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# Public Private Partnerships in food industries: A road to success?

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ABSTRACT

Recent food safety crises have led to the development of new collaborations between public authorities and food operators in monitoring food safety. To date, most of the literature has analyzed these collaborations as linked to a regulatory process and as a mean to comply with regulatory standards. In this paper, we take another stand and consider them as specific embedded institutions (meso-institutions) analysing them as Public Private Partnership specific to food safety provision. This new perspective allows us to take into account both information asymmetries and the industry-wide dimension of such programmes. Our overall intention is to provide a general enriched theoretical framework to highlight aligned incentive mechanisms in such partnerships. We then apply our framework to two case studies in order to better understand the main mechanisms at work that could explain their specific functioning and resilience. The two case studies are the cattle traceability system in Quebec (Canada) and monitoring programmes for pesticide residues in the French imports industry of fresh produce.



## 1. Introduction

Increases in the number of food-borne diseases[1] along with the steadily occurrence of high-profile outbreaks linked to food in various industrialized countries have created both political and economic demands for more effective and costly food safety controls. Given the costs of these controls, governments tend to give food operators more responsibility in handling and preventing food safety hazards (Verbruggen and Havinga, 2015a,b). Indeed, many countries have promulgated laws that encourage the food industry to implement voluntary food safety hazard control plans and make preventive efforts to minimize the probability of a food safety hazard occurrence. Besides, we also observe the emergence of new collaborations between public authorities and food operators in monitoring food safety (Cafaggi, 2010; Garcia-Martinez et al., 2007).

The literature is replete with analysis of collaborations between public authorities and firms in all economic activities (see Black, 2001). However, this literature, depending on the discipline (economics, sociology, political science) uses multiple concepts - albeit blurred – to name these collaborations: co-regulation, enforced self-regulation, meta-regulation, hybrid regulation and so on. This abundance of terms led to a fuzzy understanding of these collaborations depending on the analyses' focus: their emergence (Mayer and Gereffi, 2010; Coglianese and Mendelson, 2010), the risks of regulatory capture and loss of transparency (Verbruggen and Havinga, 2014), etc. As suggested by Verbruggen and Havinga (2015a,b), one common feature of this literature is that these collaborations are an output of the regulatory/political process (standard-setting, implementation, enforcement and monitoring) and appear as a mean to comply with a regulatory standard. In other words, co-regulation is a regulatory tool for food operators' compliance.

More specific to food safety issues, the literature has mostly dealt with the effects of private systems on the organization of transactions in the global supply chain (Busch and Bain, 2004; Cafaggi, 2010) or attempt to qualify public and/or private agents' incentives to participate in such system (Garcia-Martinez et al., 2007; Rouvière et al., 2010). Recent contributions consider these partnerships as public and private actors working side-by-side to deliver (co-) regulatory outputs. Garcia-Martinez et al. (2013) provide a framework that distinguishes forms of collaborations according to the stages of the regulatory process from which they emerge (Garcia-Martinez et al., 2007, 2013). They distinguish two broad co-regulation models, in which either private agents (bottom-up models) or public agents (top-down models) control or monitor the other. These models have undeniably improved our understanding of these organisations. However, Garcia-Martinez et al. (2013) suggest the need for scholars to deeply

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[1] Tauxe (1997) and Newell et al. (2010).

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research such organisations so as to better understand their structure and their functioning.

In this article, we shed new light on these collaborations. We explore them from a different perspective that puts uncertainty and specific food safety concerns, such as systemic risks (collective dimension) and information asymmetry (credence attribute of food safety), as the main criteria of their functioning. To do so, we first consider them as embedded (meso) institutions, as suggested by Ménard (2014), looking at them as Public Private Partnership (PPP) specific to food safety and traceability. This perspective allows us to (i) consider these arrangements as newly created meso-institutions, merging both public and private actors in a single institutional frame in response to food safety incidents, rather than having public and private actors work side-by-side to deliver (co-) regulatory outputs, (ii) identify general incentive mechanisms that contribute to their resilience. In other words, we borrow concepts from the literature on meso-institutions and on PPP that we adapt to the food safety and traceability context. We intend to provide an enriched theoretical framework to discuss how the structure of these singular partnerships might help achieve the shared goals of food safety and traceability. Our general framework is then applied to two specific case studies to highlight the mechanisms at work that would explain their functioning and resilience: the cattle traceability system in Quebec (Canada) and monitoring programmes for pesticide residues in the French imports industry of fresh produce.

This article proceeds as follows: In Section 2, we provide an overview of the prevalence of these collaborative arrangements in the food industry as well as how scholars have analyzed them so far. In Section 3, we build our analytical framework. In Section 4, we use this framework to show how two PPPs, respectively from Canada and France, are organised and what are the mechanisms at work that would explain their resilience. Section 5 concludes.

## 2. Public private coordination in the food industry

### 2.1. Context

Food-born diseases outbreaks are costly, both in terms of lives and money. The outbreak of listeriosis in cantaloupes in the United States[2] in 2011 killed 30 people while cantaloupes' prices underwent a dramatic reduction. The mad cow crisis in Canada translated in losses close to $11 millions a day in exports due to closed borders and $7 millions a day because of drop in prices (Forge and Fréchette, 2005). In 2012, in France, Escherichia coli O 157:H7 was found in minced beef meat sold by Carrefour after three children have been contaminated.[3] In early 2009, Peanut Corporations of America, which is now bankrupt, prompted a recall of 3918 related peanut butter products after nine people died, and 22,500 more people were sickened.[4]

In response to recent food/traceability scares, prevention has become one of the primary food safety tool. In most developed countries, food safety regulations require all food processors, manufacturers, packers and handlers to identify and implement preventive efforts to minimize the probability of safety hazards to occur. In Europe, the General Food Law[5] was promulgated in 2002 and has been enforced since 2005. The Law highlights the need for food operators to develop food safety hazard control plans and to better monitor the safety of their inputs and outputs. In other words, European food operators have been encouraged to implement safety efforts on their operations. The same trend appears in the United States, with the 2010 FDA Food Safety Modernization Act (FSMA) that amends the 1938 Food, Drug, and Cosmetic Act. The Act requires all food operators in the food supply chain to identify and implement preventive effort to minimize the probability of a safety hazards to occur (Pouliot, 2011). In the UK, the 1990 Food Safety Act encouraged supermarkets to institute themselves effective internal procedures to ensure that control mechanisms had indeed been introduced in the sector (Hobbs and Kerr, 1992). In Canada, the Canadian Food Inspection Agency (CFIA) established in 1997 is responsible for enforcing Canadian food safety laws through slaughterhouses/processing firms' inspections and product analysis. In the 2012 federal budget, the Canadian government agreed to reduce costs by giving more responsibility to the food industry (food producers, processors and importers) to police its own safety practices, develop and implement their own risk-control systems (CFIA, 2014).

In parallel with this public response, we have seen the emergence of new management systems with increased collaboration between public and private agents. Garcia-Martinez et al. (2013) reviewed collaborative programmes for food safety in the United Kingdom and the Netherlands. Garcia-Martinez et al. (2007) provided examples of public-private coordination in the United States, Canada and the United Kingdom. This review of experiences demonstrated that coordination may take various forms such as HACCP programmes, quality schemes and codes of good practices that would be used at various regulatory stages to improve efficacy and/or economic efficiency of food safety controls.

All over the world, we find a plethora of those safety and traceability schemes. In the United Kingdom, the Red Tractor label is a food insurance scheme covering production standards on safety, hygiene, animal welfare and the environment, and accredited by the United Kingdom Accreditation Service (McEachern and Warnaby, 2004). This insurance scheme paid by producers and food companies is operated by an independent organization. The Red Tractor label appears on fresh produce (meat, dairy, fruit, vegetables and salads). It means the product is "traceable, safe to eat and has been produced responsibly from farm to fork".[6] In the Netherlands, "RiskPlaza" was set up on the initiative of a bakery chain but is now applied to all food sectors. "RiskPlaza" is a meta-control system that assesses and monitors the functioning of these private systems (Verbruggen and Havinga, 2014, 2015a,b). It is a database that gives information about food safety hazards, which may be associated with ingredients and how to manage these hazards. The new Dutch Food and Consumer Product Safety Authority (nVWA) is involved at various levels of RiskPlaza (expertise, regulation, harmonisation). In the United States, the California Leafy Green Products Handler Marketing Agreement[7] (LGMA) was initiated in the spring 2007 in response to the September 2006 *E. coli* outbreak that was attributed to spinach grown in California. Tomato Producers in Florida and leafy green producers in Arizona[8] have implemented similar programmes. Leafy green and tomato producers also began these mandatory programmes in 2007. The California cantaloupe[9] mandatory safety program was launched in 2012. It was initiated by growers and handlers and is approved by public authorities as well as certified by mandatory government inspections. Recent contributions have also mentioned the presence of these collaborative arrangements in developing a sustainable seafood industry while

[2] http://www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/120811/ (February 2015).

[3] http://www.lemonde.fr/economie/article/2012/10/17/retrait-et-rappel-de-steaks-haches-commercialises-chez-carrefour-et-champion_1776768_3234.html (February 2015).

[4] http://www.fda.gov/Safety/Recalls/ArchiveRecalls/2009/ucm128828.htm (March 2015).

[5] Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.

[6] http://www.redtractor.org.uk/about-us (April 2015).

[7] http://www.lgma.ca.gov (February 2015).

[8] http://www.arizonaleafygreens.org/ (May 2014).

[9] http://www.californiacantaloupes.com/food-safety (May 2014).