of their sales by over 32% for that period. According to IRI (2020), at the end of the first phase of ‘deconfinement’, by the end of May, the volume of food sales through medium- and supermarkets was basically back to the level of one year ago, although detrimental to hypermarkets, largely thanks to e-commerce (reaching between 85% and 92% of their pre-confinement level of the beginning of the year).

Preliminary data from the same report suggest that for the first two weeks after the reopening of markets, the trend persisted with a sustained demand for fresh products (+ 11% from May 10th to May 30th), e-commerce capturing a big chunk of that demand, with its market share of fresh products reaching twice what it was a year before, up by 24% for fresh fruits and vegetables, 12% for meat, and 11% for fish.³

Is this to say that nothing significant and resilient happened with respect to the development of short, alternative supply chains? Although not as spectacular as suggested (and as perceived by many city dwellers), the implementation of short supply chains, although it remains marginal, seems to be a non-negligible trend. The question that remains open is whether this form of hybrid organization will subsist and continue to grow, leading to a redistribution of power between local and long-distance global supply chains when the situation will be back to normal whenever this would happen.

³ A funny anecdote: the main increase in demand during these two weeks was for cosmetics and personal care products: +472% in hypermarkets, +512% in small markets, +1238% through e-commerce and +708% for proximity stores (surface of less than 400 m²)!!!

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