Export regulation, import safety?

EU public and private motivations to influence China's food safety regulation

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To my father, still an inspiration.

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ADB	Asian Development Bank
APEC FSCF	Asia-Pacific Economic Cooperation Food Safety Cooperation Forum
AQSIQ	General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China
AWP	Annual Working Plan of the EUCTP
BFR	Bundesinstitut für Risikobewertung (Federal Institute for Risk Assessment)
BMEL	Bundesministerium für Landwirtschaft und Ernährung (Federal Ministry of Food and Agriculture)
BRC	British Retail Consortium
BSE	Bovine spongiform encephalopathy
BTSF	Better Training for Safer Food programme
CAAS	Chinese Academy for Agricultural Sciences
CAC	Codex Alimentarius Commission
CAP	Common Agricultural Policy
CB	Certification Body
CCAI	CNCA Certification and Accreditation Institute of Technology
CCFA	China Chain Story & Franchise Association
CCS	Country Cooperation Strategy of the WHO
CCTV	China Central Television
CDC	Chinese Center for Disease Control and Prevention
CFDA	China Food and Drug Administration
CFSA	China National Center for Food Risk Assessment
CFSI	China Food Safety Initiative
CFSR	China's Food Safety Regime
CHAFEA	Consumers, Health, Agriculture and Food Executive Agency of the EU Commission
CIA	Central Intelligence Agency

CIES	International Committee of Food Chains (now Consumer Goods Forum)
CIFSQC	China International Food Safety and Quality Conference
CIQ	China Inspection and Quarantine
CNAS	China National Accreditation Service for Conformity Assessment
CNCA	Certification and Accreditation Administration of the People's Republic of China
CNHFA	China Nutrition and Health Food Association
COFCC	China Organic Food Certification Center
CPC	Communist Party of China
CPF	Country Programming Framework of the FAO
DAKKS	Deutsche Akkreditierungsstelle (German Accreditation Body)
DG AGRI	Directorate-General for Agriculture and Rural Development of the EU Commission
DG ENTR	Directorate-General Enterprise
DG MARE	Directorate-General for Maritime Affairs and Fisheries
DG SANCO/SANTE	Directorate-General for Health and Food Safety
DG TRADE	Directorate-General for Trade
DRC	Development Research Centre of the State Council
EEAS	European Union External Action Service
EEC	European Economic Union
EFTA	European Free Trade Association
EU	European Union
EUCCC	European Chamber of Commerce in China
EUCTP	EU-China Trade Project
EUR	Euro
FAB	Research and Innovation Cooperation in Food, Agriculture and Biotechnology
FAO	Food and Agriculture Organisation of the United Nations
FHL	Food Hygiene Law of the People's Republic of China
FSC	Food Safety Commission
FSL	Food Safety Law of the People's Republic of China

FSMA	Food Safety and Modernization Act
FSSC	Food Safety System Certification
FVO	Food and Veterinary Office of the EU Commission
GAP	Good Agricultural Practice
GDP	Gross Domestic Product
GEMS	Global Environmental Monitoring System
GFL	General Food Law of the European Union
GFN	Global Foodborne Infections Network
GFSI	Global Food Safety Initiative
GFSP	Global Food Safety Partnership
GMO	Genetically Modified Organism
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
HDE	Hauptverband des Einzelhandels
HETD	High Level Economic and Trade Dialogue
HLM	High Level Economic and Trade Mechanism
HOF	Regulation on the Hygiene of Foodstuffs of the European Union
HPPD	High-Level People-to-People Dialogue
HSD	High-Level Strategic Dialogue
IFS	International Featured Standards
IFSR	International Food Safety Regime
IGO	International Governmental Organisation
INFOSAN	International Food Safety Authorities Network
IPPC	International Plant Protection Convention
IRGC	International Risk Governance Council
ISO	International Organisation for Standardisation
MAH	Market Access Hypothesis
MoA	Ministry of Agriculture of the People's Republic of China
MofCom	Ministry of Commerce of the People's Republic of China
MoH	Ministry of Health of the People's Republic of China

MoU	Memorandum of Understanding
NGO	Non-Governmental Organisation
NHFPC	National Health and Family Planning Commission of the People's Republic of China
NIP	National Indicative Programme of the EU
OECD	Organisation for Economic Co-operation and Development
OFFC	Official Food and Feed Controls Regulation of the European Union
OIE	World Organisation for Animal Health
OWP	Overall Working Plan of the EUCTP
PRC	People's Republic of China
RASFF	Rapid Alert System for Food and Feed of the EU
SAIC	State Administration of Industry and Commerce of the People's Republic of China
SFDA	State Food and Drug Administration of the People's Republic of China
SGFSP	Sino-German Food Safety Project
SITC	Standard International Trade Classification
SPS	Sanitary and Phytosanitary
SSH	Supply Safety Hypothesis
TBT	Technical Barriers for Trade
TPS	Transnational Private Standard
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
US	United States (of America)
USD	US dollar
WHO	World Health Organisation
WTO	World Trade Organisation

1 Introduction: EU, China and food safety – a case to be made

The globalization of food production has increased the probability for markets to import unsafe food (Gustafson, 2011; Vogel and Ansell, 2006; EFSA, 2009; Zach *et al.*, 2012; Kennedy, 2013). Against this backdrop, in December 2001 China joined the World Trade Organisation (WTO).[1] With this step the country effectively became part of the globalized food production. This study analyses how the European Union (EU) – understood as an entity comprising public as well as private actors – responded to this challenge. More specifically, the objective is to understand the motivation behind the EU's observed activities to influence China's food safety regulation. Two hypotheses are deduced from theories of regulatory interdependence. The first assumes a supply safety hypothesis. With its massive food safety problems, China quickly posed risks to global food safety and thus also to EU's food safety. This happened at a time, when the EU itself had reinforced its food safety regulation with a stronger focus on consumer interests. Any influence by EU actors on China's food safety regulation thus could be the result of heightened import safety concerns. The second hypothesis offers an alternative explanation. China presents an attractive export market for EU companies. Although lagging behind the internationally established benchmark for safety, China's food safety regulation still potentially created market entry barriers for EU food exports. Activities to influence China's food safety regulation hence could be based on the interest to reduce such regulatory barriers to trade. Based on a mechanistic understanding of causality and the method of process tracing, this study specifies which combination of both motivations explains the observed activities by EU actors to influence China's food safety regulation between 2001 and 2014.

1.1 EU food safety regulation and the challenge of globalized food production

Since the Second World War, the liberalization of global trade led to an increase in the amount of traded agricultural goods, feed and food. Food production and food markets have become globally

[1] Henceforth, by China I refer to the People's Republic of China.

integrated (cf. Clapp and Fuchs, 2009, p. 3; Senauer and Venturini, 2005; Roth *et al.*, 2008).[2] Different steps in the increasingly complex production chain of food are now located in different countries and food increasingly consists of more ingredients (van Waarden, 2006, pp. 50–53; Josling *et al.*, 2004; Hoffmann and Harder, 2010). Following the horse meat scandal in Europe in 2013, the UK's National Audit Office found that a single pizza contained 35 ingredients that passed through 60 countries (National Audit Office, 2013, p. 34). The globalisation of food production has a major downside from a consumer protection and public health perspective. With foodstuffs travelling across the world, risks associated with food also can spread faster and more easily across national borders:

> *"Indeed, because of the ever-increasing food trade, regulatory failure, in the food safety system in the food-exporting country can easily endanger the health of the unsuspicious consumers of the importing country. Moreover, amid contemporary global interconnectedness, contaminated food can spread more rapidly and affect wider regions, thus causing global illness worldwide. Today not only new food safety risks can spread among countries, but also old, previously controlled, risks can be re-introduced into countries" (Alemanno, 2015, p. 10)*

Consequently, food safety was increasingly appreciated by governments as a public concern (Sun, 2012). Around the turn of the millennium, the EU made historical changes in its food safety regulation which were a response to the interconnectedness of markets when it comes to food safety. During the 1990s, a series of food safety scandals, most prominently the BSE-crisis, had spread across national borders within the EU.[3] They showed that regulatory failures in one member state quickly affected other EU countries because of the free movement of foodstuffs within the internal market (Böschen *et al.*, 2004, p. 105). These negative experiences led to a fundamental political conflict, in which not only policies but food safety governance in the EU as a whole was contested (Vogel and Ansell, 2006). Both national and EU authorities had failed to deal with the crisis – in terms of containing food risks and in terms of responding to consumer needs (Jasanoff, 1997). This resulted in a massive loss of trust, which made substantial policy and governance changes necessary (Renn and Dreyer, 2009, p. 3, see also Bernauer and Caduff, 2006). The main outcome was the General Food Law (GFL) in 2002 (European Union, 2002). It led to the

[2] Under the interchangeably used terms food and agri-food, I subsume all food products following the Standard International Trade Classification section 0 (food and live animals) and section 1 (beverage and tobacco). According to the WTO definition, section 4 (animal and vegetable oils, fats and waxes) and division 22 (oil-seeds and oleaginous fruits) are also part of food and agricultural products (World Trade Organization, 2011, p. 188). However, I exclude them from my consideration as they mainly represent inedible products. For a clarification of the Standard International Trade Classification system see footnote 70 on page 121.

[3] Bovine spongiform encephalopathy (BSE) is a deadly disease affecting cattle. It was first discovered in England end of 1984 and spread across Europe and beyond during the 1980s and 1990s (Böschen, *et al.* 2004, pp. 102–106). At the peak of the epidemic in 1992, there were over 37,000 cases worldwide (anonymous, 2012). In 1996, the British Minister of Health admitted that BSE potentially is a risk to human health (Böschen *et al.,* 2004, p. 104).

communitisation of food safety policy and at the same time to substantial changes in the EU approach to food safety regulation – often referred to as a Europeanization of food safety regulation (Alemanno, 2008; Havinga, 2012).

Among the many changes the GFL brought about, scholars have pointed to a major policy shift towards consumers' interests underlying the new regulatory approach (Marsden *et al.*, 2010, p. 118). Unlike before, the objective to protect the health of consumers became a central element of food safety regulation in the EU (Wendler and Vos, 2006). Before, it was the common market agenda and hence harmonization that EU food regulation was most concerned with (Alemanno, 2008). It primarily served to facilitate the exchange of goods between EU member states and was aimed at reducing trade barriers that resulted from diverging regulation. A prominent example for trade barriers due to differing regulations is the Cassis de Dijon case, in which the European Court of Justice overruled the attempt by Germany to forbid the import of the French liquor based on specific German beverage regulations. Thus, the institutional setup before 2002 implied that "consumer and health interests have been routinely subordinated to the objectives of furthering the commercial interests of farming and the food industry" (Millstone and van Zwanenberg, 2002, p. 595) and consumer safety was a "subsidiary consideration" (Alemanno, 2009, p. 172, see also Marsden *et al.*, 2010, p. 80; Vos, 1999). With the GFL, consumer health and consumer protection became the ultimate objective. For example, the farm-to-fork-approach, which overcame the traditional distinctions between the actors in the supply chain, was born out of this new approach.

The new EU food legislation furthermore underlined food businesses' responsibility for ensuring that the food they produce or handle is safe. The need to ensure compliance with the law, together with the previous food safety scandals, spurred the development of private forms of food safety regulation (cf. Meulen, 2011b; Fulponi, 2006). Retailers and food producers developed private food safety standards to safeguard them from problems of unsafe food from their suppliers. This development has been described by scholars as hybrid forms of food safety governance (Marsden *et al.*, 2010; Verbruggen and Havinga, 2017). Several private food safety standards evolved since the early 2000s in the EU. Thus, character, forms and types of private food safety regulation and the resulting hybridity are still subject to analysis and debate (Havinga *et al.*, 2015b). However, the growing phenomena of private food safety standards underscore their relevance (Havinga *et al.*, 2015a).

1.2 China's lack of food safety poses a risk for importing countries

Within the globally organised food production, China swiftly has developed into a major supplier. In fact, it has become one of the largest food exporters to the world. Measured in US dollar (USD), China's export volume of food has grown nearly seven-fold from 1990 until 2011 (World Trade Organization,

2012, p. 75). By 2015 it was the fourth biggest exporter of agricultural products with a share of 4.6 per cent of global exports (World Trade Organization, 2016, p. 104). This development has led the WTO to identify China as an increasingly relevant food exporter (World Trade Organization, 2010). This development itself does not pose a major problem. However, China has repeatedly experienced food safety scandals. Many of these incidents are as frightening as bizarre: Chinese and western media reported about pork glowing in the dark, "ping-pong eggs" bouncing off the ground, exploding watermelons, ham soaked in pesticides and cooking oil derived from gutter and drains (Thompson, 2012). This also includes cases of the deaths of infants in 2004 and in 2008 due to purposely adulterating infant milk powder (Tam and Yang, 2005; Pei *et al.*, 2011). In April 2004, in Fuyang, Anhui province, it was discovered that fake baby milk had led to the severe malnutrition of infants.[4] It left at least 13 babies dead and over 200 ill (Liu, 2010b, p. 253; China Daily, 2004b). The case was first reported one year earlier in local media, but "local authorities turned a blind eye to consumer complaints" (Burns *et al.*, 2010, p. 11). The most well-known food safety incident in China, however, is the melamine scandal of 2008 (McGregor, 2010; Pei *et al.*, 2011; Yang *et al.*, 2009). In September 2008, media reported that Chinese dairy farmers and milk traders had for many years used the chemical melamine to hide the fact that their milk had insufficient protein levels (for a detailed description of the scandal see Burns *et al.*, 2010; Pei *et al.*, 2011). Sanlu, a major dairy producer located in Shijiazhuang, the capital city of Hebei province nearby Beijing, was buying the milk and knew all along about the practice. They used the milk to produce infant formula. By the end of November 2008, at least six infants died, 51,900 were hospitalized and an estimated 294,000 fell ill according to official figures (Yang *et al.*, 2009).[5]

Even before this tragedy, an article in the German online magazine Spiegel Online from 2007 summarized the situation as "food horror in China". The article discussed a book by Chinese journalist Zhou Qing about food safety problems in China. His advice: "Never visit a restaurant" (Schönmann, 2007). In 2013, 16,000 pig carcasses floated down the Huangpu river through Shanghai, passing the famous colonial-style buildings on the waterfront of the Bund as well as the skyline of the city's financial district Luijiazui. Standing for China's massive economic rise since the 1980s, the scene was one of irony. This was an event so unusual and weird, that it was widely picked up by foreign media, reminding everybody that something was seriously was wrong with food production and food safety in China.[6]

[4] I use the official transcription for Chinese, pinyin, except for names such as the Yangtze River, for which specific spellings have become de facto standard. I furthermore follow the Chinese tradition and put surnames first followed by the family name (e.g. Xi Jinping). The bibliography, however follows the rules for western names.

[5] Note that in my interviews these figures were disputed as not capturing the whole extent of the incident.

[6] It only later turned out to have most likely not been an incident directly connected with food safety (Jourdan, 2013).

Food safety problems had already occurred in the 1990s in China. For example, use of unregistered pesticides led to public health crises early in the decade (Thiers, 2003, p. 243). With steady continuity, food safety incidents came to the forefront in China and attracted nationwide and sometimes global attention. It was little surprise that, despite all regulatory changes by the Chinese government, in 2013 food safety still was China's "top public concern" (Wang, 2013). Table 1 lists major food safety incidents for the period from 2002 until 2014.[7]

Table 1: Selected food safety incidents by year, 2003-2014

Year	Incident	Year	Incident
2003	Jinhua ham soaked in pesticides	2010	Gutter oil
2004	Fuyang baby formula incident		Fake green peas
	Carcinogenic pickled vegetables		Pesticide-drenched 'yard-long' beans
	Soy sauce made from human hair	2011	Clenbuterol poisoning
2005	Sudan red dye in foods		Glowing pork scandal
2006	Turbot fish antibiotic scandal		Mengniu milk aflatoxin scandal
	Illegal pesticides on vegetables		Exploding watermelons
	Meningitis snail meat		Toxic bean-sprouts
	Poisonous mushrooms		Leather milk
2007	Carcinogenic cooking oil	2012	Chlorine tainted cola
	Melamine laced wheat gluten		Fake eggs
	Sewage laced tofu	2013	Cadmium laced rice
2008	Infant melamine incident		16.000 dead pigs floating down the Huangpu river
	Insecticide laced Dumplings		Fake meat scandal (rats sold as mutton)
	Contaminated Ginger		Toxic ginger
	Contaminated Eggs	2014	HUSI/OSI tainted meat scandal
2009	Plastic tapioca		Fox meat scandal
	Pesticide laced buns		

(Source: own, based on Yasuda, 2013, p. 2; Foster, 2011; anonymous, 2011; Newcomb, 2011; Boehler, 2012; Lin, 2013; Li, 2014)

[7] This is not a comprehensive list of food safety incidents. It shall rather provide an impression of the extent of food safety incidents in China.

Scholars have acknowledged that China suffers from a high and unusual degree of food safety problems (FORHEAD, 2014; Bian, 2004; Collins and Gottwald, 2011, p. 147; Thompson, 2012; Gale and Buzby, 2009). In his analysis of China's food safety regulation between 2004 and 2013, Zhou Guangqi, asserts a "systemic failure" (2017). In 2007, the Asian Development Bank (ADB) estimated that at least 300 million Chinese fall ill due to foodborne diseases every year (Asian Development Bank, 2007). According to a study conducted by the China National Center for Food Risk Assessment (CFSA), a central government authority, from 2010 until 2011, there were 202 million official cases of foodborne illnesses in China. This means, one in 6.6 persons had been affected at least once per year by foodborne disease (Wu and Chen, 2013). China Daily, a newspaper owned by the Chinese government reported in 2012 that every year 15 per cent of Chinese were "made ill by food" (Cai, 2012). Notably, such figures do not include chronic diseases potentially caused by unsafe food but which cannot easily be traced back to their original cause (e.g. cancer). For comparison, in the EU, the number of cases of foodborne diseases per 100 inhabitants was a mere 0.12 in 2009 (Eurostat, 2011).

Given that food supply chains are globally connected, China's fundamental problems with food safety are not only a problem for the health of Chinese consumers, but for the well-being of consumers around the world (Roth *et al.*, 2008). Drew Thompson, a China analyst, described China's food safety regulation as "a challenge to global health governance" (Thompson, 2007). Importing nations and indeed importing companies have to find ways how to ensure that China's food safety problems are not imported. After China joined the WTO, the EU Commission reported a sharp increase in imported counterfeit produces, including foodstuffs. The increase between 2002 and 2003 was 77 per cent. Sixty per cent of all detected counterfeit products originated in China (European Commission, 2005c). Table 2 provides a selective list of food import safety incidents and shows that unsafe imports from China did cause actual food safety problems in importing markets, including the EU. Accordingly, media and experts discussed the issue of unsafe imports from China. The Wall Street Journal pointed at the problem and wondered "Who is monitoring Chinese Food Exports?" (Zamiska, 2007). The topic gained more momentum especially during the drafting process of the United States food safety modernisation act (FSMA).[8] Seafood and chicken imports from China especially raised fears (Flynn, 2013; Huehnergrath and Siegel, 2014). European media also pointed to the risks of Chinese food imports (Spiegel Online, 2012). "Food from China foisted on Germans", a newspaper lamented (Dowideit, 2014). The topic has lost little of its importance over time. In 2014, the Lancet pointedly titled a story on the prevailing situation: "China's food safety: a continuing global problem" (The Lancet, 2014).

[8] I owe the hint to the connection between FSMA and the public debate about unsafe food imports from China to Alberto Alemanno.

Table 2: Selected food import safety incidents, 2002-2014

Year	Food product	Importing country	Food safety issue
2002	Meat	EU	residues of veterinary medicines
2001-2002	exportation of tea, shrimps, honey, frozen chicken, beef	EU	Not specified
2002	Frozen spinach	Japan	Excess pesticide residues
2001	Shrimp	European Union	Excessive antibiotic residues
2001	Poultry	EU, Japan	Excessive antibiotic residues
2002	Honey	EU	Excessive antibiotic residues
2002-2003	Frozen spinach	Japan	Excessive pesticide residues
2002	Tea	EU, Japan	Excessive pesticide residues
2005	Fermented Cabbage	South Korea	Parasites
2005	Fish	South Korea, Japan, and Singapore	the cancer-causing anti-fungal agent, malachite green
2006	Turbot Fish	Not specified	cancer-causing veterinary drugs
2008	Dumplings	Japan	Excessive pesticide residues
2008	Mackerel	Japan, EU	Excessive pesticide residues
2012	Strawberries	Germany	Norovirus
2014	Meat	Japan	Expired meat, redeclaration of meat

(Source: own, based on Ellis and Turner, 2008, p. 18; Calvin et al., 2006, p. 18; Bian, 2004; Dong and Jensen, 2007; Wei, 2012; Spiegel Online, 2012; The Lancet, 2014; Thompson and Hu, 2007)

1.3 Research question and its relevance

How should the EU react to the risk posed by importing food from China? This question is the more relevant, given that food safety had become such a sensitive topic within the EU during the era of "contested governance" and the fact that new institutional frameworks and policies has only recently been set up to improve consumer protection. Indeed, the EU engaged early with China on food safety topics. In answer to China's accession to the WTO, the EU Commission ran a more than decade-long major project in collaboration with the Chinese government on supporting the countries harmonization with WTO, the EU-China Trade Project. It continuously included the topic of food safety. Also, the EU established a food safety dialogue with China. This seemingly fits well with a new approach, in which the EU has started to solve import safety problems at its source:

> *„The EU, aware that systematic controls at the border are not a realistic option, seems likely to shift its regulatory focus to where the source of a possible safety issue is located: the country of origin. Indeed, the Community is currently focussing its efforts in extending its reactive 'safetynet' regulatory model beyond its borders, thus inevitably giving rise to an interesting legal export of its own approach to import safety." (Alemanno, 2009).*

In making my argument for the need to research EU responses to China's food safety regulation more carefully and thoroughly, some additional points are necessary. I explain them in detail in chapter 2 and 3 where I lay out the status of theoretical debate and the relevant context for my case respectively.

First, in theoretical terms, the phenomena described above addresses the notion of interdependence in the international sphere (Keohane and Nye, 1977). National food safety regulations, just as other areas of social regulation are highly interdependent (cf. Lazer, 2001, p. 475; Büthe, 2009, pp. 102–103).[9] Scholars researching regulatory interdependence analyse and discuss how states and markets deal with external effects caused by the behaviour of other states and arguments for specific responses. This theoretical debate shows that there are two types of external effects – physical externalities and regulatory externalities. With regard to food safety physical externalities are risks for public health and the environment derived from importing unsafe food. Regulatory externalities, in contrast, manifest themselves as non-tariff market barriers in food trade which results from different food safety regulations between trading partners. From the history of the EU, as I discussed above, we already know that discussions about food safety regulation among trading partners is not necessarily motivated by the motive of consumer protection. Trade plays an important role, too. In essence, the issue of EU market access towards China reflects the issues during the development of the internal market. However, unlike for the case of the Cassis de Dijon, no European Court of Justice solves the matter. Theoretical reflections on regulatory interdependence help to clarify the different types of motives the EU potentially may have to influence China's food safety regulation. Next to the motivation to ensure safe food imports from China, the EU potentially has an interest to influence China's regulation to improve the access to the Chinese market for EU products and businesses. Thus, the mere fact that EU and China engaged on food safety topics is not enough information for a clear assessment, whether such activities were a response to import safety challenges. It cannot be ruled out that business interests in seamless trade were the driver for EU-China exchanges on food safety.

[9] When discussing regulation, henceforth, I refer to social regulation as opposed to economic regulation. According to a definition by the Organization for Economic Cooperation and Development (OECD), social regulations thus "protect public interests such as health, safety, the environment, and social cohesion" (Organisation for Economic Co-operation and Development, 2002). Social regulation thus addresses negative externalities and information asymmetries while economic regulation deals with problems of interconnectivity and sets rules for market entry and competition (Abbott and Snidal, 2009, p. 507; Young, 2006, p. 377).

Therefore, the research question of this study is: What is the motivation behind EU's activities to influence China's food safety regulation?

Second, as I introduced above, the EU should be understood as more than its public actors. Especially in the field of food safety regulation, we are confronted with a relatively strong and growing role of private forms of regulation (Marsden *et al.*, 2010; Havinga, 2012). This phenomenon has already been picked up in the ongoing discussion about new forms of regulatory governance, as I show in detail in chapter 2. Most importantly, the research strongly suggests that state-centred understandings of regulation no longer account for the reality. Instead, society-centred concepts of regulation, which also extend the definition of regulation to non-public, non-legal and non-obligatory forms, help to capture what is going on. Consequently, the perspective on international regulatory issues become transnational. Specifically, private standards, which I refer to as transnational private food safety standards (TPS) have developed as a major phenomenon in transnational regulatory governance of food safety (Havinga, 2006; Fulponi, 2006; Hatanaka *et al.*, 2005; Trienekens and Zuurbier, 2008; Campbell, 2005; Epps, 2010; Henson and Reardon, 2005; Herzfeld *et al.*, 2008). This additional aspect directly affects the research question. The hypothetical result of the analysis that EU public actors are not concerned with consumer protection in their exchanges with China on food safety, would need to be interpreted differently depending on the role of private regulation. EU public actors could – explicitly or implicitly – have delegated the task of ensuring safe food import to private actors. This would be a different situation from a total neglect of consumer protection interests at all.

The research question is inherently political. It asks which interests are served – the interest in the protection of consumers health or the interests in fluent trade for businesses. This is not to say that both objectives contradict each other. What is more, food safety is not exclusively an interest of consumers and trade is not exclusively an interest of businesses. As far as trade generates positive economic effects, consumers also profit from it. Likewise, import of unsafe food and food scandals are bad for business, too. Nevertheless, it is the balance between them that matters. It has effects on consumers and markets and thus is likely to be subject to influence from different interests. At the end, the balance reflects power distribution and interest constellations. Likewise, the relationship between public and private regulation itself is of political nature. Shifting responsibilities for ensuring import safety would go along with shifting abilities for public actors to control food safety, shifting power relations and new questions about legitimacy.

1.4 A case that fills a blank spot in the existing literature

Researchers have touched upon many of the topics relating to the research question presented here. I will present the relevant literature in detail in chapter 2 and 3. Here, I use a brief review of

existing research to demonstrate that an analysis of regulatory interdependencies between EU and China in the area of food safety has not yet been sufficiently provided.

Firstly, regulatory interdependencies in the area of food indeed are a long-standing topic in the literature, especially with relation to the WTO (e.g. Dawson, 1995; Boutrif, 2003; Gehring, 2004; Büthe, 2009). However, scholars studying bilateral regulatory interdependencies so far have focused on the conflicts between highly regulated markets (see especially the debates about beef hormones, genetically modified organisms and the precautionary principle between the United States of America (USA) and the EU, e.g. Jasanoff, 2005; Clavier, 2008; Eggers, 2001; Scherzberg, 2006; Alemanno, 2004; Josling, 2008; Vogel and Lynch, 2001; Drezner, 2005) and between less developed countries and highly regulated markets (e.g. Frohberg *et al.*, 2006; Laforce, 2010; Wilson and Otsuki, 2004; Chemnitz, 2012). As I show in detail 2.2.2.2.1, the relation between the EU and China does not match neither of the categories, because the EU and China present markets of similar size but differing qualities of food safety regulation. Secondly, the EU's import safety policy and measures have hardly been subject to research. Weimer and Vos (2015) deserve credit for providing a general analysis of the EU's approach based on the GFL. However, their focus lies on discussing activities explicitly addressing import safety problems. Thus, they do not cover the wider picture in which economic interests may motivate activities to influence third states food safety regulation. Thirdly, a number of studies have analysed China's perspective on regulatory interdependence and how the country has been affected by international food safety norms or food safety regulation of importing states. Indeed, China has struggled to comply with import regulations (Disdier *et al.*, 2008; Dong and Jensen, 2007). For example, Chen *et al.* show, that China's agricultural exports were significantly restrained by import countries food safety regulations (2008). Yue *et al.* provide a similar analysis for tea exports to the EU after the introduction of a stricter regulation and found that tea exports did not drop as sharply in reality as their model suggested (2010). Mangelsdorf *et al.* suggest, based on their findings, that China should harmonise its standards with international norms to avoid such export losses (2012). Lu and Kjeldsen-Kragh argue that indeed international standards already had positive impact on China's food safety regulation (2008). While this research is helpful for understanding the situation for China, it does not provide answers on the specific EU-China relation. What is more, research on the role and influence of private food safety regulation on China is fragmentary at best. Jensen and Zhou (2015) as well as Sheng *et al.* (2009) and Zhang *et al.* (2015b) discuss the development of private standards, certification systems and voluntary forms of food safety regulation in China, but all fail to discuss the role of TPS. Unnevehr and Hoffmann (2015) urge China to make more use of public-private forms regulation, including TPS. However, they do not analyse whether and how such private standards exert influence on China's food safety regulation.

1.5 The approach to the single case study

I place this study in a research tradition that values the insights of a detailed description of a single case. Representatives of this tradition argue that the widely used scientific concept of identifying causal effects by statistical means falls short of reflecting the causal complexity of social phenomena (Mayntz, 2002a). In fact, such variable-based research runs into numerous problems when applied to social research, as for example there often are not enough comparable cases to isolate specific causal variables (the so-called small-N problem) (Mayntz, 2002b, p. 11). The discussion above illustrated the complexity of the case already. First, it does not fit into the typically discussed categories of regulatory interdependence. Hence, identified mechanisms of how actors deal with regulatory interdependency may not hold true for China. What is more, the inclusion of a public and private level additionally adds to the complexity of the process. Thus, I rather aim at identifying a causal explanation of the phenomena that is based on an as detailed as possible description to do justice to the specifics of the case. The task is to search for an explanation that is just as complex as it needs to be to explain the phenomena (Mayntz, 2002b, p. 13). A deterministic understanding of causality provides an alternative methodology to the probabilistic, variable-centric thinking dominant in social sciences. In this approach, the task is to identify causal mechanisms instead of causal effects, which provide a step-by-step explanation of the phenomena. The method to identify causal mechanism is process tracing, a qualitative method which aims at retracing the causal elements within a historical development (George and Bennett, 2005, pp. chap 10). The idea is to identify all causal parts which are each necessary and together sufficient to explain the result. The aim of the study is to develop an explanation of a specific outcome, namely the EU's activities to influence China's food safety regulation. Thus, I conduct an explaining-outcome variant of process tracing.

The analysis includes the period starting in 2001 and ending in 2014. The starting point is marked by the accession of China to the WTO, when it truly became part of the world food economy (Wang *et al.*, 2013, p. 114). With the accession, the WTO rules applied to EU-China trade and thus the institutional framework for the trade relations was set. The observation period ends by the end of 2014, when China had started to revise its 2009 Food Safety Law. Based on the theories of regulatory interdependence I deduced a research heuristic that guides my research. It identifies ex ante four potential causal parts for the causal mechanism: trade direction, the state of China's food safety regulation, third parties, and public-private interactions. Reflecting the differentiation between public and private actors, the essential unit of my analysis are actors. My research heuristic furthermore is based on rationalist assumptions. While the research heuristic served as a guidance, the analysis was conducted in an explorative manner so that potential additional case-specific parts of the causal mechanism would not be missed. The research was based on official documents, media reports and interviews with European and Chinese experts.

1.6 Structure of the thesis

In this introduction, I rode rather quickly through my argument for the case and I made several assumptions and claims that require more exploration. The next three chapters serve this end and unfold the case more in detail. Chapter two provides clarification with regard to the theoretical foundation and deduces the hypotheses and research heuristic step by step. Chapter 3 proceeds by clarifying the context for the case. This is an important step, as a single case-analysis should not operate with a "ceteris paribus" assumption, but needs to account for the specific historical circumstances (Mayntz, 2002b, p. 22). As part of this, I substantiate the claim that China experienced an especially severe case of food safety crisis. I furthermore explain the EU's existing import safety regime as well as the history and development of TPS. I also introduce the structures and regime of the intergovernmental global food safety. Lastly, I recap the relationship between public food safety regulation and TPS. Chapter 4 details the ontological and epistemological foundations and specific methods applied in the following research. Chapter 5 presents the empirical data, the case itself, in a structured manner following the research heuristic. In chapter 6 I proceed by discussing additional conditions that I found during the process tracing. I use them in conjunction with the no empirically specified and validated pre-defined conditions to formulate four causal mechanisms. Each causal mechanism explains a specific part of the outcome. In the last chapter, I conclude by summarizing the results, discussing how my findings connect to existing theories and suggest areas for further research.

2 Theory: Responses to regulatory interdependence

The purpose of this chapter is to produce a heuristic model and hypotheses that guide my research of the motives and mechanisms behind public and private EU influence on China's food safety regulation. My starting point is that any measures undertaken by the EU to exert influence on China's food safety regulation are a response to regulatory interdependence. Therefore, I firstly review theories that address questions of regulatory interdependence. This literature reflects the appreciation of regulation scholars that regulatory politics have a strong international dimension – partly due to the nature of regulatory problems and partly due to the globalisation of markets.

Regulatory interdependence and response thereto is strongly connected to the specific concept of regulation. Since the late 1990s scholars increasingly question a number of assumptions of regulation theories. In doing so, the theoretical discourse reflects changes in the relationships between governments, markets and civil society which have been observed. A distinction can be made between "old" state-centred approaches and "new" society-centred approaches (Levi-Faur, 2011a, p. 3).[10] While society-centred approaches are better equipped to grasp the full picture – which per se makes them especially useful for a single case study – state-centred theories contribute to our understanding of the potential mechanisms and motives of transfer of regulatory policies between states. Besides, society-centred theories are not in strict opposition to state-centred approaches. They rather widen the perspective for analysis for example in terms of actors, instruments and mechanisms. Consequently, the following literature review in the firsts section of this chapter includes both state-centred and society-centred perspectives. I discuss the different approaches with the research question in mind and ask: what can they contribute to our understanding of the motives and mechanisms behind EU's activities to influence of China's food safety regulation?

[10] Admittedly, portraying different perspectives on regulation as an evolution of a theoretical development is a simplification. Of course, different understandings of regulation did and do exist in parallel and concepts do overlap. Nevertheless, scholarly view of regulation did change over time. For the idea to think of different perspectives on regulation as evolutionary see for example Jordana and Levi-Faur (2004) as well as Salles-Djelic and Sahlin-Andersson (2007a, p. 5).

The second section of this chapter builds on the literature review. I identify import safety and market access as two motivations why EU public and private actors may exert influence on China's food safety regulation. Furthermore, I describe the set of conditions which potentially are relevant for the causal mechanism behind theses motivations. Taken together, they form the research heuristic for guiding the analysis of the specific case. In this section, I also operationalise the research heuristic by defining expectations for each of the research heuristic's aspects. The expectations determine what I need to concentrate on when analysing the case. The last section provides a conclusion of the theoretical discussion.

2.1 Review of regulatory interdependence literature

The review of the literature in this section shows how the academic discourses about regulation and about regulatory interdependence developed together. International relations theory and especially literature on international political economy contribute to the analysis and understanding of regulation beyond the nation state and which addresses regulatory interdependencies.[11] The approaches generally differ in which actors are to be considered in the analysis. Some theories maintain the assumption that international relations are predominantly shaped by nation states, as (neo)realist international relations theory argues (Waltz, 1979). However, the idea of transnationalism has led to the inclusion of a wider set of public and private actors and institutions (Keohane and Nye, 1971; Risse-Kappen, 1995). This thinking is based on the claim that reality has changed. As Cerny argues, from a rationalist perspective, globalization – and with this the rise of regulatory externalities – has changed the rules of the game states find themselves in, affecting the logic of collective action and paving the way to transnational approaches (1995, p. 595). The distinction between these two broadly summarized schools of thought connects with the state-centred vs. society-centred distinction in regulation studies made above. The different assumptions of state-centred and society-centred are reflected on the international level by intergovernmental accounts on the one side and transnational approaches for regulation on the other side. Intergovernmental approaches focus on how states cooperate to address regulatory interdependencies, aim at explaining the emergence of specific international regulations, and explore the conditions for and ways by which regulation of one state influences the regulatory approaches of others. Transnational literature focuses on the emergence of private global politics and how such private regulation relates to, influences and interacts with state regulation. Both will now be discussed in turn with regard to their theoretical value for the

[11] For definitional clarity: By "international", I refer to the system in which states interact with each other. By "transnational", I refer to the system in which numerous multilevel-interactions are possible conducted by a wide set of actors including states, public and private profit and non-profit organisations and individuals. I agree with Salles-Djelic and Sahlin-Andersson that the term "global" is too unspecific and avoid its usage (cf. 2007a, pp. 3–4).

research objective. Before entering into this review, however, I first clarify the rationalist concept of regulatory interdependence itself.

2.1.1 Types of externalities in regulatory interdependence

It is a simple observation that there are specific regulatory problems which embody an international or even global dimension. Climate change and the regulation of global commons are two examples among many (cf. Vogler, 1995). Conceptualized theoretically, the international character derives from interdependencies. There are different types of regulatory interdependencies. The purpose here is to specify, what nature of regulatory interdependencies apply in the case of EU-China relation with respect to food safety regulation. The starting point is to interpret interdependencies in social regulation as externalities (Abbott and Snidal, 2001, p. 351). Abbott and Snidal distinguish physical and regulatory externalities. A physical externality refers to the traditional understanding of externalities originally defined by Pigou as a situation "in which one actor's conduct physically affects another", and they "occur relatively independently of the affected actor's conduct" (Abbott and Snidal, 2001, p. 351). This is most evident with environmental issues. While a nation state experiences the negative effects of some sort of pollution, the sources might reside outside of the nation's territory and thus outside the regulatory reach of the national government. Similarly, in other cases regulatory coordination and cooperation between nations is needed because single national regulations are insufficient to tackle a specific problem. For example, international regulation is necessary where global common goods are involved – i.e. the oceans, North and South Pole, outer space, atmosphere (Vogler, 1995; Janning, 2008, pp. 116–117).

In contrast, regulatory externalities describe a situation in which national regulation itself negatively affects foreign actors (Abbott and Snidal, 2001, p. 352).[12] The transmitter for these regulatory externalities is the market. Thus, globalization, here defined with Drezner as "the cluster of technological, economic, and political processes that drastically reduce the barriers to economic exchange across borders" (2008, p. 10), created and amplified regulatory externalities for states. Firstly, the more supply chains have spread across the world, the less single nation states are able to achieve their desired regulatory objective. Market actors can escape the regulatory reach of single states, leading in turn to a demand for international regulation by nations (Baldwin *et al.*, 2012, p. 373). Secondly, globalization intensified regulatory interdependence between countries. Domestic regulation of a specific state potentially affects others: protective social regulation in nation A has effects on markets and welfare in other nations while relaxed regulation may increase negative physical externalities effects for them. Thus, with increasing trade, the distinction between domestic and international regulation gets blurred (Vogel, 1995, pp. 12–13).

[12] Abbott and Snidal use the term "policy externality" (2001, p. 352).

To be sure, international regulatory interdependence also goes the other way. Portraying states only as "victims" that need to react to external pressures is only part of the full picture. The concepts of special interest and capture theory (Stigler, 1971, p. 3), see also (Mitnick, 2011)) remind us that regulation can equally be used to pursue specific goals other than serving public interests of public health or environmental protection – just to mention some examples. Protective regulation can generate competitive advantages for a country's economy or even for single firms within this country over other countries (and their firms). Similarly, international regulation can be used to further aims of specific states at the costs of others. In other words, regulation can be a tool of statecraft as well (Vogel, 1995, p. 13, see also Baldwin *et al.*, 2012, p. 375).

The differentiation between physical and regulatory externalities contributes to the understanding of the motives behind the EU's activities to influence China's food safety. Safeguarding oneself against unsafe imports is a reaction to *physical* externalities of food and food safety regulation. However, I also need to verify, whether *regulatory* externalities may theoretically be a motive for the EU to exert influence on China's food safety regulation.

2.1.2 State-centred perspective

This part will give an overview of state-centred international political economy theories that deal with regulatory interdependencies and international regulation. The literature broadly aims to answer two questions. First, scholars in this field discuss how international regulation emerged, how it is organized and how both can be explained. This also includes the question, who has most influence on the specific content of regulation. While the learnings from this research strand are very valuable for our understanding, it is the second body of literature that provides clues for the case under investigation. It discusses how and why certain nation states adopt external regulatory approaches of other nations. Therefore, I will provide a summary of literature concerned with the former aspect. The related theories deliver insights in mechanisms and causal chains. Before starting with the review, the corresponding state-centred definition of regulation will be provided which I will later contrast with the society-centred definition (see 2.1.3).

2.1.2.1 State-centred understanding of regulation and regulatory regimes

Selznick defines regulation as "sustained and focussed control exercised by a public agency over activities that are valued by the community" (Selznick, 1985, p. 363). His widely used and cited definition is rooted in a strong state-centred perspective and highlights the importance of regulating actors. The state-centred perspective (implicitly or explicitly) assumes that relevant regulators are those which have a legal mandate (i.e. governments, EU administrative bodies, international treaty-based organisations). Regulation moreover is based on hard law, which is legally binding and mandatory. Even within the state-centric academic discourse, it has been acknowledged that this understanding is too narrow. The concept of the (new) regulatory state

(Majone, 1997; Braithwaite, 2000) made two important contributions the discussion about regulation. First, the concept of the regulatory state introduced a number of aspects that go beyond an understanding of regulation as being exerted by government bodies in a command-and-control style (Levi-Faur, 2011b, p. 663). It draws the attention to the fact that regulation can be exerted in different ways and via various mechanisms including soft law. Moreover, the discussion of the regulatory state drew attention to the expanding role of regulatory politics and with this to a changing character of many (western) nation states that opened up spaces for private actors to take over regulatory responsibilities. Lastly, the regulatory state acknowledges the international regulatory interdependence of nation states. In sum, the major achievement of the regulatory state was to expands the focus of analysis beyond a mere discussion of what governments do to regulate national societies and markets.

The discussion about the regulatory state was mostly concerned with observation that regulation had increased in importance as a means for state to carry out is functions. Institutionalists added regulatory regimes as yet another concept to the analysis of regulatory politics. It has been introduced to denote a more complex understanding of how regulation constitutes itself. Analysts of regulatory regimes adopt the concept of regimes established in international relations theory (Krasner, 1983a). According to the widely used definition by Krasner, international regimes are "sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actor's expectations converge in a given area of international relations" (Krasner, 1983b, p. 2).[13] The core idea behind applying the regime concept is that regulatory policies can better be understood as combinations of different aspects that together form specific types of regulation which in turn can be distinguished from other types. The notion of regulatory regime thus can be seen as an anatomy to a view of regulation by a single regulator (Levi-Faur, 2011a, p. 13; Scott, 2011, p. 564). Accordingly, Eisner initially defined a regulatory regime as “a historically specific configuration of policies and institutions which structures the relationship between social interests, the state, and economic actors in multiple sectors of the economy” (Eisner, 1993, p. 1). The concept found wide acceptance and has initially been used in national (e.g. Eisner, 1993), EU (e.g. Hood *et al.*, 2001; Eberlein and Grande, 2005) and in international contexts. In the latter case, it was applied to analyse state responses to regulatory interdependencies (e.g. Gehring and Oberthür, 1997).[14] This in turn marks the concept’s relevance for the analysis here.

[13] To be sure, international regime analysis comprises more than the analysis of international regulatory regimes, e.g. security regimes (Janning, 2008; Hasenclever *et al.,* 1997).

[14] Regulatory regimes can be differentiated further. For example, Janning distinguishes three types of regulatory regimes discussed in the literature: social welfare regimes, regulatory regimes, and risk regulation regimes (2008, pp. 119–120). Risk regulation regimes themselves are not a uniform phenomenon but vary strongly in number of ways, as Hood *et al.* showed in their analysis of nine UK and EU risk regulation regimes (2001).

2.1.2.2 Intergovernmental analysis of regulatory interdependence

From a state-centred perspective, regulation on the international level has an intergovernmental character and is based on treaties among nation states. It has become subject to a virtually unmanageable amount of international relations literature. International regulation is explained by cooperation and/or coercion (by more powerful states over less powerful states), depending on the theoretical perspective on international relations. In many instances, this literature is interested in explaining why specific forms international cooperation between states have emerged, which limits its relevance to the topic of my thesis. Nevertheless, selected parts of the literature are especially enlightening with regard to why and how state actors exert influence on regulations of others. In the following paragraphs, I review those parts of the literature that provide insights in this regard.

I start with those scholars, who highlight cooperation rather than coercion. For them, the concept of international regimes plays a major role in state-centred interpretations of international regulation. Early and later work of neoliberal institutionalism (Keohane and Nye, 1977; Keohane, 1984; Keohane, 1989; Milner and Moravcsik, 2009) and regime theory (Krasner, 1983a; Hasenclever *et al.*, 1997) provide the explanatory arguments for international institutions and regimes. Large parts of the international regime literature deal with environmental regulation (cf. Breitmeier *et al.*, 2007; Gehring, 1994). In essence, neoliberal institutionalism argues that the very nature of the issue itself plus the ability of nation states to build trust in each other via repeated interaction form the basis for international cooperation. What this rich body of literature shows is that an analysis about regulatory interdependence needs to consider the existing international institutions in this regulatory field and their potential influence. However, the specifics of international regulation remain under-theorized in this literature, as Mattli and Woods argue (2009c, p. 2). They developed a theoretical framework that aims to explain why need for international regulation is articulated and what other conditions are necessary for the establishment of international regulation (Mattli and Woods, 2009a). They explicitly contribute to the theoretical debate that aims at explaining international regulation as part of a state-centred perspective. They are distinct however in that they include non-governmental actors. To his end, they apply the concept of "entrepreneurs of regulatory change" (Mattli and Woods, 2009a, p. 32). Entrepreneurs are actors that have the ability to mobilize societal support for a specific regulation. Which regulation a nation state supports on the international level depends on the power of such entrepreneurs of regulatory change to influence the respective governments position. Here, the concept of regulatory capture comes in, which (Mattli and Woods) transfer from the domestic to the transnational level. Just as for regulation in domestic boundaries, the question remains, whether regulation serves public interest or whether it serves special interests that are able to influence regulatory politics in a given field (Mattli and Woods, 2009a). In essence, they argue that for regulation to be in public interest it needs institutional supply of procedural quality and

robust societal demand (Mattli and Woods, 2009a, p. 15). The concept of Mattli and Woods shows that specific interest groups may influence the objective with which nation states try to influence international regulatory regimes. Thus, the position of nation states may reflect "narrow vested interests" rather than "wider public purposes" (like food safety) (Mattli and Woods, 2009b).

Theories stressing coercion over cooperation are less specific about where the specific motivation for a nation state to influence international regulation comes from. Their strength lies in providing arguments, *how* regulation is shaped in the powerplay between nation states. Drezner (2008) and Simmons (2001) both offer explanations for regulatory regimes and for harmonisation of international regulation. They share the neo-realist inspired assumption, that coercion and thus power is the crucial causal element explaining specific regulation. One must look at the hegemonic state or "great powers" respectively, they argue. In this perspective, internationally agreed regulation in treaties, institutions and regimes are subordinated under a more fundamental logic of coercion. Simmons aims at explaining harmonization processes by showing what role market incentives, international institutions and political pressure play. She models regulatory coordination around a hegemon, a dominant "regulatory innovator". Using financial regulation as a case with the USA as the dominant regulatory innovator, she argues, that two factors are decisive for the variation of harmonisation. First, the incentive to emulate the regulation of the dominant power by other states. Second, the significance of the external effects of non-emulation as seen from the hegemon's perspective (Simmons, 2001, p. 591). With this framework, she explains the emergence of four types of harmonisation, namely market harmonization with institutional assistance (high incentive to emulate and significant negative externalities in case of no emulation), political harmonization through centralized pressure (low incentive to emulate and significant negative externalities), decentralized market harmonization (high incentive to emulate and insignificant negative externalities), and no harmonization (low incentive to emulate and insignificant negative externalities). By going through four cases, each representing one of the four types, Simmons can confirm the expectations derived from her theoretical argument.[15] Namely, she showed for each type a different strategy by the dominant power and accordingly different roles for institutions to play. Mattli and Woods point out a major weakness of Simmons approach: The field of finance is unique and a dominant innovative regulator cannot be assumed for many other regulatory areas. Without such a dominant state, however, the theory falters (Mattli and Woods, 2009a, p. 7). Thus, while Simmons may have identified important causal drivers, she looks at a somewhat narrow constellation.

Drezner (2008) avoids the restrictive condition of a single hegemon by arguing that global regulation predominantly depends on the two great powers EU and USA and their preferences and

[15] The cases she chose are capital adequacy, anti-money laundering, accounting standards for public offerings, information sharing among securities regulators.

capabilities. With his framework, he explicitly puts forward the argument that nothing but states matter in global regulation. The great powers, he argues, are capable of forcing other nations to adopt standards that serve their preferences. Whenever they can agree on a specific regulation, it becomes global standard. In case both cannot agree on a standard, both standards compete over other nations to follow them and the outcome is convergence to both standards across the globe. He also argues that once a great power feels that international institutions are against its preferences, it will start forum shopping, trying to dwarf unfavourable institutions. The capabilities of a great power are based on its market size and thus market power. Nation states' preferences originate in domestic circumstances, he argues, and derive from the costs an economy has to bear if it adjusts to a foreign regulation (Drezner, 2008, p. 32). Although heavily based on neorealist thinking, Drezner does include private actors in a liberal intergovernmentalist sense. On the domestic level, private actors, namely companies, account for preference formation. This thus is an indirect reference to state-centred theories to explain how companies influence government regulation (e.g. capture theory). However, Drezner is more concerned with the international level. Here, his theory holds that non-state actors do not affect the outcome of the interplay between the two great powers. While all sort of actors may have influence on global governance processes, the ability to conduct forum-shopping marginalizes their effect on global regulation (Drezner, 2008, pp. 63–64).

Simmons and Drezner both show that the question of international regulation and international regulatory regimes is directly connected to the question, why specific regulation is adopted by certain states which comes from other countries. Their works indicate, how closely international regulation research is connected to policy diffusion literature (and its variations like policy convergence, policy learning, and policy transfer literature, Baldwin *et al.*, 2012, pp. 384–386; Holzinger *et al.*, 2007; Stone, 2012).[16] In this perspective, the international dimension of regulation manifests itself in what has been termed the "second image reversed", that is the "international sources of domestic politics" (Gourevitch, 1978). In this academic and popular debate, a re-occurring notion is that globalized markets put pressure on nation states to relax their regulation, because strict regulation is a competitive disadvantage. This, the argument goes, results in a race to the bottom. This causal logic has been questioned by many scholars, because empirical evidence is limited (e.g. Vogel, 1995; Drezner, 2008; Lazer, 2001). This strand of literature makes and qualifies the important point that markets and market power play specific causal roles in shaping regulation. A prominent theory that qualifies the effects of trade on domestic regulation has been

[16] I do not use the terms policy diffusion and its variations as they are misleading with regard to my research objective. The policy diffusion and policy transfer discourse is widely associated with the analysis of the country which has transferred policy from somewhere else. My analysis, in contrast, is concerned with the "provider" of policies to be transferred. While policy transfer allows for this perspective, the prevailing understanding in the literature and its focus on the "receiver" side is misleading for the analysis presented here (cf. Evans, 2009a, pp. 238–239).

developed by Vogel (1995). On the case of Californian automobile emission standards for air quality, Vogel shows that stricter regulation by one US state can lead to the adoption of similarly strict standards by others, thereby spiralling air quality regulation upwards. The logic of the "California Effect" (CE), he argues, can be applied internationally as well. Trade can lead to domestic pressures in the exporting country to upgrade regulation: „In sum, the California effect focuses on the role of market forces in leading to the adoption of stricter regulatory standards by producers in a nation's trading partners" (Vogel and Kagan, 2004, p. 14). Drawing on Baptist-bootlegger-argumentation (Yandle, 2011), the CE is strongly based on the self-interest of exporting producers. They have to fulfil stricter standards for export anyway. Therefore, they have a strong interest in gaining competitive advantage domestically by upgrading regulation to this export-standard (Vogel, 1995, p. 260). In a critical revision, Vogel and Kagan developed four criteria for the CE to take effect: First, the exporting nation's biggest export market has to have „significantly stricter standards". Second, the larger the relative size of the importing market with stricter standards compared to the exporting nations market, the more likely is an adoption of the stricter standards by the exporting country. Third, the cost of the regulatory change in the exporting nation needs to be lower compared to the benefits of gaining access to the importing nation's market. Fourth, the CE is more likely for product standards than production standards (Vogel and Kagan, 2004, pp. 14–15).

Lazer (2001; 2006) includes the CE in a more comprehensive framework to explain diffusion of regulatory policies. He distinguishes three modes of regulatory interdependence: competitive mode, coordinative mode, and informational mode (Lazer, 2001). Interdependence in a given regulatory field is not exclusively driven by one of these factors, rather some element of all three can be involved. The competitive mode denotes a prisoner's dilemma situation, just as introduced above, which implies that every nation state has an advantage in choosing a different regulation but all are worse off when all countries do so (Lazer, 2001, p. 476). The assumption is that nation states essentially care about their competitiveness, potentially leading to a "race to the bottom". In the coordinative mode, Lazer specifies the logic of the CE and extends the argument towards other scenarios – aspects, on which Vogel and Kagan only touch upon (see 2004). In this situation, the prisoner dilemma situation is overcome, because market access and economies of scale drive the convergence of exporting states regulations to those of the importing state. Market access refers to the product and process standards. If different standards for domestic and export markets apply, different products might need to be produced. Depending on the cost structure, it is more efficient to apply the export market standard to all products produced (Lazer, 2001, p. 477). Economies of scale raise the incentive for businesses to follow one standard in order to reduce the cost per unit. High transaction costs due to differing product or process standards and strong economies of scale thus form the incentive for exporting states to adjust their regulation to the importing markets

regulation.[17] Under the coordinative mode, four outcomes are theoretically possible: race to the top, race together, hegemony and no convergence (Lazer, 2001, pp. 477–480). The third mode acknowledges that regulatory interdependency also leads to diffusion of information. The informational mode implies that information about regulation and the experience with specific regulation in one country informs regulators in other countries. There a myriad of ways, this information may flow and Lazer specifically includes non-governmental connections (Lazer, 2006, pp. 480–481).[18] I close this discussion by changing the perspective. The above discussed mechanisms provide the EU with abilities to influence other countries regulation. Damro argues that therefore, the EU can be conceptualized as a Market Power Europe. This power, he argues, at times may be an unintentionally exerted power, but also explicitly is used intentionally by the EU (2012).

2.1.2.3 Summary: learnings for analysing the case

The state-centric literature on regulatory interdependence delivers a number of insights. To start with, states do cooperate internationally to resolve problems that result from externalities. In this context, research on international regulatory interdependence teaches us that international regimes and organisations play an important role in structuring and shaping bilateral relationships in many regulatory areas. The nature of the specific area, including the type of externalities, however, is an important factor in shaping international regulation. Food safety, without doubt, is one of those areas. However, doubt is in order with regard to the question how much they de facto affect actors' behaviour. This depends on their effectiveness in serving the actors' interests, as Drezner suggests. This requires a closer look at the international food safety regime and how it potentially affects EU-China relation.

As regards the content of the regulation, neo-realist approaches stress that powerful states or sizeable markets have higher chances to establish their regulatory approaches within other countries. On a bilateral level, we can assert that regulatory interdependence leads to regulatory adaption. Such regulatory adaption is more likely, the bigger the markets size of the economy exported to. For Simmons, this is a basis for the incentives to emulate. For Drezner market size is the crucial criteria for defining great powers. Smaller markets bear the adjustments costs for regulation, he argues. For the CE and Lazer's argumentation, export market size is an important condition for adopting regulation. They furthermore provide more specific arguments, how

[17] In fact, Lazer's modes of regulatory interdependence are similar to the different causal mechanisms for policy transfer that Holzinger *et al.* identified (2007).

[18] Vogel and Kagan also acknowledge ways beyond market mechanisms, in which nations with stricter regulation may influence the regulation of other states. First, international agreement or institutions can globalize standards. Second, informal mechanisms like demonstration effect. Vogel and Kagan explicitly stress, that those mechanisms can equally apply to product and process standards. However, they do not further elaborate on this mechanisms alternative to the CE (Vogel and Kagan, 2004, p. 15).

adaption process work. In short, all agree that a sizeable market is a sine qua non (Bach and Newman, 2007, p. 842). The core (implicit) argument is, that the economic attractiveness or even the dependency on export effect the willingness to adopt regulation from the export markets.

The theoretical considerations on international regulatory interdependence presented here provide different causal mechanisms that either explain the occurrence of regulatory regimes or the adaption of regulation in bilateral relations. However, they do not provide much insights on the driving motives for states to push others to adopt a specific regulation. This void is filled by the proposition of (Mattli and Woods; 2009a) that both, public interest as well as special interests may play a role.

There are further limitations to the state-centric perspectives on regulatory interdependence. First, the theories do not provide answer to the question how trading partners affected by physical externalities behave in a situation in which the relative market size is inconclusive. By inconclusive I refer to a situation in which the exporting nation's market is not considerably smaller and therefore less or not at all depending on the importing market. The only mode that remains is the informational mode of regulatory diffusion suggested by Lazer. However, this mode and the related concepts of policy learning suggest a process which is rather driven by the exporting country itself. This, however, does not give any insights into why and how those affected by negative external effects behave. In other words, it is able to analyse the "pull" for regulatory adaption but not a "push". Thus, the market-size-argument does provide theoretical guidance, but the explanatory power declines with the difference in market size in bilateral relations.

Secondly, state-centred theories tend to not consider the possibility of harmonization of regulation *on paper* while, in reality, a lack of enforcement thwarts the supposed convergence. Linking regulatory harmonization with costs, like Drezner does, shows that implementation and enforcement are simply assumed to automatically follow rule-making. This however is a bold assumption. When enforcement cannot be assumed, the externality stays. Depending on the character and severity of this externality, such a situation runs counter to the interest of the state that longs to establish stricter regulation in order to ensure the safety of imports. Yet again the question remains, how actors behaves in such a situation. What therefore is needed, is a distinction between the rule- and enforcement-level of regulation.

Lastly, these theories ignore the development of private regulation on the transnational level since they root in a state-centric understanding. As will be shown in the next section, a society-centred understanding of regulation on the transnational level adds important aspects to understand the full picture and furthermore is more open to distinguishing different aspects of regulation.

2.1.3 Society-centred perspective

The society-centred perspective provides answers to the limitations of the state-centred perspective, which is why I will discuss it at lengths on the following pages. The focus of the society-centred discourse on regulatory interdependence primarily lies on describing the observed new phenomena of private regulation, explaining its emergence, assessing its relevance and developing a theoretical understanding of the connections within private regulation and in its relation to public regulation. I start with summarizing the understanding of society-centred regulation and contrast it with state-centred regulation (2.1.3.1 and 2.1.3.2). I then turn to the transnational dimension and show that regulatory interdependence becomes a much more complex assembly of actors and mechanisms if understood as transnational regulatory governance.

2.1.3.1 Society-centred understanding of regulatory governance

The regulatory state acknowledges that private actors are involved in regulation, however, ultimately it remained caught in the state-paradigm. The difference lies in what role private actors are being prescribed to. The regulatory state and other state-centric theories make reference to private regulation in the sense of outsourced regulatory service delivery. This renders it blind for a more complex understanding of regulation that includes transnational and hybrid forms (Levi-Faur, 2011b, p. 668; Salles-Djelic and Sahlin-Andersson, 2007a, p. 9). To do justice to the empirical observation of private actors getting involved in regulation, a post-regulatory state, that is an understanding of regulation decentred from the state, is necessary (Scott, 2004).[19]

This shift follows a wider discussion, as regulation is closely tied to the concept of governance and the respective debate about "governance without government" (Rosenau and Czempiel, 1992). Regulation is an integral part of structuring and guiding human and social activities, while "[g]overnance includes regulation but goes well beyond" (Salles-Djelic and Sahlin-Andersson, 2007a, p. 7, see also Eberlein *et al.*, 2014, p. 3). On the other hand, regulation is distinct from governance since regulatory politics differ from other form of policies, like distributional and re-distributional policies (Lowi, 1972, see also Levi-Faur, 2011a).[20] This understanding is reflected in the notion of regulatory governance that implies firstly a concentration of the discussion on those aspects of governance that relate to regulatory politics only and secondly that regulatory politics follow broader trends of governance (Levi-Faur, 2011a). The academic discourse about governance introduced the idea that actors other than governments as well as modes other than hierarchy and market contribute to the organization of societies on more than just a single political level (cf. Benz *et al.*, 2007; Schuppert and Zürn, 2008). Consequently, we need to analyse non-state actors and multi-level constellations when analysing regulation (Levi-Faur, 2011a).

[19] This might well be understood in an evolutionary sense, just as Scott does when he argues for a decentred understanding of regulation with his notion of a post-regulatory state (Scott, 2004).

[20] In other traditions, distributional policies are included in the definition of regulation. For a brief summary of different understandings of regulation in this regard see Jordana and Levi-Faur (2004).

To name this wider understanding of regulation, I borrow the term "society-centred" from Levi-Faur (2011a) and use it synonymously with "decentred". I prefer the former, because it specifies where regulatory authority shifted to. The term "decentred regulation", as it was introduced by Black, is associated with kicking off the debate and it did well in underlining the research task to "take seriously the notion [sic!] a 'regulatory society' in which we recognise that regulation is not 'centred' on the state, but instead is 'decentred', diffused throughout society" (Black, 2002, p. 1). The same argument holds true for Abbott and Snidal (2009). They made strong contributions to the early development of the evolving area of research. Yet their term "new governance" remained too vague.

In society-centred regulation actors can be non-state and lacking a legal mandate – an idea the regulatory state-debate did not consider. This leads to a wide range of public and private actors (representing business and civil society) and institutions that involve in regulation.[21] Society-centred regulation acknowledges that private actors are an important base for the government's expertise, which cannot solely rely on bureaucratic knowledge. Regulation increasingly manifests itself in forms of soft law, which is often made by private actors and more importantly is non-binding (Abbott and Snidal, 2009, pp. 509–532; Black, 2008, p. 139). The society-centred perspective takes into account that various ways of mixed forms of state- and non-state regulation are possible and is interested in analysing and understanding such hybrid forms of regulation (Black, 2008, p. 139; Levi-Faur, 2011a, p. 3).

The central aspect of society-centred regulation is the change of the *specific role* ascribed to private actors. While from the early beginning of regulation research it has been acknowledged that private actors can influence regulation, a decentred view goes further in portraying private actors as *regulators*. The relevance of the fundamental new claim of the society-centred perspective that non-state actors act as regulators becomes most obvious by contrasting it to the understanding of private actors in regulatory politics that prevailed in previous regulation theories. Indeed, the influence of private actors does play a role in state-centred theories. However, it does so always in an indirect manner, mediated by public actors and institutions. The still influential economic theories of regulation like capture theory as well as the Baptist and bootlegger theory (Yandle, 2011) argue that special interests are able to influence regulation to their advantage. Stigler famously made the point that "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit" (Stigler, 1971, p. 3). Hence, what looks like public regulation in fact serves the purpose of certain fractions of the society. In this perspective, private actors had influence on regulation, but did not exert regulation.

[21] This reflects both a change in reality and a change in theoretical perspective. Abbott and Snidal argue that it is necessary to change the perspective to capture changes in regulatory politics in the world (Abbott and Snidal (2009).

A point on which scholars of society-centred approaches diverge is the degree to which government retain control. For Abbott and Snidal, the government maintains an important role in domestic regulation as the "orchestrator" of regulation on the national level. It "authorizes, empowers, and orchestrates the public and private actors and institutions to which it assigns regulatory responsibilities" and "acts to structure the regulatory network, e.g., to limit excessive influence by firms or other groups within private schemes, or to require that schemes observe basic procedural and substantive norms" (Abbott and Snidal, 2009, p. 544). It also keeps the capacity to intervene, when private regulation does not yield the results desired or otherwise needs modification (Abbott and Snidal, 2009, p. 544). In governance wording, new governance presumes a "shadow of hierarchy" (cf. Börzel, 2008). Studies confirm that the capacity of the government to be the 'intervener of last resort' can be important for the functioning of private regulation (Verbruggen, 2013). A strictly decentred perspective disputes this view. In this perspective, the behaviour of regulated actors is neither constant nor predictable and thus actors are considered to be ungovernable. No single actor can gain complete control over regulation. Decentred regulation therefore leads to the assumption that the distinction between public and private has collapsed and distinguishing between both is increasingly misleading (Black, 2002; Salles-Djelic and Sahlin-Andersson, 2007a, p. 9). Rather, regulation "happens" without formal sanctions and manifests itself in hybrid forms comprising both public and private actors, organized in networks (Black, 2002, pp. 2–6).

Given the multitude of actors and institutions involved in regulating a specific field, proponents of society-centred regulation picked up the idea of regulatory regimes (see 2.1.2.1) as a useful concept for the analysis of regulatory governance (Black, 2008; Cafaggi, 2011; Scott, 2011). The analytical value of the regime concept for regulatory governance research lies in softening the agency-focus and its flexibility to include a wider array of actors and institutions in the analysis (Scott, 2011; Levi-Faur, 2011a; Abels and Kobusch, 2010, p. 5). Indeed, regulatory regime analyses have shown the fragmentation of regulation at various levels of governance (Scott, 2011, p. 563). Black, with reference to (Hood *et al;* 2001), suggests that in society-centred perspective a "regulatory regime is a set of interrelated units which are engaged in joint problem solving to address a particular goal, its boundaries are defined by the definition of the problem being addressed, and it has some continuity over time" (Black, 2008, p. 139; Hood *et al.*, 2001). Regulatory regimes are furthermore understood as polycentric with the degree of polycentricity depending on the fragmentation and dispersal of the regimes actors (Black, 2008, p. 139).

2.1.3.2 Dimensions of regulation

The society-centred understanding of regulation implies a concept of regulation, which distinguishes several dimensions. Among the first who developed such a multifaceted understanding of regulation were Ayres and Braithwaite with their notion of responsive

regulation (1992). They focused on the methods of enforcement and made suggestions how to improve its effectivity and efficiency. Based on the idea, others have separated regulation into a set of further dimensions (cf. Salles-Djelic and Sahlin-Andersson, 2007a, pp. 12–13). While several authors suggest slightly different dimensions, they agree on the core idea to unfurl regulation along the policy cycle.[22] For example, leading scholars in the field suggested to "disaggregate regulatory governance into six components: (i) framing the regulatory agenda and setting objectives; (ii) formulating rules or norms; (iii) implementing rules within targets; (iv) gathering information and monitoring behaviour; (v) responding to non-compliance via sanctions and other forms of enforcement; and (vi) evaluating policy and providing feedback, including review of rules" (Eberlein *et al.*, 2014, p. 6). A large part of regulation literature – explicitly or implicitly – focusses on the first two dimensions. Indeed, some understand regulation as being primarily rule-making (Levi-Faur, 2011a, p. 4). State-centred regulation theories like capture theory implicitly are concerned with the processes and outcomes of rule making only (cf. Mitnick, 2011; Yandle, 2011). The explanation for this presumably lies in the strong command-and-control understanding of regulation in combination with the countries in which these theories root. For western democracies, it is simply assumed that regulatory rules that have been adopted will be enforced. With the disappearance of strict state-controlled forms of regulation, this assumption has become questionable.

The analogy to the policy cycle already indicates that, arguable, the phenomena and challenges of regulatory governance in each of these dimensions differ. For example, for rule-making the discussion is about who has influence on the content of regulation, why and how so, as well as what are the interests behind it? This relates to the questions of legitimacy and accountability. As regards enforcement, for example, other issues become relevant – like effectivity, efficiency, and capabilities. Conflating the phases or treating one of them as the full picture of regulation obscures the understanding of regulatory governance. If the mechanism and tools for regulation become more diverse, as the society-centred understanding of regulation suggests, forms of rule making, implementation, enforcement and evaluation do so, too. Consequently, the character and quality of regulatory governance increasingly depends on the properties of the different dimensions of regulation. Society-centred analyses of regulation furthermore profit from differentiating separate dimensions of regulation, because the composition of actors can vary between the different dimensions. For example, rule may be set by government alone while the responsibility for enforcement is shared between public and private organisations.

[22] The policy cycle is widely used heuristic to analyse policies which assumes a number of typical subsequent steps in the development of a specific policy: (1) problem definition, (2) agenda setting, (3) formulation of policy, (4) implementation, (5) evaluation, (6) determination of policy (Blum and Schubert, 2009, p. 102).

2.1.3.3 Transnational regulatory governance perspective on regulatory interdependence

Arguably, in society-centred perspective regulation transcends national borders. Private actors are not as much bound to them as nation states are. This has been reflected in the discourse of researchers about transnational regulatory governance. Regulatory governance has a transnational dimension when "regulation can have behavioural effects across territorial borders, while being driven by private constituents" (Verbruggen, 2013, p. 514, see also Fulponi, 2006, p. 4). Transnational regulatory governance research is supported by work focussing on private authority and on the global governance discourse.[23] Scholars made the point that private authority in international politics, as they framed it, should not be neglected and needed a more thorough analysis (Cutler *et al.*, 1999; Hall and Biersteker, 2002). Braithwaite and Drahos (2000) with their seminal work on global business regulation were one of the first who showed the importance of transnational actors and institutions in global regulatory affairs. In their empirical study across 13 regulatory areas they made transparent that a wide array of different actors is involved in shaping regulation. This study marked the beginning of a still evolving academic discussion about transnational regulation (Levi-Faur and Starobin, 2014, pp. 9–10).[24] It showed that non-state actors involve in regulatory affairs as response to regulatory interdependencies. Thus, they not only deal with technical conformity standards, but deeply reach into the field of regulatory standards dealing with physical or regulatory externalities (Eberlein *et al.*, 2014, p. 3).

Scholars inquiring into transnational regulatory governance share the believe that a transnational perspective adds to the understanding of regulation, because otherwise important developments are not captured. Transnational regulatory governance thus accounts for a change in the international regulatory landscape now characterized as pluralistic with regards to actors, institutions, mechanisms, and forms of governance (Baldwin *et al.*, 2012; Levi-Faur and Starobin, 2014; Salles-Djelic and Sahlin-Andersson, 2007a; Abbott and Snidal, 2009; Cafaggi, 2012; Scott, 2011). Abbott and Snidal (2009) provide a model of transnational regulatory governance ("new transnational governance" in their words) to account for these changes of regulation in the international realm that proves useful to discuss the phenomena in detail. As they point out, no domestic model of regulation can readily be applied to the international level. Thus, society-centred regulation – like state-centred regulation –, they argue, looks different on the global level than it presents itself on the domestic level (Abbott and Snidal, 2009, p. 533). I discuss the features of transnational regulatory governance in the following paragraphs.

First, in transnational regulatory governance regulatory authority is highly dispersed and decentralized, not only between states and non-state actors and institutions but also among the

[23] It is my suggestion to use the term „transnational regulatory governance". In the existing literature, no agreement on a label has been reached yet.

[24] The policy implications of private sector regulation in food business have already been discussed at a very early state of the development (Caswell and Henson, 1997, quoted in Buzby, 2003).

private. Private actors include non-governmental organisations (NGO) as well as businesses. This wide array of actors goes beyond an understanding of transnationalism in a transgovernmental sense as it is inherent in the concept of the regulatory state, that accounts for roles of international organisations, international activities of national public agencies or for example epistemic communities (Abbott and Snidal, 2009, p. 505). Like society-centred regulation claims for the domestic context, private actors complement or even have taken over regulatory tasks on the transnational level formerly solely performed by nation states (Büthe, 2010b, p. 1; Cafaggi, 2012). It thus has been argued, that on the international level the boundaries between state and non-state are increasingly blurring (Scott, 2011, p. 564). Such new forms of regulation constitute themselves in various forms of coalitions of either only private or private and public actors. Abbott and Snidal (2009) suggested a now widely used 'governance triangle' to map all possible actor-combinations in transnational regulatory governance. In this triangle, state actors are set in one corner, business actors in a second and civil-society actors in a third. Regulatory activities solely driven by one of these types are placed in the respective corner. Combinations either two types of actors are denoted between the respective corners. For example, instances in which NGOs and states jointly set, promulgate and implement regulation are placed between the state and NGO corner. Cases in which all three types of actors are involved cover the middle of the triangle. Following this logic, the governance triangle consists of seven zones of which three represent situation with one type of actor, another three represent cases of two types of actors and a single one represents cases of three types of actors. A number of different terms have been introduced in the discussion to denote such coalitions. Abbott and Snidal refer to them as "regulatory standard setting schemes" (Abbott and Snidal, 2009), other terms used are "transnational private regulation" (Scott *et al.*, 2011), "transnational standards" (Bartley, 2011), "private standards" (Marx *et al.*, 2012), and "transnational business governance" (Eberlein *et al.*, 2014), each of which highlights other aspects of the phenomena under discussion.

The plethora of terms indicates a lack of clarity, what such new forms of regulatory initiatives are. Such new forms of regulatory initiatives can best be understood by transferring the regime concept. They are governance regimes concerned with regulation that combine networks of actors with institutional arrangements, sets of governance tools and methods (cf. Levi-Faur, 2011a; Scott, 2011). With the regime concept a theoretical foundation is given for analysing the phenomena. Based on Scott, such governance regimes can be specified as coalitions of actors (state with non-state or among non-state), which conduct all or some of the regulatory tasks (reaching from rule-making to enforcement) in areas of social regulation. They are furthermore "transnational, rather than international, in the sense that their effects cross borders, but are not constituted through the cooperation of states as reflected in treaties (the latter being the principal territory of international law)" (Scott *et al.*, 2011, p. 3). Non-state actors can represent civil society or business (also in form of associations and NGOs). Such regimes are often completely non-state (thus private), but public-

private forms exist as well (as depicted in the governance triangle). I suggest denoting such regimes as transnational regulatory regimes, which encompasses (and thus can assume) the specific shapes of transnational *private* regulation, transnational private *standards* (TPS) and so forth.[25] It is the latter, this case study is concerned about. The regime approach moreover allows for an aggregation of transnational regulatory regimes. For example, a number of transnational regulatory schemes in combination with intergovernmental regulation can be summarized and conceptualized as a forest protection regime or a food safety regime.

The second feature of transnational regulatory governance directly flows from the previous: Expertise is similarly dispersed among a wide set of actors. The expertise of regulatory initiatives thus depends on the actors involved. The assumption is that regulation which involves different types of actors can mobilize a wider range of expertise compared to single-type regulation schemes (Abbott and Snidal, 2009, p. 543). This provides society-centred forms of regulation with an advantage compared to state-centred regulation. Third, transnational regulatory governance not only is characterized by a much wider range of regulatory mechanisms but more importantly by voluntary regulation, like codes, principles, procedures, standards (Abbott and Snidal, 2009, p. 543). In comparison to hard law applied in traditional state or intergovernmental regulation, coerciveness is reduced or less direct. While most voluntary modes are associated with the emergence of new, private, actors, states also move to less coercive modes of regulation by applying soft law (Salles-Djelic and Sahlin-Andersson, 2007b, p. 5). In line with these three identified features, Baldwin *et al.* have eloquently summarized the nature of transnational regulatory governance:

> *"[…] [G]lobal regulation shifted from its basis in intergovernmental agreements and it came to represent an intermeshing of domestic and international, and often overlapping, regimes. As such, it came to follow the patterns associated with 'decentred regulation'. Purely intergovernmental processes became less prominent and, instead, global regulation witnessed a pluralization of engaged parties, along with a growing number of regulatory orders that were engaged in a continuous process of renegotiation." (Baldwin et al., 2012, p. 426)*

The diagnosis of a transnational regulatory governance raises an essential question: why do private actors get involved in transnational regulatory governance? This question is directly linked to my research question, because the answers help to theorize about the motives of TPS to get involved in China. What is more, the answers to this question in the literature lead us into a deeper understanding of the characteristics of TPS. Salles-Djelic and Sahlin-Andersson (2007a) propose a framework for explaining transnational governance that explicitly does extend theories that were developed to explain intergovernmental regulation. However, it draws on sociological institutionalism, namely world society theory, stressing the importance of culture and institutions

[25] For the conceptualisation of private standards as transnational regulatory regimes see Scott *et al.* (2011).

for the emergence and development of particular modes of governance. From this theoretical viewpoint, actors and their motives are not relevant to explain the phenomena. Yet, research suggests that motives and interests do matter. In their study of private regulatory rule-making on the global level, Büthe and Mattli (2013) demonstrate the limits of world society logic. They show that conflicts of interest between different actors, and hence motives, are of relevance and are only "obscured by the emphasis on culture, professional norms, technical expertise, or similar widely shared beliefs […]" (Büthe and Mattli, 2013, p. 201).

Another explanation for the emergence of private regulation on the global level utilizes a supply and demand model, which implicates the consideration of interests. This theoretical concept has already been convincingly applied to analyse the emergence of regulation in other non-transnational settings (Spruyt, 2001). Abbott and Snidal (2009) offer a straight forward variant of this approach to explain the emergence of transnational regulatory governance. Private regulation, they argue, has developed as a response to the ineffectiveness of state regulation on the international level. They remind us that – due to the nature of the international system that lacks a superior authority – states have a limited opportunity to "orchestrate" overall regulation. This is a fundamental difference compared to their power within the domestic context (Abbott and Snidal, 2009, pp. 541–545). In other words, transnational private regulation is a response to regulatory interdependencies and the nation states inability to regulate it. Cutler *et al.* (1999) exploit the demand and supply thinking more in detail to come to more detailed conclusions. Any economic activity, they argue, requires governance and thus some form of authority. If such authority is not provided, private actors may create institutions to provide it. They do so, because either nation states are not quick enough, lack (or are unwilling to provide) the resources or expertise or because states follow the ideological ideas of economic neoliberalism to leave this task to the market. Regardless of the specific reason, in any case, public actors leave a regulatory void for private actors to fill: "Private regulation may enhance public regulatory power by achieving goals, public actors alone would not (or only with considerable problems) have achieved" (Büthe, 2010b, p. 22).[26] The supply is provided by private actors, only when they gain from it. Potential benefits are increase in efficiency or market dominance (Cutler *et al.*, 1999, see also Büthe, 2004).

Private regulation offers some corresponding strengths to fill the void. For example, for private food standards it has been argued that they can be more specific and prescriptive compared to public standards (Havinga, 2006). They often add specifications about the "how" to public standards that only set the "what" (Epps, 2010, p. 75). Transnational regulatory governance

[26] This view contrasts with literature that does acknowledge the emergence of non-state actors, however puts them in competition to states over influence. In such a zero-game perspective, the more influence non-state actors gain, states loose influence (Salles-Djelic and Sahlin-Andersson, 2007a, pp. 10–11). Indeed, it is one of the central issues of private regulation research to understand better whether private regulation diminishes public authority or strengthens overall regulation (Büthe, 2010a, p. 19; see also Cafaggi, 2011).

systems also have been argued to be more flexible and facilitate the adaption of regulation to specific circumstances (Abbott and Snidal, 2009, p. 552). Private food standards have been portrayed as much faster in adapting to new risks compared to public standards (Henson and Humphrey, 2012, p. 105). With regard to this discussion about effectivity of private regulation, the differentiation of regulation in separate dimensions – that is the agenda setting, rule-making, implementation and so forth as introduced above (2.1.3.2) – seems helpful. As Hood *et al.* point out, components of regulation *other* than standard setting are those components by which regulatory regimes "can often best be judged" (Hood *et al.*, 2001, p. 21). Likewise, it has especially been argued for transnational regulatory governance that a focus on the first two dimensions of regulation (agenda setting and rule-making) is insufficient (Scott, 2011, p. 572). Its strengths may rather lie with implementation and enforcement.

Büthe (2010b) makes the important point that while the demand and supply concept is valuable, one should be aware of its limitations. The assumptions of this microeconomic model cannot fully be transferred to the analysis of regulation. As there is no easy-to-exchange-unit like money, we cannot assume a long-term equilibrium between demand and supply of regulation. In contrast, the curves of supply and demand of regulation do not necessarily meet. Therefore, Büthe suggests that both – supply and demand – need to be analysed separately and in addition to that also their interaction (2010b, pp. 7–8). A second analytical trap lies in the assumption that on the demand side buyers and users are the very same actors. For regulation, in contrast, we need to differentiate between those demanding a specific regulation and those who may need to comply with it. Considering this difference is "crucial for understanding interests and agency in global regulation" (2010b, p. 8). Regardless of these limitations, the demand and supply theories provide an insightful approach to research the potential motives and interests that lead to involvement of private organisations in regulatory activities.

Transnational regulatory governance furthermore raises the question of the exact relationship between private and public regulation. Depending on the specific field of regulation, the relationship has *inter alia* been described as intertwined (Havinga, 2012, p. 11), coexisting and competing for authority (Meidinger, 2009, p. 242), co-regulation (Garcia Martinez *et al.*, 2007), meta-regulation by the state (Bomhoff and Meuwese, 2011), and in a most integrated version as hybrid (Levi-Faur, 2011a; Marsden *et al.*, 2010).[27] Eberlein *et al.* (2014) provide a suggestion, how to approach this question more systematically. They present a framework to analyse what they call transnational business governance interactions, defined as "the myriad ways in which governance actors and institutions engage with and react to one another" (2014, p. 2). This definition is broad by purpose in order to cope with the partly observed and partly presumed

[27] Note that for Levi-Faur there are three different types of hybridity. Here I only refer to hybridity in the sense of a combination of public and private regulation (cf. Levi-Faur, 2011a).

variety of interactions, which "may be symmetrical or asymmetrical, antagonistic or synergistic, intentional or unintentional" (Eberlein *et al.*, 2014, p. 3). The framework also goes beyond a mere analysis of interactions between public and private and explicitly includes within-private interactions as well. Existing research on interactions reveals that different analytical perspectives are possible. Interactions can be analysed on a micro-level (i.e. individuals and organisations interacting), meso-level (i.e. interaction between standards), and macro-level (i.e. regulatory complexes). Furthermore, interactions can be studied as factors producing effects or as outcomes (Eberlein *et al.*, 2014, p. 6). The discussion of transnational business governance interactions primarily shows that interactions between public and private regulation (and the corresponding actors) needs to be taken seriously when analysing transnational regulatory governance, because the type of interaction is an important factor shaping the regulation in a given sector.

Transnational regulatory governance suffers from a number of shortcomings, too. First, the sum of all public, private and public-private regulation does not necessarily cover all industries and products. Rather, overlaps have been observed (Abbott and Snidal, 2009, p. 547). Secondly, there is a disproportionate high number of single-actor regulation schemes. This point revives the debate about whether special interests are capable to put forward regulation that serves public interest, rather than merely their self-interest (Abbott and Snidal, 2009, p. 548). Third, its multi-actor and multi-institutional character decreases efficiency of new transnational regulatory governance while at the same time opens opportunities for the regulated to subvert it by conducting "regulatory standard shopping" (Abbott and Snidal, 2009, pp. 551–552). What is more, legitimacy and accountability of transnational regulatory governance is questionable at best (Black, 2008; Levi-Faur, 2011a, p. 14). While the latter discussion is highly relevant for a normative assessment of transnational regulatory governance, it is not central to the question of my research.

2.1.3.4 Summary: learnings for analysing the case

If one is to accept the relevance and sophistication of private food safety regulation, it would be insufficient to explain public motivations for influencing China's food safety regulation without considering transnational regulatory governance. This is the central finding from the above discussion. Society-centred regulation is the theoretical perspective on regulation which enables to include TPS in the analysis. It also requires a wider conception of regulation, as private regulation may appear as soft law. Society-centred regulation also includes the analytical distinction of separate dimensions of regulation. Differentiating between rule making, implementation and so forth helps to understand the different influence of public and private actors on the regulated.

Transnational private regulation appears to have developed as a response to regulatory interdependence and the states inability (or unwillingness) to mitigate related externalities. Here,

transnational regulatory governance directly connects to the state-centred discourse laid out above. The rationalist approach to explain the emergence of private regulation by supply and demand delivers potential motives for private regulators. The suggestion is that the interest of private actors is to fill a regulatory void to their own benefit. A case-specific explanation therefore seems impossible without analysing the nature of this void. Arguably, the void also affects the nature of the interaction between public and private regulators and regulation which needs to be part of this analysis.

The state-centred and society-centred discourses on regulatory interdependence provide a number of learnings which, however, so far appear as loose ends. In the following part, I draw some first conclusions for my research before I proceed with constructing a research heuristic based on these insights.

2.1.4 Summary and discussion

When relating the extended discussion of regulatory interdependence literature, state-centred as well as society-centred, to the specific case of EU's motives to influence China's food safety regulation and the question for the related causal mechanisms, the following considerations can be made. I order them alongside the line of my argument:

- As discussed above (see 2.1.3.3), for regulation demand and supply do not necessarily meet and thus demand cannot explain supply. Supply needs to be explained out of itself. There may be oversupply or there may be undersupply. In any case, there needs to a closer look at the preferences for supply. Therefore, I concentrate my analysis on the supply side, the push from the European side to influence Chinese regulation. In this, this study differs from much of the theoretical literature on regulatory interdependence.

- Only if we differentiate between public and private regulatory regimes (and their respective actors), we can grasp the full picture of influence by the EU on China's food safety regulation. By differentiating regulation with regard to its dimensions, we are able to understand better the external effects and the differences between public and private actors.

- Two separate but potentially intertwined motives can explain efforts made by both public and private actors in changing China's food safety regulation. The first objective is to protect against unsafe food supply from China – reflecting problems with *physical* externalities. By distinguishing between product and process regulation in food safety, we can understand the nature of the physical externalities better. The second motive is gaining access to the Chinese food market, because *regulatory* externalities hinder market access. Furthermore, we can relate both motives theoretically to interests in specific

dimensions of regulation (with market access focussing on changes in rules and import safety being more interested in implementation and enforcement).

- Arguably, responses to regulatory interdependence depend on the severity of the externalities. Therefore, the status of China's food safety regulation and its changes should be considered in the analysis.
- Likewise, theories of regulatory interdependence like the California Effect lead to the assumption that the motive for influencing China's food safety regulation is connected to the direction and intensity of food trade between the EU and China.
- The activities of public and private EU actors are not happening in an empty room. There are other actors and international regimes which potentially follow similar objectives which in turn may have influence on the EU's behaviour.
- In a similar manner, the discussion about interactions in transnational regulatory governance informs us that public and private activities are not completely separated from each other and may have influence on each other. Here again the regime concept may prove to be helpful, as, potentially, public and private may have formed some sort of regime to deal with the regulatory interdependencies. The analysis of interaction needs to pay attention to the question of the void left by public regulation as a theoretically deduced motive for private actors to engage in food safety regulation.

These points will be further elaborated in the next section when I utilize them to construct a research heuristic.

2.2 Case specific research heuristic and operationalisation

The heuristic model presented in this section takes a rationalist viewpoint and applies it to the above review of regulatory interdependence. The model has been deduced from the theoretical discussion above but is also the result of an inductive reasoning based on empirical observations prior to a detailed analysis (for details on the iterative process, see chapter 4). In this manner, I discuss the specifics of actors, their motivations and potential additional causal parts for this case and assume that combinations of these are essential building blocks for the causal mechanisms I long to identify. Before I proceed with specifying the heuristic model, I clarify the understanding with which I approach the case.

2.2.1 Foundations of research heuristic

In the following two parts, I discuss my rationalist approach as well as the specific understanding of regulation, I apply in this analysis. The rationalist perspective leads to the focus on motivation

and interests of actors. With a rather broad understanding of regulation, I am able to include private non-binding forms of regulation in my analysis.

2.2.1.1 Rationalist approach

My rationalist approach to this case is already implied in the research objective of this study, which longs to analyse the intentional (and possibly strategic) behaviour by European actors to influence China's food safety regulation. The interest in intentional, strategic behaviour excludes the perspective on ideas and contingent processes (cf. Silzer, 2014, p. 38). Behaviour that is based on achieving objectives implies a "logic of consequentialism" as opposed to a "logic of appropriateness" (March and Olsen, 1989; March and Olsen, 1998). At the same time, intentionality implies an analytical focus on agents (cf. Evans, 2009b, p. 244). Rational actors act to achieve an objective which is based on their given preferences. They strive to maximize or optimize their benefits in interactions with other actors, anticipate the behaviour of the others they engage with and include this anticipation in their decisions (Risse, 2003, p. 9, see also Braun, 1999, pp. chapt. 1). Rationalism asks for the incentives for actors to behave a specific way, in other words it asks for opportunity costs (Keohane, 1984, p. 80). Preferences (over outcomes) in turn are based on the comparison of different possible courses of actions, hence based on material interests and cost/benefit calculations that take opportunity costs into consideration (cf. Steinhilber, 2006, p. 178). However, costs and benefit shall not strictly be interpreted in pecuniary way. Costs can also be for example a loss of public trust in an institution in the sense that they (possibly) affect material interests (e.g. re-election for governments, regulatory decisions for businesses). A change of behaviour can therefore be explained by changing preferences or by changing circumstances. Internal and external factors furthermore constrain rational decisions. "Internally", strict rationalism has long been relaxed to bounded rationalism which assumes that actors cannot have full information about their options and related costs and benefits. They thus strive for satisfaction instead of maximising utility (Keohane, 1984, pp. 111–114).

2.2.1.2 Definition of regulation

My understanding of regulation results from the above review and reflects the development towards a society-centred concept of regulation. Clearly, Selznick's definition of regulation no longer captures the whole phenomena. It needs to be widened. On the other hand, decentring and thus relaxing the criteria of what constitutes regulation risks to end up with a too broad and unspecified definition (Jordana and Levi-Faur, 2004, pp. 3–4). Baldwin *et al.* for example suggest three different understandings of regulation, "a specific set of commands", "a deliberate state influence", and "all forms of social or economic influence" (2012, p. 3). The latter understanding allows for non-state regulation. However, Baldwin *et al.* at the same time drop *intentionality* as a criterion. However, in order to be compatible with a rationalist approach, it needs to include central elements of rationality, namely intentionality and objective-driven behaviour. I therefore

suggest with others to understand society-centred regulation as "an intentional and problem-solving process that extends beyond state activity" (Havinga, 2006, p. 516). More specifically, I adopt but slightly amend the definition of regulation provided by Black (Black, 2008, p. 139) and define as follows: By regulation is meant intentional, sustained and focused attempts to change the behaviour of others in order to address a collective problem or attain an identified end or ends, usually through a combination of rules or norms and some means for their implementation and enforcement, which can be legal or non-legal. The regulatory functions can be exercised primarily by one actor or dispersed between a number of actors, which can be public or private.

The definition accounts for decentred regulation in that it allows for regulation by state as well as non-state actors (and combinations of them). At the same time, it narrows down regulation to an intentional action that serves an objective. This is important as otherwise regulation becomes hard to distinguish from other phenomena (Levi-Faur, 2010, p. 8). At the same time, the definition is open to various forms and mechanisms of regulation. Also, it clearly states that regulation consists of several dimensions. For the analysis, I simplify the differentiation of regulation into separate dimensions and primarily distinguish between agenda-setting and rule-making on the one hand side and implementation and enforcement on the other. The reason is, that I am merely interested in the distinction between merely putting regulation on paper and de facto putting it into practice.

2.2.2 Developing the research heuristic

Based on such a rationalist and society-centred understanding of regulation and regulatory interdependence, the development of the case specific research heuristic is guided by the considerations in 2.1.4 which present the essence of the theory review. The research heuristic defines key concepts and their conditions and related expectations in order to achieve operationalisation. This procedure shall briefly be explained.

The analysis of causal mechanisms does not look for variables and their variance (see chapter 4). Instead, Beach and Pedersen suggest defining "key concepts". They are the basis to achieve operationalisation without variables. Instead of specifying the potential variance, researches need to clarify the conditions which are necessary and/or sufficient for key concepts to be present. Following set-theoretical lines of thought, for each condition, it needs to be specified what constitutes the presence and absence of this condition (Beach and Pedersen, 2013, pp. 46–49). This is analogous to indicators in variable-based research. Blatter *et al.* suggest using the terms "potential indicators" or "expectations" instead of "indicator" in qualitative research to stress its interpretative nature (2007, p. 174).

The key concepts derive from the research heuristic: import safety and market access. However, the term import safety seems misleading for TPS. Therefore, I prefer to use the term supply safety instead, especially when also referring to private actors. As these concepts represent alternative

explanations, I refer to them as supply safety hypothesis (SSH) and market access hypothesis (MAH). The selection of conditions for each key concept reflects the ex-ante theorized elements of the causal mechanism (Beach and Pedersen, 2013, p. 48). Table 3 in the summary of this section provides an overview over the conditions which have been theoretically deduced for the SSH. Table 4 depicts the conditions for the alternative MAH. For the discussion of the expectations, I differentiate between the public and private actors. It is important to note at this point that, strictly logically, these two alternatives hypothesis are not mutually exclusive. A combination of both may be a possible result of the analysis.

For the MAH, the expectations especially differ between EU public actors and TPS. The reason lies in the specific character of TPS, which leads to a difference in what constitutes accessing a market. For EU public actors, I discuss market access as access to the Chinese market for EU food products. For TPS, it would be meaningless to analyse this type of market access. There simply is no logical causal connection between food export *to* China and TPS activity *in* China. What I am looking for is the analogous alternative hypothesis to the SSH. For TPS, I therefore understand market access as being active in China for the *domestic* Chinese market.

2.2.2.1 Actors

In this part, I discuss which are the public and private actors and what characteristics can be theoretically assumed for the case at hand. Actors here shall be understood as organisations, not individuals. As long as an actor is easily demarcated against its environment by insiders and outsiders, is able to appear unified internally as well externally and can be assumed to have own consistent preferences as well as the ability to strategic behaviour. Rational assumptions thus can be applied to collective actors (Braun, 1999, p. 44).

2.2.2.1.1 Public actors

Two types of major public actors can be thought of for the EU. The first actor is the European Commission. Charged with the responsibility of the common market, the Commission also plays the major role in ensuring the safety of imports into this market (within a wider network of actors within the EU, cf. Alemanno, 2009; Weimer and Vos, 2015). As it is furthermore solely representing the EU on trade issues, it is justifiable generalisation to treat the EU commission on the international level in these particular areas as an actor like a nation-state.[28] The second type of public actors are national governments of EU member states. Member state governments can collaborate with third countries on food safety independently from the EU Commission. Public actors bear a limitation when engaging with other states. They always have to follow diplomatic channels. Exerting influence on China's food safety regulation therefore requires a prior consent by the Chinese government, if not cooperation.

[28] As Drezner puts it: "Treating the EU as a single actor in the coordination of global economic regulations is a significant assumption, but it is no longer a heroic one" (2005, p. 844).

2.2.2.1.2 Transnational private standards as private actors

When it comes to private actors, I concentrate my analysis on transnational private food safety standards (TPS) as a specific variation of transnational regulatory regimes (see 2.1.3.3).[29] As such, TPS are foremost an institution. However, actors drive the promulgation and usage of private standards – and presumable they do so to further their interests. For a thorough understanding of the functioning and variety of TPS as well as the differences to other types of private standards, it is crucial to unpack them into their three central elements: the actors involved, the content, and the process of conformity assessment (Henson and Humphrey, 2012; Marx, 2011).

In the following, I concentrate my discussion on private food safety standards.[30] They can be classified based on which actors define the rules of the standards (Marx, 2011). Three types occur: (1) individual companies' standards, mostly from retailers; (2) collective national standards introduced by national producer associations; (3) collective international standards jointly developed and run by retailers and producers from various countries (Henson and Humphrey, 2012, pp. 99–101). It is the third version of private food safety standards that I will focus on and refer to as TPS. A private organisation acts as standard owner for TPS, which in turn is co-financed by food businesses. For example, Food Safety System Certification 22000 (FSSC 22000), is owned the by Foundation FSSC 22000. Likewise, GlobalGAP is run by the company FoodPLUS GmbH. International Featured Standards (IFS) is owned by the German and French retailer associations Hauptverband des Einzelhandels (HDE) and the Fédération des Entreprises du Commerce et de la Distribution (FCD) (Havinga, 2006, p. 524). The organisations provide a secretariat for the daily business. The governance of private standards again varies at this point. However, while the form varies, food businesses are always involved in the formulation of the standards content (directly or indirectly via consultation processes). In cases like GlobalGAP and IFS, food businesses are – via representation in a board – directly involved in steering a private standard as regards strategic decisions (for an individual discussion of TPS see Meulen, 2011b). This classification is instructive to the question of what actors we can assume on the private side: it is individual businesses which drive the usage of private standards by demanding respective certifications from their suppliers. TPS are furthermore administrated and steered by organisations that own the specific standard. Those are the two types of actors behind TPS.

Regarding the content, private standards primarily deal with food safety and quality issues. Some have the purpose to differentiate standard products from premium products with the latter

[29] As private standards are legally voluntary, that is not required by public regulation to comply with them, they are sometimes also referred to as voluntary standards. However, public standards can as well be voluntary. Thus, private standard is the more precise term (Henson and Humphrey, 2009b, p. iii).

[30] Private food safety standards are TPS and consequently I use both terms interchangeably. The term TPS simply lays the focus on the transnational dimension. TPS organisation themselves also use "scheme" as a replacement for "standard" in order to avoid being mixed up with public standards (interview 26).

carrying additional characteristics. The fair-trade certificate is one example, which certifies that production and trade of a good have gone beyond standard market practice in taking special account for a fair treatment of the supplier. Such private standards are not part of the following discussion. What is of interest here, are so-called baseline standards. Such standards aim at ensuring that minimum requirements are met to enter a specific market segment (Henson and Humphrey, 2012, pp. 101–103). Baseline standards pre-dominantly are run by businesses. NGO-driven private regulation is therefore excluded from further discussion. The content of the standard itself is a document describing in detail the obligations a business which longs for a certification must meet. It comprises a set of technical specifications for example for food production, handling, transport, and processing. Such specifications mostly are based on concepts like the Hazard Analysis and Critical Control Point System (HACCP), Good Agricultural Practice (GAP) and Good Manufacturing Practice (GMP).[31] Horizontal scope, that is the extent to which a standard applies to various different products, and vertical scope, that is the extent to which the standard covers various parts of the supply chain (e.g. only farming or also including food processing), vary from standard to standard (Henson and Humphrey, 2012, p. 99). Technical specification may also go beyond the field of food quality and safety and include other aspects of social regulation like worker's rights and environmental protection (Fulponi, 2006). Given their geographical source, TPS represent approaches to food safety of Western markets and their respective acceptance of risk-levels. More specifically, TPS deriving from Europe tend to reflect EU food safety regulation. In any case, they do not contradict EU regulation.

A third criterion to differentiate between private food standards is based on the conformity assessment mechanism. The regulatory relevance of private standards does not rest alone on their content but rather on the inclusion of conformity assessment and enforcement systems. In this regard, certification is the crucial mechanism. Certification is a procedure that checks whether a company complies with the rules set by the standard. Positive certification often enables the tested actor to use a label proving the successful certification. There are three types of certification, first-party, second-party and third party certification. For better understanding, we need to differentiate between standard-adopter and standard-taker. Standard-adopter is a company which decides to use a specific private standard. This involves requiring the suppliers of this company to fulfil the criteria of this standard. Such suppliers thus are standard-takers. First-party certification essentially describes self-certification in which the standard-adopter itself assesses conformity as part of a self-declaration. Second-party certification rests on tests of the standard-taker by the standard-adopter and involves an inspection. Third-party certification

[31] GAP and GMP are guidelines which represent the state of the art of sustainable agriculture and food manufacturing respectively, integrating aspects of environmental, economic and social sustainability (cf. Meulen, 2011b, p. 92). Likewise, HACCP is guideline to prevent risks in the production process. It will be explained more in detail in 2.2.2.2.1.

decouples the relationship between standard-adopter and standard-taker by introducing a third party, a certification body (CB), whose task is to test and verify the compliance of the standard-taker with the rules set by the standard. In other words, the conformity assessment is delegated to CBs. CBs are typically private companies providing testing, inspection, verification and certification services in a wide field of areas going beyond food safety. Examples are globally acting companies like SGS S.A. from Switzerland, TÜV Rheinland from Germany or Buereau Veritas from France. CBs need an accreditation for being allowed to issue certifications by another organisation which can be national, international, private or public or both (Hatanaka *et al.*, 2005, p. 357).[32] Additionally, CBs in most cases have to obtain a license from a TPS owner in order to be able to offer certification services for the respective TPS. Obviously, the effectivity and thereby output legitimacy rises from first- to third party certification.[33] Arguably, this is (also) why we can witness a trend towards third party certification, especially for TPS (van Waarden, 2011, pp. 483–484). Third-party certification also has been made part of the International Organisation for Standardisation's (ISO) guidelines for operating private standards (Henson and Humphrey, 2012, pp. 100–101). Conformity assessment furthermore is the mechanism establishing the transnational relevance of TPS. By this logic, TPS project their rules – and thereby food safety regulation – across national borders. This adds a regulatory layer on the pre-existing regulation in the respective country. Thanks to third party certification, TPS do not necessarily need to follow diplomatic channels and they are technically able to *enforce* regulation across national borders. This marks a contrast to public actors. Thus, third party certification has a transnational dimension. Empirical evidence already has shown that TPS indeed can impact food safety regulation in affected countries (Lazer, 2001, p. 482; Henson and Jaffee, 2008, p. 552).

Following this discussion, I can now define TPS as private collective international baseline standards that define rules primarily to regulate food safety and food quality and which are enforced by a third party certification conformity assessment mechanism.

2.2.2.2 Motivations

The discussion above has shown that, in an international context, the type of externality defines the character of regulatory interdependence. Since China is both, a source for supply of food and an attractive market for food, preferences of EU actors can go both ways: for ensuring a safe supply and for getting access to the Chinese market. In the following two parts, I explain in detail, why supply safety and market access are potential motivations based on specifying the physical and regulatory externalities and I thereby establish a SSH and a MAH.

[32] For a more detailed discussion of certification modes see van Waarden (2011).
[33] For a critical reflection on output legitimacy see Marx (2011, p. 598).

2.2.2.2.1 Supply safety hypothesis

The notion of supply safety describes the situation where safety problems occur because of the import of unsafe goods – regardless of the cause of the problem (Coglianese *et al.*, 2009b; Ellefson *et al.*, 2013). Such unsafe products are seen as results of "lapses in the safe practises" (Coglianese *et al.*, 2009a, p. 7). They thus by definition appear despite preventive actions by the importing state. In other words, unsafe imports are a negative physical external effect resulting from the behaviour of actors other than the importing state. It is important to note, that the negative externality in the case of food safety is physically attached to the traded foodstuff. This has the important consequence that production externalities potentially become *product* externalities. Safety lapses in the production may cause unsafe products. This leads to a fundamental difference compared to other types of social regulation, most notably typical cases of environmental protection and social welfare. The negative production externalities, for example like soil, air and water pollution or workers' health protection stay physically at the site of the production. Such production externalities, where the external effects of production stay within the country of origin, have little direct effect on other countries and their consumers, which in turn limits the willingness to influence regulation in states of origin by states with stricter regulation (Abbott and Snidal, 2009, pp. 539–540). For food safety, in sharp contrast, the potential food risk deriving from production externalities travels with the foodstuff around the globe, as far as into the bodies of the consumers. This, in theory, fundamentally changes the incentive and rationale for action. Taking measures against production externalities in food are an action of consumer protection, while avoidance of negative external effects in the realm of environmental protection is about limiting negative effects that are more indirect, less tangible and potentially not to be experienced within a lifespan.

Based on this consideration, my argument for the motive of supply safety is furthermore based on the theoretically deduced insight, that the EU can neither rely on the mechanisms of the California Effect or related arguments which explain why exporting states adjust to regulation of the importing market nor is it in the position to reduce the risk of food imports below a specific point. I first discuss the former point. The EU has very limited market power vis-à-vis China. For China's economy, the relative importance of food exports compared to overall exports is comparably low. In 2012, China exported foodstuff including beverages and tobacco worth 54,665 million USD while the total amount of all exports was more than 37 times higher (2,048,714 million USD) (National Bureau of Statistics of China, 2014). Additionally, from a government's perspective, exports tend to undermine China's goal of self-sufficiency in food, which further questions the importance attached to food exports (Ghose, 2014). Vogel and Kagan are right to point out that market size is also a relative category with regard to the size of the export market compared to the domestic market of the exporter (Vogel and Kagan, 2004, pp. 14–15). The larger the export market in relation to the domestic market, the higher the comparative attractiveness. For China, this condition leads to inconclusive results. The estimate for the purchasing power

parity gross domestic product (GDP) of the EU in 2013 is 15.85 trillion USD. For China, the estimate is 13.39 trillion USD (CIA). This indicates that both markets do not largely differ in size. The difference between both markets shrinks more when considering the potential of the Chinese market given its growth rate combined with the size of the population which is roughly 1.5 times the combined EU and US population. This argument is especially strong for the food sector compared to other sectors since food does not follow the rule of elasticity of demand (every consumer purchases food). Thus, while the EU market due to its size is an attractive export market, China itself has an attractive domestic market. The costs of the regulatory change in China to adjust to EU regulation are hardly lower compared to the benefits of gaining access to the EU market – which is a precondition for China's adaption (Vogel and Kagan, 2004, pp. 14–15). In Simmons' terminology, the EU thus is not a dominant centre for China and consequently cannot hope for a China to harmonize with EU regulation. As this leads to physical external effects for the EU, it should become active to "promote harmonization" (Simmons, 2001, p. 598).

The second argument for the SSH is based on the distinction between production and product safety. The EU's public activities to influence China's food safety regulation potentially are based on a supply safety motivation, because EU public actors are not able to effectively ensure compliance with production standards for imports from China: "Ensuring that imports are safe presents special challenges as production takes place in third countries, outside the direct control of the member states" (Alemanno, 2009, p. 183). Compliance with production standards to achieve safe production is important for the safety of a product. As discussed above, it lies in the technical nature of food risks that the safety of food can best be assessed when information about the safety of the production process is available. It therefore has been regarded as one of the major achievements in developed countries to focus on process standards in order to increase the effectiveness of food safety regulation (Unnevehr and Roberts, 2003, p. 9). This is exemplified by HACCP which has been included in EU legislation in the 1990s. HACCP is built on the insight that especially microbiological food safety cannot be controlled by merely testing and control final products (Caswell *et al.*, 1998, p. 554). The HACCP requires producers to identify hazards to human health in their production process. For every hazard, critical control points need to be defined for each of which in turn intervention criteria, measures for control, correction, and evaluation need to be specified. Furthermore, HACCP requires the documentation of all measures taken (Caswell *et al.*, 1998, p. 553). If we accept the importance of process regulation like HACCP, this has implications for import safety effectiveness of public regulation. Standards for production (i.e. process standards) are hard to implement and enforce if production of the products lies outside of the geographical borders of the importing state. Consequently, the EU, for example, cannot apply the same standards on imported products compared to domestic production. A move to do so would imply quite high costs for, first, conducting the controls outside the EU and, second, for negotiating with the Chinese government an allowance to do so in the first place.

Thus, the EU has to rely on product standards for imports which basically is a regulation of the outcome of production processes (cf. Bamberger and Guzman, 2009, cf. Vogel, 1995). This however leaves the EU with uncertainty and limited protection. This holds true for microbiological hazards as mentioned above but also for those negative effects that can only be observed over very long periods, like for example contamination with pollutants (Bamberger and Guzman, 2009, p. 196). Thirdly, cause and causer of the food safety problem are hard to identify ex-post (Bamberger and Guzman, 2009, p. 196). The difficulty to assign blame in turn potentially reduces the incentive for producers to ensure the safety of their products.[34] In total, "conventional regulatory strategies are insufficient to address the safety challenges of importing products from foreign jurisdictions" (Bamberger and Guzman, 2009, p. 210). This technical logic also limits the import safety effects of import bans, the most stringent of all conventional methods. What is more, the WTO, as the institution primarily concerned with safeguarding free trade, formulates strict conditions for an importer to close its boarders for food imports. Its free trade bias rather complicates effective import safety from an importer's perspective (Epps and Trebilcock, 2009). The two agreements essentially regulating trade in food – the agreement on sanitary and phytosanitary measures (SPS agreement) and the agreement on technical barriers for trade (TBT agreement) of the WTO – are primarily concerned with free trade and subordinate food safety under this objective (Lin, 2014, pp. 143–144; Henson and Jaffee, 2008, p. 550). As Alemanno points out, this trade-bias is inherent in all international organisations dealing with food safety:

> *"Indeed, contrary to conventional wisdom, the main drive behind the creation of most of these international organizations is not to be found in food safety but in the international efforts aimed at overcoming regulatory divergence stemming from different domestic food standards. As a result, the raison d'être of virtually all these organisations is – at least in relation to their food-related mandate – to achieve harmonization of food safety standards so they cannot be used as discriminatory non-tariff barriers to trade. In other words, the food related responsibilities that have been entrusted to those organizations have more to do with the free trade imperative than with food safety per se" (Alemanno, 2015, pp. 10–11)*

This void left by public actors provides the basis for TPS to engage in supply safety activities. It is the very purpose of TPS to address the risks of international supply chains: "Their primary function is to ensure that internationalized supply chains in the food industry meet certain minimum standards. The primary aim of all of these standards is to ensure that, even though global food value chains are becoming more organizationally complex and more geographically dispersed, food companies have some confidence that the food they are purchasing and selling to consumers is safe" (Henson and Humphrey, 2012, p. 102). The difference in effectivity between TPS and EU public regulation has pointedly described by distinguishing what equivalence each

[34] Vogel and Kagan make a similar point when they argue that the CE is more likely for product standards than for production standards (2004, pp. 14–15).

asks for. Public regulation asks for an equivalence of outcomes (product safety). TPS, in contrast, ask for the equivalence of systems, "thereby transferring a management and regulation system into the exporting country. This indicates that private regulation more extensively influences (self-)regulation of food business in the exporting country, eventually rendering domestic regulation useless for export" (Lee, 2006, p. 36). As a representative of the TPS GlobalGAP argued: „Wenn alle Regierungen ihren Job machen würden, dann würde es ein System wie GlobalGAP nicht geben. [If all governments would do their job properly, GlobalGAP would not exist – translation by the author]" (interview 10).[35] With this overall objective and as public actors struggle to enforce production standards, it can be assumed that TPS become active in China in order to fill this void. Crucially, as it has been discussed above, private actors like TPS are capable to achieve this goal because in contrast to public actors, they can forego diplomatic hurdles. Thereby, they have the potential to at least narrow this gap of enforcement that public regulation is struggling to close (Garcia Martinez *et al.*, 2007, p. 313).

Besides problems with lapses in the safe practices, less tangible effects support the supply safety hypothesis. They refer to the nature of food safety regulation as being the regulation of food safety *risks.* The notion of risk has been mentioned repeatedly already, but deserves are more explicit discussion. It goes beyond the technical understanding of risk and refers to a wider debate in social sciences, especially the concept of the risk society (cf. Beck, 1986, for an overview about sociological understandings of risk see Renn, 1998; WBGU, 1999).[36] Risks, the argument is, correspond with reality but also include a strong component of social construction (Krohn and Krücken, 1993, p. 13). In other words: experts' assessments of risks based on scientific methodology and public perception of risks may deviate strongly. Mechanisms of social amplification further contribute to a comparably high awareness of risks (Kasperson *et al.*, 1988). Much research has been undertaken to understand the factors contributing to the rational of risk perception (cf. Renn, 2009). A crucial element to bridge this division is trust in the regulating actors, as studies have shown (Jonge *et al.*, 2007). This trust in public authorities to adequately regulate food safety, however, had been lost gravely in the EU following the BSE-crisis and other food safety scandals of the late 1990s (Jasanoff, 1997; Vogel and Ansell, 2006; Renn and Dreyer, 2009). Therefore, after 2000, regulators faced a double challenge. Not only were they confronted with a public demand for full control of risks and a corresponding unwillingness to accept any food safety-related risk.[37] In addition to that, they faced specific historic circumstances

[35] A statement which has also been made by two other experts – in an interview (26) and in a side-talk with a representative of a US food processing company during the GFSI Global Food Safety Forum in Kuala Lumpur on 4 March 2015.

[36] The technical, quantitative understanding defines risk as the probability of an accident occurring multiplied by the expected loss of the accident (WBGU, 1999, p. 7).

[37] The confrontation between the USA and the EU over diverging positions on food safety-related topics as beef hormones and genetically modified organisms (GMO) exemplifies this notion (e.g. Alemanno, 2004; Goldstein and Carruth, 2004; Vogel and Lynch, 2001; Clavier, 2008). Note that this conflict furthermore

which heightened the awareness of food safety scandals and fuelled the public impatience with public regulation. Returning to the supply safety hypothesis, the argument is, given this state of affairs, public regulators had additional incentives to avoid any scandals deriving from import of unsafe food.

For the supply safety hypothesis to materialize, we can expect according formulations and statements from EU sources. It is also possible to infer the motive from the concrete measures. If measures undertaken by EU public actors addressing China's food safety regulation are truly about reducing import safety risks, they focus on those areas where other measures are not effective enough. As discussed above, this is especially the case for production safety. Therefore, I expect a focus on implementation and enforcement of food safety standards.[38] An additional aspect is the specific food product involved and the role it plays in trade relations between the EU and China. An import safety related motivation can be expected when products are at the centre of the discussion, which are indeed imported from China. These expectations are the same for EU public actors and TPS with one exception: the need for enforcement and implementation is not decisive for TPS as it would also apply to the MAH and thus would not make any difference in the analysis (see condition 4 in Table 3).

2.2.2.2.2 Market access hypothesis

In general, regulatory externalities caused by food safety regulation are well documented and object of international regulation. International harmonisation is a common objective of nation states, because food safety regulation which aims at protecting the safety of consumers potentially hinders trade (cf. Hüller and Maier, 2006, p. 267; Marx, 2011). The numerous cases of supposedly unjustified food regulation brought up within the WTO framework exemplify the potential of food safety regulation for regulatory externalities (e.g. the beef hormone case, the GMO case, the salmonella case, the Japan apples case, see Goldstein and Carruth, 2004; Peel, 2004; Scherzberg, 2006). However, these conflicts occurred mainly between actors which share an equally high level of food safety regulation (e.g. EU and the USA on beef hormones, see Alemanno, 2004) or less developed countries which suffer from too high levels of regulation in highly regulated markets (e.g. African countries against the EU on the case of aflatoxin regulation; see Otsuki *et al.*, 2001).

China's food safety regulation potentially also creates regulatory externalities for others. At first, this seems contra-intuitive: if EU's food safety regulation is stricter compared to Chinese regulation, how can then food products compliant with EU regulation not fulfil the requirements of Chinese regulation? The reason lies in the cultural embeddedness of food. Unlike with other traded goods there is a strong cultural definition of food (on the connection of food regulation and

raised substantial doubt on the European side, whether the SPS agreement was protecting European consumers from unsafe food.

[38] For the analysis, I simplify the differentiation of regulation into separate dimensions and primarily distinguish between agenda-setting and rule-making on the one hand side and implementation and enforcement on the other. The reason is, that I am merely interested in the distinction between merely putting regulation on paper and de facto putting it into practice.

culture see also van Waarden, 2006). Food safety regulation reflects these cultural aspects of food. A prominent example is soft cheese made of unpasteurized, that is raw, milk. As this is a typical French food product and very much part of French eating tradition, it is allowed under EU food law. In the USA, in contrast, raw milk cheese is not part of the culinary culture. Compared to Europe, regulation is focussing more on the risks of unpasteurized milk and soft cheese made out of unpasteurized milk is only allowed on the market if aged at least 60 days (Albright, 2015).

Due to the closure of its market to the outside world until the 1990s and the predominate role food plays in Chinese culture, China retained its specific diet. Consequently, food regulation lacked rules and standards for Western foodstuff which traditionally was not on the table of Chinese households. Prominent example are dairy products. Chinese consumers only recently started to consume milk. Per capita consumption of dairy products more than tripled from 8 kg in 1996 to 25 kg one decade later (Xiu and Klein, 2010). Similar developments can be found for wine and processed food. Thus, Chinese food safety experts had no experience in regulating such products. As a result, Western companies often did and do face regulation which is stricter or at least more complicated than Western regulation for the same product (interview 40). In addition, potentially, Chinese government also might use food safety regulation to protects its own companies. Hence, the fact that China's food safety regulation generally can be considered of providing lower levels of safety compared to US or EU food safety regulation does not imply that products which comply with the latter necessarily fulfil the requirements of Chinese regulation. In theoretical terms, China's food safety regulation potentially generates regulatory externalities.

Nation states as well as the EU have an intrinsic interest in export opportunities for their businesses. In fact, for agricultural and food products EU member states run export facilitation programs.[39] In this vein, the public interest reflects the aggregated interest of food and agricultural business for accessing foreign markets. The specific interest of TPS as private actors in market access, however, is less obvious and requires closer scrutiny. Two theoretically deduced points can be made to argue for a market access motivation of TPS that leads to influencing China's food safety regulation. On the first level, TPS organisations as a "business" have an interest in accessing the Chinese market, because their success TPS is based on their proliferation. The wider the usage of a TPS the more relevant it becomes and the more power it accumulates. Likewise, the wider the usage, the higher the sum of licensing fees paid to a TPS. With an increasing relevance of the domestic Chinese market for global food production and consumption, TPS have an interest to establish themselves on this market, too. On a second level, the interests of the companies behind a TPS, may imply a market access motivation. It is their interest to have access to the Chinese

[39] See for example the website run by the German Federal Ministry for Food and Agriculture (Bundesministerium für Ernährung und Landwirtschaft, 2016). Other EU member states run similar programs.

domestic food market. To this end, however, they need the TPS to follow them on this market. As Western companies, they have a strategic interest to keep the level of food safety they bring with them for safeguarding their reputation and distinguishing themselves from Chinese competitors.

The condition 4 in Table 4 operationalizes the motivation for market access. Firstly, for EU public actors, a focus on rules and standards indicates a market access motivation – mirroring the focus on implementation and enforcement for the SSH. This may be articulated in general or more specifically for specific product groups. As for TPS, the expectation for condition 4 most notably is the observation that the focus lies on regulating the domestic Chinese market. For the TPS organisation's market access interest, the analysis would show activities that primarily aim at proliferating the usage of the respective TPS.

2.2.2.3 Causal components with potential influence

Actors' preferences are preferences over outcomes, not means. Changing circumstance thus have an effect on the particular means and strategies actors will choose. In other words, the question is, which changes of circumstances may theoretically lead to an adaption of behaviour? For the supply safety preference, those circumstances influence behaviour that imply a change of physical externality. Such circumstances can be observed or anticipated changes in the safety of imported food or changes in the food safety regulation of the exporting country. The dimension of physical externality also is connected to the sheer amount of food coming from a specific country. Activities by third parties that have an effect on food safety regulation in China also change the circumstances. As for the market access motive, trade also plays an important role, albeit in the opposite direction. It can be assumed that the higher the business need to export products to China, the stronger the interest for favourable conditions for market access in China. Changes in the Chinese food safety regulation additionally may affect activities, depending on whether they ease or complicate market access. Here, I need to differentiate the situation for TPS. For them, changes in the regulation of certification is relevant. Lastly, public-private interaction may intervene and affect which motive leads to activities to influence China's food safety regulation. Each of these potential parts of the causal mechanism will briefly be discussed in turn.

2.2.2.3.1 Changes in China's food safety situation and regulation

Changes in the regulation of food safety in China potentially have effects on the activities by EU public actors and TPS which are directed at supply safety. A thought experiment validates this point: If China would fulfil international standards of food safety regulation in all regards, EU actors would have no reason to take action. And vice versa: If China would take no measures after joining the WTO to improve its food safety regulation, the motive for supply safety is very likely to lead to specific actions by European actors to mitigate negative external effects. From the discussion of supply safety and market access, I furthermore deduce that the reaction to changes in China's food safety regulation depends on which dimensions of regulation are affected. The

different components can be understood as steps in a process in *which each builds upon the previous*. It follows that this differentiation can be applied to describe the effectiveness of regulation, with mere rule-making being the weakest form of regulation, while enforced regulation (including rule-making and implementation, of course) is the strongest form. The state of food safety regulation in China as a condition for supply safety is represented as condition 2 in Table 3 with two expectations for public actors as well as TPS. First, the degree to which China's food safety regulation resembles international standards and/or EU standards. While international and EU standards may differ, they roughly represent a similar level of food safety. I generalize this point and assume that *from a supply safety perspective* food safety standards from all major developed countries, including the EU, and international standards provide a roughly similar level of food safety, especially when compared to China.[40] This seems justifiable, because especially the EU and the USA have a major influence on the definition of food safety standards in the system of the Codex Alimentarius which in turn is the reference for national standards (Post, 2005; Hüller and Maier, 2006, see also 3.4.2). Secondly, I apply the differentiation of regulation and focus on deficiencies in implementation and enforcement.

Changes in China's food safety regulation potentially also trigger market access-motivated actions. Especially in cases in which regulation leads to or keeps trade barriers for European products. The more China's food safety regulation is moving towards the desired norms, the less market access-driven actions are assumed. Thus, here the focus lies on the rules of China's food safety regulation, as presented in condition 2 of Table 4. The potential indicator is a situation in which the rules of China's regulation prevent market access, because they are *not in line with the international or more specifically EU understanding*.

For TPS, changes of the regulatory environment additionally have an influence on their behaviour, if the regulation of certification changes. While TPS are not part of public regulation, they do have to conform with the legal rules for their operation in the specific country (if there are any). Especially the aspect of enforcement of TPS draws attention to the embedding of transnational regulatory schemes in national regulatory frameworks (cf. Bartley, 2011; Verbruggen, 2013). National regulatory systems thus intervene in the effectiveness of private regulation. The potential expectation for condition 2 therefore is regulation that actually allows for or even supports the usage of private standards and certification systems. This should not be assumed easily given the different political system of China, in which the distinction between private and state is much less clear compared to in Western capitalist systems.

[40] There are certainly exceptions to this rule, like the disputes between the USA and the EU about GMO and hormones in beef. However, notably, it has been argued for both of the cases that the dispute is less about factual food safety but rather cultural aspects of food and differing risk perceptions (Jasanoff, 2005; Durant and Legge, 2003; Scherzberg, 2006; Goldstein and Carruth, 2004).

2.2.2.3.2 Importance of trading partner

In my research, I also need to ask, what effect trade has on the behaviour of public EU actors and TPS. Like the theories of regulatory interdependence already suggested, the precondition for physical and regulatory externalities to take effect is trade. Without trade of foodstuff, the negative physical externality does not "travel". This suggests a relationship between the objective and content of measures, European actors conduct to influence China's food safety regulation. For import, the following situations are theoretically possible: First, import for already traded products increases and thus increases supply safety pressure. Even with the relative number of unsafe imports from a specific country being stable, with rising import volume the number of absolute unsafe food imports rises and thus the exposure of consumers in import markets rises alongside. Second, new products are traded which brings up new, potentially unknown risks. In both cases the need for public and private EU actors to ensure supply safety increases. This connection between trade and supply safety is denoted as condition 1 in Table 3. Import volume is measured in weight.[41] As indicated in Table 3, also the change over time is of interest as a rising import would imply an increased motivation for supply safety measures.

Likewise, without trade of foodstuff there cannot be a negative regulatory externality of hindered market access for exports. Thus, I assume that it is the need to increase exports to China which triggers market access activities by EU actors to influence China's food safety regulation. I assume furthermore that rising food exports from the EU to China indicate a general interest or pressure to acquire China as an export market. With this general trend, the number of instances in which China's food safety regulation appears (in exporters perception) as trade barrier and furthermore the pressure to change China's food safety regulation in the desired direction increases. The economic "pressure" for export goes back to an agriculture and food production system based on scale effects. With stagnating of demand in existing markets, food companies in Europe are in need for additional markets. This aspect is denoted as condition 1 in Table 4. Here I firstly expect high or rising trade volume (now measured in Euros as the economic value matters). As the mere trade volume remains a vague indicator, I additionally consider to what extent the EU was searching for export opportunities due to overproduction. The argument is that overproduction leads to increased export pressure which in turn increases the pressure on the EU public actors to intensify market access-activities. For TPS, trade is not relevant for the MAH.

2.2.2.3.3 Third parties

International regimes and organisations potentially have impact on China's food safety regulation which in turn may affect physical externalities. Therefore, the question is, to what degree activities of third parties lead to changes in the behaviour of EU public actors and TPS? For the SSH, I assume that

[41] Of course, there is no strict causal connection between the weight of a food product and its potential food safety risk. However, measuring in currency would more severely obscure the picture as changes in the costs of products would imply higher import risks.

if international organisations direct activities at China's food safety regulation, they pursue the objective of increasing consumer and environmental protection. I already made argued above, that from a supply safety perspective, international food safety standards are similar to EU regulation. If, then, EU public actors or TPS are aware of activities conducted by a relevant international organisation addressing China's food safety regulation, rationalism suggests that they would recalculate. In rationalist thinking, actors weighing up for which end to invest their resources most effectively. If they see that others support their objective (here: supply safety), they are likely to reduce their investment in this objective. The respective expectations are formulated for condition 3 in Table 3. It is the non-influence of international governmental organisations (IGO) on improving import safety which is necessary for the SSH. And vice versa: If IGOs contribute substantially to improve import safety from China, this can be a reason for less involvement of the EU in this task.

In contrast, third parties have no relevance for the MAH (see condition 3 in Table 4). If third parties prove to be active in influencing China's food safety regulation, I expect EU public actors to ignore or neglect those activities. This is, because market access-driven measures are necessarily very specific and addressing specific products and cases. It is unlikely that any other actor has the same specific objective. This holds true for EU public actors and TPS.

The theoretical considerations would hold true for other nations as third parties, too. However, I exclude them from my analysis, as this would increase the complexity disproportionally. I would need to assume supply safety and market access motives for them as well. Consequently, I would need to analyse any observed activity directed at influencing China's food safety regulation to find out which goal it served. Even without considering the question whether EU actors rightly assess the objective of such activities themselves, the number of (potential) causal connections becomes too large for a targeted analysis. What furthermore supports this decision is the fact that third countries have hardly been mentioned as relevant by interviewees representing EU public actors or TPS.

2.2.2.3.4 Interaction

Like with third parties, the activities by EU public actors and TPS potentially influence the calculations of the respective other. Thus, the question here is: How do interactions between EU public actors on the one side and TPS on the other affect the behaviour of either side? As discussed in 2.1.3.3, within the transnational regulatory governance discourse, theoretically, all forms of relationships can result from interactions. They have been summarized as competition, coordination, co-optation and chaos – in other words it spans from mere awareness to forms of institutionalized cooperation (cf. Eberlein *et al.*, 2014, pp. 11–12). Here, the degree of implicit or explicit cooperation is of interest. Again, for reasons of simplicity, I make an assumption for the following argument: the principal level of food safety with regard to the rules of TPS is equal to the level provided by the rules of the EU's public food safety regulation. This assumption is reasonable, since TPS operating in the EU cannot require less than public law and in many cases actually go beyond (Meulen, 2011b, see also 3.5). This implies that for

the motive of supply safety EU public actors tend to reduce their efforts if TPS are actively influencing China's food safety regulation, because "[...] private food schemes [meaning private food safety standards – the author] help to reduce the transaction costs by making information about European regulations on food safety systematically available and practically achievable" (Lee, 2006, p. 24). In short: the more the interaction implies burden sharing in tackling supply risks, the less the motivation to act. This is denoted in condition 5 in Table 3. For this condition, however, it is necessary to differentiate the interpretation for TPS. From a TPS perspective, the more public activities are seen as insufficient to positively influence supply safety, the more intense efforts are expected by TPS in China. From a purely theoretical perspective, the reverse does not hold true. EU public activities do not necessarily lead to little TPS involvement. After all, within EU, TPS also regulate the market despite the comparable powerful public regulation (see 3.1.3 and 3.5.1). As EU public actors and TPS pursue different market access objectives, this condition is not relevant for the MAH.[42]

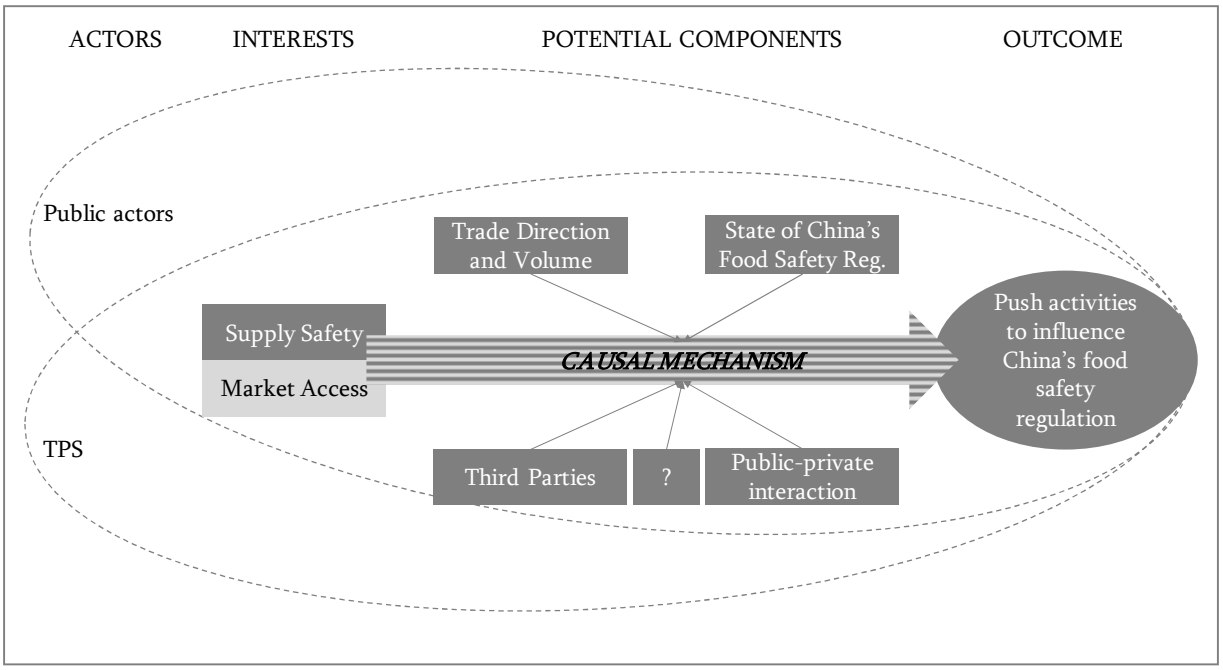
2.2.3 Summary and discussion

The discussion above connected the theoretical reflections in section 2.1 with the case itself. I deduced two hypotheses and identified a set of conditions necessary for those hypotheses to come true. In sum, this provides a research heuristic for the analysis which is summarized in Figure 1. It rests on four statements:

- EU Commission as well as TPS take action to achieve a change in China's food safety regulation.
- Actions taken to influence China's food safety regulation can be based on two distinct motives – supply safety or market access – or combinations of both.
- The actions taken depend on circumstances that intervene and affect actors' behaviour and with this, whether the actions are based on supply safety or market access motivation. The circumstances are a combination of changes in China's food safety regulation, trade flows, third party behaviour and interaction between EU public actors and TPS.
- For each of the identified conditions, assumptions have been theoretically deduced how they may affect actors' behaviour. This laid the basis for the operationalisation as summarized in Table 3 and Table 4. For each condition, every expectation is sufficient. This in turn means, that all expectations need to be absent for the condition to not being present (see also chapter 4).

[42] Note the difference: If I were to include business interest representation in China – like for example the EUCCC – in the analysis, the expectations for the interaction would be different for the MAH.

Figure 1: Research heuristic



(Source: own)

Table 3: Conditions and expectations for supply safety hypothesis

	Expectations	
Condition	**EU public actors**	**TPS**
Condition 1: importance as trade partner	• High or rising EU import volume from China (in kg)	• High or rising EU import volume from China (in kg)
Condition 2: state of China's food safety regulation	• Food safety standards do not fulfil international criteria • Food safety regulation is only partially implemented or enforced	• Food safety standards do not fulfil international criteria • Food safety regulation is only partially implemented or enforced • China's food safety regulation allows or even supports TPS
Condition 3: third parties	• Non-existence of activities by IGOs to influence China's food safety regulation • No or limited awareness of activities by IGOs to influence China's food safety regulation by EU sources or activities by IGOs and other nations to influence China's food safety regulation being portrayed as insufficient by EU public actors.	• Non-existence of activities by IGOs to influence China's food safety regulation • No or limited awareness of activities by IGOs to influence China's food safety regulation by TPS or activities by IGOs to influence China's food safety regulation being portrayed as insufficient by TPS.

Condition 4: motivation	• Need formulated to protect European consumers • Need formulated to improve *implementation* and *enforcement* of food safety regulation in China • Need for action formulated with regard to specific imported products/product groups that are typical for import from China	• Need formulated to protect European consumers • Need for action formulated with regard to specific imported products/product groups that are typical for import from China
Condition 5: interaction	• Activities by TPS in China being portrayed as insufficient by EU sources • No or limited awareness of activities by TPS in China by EU sources	• Activities by EU public actors in China being portrayed as insufficient by TPS • No or limited awareness of activities by EU public actors in China by TPS

(Source: own)

Table 4: Conditions and expectations for alternative market access hypothesis

	Expectations	
Condition	**EU public actors**	**TPS**
Condition 1: importance as trade partner	• High or rising export volume (in Euro) • Search for export market to sell food products outside of the EU due to overproduction	• No relevance for behaviour
Condition 2: state of China's food safety regulation	• Food safety regulation not compatible (harmonized) with EU regulation, hindering export	• China's food safety regulation allows or even supports TPS
Condition 3: third parties	• No relevance for behaviour	• No relevance for behaviour
Condition 4: motivation	• Need/willingness to enter Chinese market formulated • Need formulated to especially change rules and standards in Chinese food safety regulation • Need for action formulated regarding specific products/product groups that are typical for export to China	• Determination to establish TPS in China for domestic market formulated
Condition 5: interaction	• No relevance for behaviour	• No relevance for behaviour

(Source: own)

There is an important limitation in the theoretical deduction of the research heuristic: it does not provide a causal mechanism. Put in formal terms, I was able to identify a number of necessary conditions. What is open for research is, which conditions are sufficient to explain the outcome. The question mark in Figure 1 furthermore represents the uncertainty, whether I was able to ex-ante identify all relevant causal components. As I cannot be certain about this, the research process should stay open to potential other elements for the causal mechanism. Therefore, it is important to proceed with the analysis in an explorative manner, as discussed more in detail in chapter 4.

2.3 Conclusion

The academic discussions about regulation and regulatory interdependence have brought about a society-centred understanding which leads to a transnational regulatory governance perspective. Thus, both EU public and private actors (narrowed down to TPS) potentially exert influence on China's food safety regulation and need to be included in the analysis. This does not render state-centred theories obsolete. To the contrary, theories from this school of thought provide important insights into potential causal mechanisms (or at least elements thereof).

With a rationalist perspective in mind, two separate motives derive from the distinction of regulatory externalities and physical externalities. EU public actors and TPS may firstly be active in order to avoid unsafe supply of food from China (supply safety hypothesis). Alternatively, the interest in entering the Chinese market may motivate their attempts to influence China's food safety regulation (market access hypothesis). Furthermore, differentiating between a rule and an enforcement dimension of regulation is key to analysing market access and supply safety motives. Lastly, rationalism tells us that, while preferences do not change, circumstances lead to changes of actors' behaviour. Four necessary conditions – the state of China's food safety regulation, trade flows, third parties and public-private interaction – have been identified to cater for this. A discussion of each condition provided an operationalisation of this research heuristic. The analysis of the case needs to validate these conditions. However, for a full causal mechanism I furthermore need to identify those parts which are sufficient to explain the outcome. These requirements derive from the outcome explaining variant of process tracing which I will discuss in chapter 4. Before, however, the following chapter makes an intermediate step by providing additional empirical information to sketch out the context of this case.

3 Context: Specification of the causal mechanisms components

This chapter builds the bridge between the theory chapter and the analysis of the case. I introduce the general and partly historical background for the main aspects of the research heuristic – accept for the trade component, which does not need additional introduction before the analysis in chapter 5. Laying out the context serves two purposes: Firstly, this chapter specifies the dimensions of the research heuristic. This helps to understand the actor and interest-constellation when analysing the specific case. The first two sections introduce the specific public and private actors as well as their characteristics. Likewise, section 4 discusses the details of the intergovernmental dimension of global food safety regulation as a potential causal component. Secondly, I provide more detailed arguments for building my case by discussing the conditions of the SSH. In the third section of this chapter, I analyse in detail the supply safety-risk of China as a food exporter to provide detailed empirical evidence for the SSH. In doing so, I substantiate some of the statements made in the introductory chapter. In the last section I recap the interaction between public actors and TPS.

3.1 The food safety regulatory system of the EU: experienced with import safety

European food safety governance underwent a fundamental transition over three decades since the mid-1980s. A number of scholars have contributed to our better understanding of this transition (Marsden *et al.*, 2010; Ansell and Vogel, 2006; Vos and Wendler, 2006; Alemanno, 2008; Dreyer and Renn, 2009; Abels and Kobusch, 2010; Alemanno and Gabbi, 2014). The chronological development of the transition has already sufficiently been described at length elsewhere (Millstone and van Zwanenberg, 2002; Alemanno, 2008; Marsden *et al.*, 2010) and shall not be discussed in detail here. Here are rather those aspects of interest that affect the import safety approach of the EU.

The EU acknowledges the external dimension of food safety and it has formulated its perspective and approach towards the related challenges. In the white paper on food safety, which was the basis for the GFL, the EU Commission underlined the international dimension of food safety and the responsibility for import safety as well as export safety:

> *„The Community is the world's largest importer/exporter of food products, and trades with countries all over the world in an increasing diversity of food products. With this extensive trade in food products, food safety cannot be seen as solely an internal policy question. Exactly the same concerns as regards zoonoses, contaminants and other concerns apply to food products in international trade, whether these products are to be imported into the Community or exported from the Community." (European Commission, 2000, 108).*

The same pattern can be observed for health policy in general, where two objectives play a role in the EU's foreign policy: securing the safety of its own citizens and increasing the global safety (Keukeleire and MacNaughtan, 2008, p. 249). The GFL further details these objectives in article 11 and 12 (European Union, 2002). Both, import safety and export safety objective, point to the EU as a "normative power", which is willing and able to extend its internal regulation beyond the internal market (Weimer and Vos, 2015, p. 3). This is obvious for the export safety, as the EU clearly formulates responsibility for food safety beyond its own borders: "[…] it is necessary to ensure that even where there is agreement of the importing country, food injurious to health or unsafe feed is not exported or re-exported" (European Union, 2002, p. 3). For import safety, the argument needs more deliberation. The GFL established the principle that imported food need to comply with or need to be equivalent to the requirements domestically produced food has to fulfil (European Union, 2002, 11). This position reflects the interest in protecting the internal market and consumers, which is in line with the focus on consumer protection-oriented approach. However, at the same time, this requirement exports EU regulation to third countries, because it requires exporting countries and businesses to implement EU regulation. In other words, the EU utilizes the attractiveness of its internal market for third countries to export its internal standards – not solely but also in the field of food safety (Weimer and Vos, 2015, p. 3). The effectiveness of this market power mechanism still depends on the attractiveness of the market for the third country and the stringency of the regulation (Weimer and Vos, 2015, p. 3). However, for food safety, this mechanism is not an unintended spill-over effect. It rather is an intentional part of the EU's regulation, as will be shown in the next section detailing the Union's import safety approach.

The EU's motivation to influence actively the state of food safety regulation outside of its borders furthermore is reflected in the objective to participate in the international institutions dealing with food safety issues. Article 13 of the GFL states that the EU as well as member states shall actively contribute to the development and improvement of international food safety standards (European Union, 2002, 13). The white paper explicitly refers to the WTO's SPS committee and the ambition to become a member of the Codex Alimentarius Commission (CAC) as well as of the World Organisation for Animal Health (OIE). The EU achieved both. Since 2003, the EU is a CAC member and since 2004 it has the observer status at the OIE.

3.1.1 Import Safety approach

Next to the GFL, the Official Food and Feed Controls Regulation (OFFC) sets the legal basis for the EU's import safety approach (European Union, 2004b). The OFFC defines the general rules for the official inspections and control system of the EU. It clarifies the obligations and roles for Member States and the EU and describes how authorities have to conducted controls. In addition, it deals with the topic of food import safety.

3.1.1.1 Import safety control system

The vast majority of all food imports are not controlled at the point of entry into the EU and only need to fulfil general custom requirements. This means in practice that the respective national customs authority only conducts a document check (Alemanno, 2009, p. 184). The reason is the sheer amount of good imported into the EU, which makes comprehensive controls practically impossible.[43] Two mechanisms tackle this problem. First, the OFFC introduced a risk-based approach to controls of foodstuff at the border. Foodstuff with higher safety risks is controlled more intensively compared to less risky products (Alemanno, 2009, pp. 177–178). For example, for food of animal origin, border controls are generally stricter than for food of non-animal origin (DG SANCO, 2006, pp. 11–13). Second, the EU has developed a system, which allows it to swiftly react to import safety incidents. In this system, the Rapid Alert System for Feed and Food (RASFF) plays a major role as the "internal market's safety net vis-à-vis unsafe products" (Alemanno, 2009, p. 177). In essence, RASFF ensure the swift transmission of information about unsafe food on the EU market between the EU Commission and all Member States. Custom authorities also are connected to the RASFF system. This system ensures that regardless whether controls within a Member State or controls at the border detect a problem, the RASFF informs all other customs authorities, national inspection authorities and the EU Commission. It enables national authorities to take counter measures and, in case national solutions deem insufficient, it enables the EU to take action. The RASFF thus allows for a reactive approach to import safety controls by creating a system of shared allocation of responsibilities (Alemanno, 2009, p. 184).

3.1.1.2 Active influence on third countries

With regard to import safety, the OFFC defines:

- that controls in third countries exporting to the EU are required to ensure compliance and how they are to be conducted;
- what import conditions need to be fulfilled by countries exporting to the EU;
- what constitutes equivalence for food safety regulation in third countries with EU regulation;

[43] This is not a specific EU problem. In 2011, the USFDA inspected 2 per cent of all imported foods (Patoka, 2013).

- and what type of support shall be provided to developing countries.[44]

Before I will deal with the first aspect of controls in the next section, I will first briefly discuss how the other three aspects actively influence food safety regulation in third countries. Article 47 of the OFFC about the general import conditions requires the EU Commission to seek information from countries exporting to the EU. In practice, this requires extensive interchanges of information between the EU Commission and a third country. Third countries need to provide information about food safety regulation, control and implementation procedures as well as risk assessment procedures and their implementation. Such information may need to be updated following a control, in case recommendations for adjustments had been provided by the EU. What is more, the OFFC requires exporting countries to have accredited laboratories that verify compliance with EU food standards (DG SANCO, 2006). As part of the compliance or equivalence requirement of the GFL, imported foodstuffs furthermore have to fulfil the general food hygiene requirements, which are laid down in the Regulation on the Hygiene of Foodstuffs (HOF) (European Union, 2004a). Among other specifications, HOF requires the application of the HACCP principles by food business operators regardless of the type of food. Lastly, the EU import regulation prescribes a strong role to competent authorities in third countries as it is "[t]he natural contact point for the Commission in third countries" (DG SANCO, 2006, p. 10)).[45] The existence of a competent authority is not required by the OFFC, but more specific regulations make it a de facto requirement. For example, for food of animal origin, third country competent authorities need to guarantee that food exported to the EU is produced in compliance or equivalence with EU requirements (DG SANCO, 2006, p. 14). Likewise, competent authority is a key necessity for pre-export checks, laid out in article 23 of the OFFC. In short, under a number of conditions the EU can accept pre-export checks of products exported to the EU. In this case, the frequency of import controls by the EU is reduced. A key condition is that the third country can name an organisation that fulfils the criteria of the EU to act as a competent authority. It should be noted, that as of 2016, pre-export checks have only been granted to the USA and Canada for specific products (European Commission, 2017). However, article 23 again shows the strong potential influence, EU food import safety regulation takes on third countries regulation. An interviewed expert also confirmed the central role of competent authorities in third countries for the exchange between the EU Commission and a third country (interview 25).

[44] The part is largely informed by the analysis provided by Weimer and Vos (2015).
[45] Regulation (EC) 882/2004 defines competent authority as "the central authority of a Member State competent for the organisation of official controls or any other authority to which that competence has been
conferred; it shall also include, where appropriate, the corresponding authority of a third country" (European Union, 2004b, p. 20)

Requirements for food import safety beyond this vary – as part of a risk-based approach - between food of animal origin, food of non-animal origin and composite products, with the latter containing both products of plant origin and of processed products of animal origin (DG SANCO, 2006, p. 13). As food animal origin generally poses higher risks, the import regulation is stricter. Only those third countries are allowed to export whom the EU Commission lists as eligible. Additionally, a company wishing to export live animals and products of animal origin needs to have a specific approval by the EU Commission to do so. The EU Commission publishes the list of approved establishments online (DG SANTE, 2016). To appear on the list of approved establishments, companies that wish to export need to request the competent authority of their country to submit an application. Regulation for food of non-animal origin is less strict. Third countries do not need to be listed with the EU Commission. Establishments also do not need to be approved by the EU (DG SANCO, 2006). Generally, food of non-animal origin can enter the EU market freely and is not subject to any import conditions. Exceptions to this rule have been imposed for specific food of non-animal origin considered posing higher risks (DG SANCO, 2006, p. 11). Such foodstuff can only enter through designated entry points and requires prior notification by the importing company to the authorities (DG SANCO, 2006, p. 12). For composite products, business operators have the responsibility to ensure that the components of animal origin of the product fulfil all requirements for food of animal origin. Certain composite products additionally are subject to import controls like prescribed for food of animal origin (DG SANCO, 2006, p. 16). Lastly, in case of food safety emergency, the EU Commission has the possibility to restrict imports from specific countries (or take any other measures) – regardless of whether the product is of animal or non-animal origin (European Union, 2002, 53).

The EU acknowledges that the requirements pose hurdles especially for developing countries. To accommodate for this, it obliges itself to support third countries. Article 50 OFFC determines that the EU Commission has to support developing countries in their efforts to build sufficient capacities to fulfil food safety requirements for importing to the EU. This includes "phased introduction of requirements" and extends to joint projects and active trainings of third countries staff (European Union, 2004b, 50). On the basis of article 51 OFFC – which is on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules – the EU Commission established the Better Training for Safer Food programme (BTSF) in 2006. The BTSF programme has the purpose to train food safety authorities in EU member states and third countries in EU food safety regulation with a dedicated import safety objective, namely "[e]nsuring and maintaining a high level of consumer protection and of animal health, animal welfare and plant health" (CHAFEA, 2012). It is conducted by the

Directorate-General for Health and Food Safety (DG SANTE/DG SANCO)[46] training sector E and unit D3 and the Consumers, Health, Agriculture and Food Executive Agency (CHAFEA) (DG SANCO, 2009, p. 7). Trainings organised by BTSF are open to third countries. A more dedicated approach for a specific country are "specific training courses organised for third country participants on the spot" (CHAFEA, 2012). The planning for trainings is based on topics and not on which countries need to be addressed. Basis for the plans are RASFF statistics, outcomes of the previous year's BTSF-programme and results from the audits conducted by the Food and Veterinary Office (FVO) (DG SANCO, 2009, p. 11). From 2006 until 2014, the EU Commission has spent about 110 million euro to conduct more than 1,100 trainings with more than 48,000 participants. Approximately one third of the activities cover third countries (Le Goslès, 2015).

3.1.2 Controls of third countries by the FVO

As part of the overall reform of the EU food regulation at the turn of the millennium, the FVO, located in Grange, Ireland, was established as a body specifically dedicated to improving food safety inspections. It is a separate EU organisation, however, under the auspices of the European Commission, more specifically DG SANTE. According to its self-description, the "FVO's primary role is to conduct audits or inspections to ensure the national authorities are fulfilling their legal obligations" (DG SANCO, 2017). The second part of the sentence refers to a special aspect. In contrast to what typically is considered to be the object of an audit – namely food production facilities – the FVO audits the work of national authorities. It assesses the respective national regulatory system as a whole and whether or not it is satisfactory from an EU's perspective. This makes it a unique approach. The FVO conducts such audits to assess the compliance of EU member states as well as of third countries. Article 46 OFFC is the legal basis for the controls of third countries. Controls shall be comprehensive, considering virtually all criteria relevant for regulation to be effective – from rules over implementation to enforcement. Again, such controls conducted by the EU are based on an assessment of the risks associated with a particular country's food exports (European Union, 2004b, p. 84).

3.1.2.1 Process of auditing

The auditing process consists of five steps (the rest of the paragraph is largely based on Weimer and Vos, 2015, pp. 63–65). First, the FVO publishes a working plan. It defines on which topics audits will be conducted and in which countries for a specific year. It is the result of a consultation process with the European Commission and member states (DG SANCO, 2017). The plan is revised and updated in the mid of each year. However, it remains tentative, as the FVO repeatedly points out in the plan's introductions, as "[o]f necessity, [the working plan] must remain flexible to enable it to respond to emergencies and unforeseen circumstances" (DG SANCO, 2004, p. 3).

[46] Until 2014, DG SANTE was DG SANCO. I use both names interchangeably and apply the old name DG SANCO when specifically referring to a point of time, when it was still called DG SANCO.

Adjustments thus are possible and frequent during a year. Second, before an audit actually starts, the FVO agrees with the national authorities of the respective country on the details of a planned audit. Once this is achieved, third, a team of FVO inspectors is sent to the audited country, where it closely collaborates with representatives from the national authorities. Both parties also jointly conduct field trips to production facilities to investigate whether or not the control system is effective. Fourth, the FVO auditors draft an audit report, which includes an assessment and recommendations to the audited country how improvements can be made. The report is sent for comment to the audited country. Disagreements between both sides, if any, are noted in the audit report. Additionally, the audited country is asked to present an action plan how to improve the situation. Fifth, the FVO together with the EU Commission monitors this action plan and follows up on its implementation.

3.1.2.2 Relevance

Through its task to audit third countries, the FVO thus is a corner stone of the EU's food import safety system (Weimer and Vos, 2015, p. 61). About one third of all audits are targeted at countries outside of the EU (Weimer and Vos, 2015, p. 61). This also makes it an important channel through which the EU may influence third countries' food safety regulation. Firstly, by providing an assessment of the situation for the EU Commission, the FVO potentially influences the priorities of the EU Commission to take action. Secondly, and more directly, FVO audit reports and their recommendation have proven to trigger change in the respective audited country. For example, in Thailand FVO's audit results led to changes in Thailand's food safety regulation (Weimer and Vos, 2015, pp. 64–65). This is the case, although the FVO does not have any power to take actions in cases of non-compliance. What it provides, though is "important evidentiary basis for any actions taken by the Commission" (Weimer and Vos, 2015, p. 62).

3.1.3 Responsibility distribution

In the following paragraphs, I describe two dimensions of responsibility distribution within the EU. Firstly, I briefly review the multilevel food safety governance dimension of the EU and how member states and the EU Commission relate to each other when it comes to import safety. Secondly, I show that even within the EU Commission, several directorate-generals are involved in managing the external dimension of food safety.

3.1.3.1 EU Commission vs. Member States

The EU food safety governance is a "particularly illuminating example of an emerging system of multilevel regulation" (Vogel and Ansell, 2006, p. 6). This refers predominantly to the agenda setting part of food safety regulation, including the assessment of food risks. Indeed, understanding the linkages between national and European food safety governance is a topic of itself (Kobusch, 2010; Abels *et al.*, 2014). What is more, the specific organisation of food safety regulation and risk assessment on member state level is diverse (Abels and Kobusch, 2015;

Bundesinstitut für Risikobewertung, 2011). For a number of aspects, the GFL applies the comitology procedure to specify regulation – for example with regard to the emergency clause (European Union, 2002, p. 53). The respective comitology committee is the Standing Committee on the Food Chain and Animal Health, installed by the GFL (European Union, 2002, p. 58). For the management of import safety, the relationship between the EU Commission and Member States is more straightforward. The EU Commission as guardian of the single market bears the prime responsibility for the import safety of food. While the national organisation of food safety regulation varies widely, all member states have to comply with EU food law (Bundesinstitut für Risikobewertung, 2011). The major legal instruments to this end, the GFL and OFFC apply directly in the member states. On behalf of the EU Commission, the FVO controls the implementation of EU food safety regulation and conducts audits. RASFF as a major tool for risk management also resides with the EU Commission. For import safety, the EU thus has a relatively high level of coordination with the EU Commission at its centre. Notably, when it comes to the export of food and the issues of market access to third countries, the responsibilities are less coordinated. Essentially, EU Commission and all member states act in parallel and on their own accord.

3.1.3.2 External dimension of food safety within the EU Commission

On all trade related matters, the EU Commission has the exclusive competence in EU-China relations, based on the initial 1985 Agreement on Trade and Economic Cooperation (Snyder, 2009, p. 657). Within the EU, the EU Commission furthermore is responsible for import safety in its custom union (interview 3). It therefore is the major contact point for exporting countries for clarifying terms for import (such as being eligible for the export of food of animal origin into the EU, see 3.1.1).

Within the EU Commission DG SANTE is responsible for food safety. DG SANTE's directorate D "Food chain: stakeholder and international relations" contains a unit responsible for multilateral international relations (D2) and a unit dealing with bilateral international relations (D3). DG SANTE has established a number of agreements with 13 non-EU countries on the conditions for importing food. There is no such agreement with China.[47] An informal expert group for sanitary and phytosanitary relations with non-EU countries supports DG SANTE in setting up such agreements. It is composed of experts from member state administrations (DG SANTE, 2012). DG SANTE also coordinates Thea RASFF system (Bundesinstitut für Risikobewertung, 2011, p. 9).

While the core competency, and thus the internal lead, for food safety lies with DG SANTE, for food trade issues, the responsibility spreads across several DGs. DG SANTE needs to coordinate its actions with the Directorate-General for Agriculture and Rural Development (DG AGRI), the

[47] The EU Commission publishes a list of all agreements online, see European Commission (2016b).

Directorate-General for Trade (DG TRADE) and, depending on the product, with the Directorate-General for the Internal Market, Industry, Entrepreneurship and SMEs (DG ENTR) (interview 30). In this context, DG TRADE systematically involved in relevant working groups to address issues of market access, whenever requirements hinder EU exports (Kessler, 2008, p. 25). As a representative from DG AGRI explains, the contributions and aspects of international policies of food trade can hardly be differentiated between the different DGs:

> *"Let's say for, if we talk about food safety, because this is the issue, we are, […]in second role. We are not the first one leading the battle, because it's not, normally it's for SANTE. So, they would be the first one to talk with the, with all our partners. Then, of course, because it has an impact on trade […], DG TRADE comes in. And afterwards, […] DG AGRI would step in for the agricultural products. But for us it is more to be sure that we have all the elements to assess how trade is going on between the countries, because we are also interested in trading agricultural products, of course. But for the food safety part, we can't do much. It's DG SANTE, not us, so we don't cross each other. We would be more, as DG AGRI, will be more on what is agricultural policy, so the corporation maybe agriculture policy, but which now, everything is interconnected. You can't, differentiate it. Every time we have to work together with them. We can't be by ourselves anymore. DG SANTE is not working by itself anymore." (interview 30)*

Analysis of the EU Commission actions towards China therefore needs to take into account that they potentially are the result of internal decision-making processes that include the viewpoints of several DGs.

3.1.4 Summary and discussion

Since the fundamental revision in 2002, the EU food safety regulation puts a stronger emphasis on protecting consumers. With regard to import safety, the EU has implemented a two-tier strategy. Firstly, it relies on risk-based controls at the borders combined with an internal safety net system provided by the RASFF. Secondly, it has put a number of requirements in place that actively influence third countries food safety regulation. The market power mechanism plays a central role, but the EU also actively pursues programmes to develop food safety regulation capacities in third countries. The control system of audits conducted by the FVO de facto treats third countries similar to Member States. While there is no hard proof for that, the second tier can be seen as a logical consequence of the first. The openness of the borders requires more preventive measures reaching out to third countries.[48] For the second tier, the EU Commission plays a leading role and thus needs to be the focus of further analysis.

[48] There are indications for this direction in the non-food product sector (Alemanno, 2009).

3.2 Transnational regulatory governance of food safety: private standards on the rise

There is a widespread agreement that in addition to public regulation, private regulatory measures have started to considerably shape international food regulation and food trade (Hatanaka *et al.*, 2005; Havinga, 2006; Organisation for Economic Co-operation and Development, 2006; Meulen, 2011a; Marx *et al.*, 2012; Verbruggen and Havinga, 2017).[49] In fact, some portrait food safety regulation as one of the frontrunners in the development of private forms of regulation (e.g. Wendler, 2008). Central to this development are private food safety standards (Henson and Reardon, 2005; Trienekens and Zuurbier, 2008; Fulponi, 2006, p. 4; Marsden *et al.*, 2010, p. 116). Private food standards have been introduced by big retailing companies in the 1990-ies in Europe and have since proliferated across the globe (Havinga, 2015). The observation by Henson and Humphrey reflects the position of many scholars researching the field: "Private standards have evolved appreciably over time, and will continue to do so, for example in their institutional form, functions performed and attributes governed. It is important not to focus too much on the current standards 'landscape' but rather to see private standards as part of broader trends in value chain governance, in the context of changes in regulatory controls, consumer demand, etc." (Henson and Humphrey, 2008, p. 1). I will briefly review this development and the dynamic behind it after having clarified the relevance of TPS in the following section.[50]

3.2.1 Relevance of private standards

The relevance of private standards derives from its usage by market actors. This has two aspects. First, the number of standard-adopters essentially drives the spread of private standards. Second, the position of standard-adopters within the supply chain and their share in the respective market segment contributes strongly to the relevance of private standards. Here, the differentiation between standard-adopter and standard-takers (see 2.2.2.1.2) reveals that though legally voluntary, for standard-taker, private standards may de facto be obligatory. This depends on the nature of global supply chains and the power of buyers. Global value chain analysis showed that private standards derive their relevance from the fact that western retailers and producers gained control over their supply chain and "dictated the way the chains are operated by requiring suppliers to meet certain standards" (Gereffi and Lee, 2012, p. 27). The power of retailers over their supply chain in turn is essentially based on high retail concentration in western highly developed countries, leading to a bottleneck in the supply chain between producers and consumers (Gereffi and Lee, 2012, pp. 27–28; Burger and Warner, 2012, p. 11, cf. Bernauer and

[49] For a critical reflection on this development see Campbell (2005) as well as Fuchs and Kalfagianni (2010).
[50] Research on this issue also been driven by IGO that face the issue how to react to the emergence of private standards in food (e.g. Organisation for Economic Co-operation and Development, 2006; Mbengue, 2011; Lee, 2006; Dankers, 2007; Henson and Humphrey, 2009b).

Caduff, 2006). This means, retailers and large food producers can impose private standards and their specific requirements on their suppliers because of their economic power (Havinga, 2012, p. 7). Given the dominance of such companies in the supply chain, food suppliers, which are unable or unwilling to fulfil a required standard, are effectively excluded from the market (Fulponi, 2006, p. 11). Thus, private standards are de facto mandatory (Henson, 2008b, p. 65). For suppliers, the requirements of private standards may even be more relevant than any public regulation: "In a world where private standards predominate, the key issue for any exporter is to gain access to a given buyer's supply chain rather than a national market *per se*" (emphasis in the original) (Henson, 2008b, p. 76, see also Lin, 2014, p. 150). Empirical data confirm that private food standards exert a considerable impact on the market. According to a survey, 75 to 99 per cent of all suppliers are certified by at least one of the standards benchmarked against the Global Food Safety Initiative's (GFSI) criteria (Fulponi, 2006, p. 6).

3.2.2 Evolving characteristics of transnational private standards

Two main reasons have been identified why food businesses established private standards (based on Fulponi, 2006; Henson and Humphrey, 2009b, pp. 8–14). Firstly, retailers use private standards to protect their reputation. The food scandals, especially in Europe, had led to heightened consumers' anxiety, to new understandings of what constitutes food safety and food quality and to increased interest in how food is produced. Scholars widely agree that the occurrence of private regulation in Europe can be linked to growing consumer concerns over the effectiveness of public regulation following the 1980-ies (World Bank, 2005, p. 26; van Waarden, 2006, p. 56; Henson, 2008b, p. 64; Marsden *et al.*, 2010). At the core of the consumers' concern lay the emerging new food risks of which the BSE-crisis is the dominant example. European governments failed to answer to these concerns and failed to contain the risks (Havinga, 2012, p. 6). At this point, retailers felt the need to manage the safety of their supply chain with establishing own standards for their suppliers being the dominant strategy. In a survey, retailers referred to the protection of their reputation as a major motivation to set up private standards, a view which was also reflected interviews with TPS-representatives (Fulponi, 2006, interview 4 and 26). This approach was possible because of a shift of relative power from producers to retailers in the market (although this varies depending on the member state market). The market was increasingly dominated by a small number of sizeable corporate retailers that thereby became able to influence and more strictly control their supply chains (Marsden *et al.*, 2000; Bernauer and Caduff, 2006; Borraz *et al.*, 2006). Secondly, private standards serve the purpose of protecting especially retailers against food crises and liability claims (Fulponi, 2006). Responsibility for food safety in the EU had been passed from public to private actors by public regulation. The GFL holds them liable for placing unsafe food on the market (Alemanno, 2008, p. 151). Under these circumstances, it became more

important for food businesses to safeguard themselves against the increased risks and potentially new risks that derived from their globally spread supply chains.

3.2.2.1 From first to third party certification

Accordingly, the development of private standards can be recapped broadly in three phases. The first phase lies in the early 1990-ies, in which mainly European retailers started to include quality and safety requirements in their contracts with their suppliers. The control of the fulfilment of such requirements was either conducted by the supplier itself (first party certification) or by the buyer (second party certification) (see 2.2.2.1.2). This essentially was the creation of private standards specifying product and production requirements for food safety and quality in addition to existing public food safety standards. The second phase starts in the late 1990-ies with the establishment of third party certification. Especially retailers teamed up to formulate joint private standards and to establish private standard organisations as owners of such standards. As a result, private standards appeared on the market, which combined a private standard itself (that is a document describing the product and production requirements), a defined control and enforcement system, a private standard organisation (at least a secretariat) and a governance system (specifying the power relations between all parties participating in the standard organisation) (cf. Meulen, 2011b). For example, in 1997 the European Retailer Group (EUREP) set up EurepGAP, which later became GlobalGAP (cf. Campbell, 2005). Likewise, in 1998 the British Retail Consortium (BRC) Food Technical Standard was introduced by the British Retail Consortium. A major motivation for establishing such joint private standards was cost efficiency (interview 4). Such private standards reduced the wide number of company-own product specifications and with this the number of audits. In buyer-supplier contracts, a mere reference to the compliance with an existing private standard was necessary. Private standard organisations took care of the development of the standard's requirements and compliance. From a supplier's perspective, the number of controls and audits was considerably reduced. A certification for a specific private standard could be used for a theoretically endless number of buyers. Ironically, the need for consolidation created many such private standard schemes. Different national schemes emerged as well as industry specific schemes (Lee, 2006, p. 9). DG AGRI identified 441 private standard schemes (DG AGRI, 2016c).

3.2.2.2 The Global Food Safety Initiative and the harmonisation of TPS

It was exactly this development, which led to the third phase. Firstly, by the end of the 1990-ies consumers were ever more unsettled about the safety of food in western markets and lacked trust in market actors. Hence, "food safety was a top of mind issue for companies" (GFSI, 2014). Secondly, the several dispersed certification initiatives and private standards which were a first response to the increased pressure on retailers, however, acted in parallel and thereby raised the costs for retailers and producers due to duplications of certification processes (interview 29). As a

response, in October 1999, 20 leading retailers gathered in a hotel in Brussels to discuss measures how to address the high number of divergent private food standards (interview 26). They agreed on establishing an overarching organisation with the objective to harmonise the standard landscape (interview 26 and 29). Finally, in May 2000, the launch of the Global Food Safety Initiative under the umbrella of the International Committee of Food Chains (CIES) was announced (CIES, 2000, interview 26). The GFSI describes itself as a "business-driven initiative". Its vision is to achieve "safe food for consumers everywhere" (GFSI, 2014; Kottenstede, 2017). According to a GFSI document "the need to enhance food safety, ensure consumer protection, strengthen consumer confidence, to set requirements for food safety schemes and to improve cost efficiency throughout the food supply chain" where the combined driving factors for its establishment (GFSI, 2003a). GFSI's proclaimed mission is to "[p]rovide continuous improvement in food safety management systems to ensure confidence in the delivery of safe food to consumers worldwide" (GFSI, 2014, p. 1). From early on, it has been the declared approach to collaborate with governments around the world to this end (GFSI, 2003c; Kottenstede, 2017).

The approach of the GFSI was new in that it did not create (yet another) new standard, but introduced the mechanism of benchmarking. Previously, EurepGAP already had used this mechanism, however limited to its specific realm of pre-farm gate production. The idea behind benchmarking is to make private food standards become comparable, eventually making double certification for suppliers unnecessary. GFSI put this in the formula and vision "Certified once, accepted everywhere" (interview 26, see for example GFSI newsletter from June 2008, GFSI, 2013c). The benchmarking mechanism thus reduces the costs for auditing and controls for all parties (interview 26; Kottenstede, 2017). At the same time, this reduces a competitive logic between private standard schemes over certified businesses and between food businesses over food safety. Indeed, benchmarking considerably reduced the number of duplication in audits (SGS, 2013, p. 3). By 2015, GFSI had recognised 13 private standards from 9 private standard organisations (GFSI, n.d.b; Kottenstede, 2017, p. 220).

In a benchmarking process, the GFSI benchmarking committee with the support of the GFSI secretariat analyses whether an applying standard fulfils all the criteria laid down in the GFSI guidance document. The GFSI guidance document defines the requirements for benchmarked standards. It is updated regularly. The GFSI guidance document version 6.3 requires, for example, that all GFSI-certified standards have to cover the aspects of food safety management, good practice, HACCP, and certification of multi-site organisations (GFSI, 2013b). All GFSI stakeholders can comment on the preliminary proposal of the committee in an open consultation process. Subsequently, the GFSI board decides about the recognition (GFSI, n.d.c). In cases of positive benchmarking, the benchmarked scheme henceforth can be a substituted against any other scheme

recognized by GFSI. However, it is important to note that no GFSI member or any other market member is obliged to accept the equivalence.

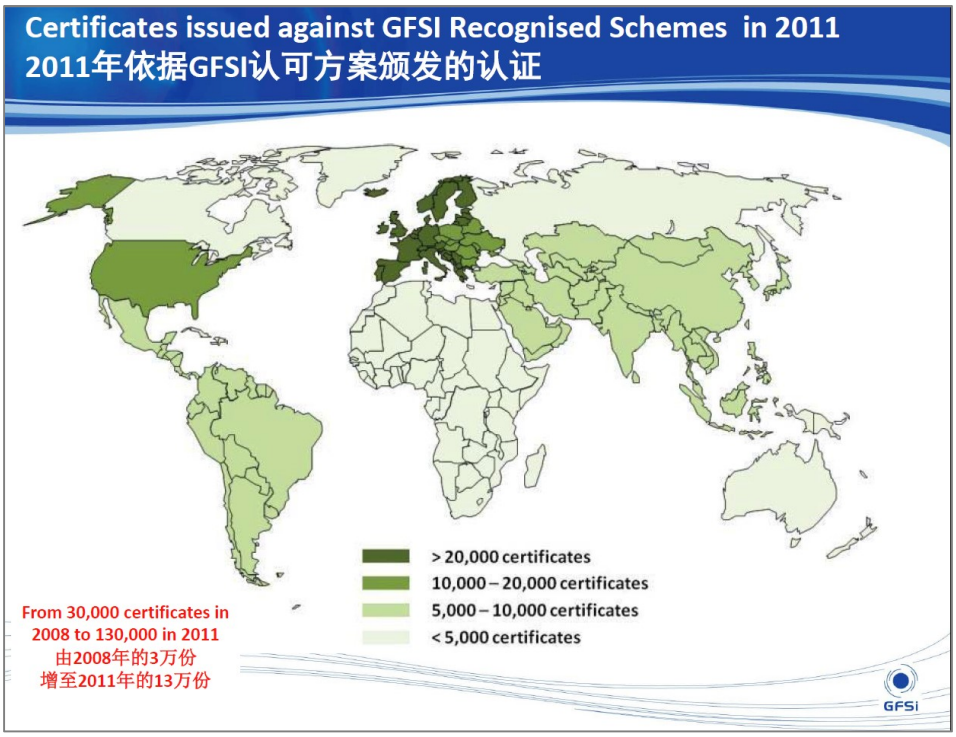
GFSI started to have effects after 2003. This year, the GFSI announced the successful benchmarking of the first four private standards (CIES, 2003). The initiative gained further momentum in 2007, when it was able to announce that seven major retailers officially declared to accept GFSI benchmarked food safety schemes.[51] Yet another important milestone in GFSI's development marked the entry of food manufacturers (interview 26 and 29). During the early years, GFSI was driven by retailers (GFSI, 2008b, see also Kottenstede, 2017). Consequently, GFSI only had effects on retailer-owned brands. According to an expert involved in GFSI at the time, interest of manufacturers rose from 2005 onwards, because GFSI proved to work (interview 26). A remaining hurdle was the fact that, thus far, GFSI had not benchmarked a food safety management standard based on ISO 22000, which food manufacturers needed and applied (GFSI, 2008a). In order to fill this gap, FSSC 22000 was created as standard fit for a GFSI benchmarking. Parallel to this development, manufacturers joined the GFSI's board (interview 26, GFSI, 2008c). The FSSC 22000 standard was successfully benchmark by GFSI in 2010, expanding the GFSI's scope towards manufacturers (GFSI, 2010c). It paved the way for stronger manufacturers involvement in the GFSI. This was highlighted by GFSI representatives as a major step in the development of GFSI (interview 26 and 29, see also Kottenstede, 2017). It was so important to have ISO 22000 benchmarked, because it was one of GFI's priorities to have as many companies as possible join the initiative (interview 29). In an additional step of its development, after three years of developing and piloting, in 2011, GFSI launched the Global Markets Programme (GFSI, 2011b). The programme resulted from the observation that small and less developed business struggled to fulfil the strict requirements of GFSI standards, especially with regard to HACCP. GFSI set up a technical working group that developed and reviewed voluntary food safety requirements which support small business developing their food safety systems stepwise until they reach a full GFSI level (GFSI, 2011b, p. 4). Two levels are available as what GFSI refers to as unaccredited entry points: basic (35 per cent of GFSI requirements) and intermediate (65 per cent of GFSI requirements). GFSI provides technical documents that define the two levels. GFSI conducts trainings to have small and medium sized suppliers achieve those levels (Kranghand, 2013; GFSI, 2015c). The actual trainings, however, are conducted by individual companies or partner organisation (for example in cooperation with the United Nations Industrial Development Organization). GFSI does not provide resources itself for trainings. The Global Market Programme provides the framework and training material (GFSI, 2011b).

Private standards, especially under the GFSI-umbrella, are primarily a European phenomenon. While GFSI is designed as an international initiative and has expanded its reach globally, it originates in Europe and for the period under investigation, companies from EU member states have played an important part in driving the initiative. An interviewee recalls how the idea itself was born within the

[51] Those were Carrefour, Tesco, Metro, Migros, Ahold, Walmart and Delhaize.

Dutch retailer Royal Arnold (interview 26). The initial task force encompassed 20 companies, of which 16 were from the EU.[52] When the task force expanded to 53 members until 2003, EU companies still represented close to three quarters.[53] Once set up, GFSI was facilitated by the Consumer Goods Forum, formerly named International Committee of Food Chains (CIES – the Food Business Forum), a Paris-based international business organisation funded in 1953 in Rome with an enduring strong foothold in the EU.[54] Certifications are gradually expanding from this geographical core to other regions (see Figure 2). After Europe, GFSI simultaneously planned the establishment of local groups in China and the USA (after Japan had already been set up in 2011) (cf. Havinga and Verbruggen, 2017).

Figure 2: Global distribution of certificates issued against GFSI TPS in 2011



(Source: Rey, 2012)

3.2.3 Summary and discussion

Private standards have become a substantial element of the global food safety governance. They essentially represent businesses interest of developed countries in reputation and liability protection. Their development was highly dynamic and it therefore "is important not to focus too much on the current standards 'landscape' but rather to see private standards as part of broader trends in value chain governance, in the context of changes in regulatory controls, consumer demand, etc." (Henson and Humphrey, 2008, p. 1). Given their dynamic development and the

[52] Own calculation based on CIES (2000).
[53] Own calculation based on GFSI (2003b).
[54] 44 per cent of its members are based in Europe and 40 per cent from EU member countries (own calculation based on membership directory of the Consumer Goods Forum, 2015). The GFSI itself does not disclose its membership structure.

powerful position of standard-adopters within global supply chains, they have become a de facto mandatory regulation for many food suppliers around the globe. At the same time, the emergence of GFSI indicates a dynamic within the sphere of private food safety standards towards consolidation via the mechanism of benchmarking.

3.3 China's food safety problems: a supply safety risk

I already touched upon the severity of China's food safety problems and mentioned food safety incidents (see chapter 0). However, as telling they are for the intensity of the food safety problems of China, those widely noticed cases cloud the understanding of the food safety problems in China. In fact, China faces a broad set food safety problems, which often reach deep into economic, political and cultural structures. The newsworthy stories of scary examples like glowing pork do not cover all facets of food safety problems and therefore a more structured and analytical discussion of China's food safety problems is needed. The first part of this section is dedicated to this task. What is more and seemingly paradoxical, an increasingly strict and sophisticated food safety regulation by the Chinese government, which has developed since 2001, may have contributed to some of the food safety scandals reporting in national and international media. After all, some of the problems may have just been overlooked due to loose regulation and inspection in the past. At the same time, the development of China's food safety regulation reveals further structural problems. In particular, while rules and organization improved substantially, authorities struggled with enforcing new regulation. This is the essential result of the second part of this section.

3.3.1 Characteristics and sources of China's food safety situation

In order to achieve a deeper understanding of China's food safety situation, I differentiate between types and sources of food safety issues. The former category sheds light on the different characters of food safety issues. The latter category draws attention to the reasons for food safety problems. Obviously, this distinction serves analytical purposes and in reality, both categories are connected. Insufficient infrastructure for sewage systems, for example, leads to microbiological contamination.

3.3.1.1 Types

The wide spectrum of food safety problems can broadly be categorized in three groups: microbiological contaminations, too high levels residues of substances as well as fake food and food adulteration (for similar categorizations see Yan, 2012; Becker, 2008; Bai *et al.*, 2007a). Microbiological contaminations are mainly due to insufficient hygienic practises. Especially small-scale food processors lack the professionalism and equipment to fulfil basic hygiene criteria (Yan, 2012, p. 713, pre-interview 11). Human and animal waste spoils water used to irrigate fields,

because in rural areas sewage systems often do not exist. Likewise, waste from livestock and poultry, which wanders freely over fields, contaminates field crops. Inadequate handling and storage of food also increases the likeliness of microbiological problems. Functioning cold chains are not the standard in China, contributing to microbiological health risks (Gale and Buzby, 2009, pp. 2–4). In sum, hygiene issues make up a substantial, if not the largest, part of China's food safety problems (Wu and Chen, 2013). Figures from the Ministry of Health (MoH) show that microbiological problems led to more victims than by farming chemicals (Yan, 2012, p. 714).

In other cases, food contains toxicologically critical levels of substances. First, there are cases of high levels of pesticide and fertilizer residues on fruits and vegetables or veterinary drugs in meat due to misuse and overuse. China is the largest user of pesticides in the world (McBeath and McBeath, 2010a, p. 202). On average, Chinese farmers use 1.5 to 4 times more pesticides compared to the world's average (Zhang *et al.*, 2015a, p. 2).[55] While usage varies strongly among different regions within China, overuse of pesticides is a substantial problem (FORHEAD, 2014, p. 32). For production of meat and aquaculture products, the massive usage of antibiotics poses major challenges to animal and human health. In 2013, China accounted for half of the global antibiotics consumption, 162,000 tons (Zhang *et al.*, 2015c). Secondly, substances in soil and water lead to harmful levels of residues in food. For example, the arsenic contamination of water and soil led to arsenic contamination of rice in China (Howitt, 2013). Also, in some areas water and soil contain high concentration of pesticides and fertilizers (and their metabolites) due to previous excessive usage which enter the food chain this way (Sun *et al.*, 2012). According to government figures from 2005, around seven percent of China's arable land had been polluted with pesticides and fertilizers (as cited in Yang, 2007). In 2013, the Food and Agriculture Organisation of the United Nations (FAO) expressed its concerns about food safety problems stemming from contaminated soil and water and Director-general Graziano da Silva urged China: "[T]here is much more to be done" (Xinhua, 2013b). Briefly before, food safety authorities discovered that 44 percent of rice and rice products in Guangzhou, a city of 8.5 million inhabitants in the south of China, contained "excessive amounts" of cadmium, a potentially carcinogenic heavy metal (Xinhua, 2013b). Residues of veterinary drugs especially in water likewise re-enter the food chain. Nearly a third of the national total consumption of antibiotics, namely 50,000 tons, end up in water and soil. This results in an average antibiotics emissions concentration in Chinese rivers of about 303 nanograms per litre, more than twice as much as in the USA (120 nanograms per litre) and 15 times as much as in Germany (20 nanograms) (Zhang *et al.*, 2015c). Residues of harmful substances can also be due to illegal behaviour. Although the growth hormone clenbuterol was banned in China in the

[55] For further details of Chinese pesticide production and usage, see Zhang *et al.* (2011) as well as Sun *et al.* (2012).

early years of the millennium's first decade, cases of meat from animals treated with clenbuterol appeared again in 2009 and 2011 (Yan, 2012, p. 711).

The third category, referred to as food adulteration or food fraud, includes all those cases in which farmers, food processors or food trades purposely faked food or added illegal substances. Many of the widely publicized cases of food safety incidents fall into this category. In such cases, actors somewhere during the supply chain add substances, toxic dyes, or fake ingredients. The motivation is mostly economic, that is to increase profits. They adulterate food to make expired food look fit for the market, replace ingredients by cheaper ones and stretch weight or volume. The illegal use of pesticides to preserve vegetables and other food – like the Jinhua ham incident cited above – falls into this category. Food adulteration not necessarily poses a health risk, as ingredients used to fake or adulterate foodstuff are not necessarily unsafe. An example for a less critical food fraud is the case of Wal-Mart China. In early 2014, testing showed that suppliers had sold fox meat labelled as donkey meat to Wal-Mart supermarkets (Reuters, 2014). However, in many cases adulterated food is potentially harmful. The melamine case is the best-known example for food fraud and a bitter showcase for the potential health risk posed by food fraud. A second major case is the seemingly widespread practice to recycle and fake cooking oil, often using actual waste – which is why it is often referred to as "gutter oil scandal". This case also shows the persistency of some malpractices. First hitting the headlines in 2010, some oil processors dragged on to produce gutter oil. In 2015, a man who produced and sold 19,000 tons of tainted oil between 2009 and 2013 was sentenced to death by the Anshun Intermediate People's Court in southwest China (Whitehead, 2015).

Virtually no country is a stranger to these types of food safety problems. What differentiates China from many other and especially western countries is the severity of many cases. For example, while overuse of pesticides occurs elsewhere, foodstuff is not soaked in pesticides as it has happened in China. Additionally, it is the extent to which the food system is struggling with safety problems, that is more extreme than in western countries. Figure 3 depicts the scope of food safety problems in China, namely that all product groups and all stages of the supply chain are troubled with deficiencies.

Figure 3: Food safety problems by product and stage of the supply chain

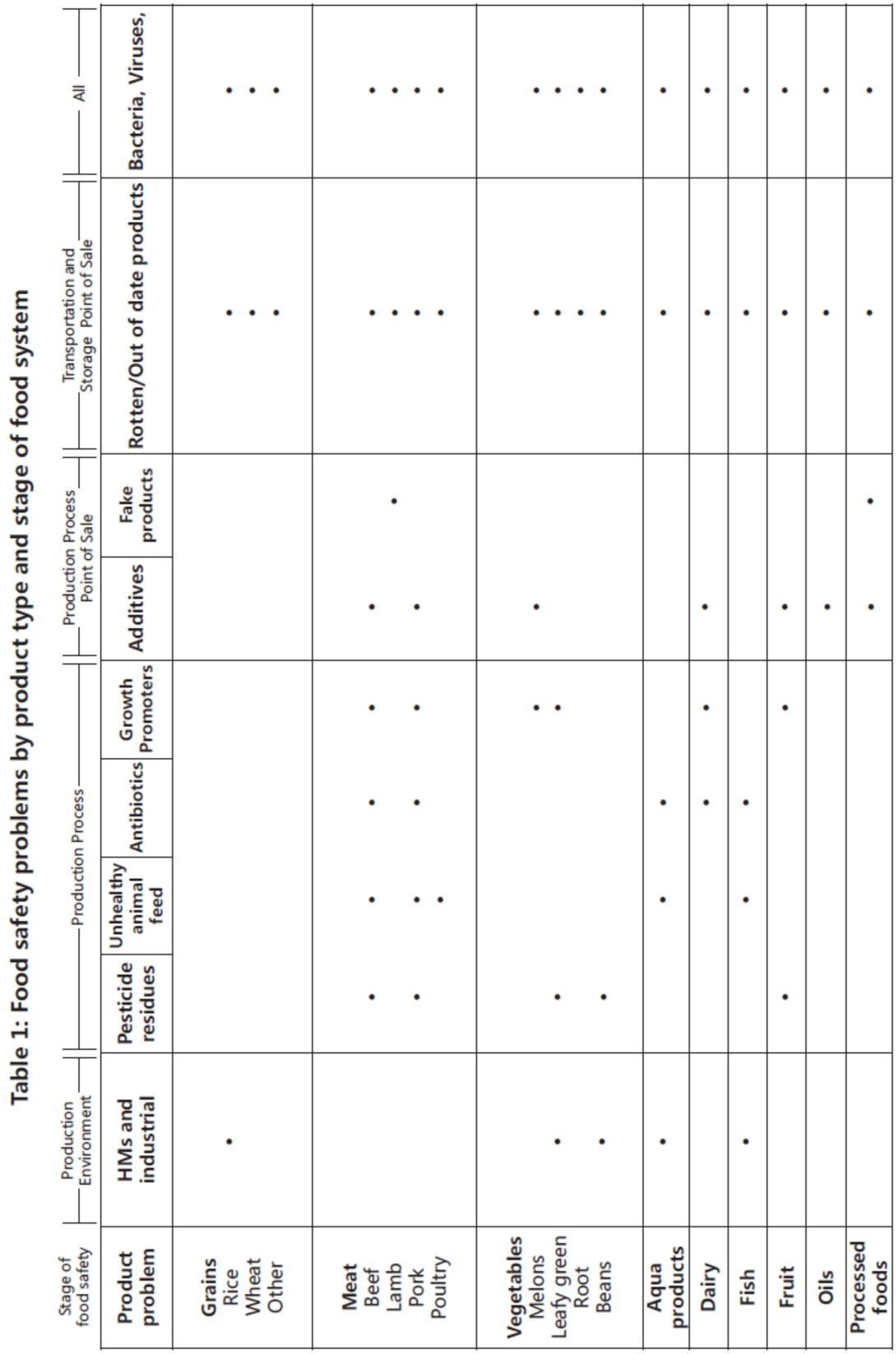


Table 1: Food safety problems by product type and stage of food system

Stage of food safety	Production Environment	Production Process					Production Process Point of Sale		Transportation and Storage Point of Sale	All
Product problem	**HMs and industrial**	**Pesticide residues**	**Unhealthy animal feed**	**Antibiotics**	**Growth Promoters**	**Additives**	**Fake products**	**Rotten/Out of date products**	**Bacteria, Viruses,**
Grains Rice Wheat Other	•							•	•
								•	•
								•	•
Meat Beef Lamb Pork Poultry		•	•	•	•	•		•	•
			•	•	•		•	•	•
		•	•	•	•	•		•	•
			•					•	•
Vegetables Melons Leafy green Root Beans									
	•	•			•	•		•	•
					•			•	•
	•	•						•	•
Aqua products	•		•	•				•	•
Dairy				•	•	•		•	•
Fish	•		•	•				•	•
Fruit		•			•	•		•	•
Oils						•		•	•
Processed foods						•	•	•	•

(Source: FORHEAD, 2014)

3.3.1.2 Sources

A number of structural factors contribute to the fundamental food safety crisis China is experiencing since the early 2000s. Firstly, China faces the challenge to nourish about 20 per cent of the world population with less than 10 per cent of the world's cultivatable land (some figures go as low as 7 per cent). Even this limited space is under substantial pressure, as pollution results in land and water degradation (McBeath and McBeath, 2010b, pp. 52–60). This creates enormous pressure on productivity of the existing farmland, achieved to a large extend by the – initially state promoted – excessive use of fertilizers and pesticides with the above discussed negative consequences (Yang, 2007). Secondly, China's rapid industrialization came at the cost of high collateral damages of the environment. This contributed strongly to the degradation of water and soil, which in turn affects the safety of food as laid out above. The development furthermore led to proximity of food production (be it farming of processing) and heavy industry in many areas in China (Gale and Buzby, 2009, pp. 2–4). In other words, part of China's food safety problems are due to the rapid modernisation of its economy (Suttmeier, 2008; Li, 2009). Thirdly, China's food sector features an immense fragmentation. The fragmentation of the Chinese food market is an obstacle on the road to safe food production. It implies that many businesses in the supply chain are very small. There are an estimated 200 million farms, which cultivate on average 0.6 hectare of land (FORHEAD, 2014, p. 23). The situation with food processors is similar. Official figures provided by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ) from 2007 counted 448,153 food processors of which 352,815 have no more than ten employees (AQSIQ, 2007b). Figures vary widely with other sources counting 1 million food processors (Thompson and Hu, 2007, p. 5). The small size of the vast majority of businesses is a strong contributing factor to the low degree of professionalization, insufficient technical facilities, and poor knowledge and training (Yan, 2012, p. 713; Calvin *et al.*, 2006, p. 18, pre-interview 11). Fragmentation also is the root cause for overly lengthy supply chains with many distributors involved – which again complicates functioning food safety systems (Coglianese *et al.*, 2009a, p. 8).

China's modernization was also accompanied by transformations of China's society and economic structures. The share of the Chinese population living in an urban environment has increased from 20 per cent in 1980 to 55 per cent in 2015 (World Bank). The food business sector grew by 13 per cent on average (Bai *et al.*, 2007a). Because regulatory capacities did not keep up with these rapid transformations, food safety risks increased. Most notably, dietary behaviour changed fundamentally in China, partly because of increased income to spend on food, partly due to the massive urbanisation. Consumption of meat has soared and at the same time Chinese consume more processed food compared to pre-modernization times (Yan, 2012, p. 713). Such new diets mean that new ingredients and new foods are on the plate of Chinese consumers, which require regulation. A country discovering appetite for wine needs to establish new food safety regulation

for it (FORHEAD, 2014, p. 19). At the same time, urbanisation has transformed the food industry, including production techniques, transportation, retail and the structure and length of supply chains (FORHEAD, 2014, p. 21). Lastly, urbanisation with its vast construction of new commercial, industry and housing areas has additionally reduced the available land for agriculture which in turn increases the need for productivity. For example, Pudong, Shanghai's new district with its commercial area, landmark buildings and 2.5 million inhabitants used to be a rural area supplying the city with food before the development started in the 1990-ies.

What further complicates food safety regulation is the fact that China's development is unevenly distributed across the country. While some parts of the country were elevated to much higher economic levels compared to the 1980-ies, others – especially rural areas – made much slower progress. The result is a nation, which presents a highly diversified picture in a number of aspects that affect food safety: "In terms of food safety, uneven development means that patterns of consumption, as well as the ways in which food is produced, transported and stored vary widely, as does the potential for upgrading the food supply chain" (FORHEAD, 2014, p. 19). Thus, governmental regulation has to address all these different situations within China. Yet again, this contributes to the complexity of the regulatory challenge.

3.3.2 China's food safety regulation and its reforms

The Chinese government failed to keep up with the development of the challenges that arose from the fast changing market. Like other countries did before, China's government struggled to develop an integrated food safety governance, that takes account of the complexity of the issue and the diversity of its challenges across the unevenly developed country. Conflicting policy objectives were part of the problem. China's government pre-dominant aims for most of the time since the 1980-ies were to develop the economy and to ensure enough food for its population. These two objectives tend to conflict with the food safety, mainly because both put much pressure on the cultivable land (FORHEAD, 2014, p. 25).

3.3.2.1 Developing gap between rules and implementation

Most analyses point to the high fragmentation of the governmental oversight as a major source for the enduring food safety problems (FORHEAD, 2014; Chung and Wong, 2013; Calvin *et al.*, 2006; Bian, 2004; Tam and Yang, 2005; Meador and Ma, 2013; Ellis and Turner, 2008). In his in-depth analysis, Zhou Guanqi, finds that regulatory segmentation was the proximate cause for regulatory failure in the field of food safety (Zhou, 2017). Before a major reform in 2013, as many as 13 authorities on central level had responsibilities for food safety (Ellis and Turner, 2008). A decade earlier, the ADB even counted 17 government ministries and authorities with a say in China's food safety regulation (Asian Development Bank, 2007, p. 3). Both occurred, overlapping responsibilities between central government ministries as well as gaps of regulation due to a

situation in which none of the organisation saw itself responsible (FORHEAD, 2014, pp. 40–41; Kahn, 2007). In addition to horizontal fragmentation at the central level, oversight is additionally stretched vertically from central level and province level to over 40,000 townships being the basic administrative level in China.

The complexity of its highly fragmented government system furthermore multiplies with the diversity of the requirements for a food safety regulation that has to include the variety of the market (Yasuda, 2013). Food safety standards provide a concrete example for this argument: Many different levels of government set food safety standards as part of improving food safety regulation with industry and enterprises adding further standards resulting in an excess of partly overlapping, partly duplicated and even partly contradictory standards which nevertheless left some aspects unregulated and often were not strict enough (Wu and Zhu, 2014, p. 219). The government answered with a fundamental review and revision of standards only after 2010 (Wu and Zhu, 2014, p. 222).

A further central theme in the discussion of China's food safety regulation is the gap between regulation on paper and its de facto implementation and enforcement (Yan, 2014, pp. 3–7; Liu, 2010a; Ellis and Turner, 2008, pp. 11, 26; Gale and Buzby, 2009, p. 4). Despite all changes, this criticism has prevailed (Fu, 2016). Fragmentation of both governmental oversight and production contributes to this shortcoming (Yasuda, 2013, see also Bian, 2004, p. 11; United Nations, 2008, p. 13; Ellis and Turner, 2008, p. 24). The sheer number of food suppliers makes it challenging to disseminate standards and to conduct inspections (Gale and Buzby, 2009, p. 3). The massive amount of contradictory food safety standards mentioned above represents the governmental fragmentation and complicates if not impedes sound implementation and enforcement (Dong and Jensen, 2007, pp. 20–21). Furthermore, enforcement pre-dominantly lies with the local government, which often lacks the resources to fulfil this task (Thompson and Hu, 2007, p. 5). There also is a tendency for local government authorities to act protectionist to safeguard businesses within their jurisdiction. Government authorities report that in order to avoid inspection, small food firms frequently re-locate their business (2010a, p. 298). Accordingly, breaches of food safety regulation often are without any consequences (Ellis and Turner, 2008, pp. 11, 26; Broughton and Walker, 2010, p. 472; Yan, 2014, p. 290).

Additionally, corruption bedevils the implementation of food safety regulation in China (Thompson and Hu, 2007, pp. 5–6; Huang, 2012; Kahn, 2007). Reportedly, this is often related to the practices of issuing licences by authorities, which can be obtained by paying bribes (Ellis and Turner, 2008, p. 26). The most prominent case for corruption is the case of Zheng Xiaoyu, former director of the State Food and Drug Administration (SFDA). In 2007, he was convicted of bribery, sentenced to death and executed (cf. Yan, 2014, pp. 294–297). While this is a high-profile case,

corruption is widespread and present on the local level as well (Ellis and Turner, 2008, p. 26; Yan, 2014, pp. 297–298).

Food safety regulation reforms were on China's government agenda for the full period.[56] Chinese leaders repeatedly and openly stated their concern about food safety. In 2004, the State Council, presided by Premier Wen Jiabao, acknowledged food safety as a major concern and decided to strengthen regulation (China Daily, 2004a). In 2007, still before the melamine crisis, Wen Jiabao made a statement saying the food safety is a "top priority" urging that "[f]ull attention must be paid on the issue" during a cabinet meeting (Beijing Review, 2007). In 2010, vice premier Li Keqiang, said in front of officials from food safety authorities: "Food is essential, and safety should be a top priority. Food safety is closely related to people's lives and health and economic development and social harmony" (Xinhua, 2010). In 2013, during the press conference on his new position as premier, Li pledged to crack down on food safety problems with an 'iron fist and firm resolution'" (Xinhua, 2013a). Later the same year, he again "vowed to enforce the toughest food safety regulations" (Lin, 2013). In 2015, he repeated the message towards food authorities in China and "called for full implementation of the revamped Food Safety Law and pledged 'zero tolerance' for food safety crime" (Xinhua, 2015b).

In line with those rhetoric, the Chinese government has pursued numerous reforms of food safety regulation since 2000. The details of this process will be laid out in in chapter 5. Here, I want to draw attention to the number of changes, the depth of reorganisations undertaken and the resulting changing character of China's food safety regime (CFSR). Two new laws were introduced, the Law on Agricultural Product Quality Safety and the Food Safety Law (FSL) of which the second underwent a substantial revision. The organisational structures were even less stable. Major reorganizations of the CFSR including redistributions of responsibilities occurred in 2003/2004, 2009, 2010, and 2013. During all these reorganisations, the fragmentation of oversight was reduced and responsibility for food safety concentrated in fewer organisations. After 2013, all central tasks lie at the newly established China Food and Drug Administration (CFDA), the Ministry of Agriculture (MoA) and the National Health and Family Planning Commission (NHFPC) (see Table 5) (Kahn, 2007).

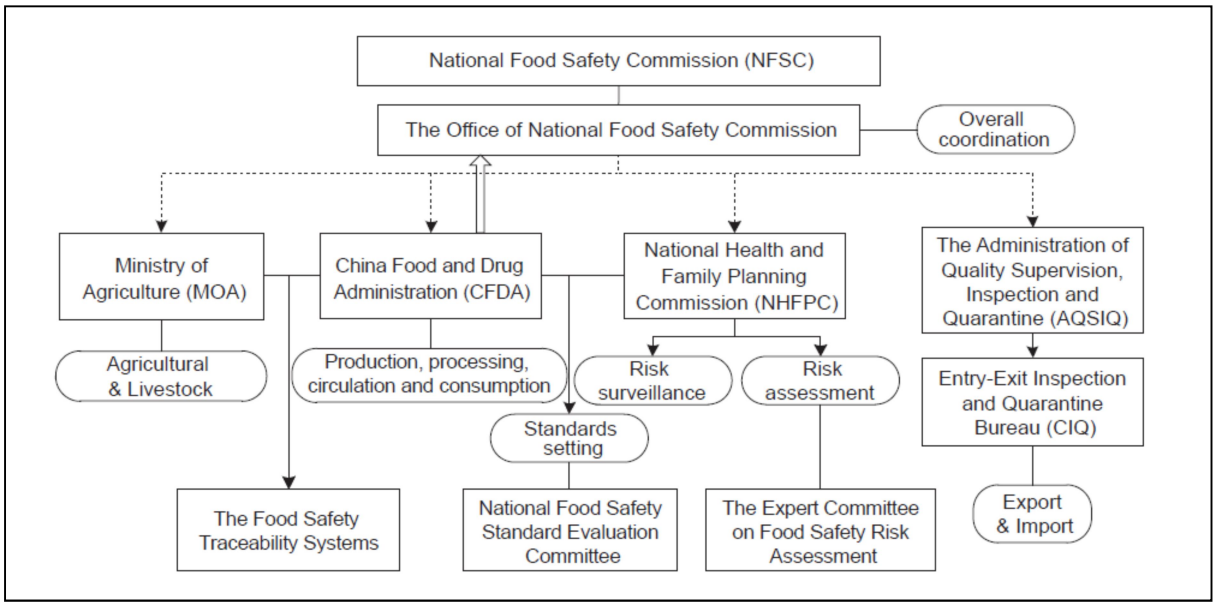
[56] For a comprehensive description of China's food safety regulation development see Liu (2010a).

Table 5: Major government's organisations and their food safety responsibilities 2000-2014

	National Food Safety Committee under the State Council (NFSC)	Ministry of Health (MoH)	Ministry of Agriculture (MoA)	Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)	State Administration for Industry and Commerce (SAIC)	State Food and Drug Administration (SFDA) / China Food and Drug Administration (CFDA)	Ministry of Commerce (MofCOM)
2000	• overall coordination and supervision of related authorities • development of food safety regulations and related policies	• all aspects of domestic consumption of food, including licensing food businesses, monitoring, inspecting and giving technical assistance for food hygiene as well as investigating food contamination and food poisoning incidents	• risk assessment, licensing, standard-setting for edible agricultural products	• issuing food production licences; administration and supervision of food production (after 2002) • supervision and administration of imported and exported food (with CIQ) • accrediting agencies for food inspection and testing (with CNCA)	• supervision of foods in circulation, including business licensing		• responsible for chain stores, supermarkets, development of commercial circulation networks and swine slaughter
2003						• responsible for co-ordination and harmonization of the regulation of food (health and cosmetics) products, and for prosecuting food safety violations	
2004				• as above with leading responsibility under the "five dragons-regime"			
2009		• coordination (within NFSC) • risk assessment, risk surveillance, risk management, risk communication, food safety emergencies (with CFSA, CDC) • standard setting		• as above, without leading role		• responsible for food servicing and catering, including inspection of restaurants and similar businesses	
2013	• oversight (implementation of coordination delegated to CFDA)	• **National Health and Family Planning Commission (NHFPC):** newly formed ministry combining the former Ministry of Health and the Commission of Family Planning • development, consolidation and promulgation of food safety standards • assessment of risks	• as above, additionally responsible for supervision of swine slaughter	• as above without responsibility for food production		• Newly established leading ministry for food safety with comprehensive authority over the production, distribution and consumption of domestic food (and drugs) • implementation of day-to-day coordinating of all other government organisations with food safety responsibility (from General Office of the Food Safety Committee), catering (from SFDA), domestic food processing and retail distribution (from AQSIQ and SAIC)	• as above without swine slaughter

(Source: own compilation based on Jia and Jukes, 2013, Meador and Ma, 2013, Chung and Wong, 2013, Bian, 2004, Bai et al., 2007a, Broughton and Walker, 2010)

Figure 4: Organizational setup of China's Food Safety Regulation by 2014



(Source: Chen et al., 2015, p. 2208)

Despite of all the efforts by the Chinese government from 2000 until 2015, the series of food safety scandals did not end. In July 2014, a local Shanghai TV station – no government authority – revealed food safety violations at a local production site of the US-based meat producer OSI Group (Xinhua, 2014). Thus, the principal verdict that China's government did not succeed in effectively manage food safety prevailed (The Lancet, 2014).

3.3.2.2 Regulation of food destined for export

China reacted to the occurring problems with food exports by establishing a "two-track food safety and inspection system" (Meador and Ma, 2013, p. 4). Supervision of exported food was given to a national-level inspection agency, while domestic production remained under local oversight (Meador and Ma, 2013, p. 4). AQSIQ with its provincial branches, the China Inspection and Quarantine offices (CIQ), is the responsible ministry. Any exporting company needs to be registered with a respective CIQ (Gale and Buzby, 2009, p. 19). Reportedly, food for the international market is tested much more often than food for the domestic market (FORHEAD, 2014, p. 42). In their case study on aquaculture production, Broughton and Walker detect a "two-track system" for the enforcement of food safety regulation. According to their observations, enforcement for exported produce is substantially stricter compared to enforcement of products destined for the Chinese domestic market (2010, p. 476). In addition to stricter enforcement, exporting companies in China have to comply with specific requirements (Calvin *et al.*, 2006). For example, in 2002, AQSIQ issued a regulation making the application of HACCP mandatory for six kinds of food (canned food, aquatic products [excluding fresh, frozen, air-cured, and pickled/salted products], meat and meat products, frozen vegetables, fruit/vegetable juice, and frozen convenience food containing meat or aquatic products) (Dong and Jensen, 2007, p. 22). Also, they need to meet further requirements that go beyond regulation of domestic companies (cf. Gale and

Buzby, 2009, p. 20). An interviewee described the two tracks as a "vertical line", dividing China's food safety regulation. In 2007, AQSIQ claimed that over 99 per cent of all exported food was "up to standard" (AQSIQ, 2007a). However, this approach has strong limitations, because it is hard to keep export- and domestic-production supply chains strictly separated and ultimately it is the overall level of food safety that determines the safety of food exports (Dong and Jensen, 2007, p. 20). By the same token, difficulties to monitor and enforce such stricter requirements have been reported (Gale and Buzby, 2009, pp. 20–21). Accordingly, the empirical problems with imports from China discussed in the introduction and the reactions by importing countries indicate the limitations of this approach.

3.3.3 Summary and reflection

By no means are import safety issues with Chinese food coincidences. In China, a fundamental problem with food safety exists, which roots deeply in the structure of its food market as well as the side effects of the economic growth. Most importantly for the question under investigation, China's food safety suffered from an incapable regulatory system. There is widespread agreement that the status of China's food safety and the challenges the country faces in this regard resemble those of developing countries. Hence, "lapses in the safe practises" as the root cause for supply safety problems were widespread and due to structural problems and policy failure (Coglianese *et al.*, 2009a, p. 7).

Developed countries in Europe and Northern America faced similar challenges during their phases of industrialization and urbanisation (Becker, 2008, p. 13; Dong and Jensen, 2007, p. 19). So, the food safety problems are not unique to China, but the intensity of scope and scale are: "Many of these problems were also encountered by developed nations during their periods of intense industrialization and urbanization, but because these processes have been more compressed in China, food safety problems are manifesting themselves in a more extreme form" (FORHEAD, 2014, p. 3). While improvements of the CFSR have been made with regard to the organisational setup, standard-setting and rule-making, prevailing lack of implementation and enforcement problems appear to be deeper rooted problems. In short, China's food safety regulation simply did not keep up with the speed of its economic development and its integration in the global food market. As Western industry representatives put it in a speech in 2014: China's food safety regulation is "still playing catch-up" (Naville and Gibson, 2014).

3.4 Intergovernmental global food safety regulation: actors and institutions

This section briefly discusses third parties as yet another potential component of the causal mechanism. I present those international organisations, which potentially affect the EU public actors' and TPS' behaviour. Numerous organisations are involved in shaping global regulation of food safety. In his review of the "fragmented international food safety regime" Alemanno lists all organisations on the global level mainly entrusted with food safety responsibility: the FAO, the World Health Organisation (WHO), CAC, OIE and furthermore those, which also address food safety among other topics, namely the WTO, the United Nations Environment Programme (UNEP), the Organisation for Economic Co-operation and Development (OECD), the International Food Safety Authorities Network (INFOSAN) (Alemanno, 2015, p. 10).[57] This corresponds largely with Snyder's list, in which he specifically analyses the transnational dimensions of Chinese food safety regulation (Snyder, 2015, pp. 242–243). Notably, I additionally include the World Bank in my discussion. The complex structure of international food safety governance complicates the structure of this section of the chapter. Presenting the organisations simply in a linear way, one after the other, would be an undue simplification. Due to the interconnectedness, repeatedly cross-references need to be made. This is the reason this chapter first presents main organisations dealing with food safety separately to then move on to discuss further organisations together as the core of an international food safety regime.

However, the purpose of this section is not to provide an extensive presentation of global food safety governance.[58] Rather, the aim is to identify those among the array of organisations, which potentially affect the activities of EU public actors and TPS in China. Here, it is helpful to already make analytical distinction between rule-making on the one side and implementation/enforcement on the other. I identify those organisations that themselves take measures to influence food safety regulation in specific countries. This is the content of the first part of this section. With regard to influence on rule-making, the regime character of international food safety governance needs to be taken into account as I argue in the second part.

3.4.1 IGOs as actors in global food safety regulation

In this part, I present those organisations of the list above, which are relevant to implementation and enforcement in China in the context of this research. I integrate INFOSAN in my presentation of the WHO since it is run by WHO and by its function does not have such an important role for the analysis here.

[57] I exclude OECD from my discussion as it does not deal with China.

[58] This has been done extensively elsewhere and my presentation heavily draws on the respective body of literature, e.g. (Alemanno, 2015; Josling *et al.*, 2004; Unnevehr, 2007; Alemanno, 2008).

3.4.1.1 WHO

The WHO is a United Nations (UN) organisation established in 1948 to improve public health globally and which treats food safety as one aspect of this wider task. This understanding goes back to 2000, when the WHO has decided to give higher attention to food safety as a global issue and has been promoting an understanding of food safety as an issue of public health (Käferstein, 2003, p. 102; Snyder, 2015, p. 250). According to its constitution, one of the WHO's functions is "to develop establish and promote international standards with respect to food, biological, pharmaceutical and similar products" (World Health Organization, 1948 (2014), p. 3). Within the organisation, the Department of Food Safety and Zoonoses is foremost responsible for food safety. The WHO published a first Global Food Safety Strategy in 2002 on the request of the member states in 2000 (Snyder, 2015, p. 250, for details see INFOSAN, 2009). It was replaced by a strategic plan to advance food safety for the period 2013-2022, which goes back to decision by the member states in 2010 (World Health Organization, 2014a).

With regard to specific activities, the WHO (based on World Health Organization, 2016a and Alemanno, 2015, p. 13):

- assumes a coordinative role in the global network of food safety experts and organisations, for example by running the Global Foodborne Infections Network (GFN). Another example is the programme on managing zoonotic public health risks.[59] In this regard INFOSAN stands out as a major programme. Established in 2004 by the WHO and in the meantime jointly managed by FAO and WHO, it connects food safety authorities in order to achieve a rapid flow of information about food safety incidents and to facilitate bilateral cooperation between states;[60]

- is involved in setting food safety standards on the international level. As part of this, WHO provides scientific advice on questions of chemical food safety and micro-biological hazards for risk assessments. More crucially, the WHO and FAO jointly set up and run the Codex Alimentarius, which defines international food safety standards (see 3.4.2);

- promotes and conducts and food safety research. For example, in 2006, the WHO initiated the research initiative to estimate the global burden of foodborne diseases;

- has set up and runs monitoring activities and develops exposure assessments. Two programmes stand out in this regard, first the Global Environment Monitoring System - Food Contamination Monitoring and Assessment Programme and second the WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR).

[59] Zoonosis is a type of diseases which can move between animals and people (World Health Organization, 2016b).
[60] For details about INFOSAN in China see Snyder (2015, p. 255).

Notably, the latter also includes capacity building measures in countries in order to increase the monitoring;

- is active in communication and education, with the aim to raise food safety knowledge. Central element is the „five keys to safer food" campaign, which has been adopted by over 100 countries around the world since 2001. It is targeted at consumers and workers in food producing establishments alike.
- Lastly, and most relevant for the analysis, the WHO is involved in capacity building in member states, mainly through the GFN, which is "committed to enhancing the capacity of countries to detect, respond and prevent foodborne and other enteric infections and fostering collaboration between human health, veterinary, food and other relevant sectors." To this end WHO and the partnering organisations FAO and OIE define strategic plans ever since the programme's inception (i.e. strategic plans 2001-2005, 2006-2010 and strategic plan 2011-2015) (World Health Organization, 2011). Measures are training and mentoring, based on the country needs.

The WHO runs its food safety programmes in all regions with a separate food safety strategy in each region. China belongs to the Western Pacific region, which published to strategy papers, one in 2003 and a second for the period 2011-2015 (World Health Organization, 2003; World Health Organization, 2012).

3.4.1.2 Food and Agriculture Organisation

The FAO, established in 1945, is yet another UN-organisation involved in global food matters. However, the FAO's focus clearly lies on food security[61], that is the provision of sufficient food to feed the global population. Via it's decentral office structure, the FAO supports countries in developing strategies and capacities to increase food supply. It serves as a source of knowledge for its member countries. The FAO has a long history of cooperating with the WHO, with the CAC and the GFN being to primary examples. The FAO reflects the fact that objective of food security cannot be achieved independently of food safety. After all, only safe food can help to achieve sufficient nutrition. Thus, FAO does engage in food safety topics, however, rather strictly through the lens of food security (Alemanno, 2015, p. 12; Snyder, 2015, p. 244). Consequently, it treats food safety in conjunction with food quality and the responsible unit is called "Food Safety and Quality unit". Within this approach, it conducts measures to provide scientific advice, supports the increase of institutional and individual capacities, supports the policy development, facilitates global access to information and networks (FAO, 2012b).

[61] Food security describes the objective to ensure enough food for the population and thus is distinct from food safety, which describes the objective to ensure that food does not harm consumers.

3.4.1.3 World Bank

The World Bank was established in 1944 and is part of the UN-system with the official aim to reduce global poverty.[62] Alemanno and Snyder are right in excluding it from the discussion of the multilateral food safety governance as it is not involved in rule (soft or hard) food safety law making. However, my field work showed that the World Bank is active in improving de facto food safety in developing countries and in China specifically. This fits well with the overall task of the World Bank, to provide financial and technical assistance to developing countries (World Bank, 2016). With my understanding of regulation as encompassing implementation and enforcement, the World Bank thus influences food safety regulation in China.

Specifically, World Bank and the Asia-Pacific Economic Cooperation Food Safety Cooperation Forum (APEC FSCF) jointly initiated the Global Food Safety Partnership (GFSP) end of 2012. Set up as a Public-Private-Partnership project, it brings together public organisations, businesses, and academia and longs to increase the alignment of the different sectors food safety projects. It focusses on providing trainings and technical support to developing countries and claims to benefit actors across the whole food value chain, reaching from small farmers to regulatory agencies: "We combine food safety training and technical support so developing countries can improve their food safety systems and benefit from better compliance with food safety standards" (World Bank, 2014b).

3.4.1.4 UN Environment Programme

UNEP, founded in 1972, is responsible for environmental issues. Its involvement in food safety reflects the overlap between food safety and environmental issues. As discussed above for the case of China, environmental contamination may negatively affect the safety of food (see 3.3.1). UNEP's main task is to coordinate the development of environmental policy consensus on the global level. The organisation describes the broad fields of its work as follows:

- "Assessing global, regional and national environmental conditions and trends
- Developing international and national environmental instruments
- Strengthening institutions for the wise management of the environment" (United Nations Environment Programme, 2016).

As part of this, two major programmes are related to food safety. First, the Global Environmental Monitoring System (GEMS) and the International Programme on Chemical Safety in collaboration with the WHO (Alemanno, 2015, p. 17). Additionally, UNEP hosts the secretariat for the Convention on Biological Diversity and thus is also responsible for the Protocol on Biosafety. The

[62] This is not the place to recap the highly controversial academic and political debate to what extent the World Bank does indeed serve the purpose of reducing global poverty and its role in implementing the principles of the "Washington Consensus" (Cavanagh *et al.*, 1994).

protocol also relates to food safety in a wider sense as it deals with the trans-boundary movement of living modified organisms (Alemanno, 2015, p. 17). However, I exclude biosafety aspects of my analysis.

3.4.2 The international food safety regime and global standard setting

The core of the multilateral system which organizes and governs food safety topics internationally consists of a number of international institutions and their respective organisation bound together by the WTO. I henceforth refer to this assemblage as international food safety regime (IFSR) (Carruth, 2006, p. 29; Alemanno, 2015). These are the CAC, the World Organization for Animal Health (OIE) and the International Plant Protection Convention (IPPC) (for details and overview see Josling *et al.*, 2004; Alemanno, 2008; Epps, 2008). These three institutions bring together national experts of their respective member states to discuss and decide over food safety standards as recommendations – for example in the form of maximum residue levels for specific chemical compounds. The CAC is the most influential among them. Set up by the FAO and the WHO in 1962, and supported by 185 member countries, it has become the organisation that negotiates and defines food safety standards and other guidelines and recommendations dealing with the safety of internationally traded food (Hüller and Maier, 2006; Boutrif, 2003). It has evolved into a powerful scientific advisory body and by 2015 has issued more than 240 standards on a wide range of specific issues (Alemanno, 2015, p. 14). The OIE, established in 1924, is another multilateral organisation setting food safety standards with specific focus on animal diseases (Carruth, 2006, p. 31; Alemanno, 2015, p. 16). In addition to standard setting, it conducts scientific research informs its 178 member states about animal disease developments (Snyder, 2015, p. 274). It is an important part of the IFSR and frequently cooperates with FAO and WHO (Alemanno, 2015, p. 16). The IPPC is more a treaty than an IGO. It is signed by 181 parties and came into force in 1952 to regulate plant protection issues. IPPC bodies most importantly set plant protection standards (Snyder, 2015, p. 274).

The WTO fundamentally increased the indirect influence of these three organisations (Joerges and Petersmann, 2006, p. 516; Hüller and Maier, 2006, p. 268; Boutrif, 2003). In fact, "[a]mong the several international organisations dealing with food-safety related activities, the WTO is the only one providing for a set of legally binding obligations for WTO Members when they adopt food regulations" (Alemanno, 2015, p. 19). Standards developed by Codex Alimentarius, OIE and IPPC became binding for WTO members through the SPS agreement and the TBT agreement of the WTO, which explicitly refer to Codex Alimentarius, OIE and IPPC. Without the WTO, all three for themselves only could issue recommendations and voluntary regulatory standards. In addition, the SPS-committee also refers to the expertise of WHO and FAO as official observer organisations (Roberts and Unnevehr, 2003, p. 37). The SPS-agreement clarifies under which conditions trade can be blocked or limited in order to safeguard humans, animals and plants. The TBT-agreement

likewise clarifies conditions surrounding the issues of food packaging, labelling and criteria for freshness.

Neither of these organisations is actively supporting the implementation of international standards in member countries. Their relevance for the analysis stems from the fact that the core of the IFSR and its institutional power makes food safety regulation and standards developed by CAC, OIE and IPPC the reference for all actors involved in food trade (Boutrif, 2003, p. 84).

3.4.3 Summary and discussion

We can differentiate two ways how international organisations potentially intervene with EU public and private motivations for influencing China's food safety regulation. First, in the sense of actively engaging with the Chinese government and other Chinese actors to improve food safety regulation in China. In this regard, the WHO stands out as an active driver of food safety in the period under observation. It was one of the first to advocate to take food safety seriously and also one which came up with a food safety strategy. Both show dedication to the topic. Snyder points out that "[i]n sum, the WHO has broad power to cooperate with other international, national, governmental and non-governmental organisations and has undertaken a wide variety of non-legally-binding forms of cooperation" (2015, p. 252).

There is a second perspective on how international organisations have an effect. As shown in the second part of this section, international institutions strongly shape the definition of food safety rules. Subsequently, virtually every actor refers to these internationally agreed food safety rules and standards: EU regulation is following widely international specifications and so do TPS and international organisations. For my analysis, I therefore can assume, that on a rule-making level, any of those actors promotes the same basic principles of food regulation and basic food safety standards. I consider this to be a static influence for the period under observation. While the content of international standards and rules have changed during that time, the character of influences has not. Especially from a supply safety perspective, therefore, activities can be treated as – in principle – advancing the same objective. From a market access perspective, this cannot be assumed. Thus, this second aspect needs to be kept in mind as a background condition when analysing the case, while for the first aspect it needs to be analysed how it materializes in detail.

3.5 Public-private interaction: a history together

I have identified interaction between EU public actors and TPS as another potential component of the causal mechanism and I already have narrowed down my understanding of what constitutes interaction in my analysis (see 2.2.2.3.4). The purpose of this section therefore is to put such interactions into wider perspective, that is the development of interaction between public actors

and TPS in general. I discuss the interaction between TPS and EU food safety regulation and the interaction between TPS and the international food safety regime, two essential dimensions of interaction when analysing public-private interactions (cf. Lin, 2014).

3.5.1 Responsibilities of private sector in EU regulation

The post BSE-crisis EU food safety regulation, namely the above introduced GFL, established the principle of business responsibility, which is fundamental to the interaction between TPS and the EU's food safety regulation. Article 17(1) of the GFL states, that "Food and feed business operators at all stages of production, processing and distribution within the businesses under their control shall ensure that foods or feeds satisfy the requirements of food law which are relevant to their activities and shall verify that such requirements are met" (European Union, 2002). In addition, article 14 of the GFL prohibits putting unsafe food on the market. In other words, the GFL established the legal grounds on which business operators can be held liable for putting consumers' health at risk by placing unsafe food on the market. More specifically, the regulation includes the obligation to withdraw products from the market in case safety problems have been discovered and – in case the product has reached the consumer – the obligation to inform the public. Food and feed operators are likewise required by the GFL to inform authorities if they have information that unsafe food has been placed on the market and they have to inform about their actions taken to prevent risks for consumers (European Union, 2002, pp. 19, 20, 21).

It has been argued that such legal provisions encouraged food businesses to engage in regulating their supply chain (Lee, 2006, p. 8; Meidinger, 2009, pp. 239–242; Marsden *et al.*, 2010, pp. 19–22; Wendler, 2008, pp. 224–225). As Henson and Humphrey argue, "The development of private standards, rather than being seen as distinct from public regulation, is very much a response to the ways in which regulatory controls over food safety have evolved, most notably in Europe" (Henson and Humphrey, 2008, p. 1). In this regard, it is noteworthy, that the movement for private standards originates in the UK, where the legal logic of holding especially supermarkets liable for unsafe food products had already been introduced in 1990. The logic behind this is that for any food business operator the safety of the food it aims to put on the market does not only rely on the internal production processes and condition. Rather, the safety of the input it receives from suppliers is of equal importance to guarantee the safety of the outcome. Consequently, for the sake of safeguarding themselves from financial as well as reputational losses and even legal liability, food businesses started to establish mechanisms to control the safety of their supply. Thus, arguably, the GFL's principle of holding businesses responsible for the safety of food put on the market contributed to the development of private food safety regulation and – further down the road – transnational food safety standards.[63]

[63] I owe the stringency of this argument to the unpublished paper presented by Bernd van der Meulen at a workshop in Nijmwegen in May 2014.

Private standards de facto have become part a of the complex food safety regulatory governance in Europe latest by the end of the millennium's first decade (Havinga, 2012).[64] The EU Commission did take note of this development. For example, DG SANTE conducted a study to discuss private standards' effects on developing countries that intend to export to the EU (Lee, 2006). In 2010, DG AGRI commissioned a research on voluntary certification schemes in the EU (DG AGRI, 2016c). In the same year, the EU Commission issued a Communication on best practice guidelines for private standards, referred to as voluntary certification schemes, for agricultural products and foodstuffs (European Commission, 2010).[65] The Communication acknowledges the logic described above, that food businesses use certification schemes to ensure that they fulfil the responsibilities put on them by the GFL. It furthermore is "designed to describe the existing legal framework and to help improving the transparency, credibility and effectiveness of voluntary certification schemes and ensuring that they do not conflict with regulatory requirements" (European Commission, 2010). Directed primarily at scheme owners and operators, it reminds of the relevant EU regulation and provides a number of recommendations on the governance, processes and content of voluntary certification schemes. At the same time, the EU Commission declares in its Communication that legislative action to regulate private standards was not warranted (European Commission, 2010).

3.5.2 International food safety regime and TPS

The emergence of private food safety regulation added further complexity to an anyway complex system of multilateral food safety governance: "The net result of the evolution of public and private regulation of food safety has been the establishment of a broad range of overlapping and inter-related standards, and associated systems of conformity assessment and enforcement, originated from individual private firms, business organisations and regional, national and/or supra-national government" (Henson, 2008a, p. 19). In this part, I will discuss the major aspects of the relationship between the international food safety regime (representing public regulation) and TPS (representing private regulation).

Given their purpose as baseline standards, most TPS refer back to public regulations that certified businesses have to comply with (Meulen, 2011b, p. 85). The Codex Alimentarius is a major reference point for TPS, when it comes to the definition of the standards content. The GFSI guidance document is a good example to illustrate the nature of this interaction with public regulation (GFSI, 2013b). In the introductory note, the GFSI states that, "[t]he key elements have been developed by members of the GFSI Technical Working Groups and other experts, who have

[64] For a more detailed discussion of the changing role and increasing importance of private actors in EU regulatory food governance see Marsden *et al.* (2000), Marsden *et al.* (2010), van Waarden (2006), Bernauer and Caduff (2006), Havinga (2006), Havinga (2008), Garcia Martinez *et al.* (2007), Wendler (2008).
[65] The Communication's definition of voluntary certification schemes requires third party certification.

advised upon sector specific requirements. These key elements can be *directly related to the food safety principles laid down by Codex Alimentarius Standards and Guidance, as well as Codes of Practice*, where appropriate" (GFSI, 2013b, p. 12, my emphasis). Differentiated for different types of businesses, the guidance document makes repeated reference for specific Codex Alimentarius regulation – like for example:

> *"The standard shall require that procedures are in place to ensure that agricultural and veterinary inputs are of adequate quality for the intended use, that the application of agricultural and veterinary inputs is managed properly to minimise the potential for microbial or chemical contamination [as defined under the Codex Alimentarius Recommended International Code of Practice – General Principles of Food Hygiene CAC/RCP1-1969, Rev 4 -2003 and specifically Code of Hygienic Practice for Meat CAC/RCP 58-2005] at levels that may adversely affect the safety of Meat / Milk / Eggs / Honey and that the producer is required to take into consideration the WHO guidelines on the safe use of waste water and livestock excreta in agriculture, as appropriate." (GFSI, 2013b, p. 119).*

Likewise, although to a much lesser extent, the guidance document mentions respective specifications developed by the WHO – for example:

> *"The standard shall require that procedures be in place to ensure that agricultural inputs are of adequate quality for the intended use, that application of agricultural inputs is managed properly to minimise the potential for microbial or chemical contamination [as defined under the Codex Alimentarius Recommended International Code of Practice – General Principles of Food Hygiene CAC/RCP1-1969, Rev 4 -2003] at levels that may adversely affect the safety of fresh fruits and vegetables and that the producer is required to take into consideration the WHO guidelines on the safe use of waste water and excreta in agriculture as appropriate. (GFSI, 2013b, p. 128)*

Thus, from a content-perspective on TPS, they follow the rule-setting of public regulation. However, in some respects they do exceed public regulation in the requirements (Organisation for Economic Co-operation and Development, 2006). For example, some TPS require certified suppliers to do not exceed half or a third of the maximum residue levels for specific pesticides set by public regulation of the importing country (Stanton, 2012, p. 246). In a survey, 85 per cent of supermarkets in Europe said their standards are higher (Epps, 2010, p. 75). It was especially such circumstances, which created a conflicting relationship with public regulators.[66]

In 2005, Saint Vincent and the Grenadines first raised the issue of private standards within the WTO's SPS framework (DG SANCO, 2014). The central point of their complaint was that private standards could effectively act as trade barriers for developing countries. In this case, specific requirements by GlobalGAP (then EurepGAP) were under discussion. They are not subject to the

[66] Stanton (2012) provides a detailed chronological description of the discussion within the IFSR about TPS, which will only be briefly summarized. The role of private standards in global food safety governance has furthermore been discussed extensively in Marx *et al.* (2012, part II and III). Also note that some see less of a conflict and more of a complementary relationship between public and private food safety regulation (e.g. Organisation for Economic Co-operation and Development, 2006).

scrutiny applied to public standards, which according to WTO rules cannot be unduly trade restrictive. The debate centred around three questions: First, whether or not private standards pose a barrier to trade (which was the key concern of the Saint Vincent and the Grenadines); second, the effects of private standards on the economic development of poorer countries; third, whether or not WTO provides a legal basis for regulating private food safety standards (Stanton, 2012, p. 241). What followed was a "lively" debate within the WTO about how to deal with the emergence of private standard schemes in the area of food safety (Mbengue, 2011, p. 10). The issue gained even more weight, when in December 2008, a group of Latin American countries raised a number of concerns about private standards. Following this, private standards became an issue not only within the WTO but also for OIE, CAC, FAO, WHO, OECD, United Nations Conference on Trade and Development (UNCTAD) and World Bank. Many of these organisations mandated research on private standards and published analytical papers (e.g. Dankers, 2007; Henson and Humphrey, 2009b; Organisation for Economic Co-operation and Development, 2006; Henson and Humphrey, 2009a; World Bank, 2005; Washington and Ababouch, 2011). Likewise, the EU commission looked into the topic (Lee, 2006, for an overview see DG SANCO, 2014). The controversy over the question how to handle private standards has not been solved (Mbengue, 2011). This lies in the nature of the conflict, which is goes back to opposing interests. While developed countries have no interest to weaken a mechanism, which provides higher import safety, poorer exporting countries have a strong interest to achieve market access for their products. By early 2014, the SPS committee had not succeeded in defining private standards (Manila Bulletin, 2014). Hence the conclusion that while TPS have a rather clear relation to public food safety regulation, public actors still struggle to define their position towards TPS.

3.5.3 Summary and reflection

When considering interactions between EU public actors and TPS in relation to China, existing structures of interaction matter. First, the post 2002 regulation in the EU delegates responsibility to the private sector. This contributed to the rise of private standards. This establishes a fundamental interaction between public and private level. However, the EU failed to prescribe a dedicated role to private standards in food safety governance, leaving uncertainty on both sides about the exact relationship (Havinga, 2012). If it exists at all, distribution of roles and more specific interactions thus are rather implicit than explicit. Hence, it seems more likely to find implicit instead of explicit interaction in the analysis of this specific case.

Second, TPS adopt public international standards. They may go beyond public minimum requirements, but not below. This again supports the argument that it is the prime purpose of baseline standards to ensure a conformity with food safety standards of developed markets. Thus, TPS have the purpose to improve the conformity of food with public regulation for domestic produce and imported produce likewise. In other words, this supports the SSH. The fact that TPS

in some instances exceed international requirements in turn has hindering effects on trans-boundary food trade, which complicates a consensus among public actors how to treat TPS. This raises doubts whether public actors perceive TPS as a positive contribution and thus are willing to actively engage in interactions.

3.6 Conclusion

This chapter served the purpose to provide contextual information on the potential components of the causal mechanism. In doing so, it both clarified the background and narrowed down the focus for the analysis in the following chapters.

As this chapter provides such a variety of information, I briefly recap the main findings relevant to the analysis in chapter 5. The first section analysed the EU's food safety regulation with special focus on the import safety approach. The EU has a dedicated approach to import safety resting firstly on a passive pillar that uses the RASFF to quickly detect any non-conform product on the EU market. The second pillar represents a more active stance aiming at improving food safety regulation in exporting countries. The latter aspect establishes the ground on which I can search for activities by the EU that address supply safety issues. The second section discussed and disassembled transnational food safety governance. It showed that TPS are not to be neglected as part of transnational food safety governance. TPS need to be furthermore understood as a concept that involves several actors, namely a standard organisation, food businesses engaged in a private standard and certification bodies conducting conformity assessment. At the same time, the dynamic development of TPS in their relevance, characteristics and geographical outreach shows that a closer analysis with regard to China potentially holds interesting insights. The third section depicted the extent of China's food safety problem as a necessary condition for the SSH. The key result is, that while the Chinese government made substantial improvements on the rule-level, implementation and enforcement remained insufficient. The importance of this finding derives from the previous discussion in chapter 2.2.2.2.1, which showed that especially public import safety regulation cannot effectively tackle lack of implementation and enforcement in exporting countries. The fourth section discussed third parties. I have outlined that among those international organisations that potentially conduct activities on the ground in China to actively change China's food safety regulation, the focus of the analysis should lie on the WHO. Secondly, international organisations affect EU public actors' and TPS behaviour through the establishment of international standards. Lastly, there is a background of interaction that affects the analysis of the case study. Firstly, because TPS are partly a result of delegated food safety responsibility from the EU public authorities to food business. Secondly, from a content perspective, TPS mirror the food safety concepts and standards defined by the international food safety regime. Critical issues

arise rather around potential trade-barrier effects of TPS. TPS thus support the implementation and enforcement of international food safety standards.

Taken together, this chapter provided the necessary understanding of the context for the potential components of the causal mechanism. It thereby substantiated the statements and assumptions made in the two previous chapters. Before I turn to the analysis of the case itself, I first clarify the method applied.

4 Method: Research design and methodology

Political science covers the middle ground between nomothetic sciences (with deterministic approaches) and idiographic sciences (with descriptive approaches) (Patzelt, 2007, p. 74). This is very much reflected in this study which aims identifying causal mechanisms by an as accurate as possible description of a social phenomenon. The invariant methodological approach I apply to this end contrasts with the prevalent research tradition in social sciences research that is variable-centred and concerned with causal effects (King *et al.*, 1994; Blatter *et al.*, 2007, p. 124). Therefore, the first section discusses the approaches to single case studies and recaps my explorative research process. In section two, I detail the epistemological and ontological foundations of the mechanistic understanding of causality and explain the method of process tracing. In the fourth section, I present the sources for my data and how I analysed it. Finally, the limitations of the methodological approach will be discussed in the conclusion.

4.1 Qualitative case study research

Single case studies pose a challenge to the dominant variable-centred research tradition in social science. Every study of a specific political (or social) phenomenon has to address the fundamental methodological challenge, that "we cannot rerun history at the same time and the same place with different values of our explanatory variable each time – as a true solution to the fundamental problem of causal inference would require" (King *et al.*, 1994, p. 91). Consequently, one has to deal with a situation in which potentially many variables could play an important role in explaining the outcomes but only very few cases exist – if not even only a single one (cf. George and Bennett, 2005, p. 170). In the first part, I discuss these properties of qualitative research of single cases and how to gain most from it. In the second part of this section, I explain the selection of the case. In the third part I move on to make my actual research process transparent.

4.1.1 Properties and advantages of qualitative research

King, Keohane and Verba prominently argued that qualitative and quantitative research essentially do not differ in methodological terms and they showed in detail how, in their view, variable-centred methodology can be applied to qualitative research (1994). Their main claim is,

that qualitative research should be approached with the essential logics and assumptions of quantitative methodology. This variable-centred concept assumes that by observing changes in an identified set of independent variables that lead to changes in a dependent variable, causal *effects* can be determined. This probabilistic ontology additionally holds that the more cases one can find that show a correlation between changes in independent and dependent variables, the higher the confidence in the assumed causal relationship. In this logic, small numbers of cases (including n = 1) bear the risk of a "selection bias", that is the risk that the selection of the cases has a significant effect on the findings (King *et al.*, 1994, p. 28). Single case studies by nature offer no variance. Researchers following the variable-centred approach therefore suggest breaking down single cases into numerous smaller cases (e.g. by separating different time periods from each other) (Gerring, 2004, similarly Büthe, 2002, p. 488).

However, searching for causal *effects* is just one way to look at causality. An alternative approach is to identify causal *mechanisms* instead of causal *effects* (Hedström and Swedberg, 1998). In contrast to variable-centred research, causal mechanisms represent a mechanismic and deterministic understanding of causality (for an extended discussion of the differences see Beach and Pedersen, 2013, chap 3). It has been suggested to consequently use different wordings: independent variables are thus termed conditions and dependent variables are referred to as outcomes (Beach and Pedersen, 2013; Blatter, 2012). This terminology captures the ontological assumptions and clearly demarcates the different concepts from each other. With the concept of causal mechanisms, there is no problem with invariance in single case studies. Causal mechanisms allow for within-case inferences. As will be discussed more in detail below, they can best be identified by the method of process tracing (Beach and Pedersen, 2013; George and Bennett, 2005, pp. chap. 8).

The strength of invariant qualitative case study research is the depth of data it generates. While the possibilities for generalisation are limited, invariant research of cases enables the researcher to dig deeper into empirical material than large-n studies can possibly do. From this perspective, the requirement of variable-centred methodology to increase the number of observations within a case unnecessarily reduces the depth of data. Invariant approaches specifically allow to account much better for the context and case-specific circumstances in which causal linkages are observable (cf. Wilhelm, 2008, p. 247). Especially by focussing on mechanisms and processes, it is possible to gain a deeper understanding of the nature of a causal relationship than other methods can deliver (Beach and Pedersen, 2013, p. 5). The qualitative analysis of case studies at the same time offers a wider theoretical angle that allows for identifying new causal factors by means of inductive reasoning. Consequently, Georg and Bennett argue that case studies allow to specify and combine existing theories and thereby contribute to a more thorough understanding of existing theories (George and Bennett, 2005, p. 80). With these properties, deterministic qualitative

research – which I will explain more in detail in 4.2.1 – can make essential contributions to researching policy interdependencies, because by unveiling processes and mechanisms it illuminates the exact way one policy affects the other – which is a deeper understanding of (interdependent) social phenomena than a mere quantitative study can find (Gilardi, 2014). To sum up this discussion bluntly: if one sets out to analyse a single case, testing existing theories based on variable-centred thinking seems to be a waste of opportunities which rather lie in the depth of data and the inductive production of theoretical explanations of the case. This, in turn, can best be done by a deterministic methodology.

Inductive, explorative case study research typically does not set out with a theoretically deduced strict hypothesis (Wilhelm, 2008, p. 247). Nevertheless, I follow the argument of King et al. who doubt that strictly explorative approaches are possible and that "there are good reasons to believe that it is not useful, or may even be epistemologically impossible, to simply describe a case of interaction without an idea of its central aspects, because description always requires distinguishing between important properties (that are worth reporting) and other features (that may be ignored)" (King *et al.*, 1994, pp. 42–43). Instead, two criteria for case studies are helpful to avoid this pitfall, which originally have been suggested for comparative case studies: case studies should be structured and focused (George and Bennett, 2005, pp. 66–72). Structured in the sense, that case studies should be guided by a set of questions that themselves are deduced from the central research question. Case studies shall be focused in the sense that the analysis should be concentrated on specific empirical aspects of the case (Blatter *et al.*, 2007, pp. 140–141). Accepting this argument, it rather becomes important to be explicit about the theoretical assumptions and to make use of the guiding character of theories in empirical research. The heuristic model developed above as the result of the theoretical discussion is instrumental to this end and helps to exclude information not central to the argument and thereby structures and focusses the research (on the need for such models see Büthe, 2002, p. 487).

4.1.2 Crucial case design

According to George and Bennett, it is the "relevance to the research objective", which is of foremost importance for the case selection (George and Bennett, 2005, p. 83). As the research objective is to understand better, to what extent import safety is (or can be) a driver for influencing China's food safety regulation and what role TPS have in this, all cases are of interest, in which…

- …a country A which is member of the WTO,[67]

[67] The SSH is based on the assumption that country A and B are WTO members. As discussed in 2.2.2.2.1, membership in the WTO affects the possibilities for import safety measures for the respective country.

- …with a sizeable market (because otherwise an exporting country is not dependent enough on this export market),
- …and a high level of food safety relevance (because otherwise it does not care much about other food safety regulation),
- … and in which private food safety standards have been established and have a considerable role in regulating food supply chains,
- …imports large amounts of food (because the amount of imports raises the risk and thereby the problem pressure)
- …from a country B which is also a member of the WTO and a strong contributor to global food supply,
- …which additionally has food safety regulation considerably less strict compared to country A (because the difference of regulatory strictness creates the need of country A to have country B adapt to the importing standards) and
- …which does not depend on the export of food (as this would trigger a "California Effect" which in turn would decrease the necessity of activities by country A, see 2.1.2.2).

As regards the criteria for country A, a high level of food safety relevance is composed of two factors. First, a food safety regulation that matches and in certain areas drives the standards set by the IFSR. Second, food safety relevance consists of high public sensitivity towards food safety as a health risk. Both holds true for the EU, for which food safety has even been described as "contested governance" (Ansell and Vogel, 2006). In addition to this, among the largest importing economies, USA and EU, the EU has the more mature system of private standards (Garcia Martinez *et al.*, 2007, pp. 304–305). The EU was the "main engine" (Meidinger, 2009, p. 239) of private food safety regulation and to date has the most matured private food safety and quality standards (Marsden *et al.*, 2010), (Henson, 2008a, pp. 17–18); (Havinga, 2008)).

With regard to country B, the potential candidate shall briefly be discussed. First, countries in the group of least developed countries tend to have – from a European perspective – insufficient food safety systems but they are highly dependent on their food exports while at the same time they are not individually important to world supply. A second group, China would at first sight fit into, are the big transition countries Brazil, Russia and India. However, while Brazil does play an important role in global food supply (ranking third with 5.7 percent share of the global food export), India and Russia do so to a much lesser extent (India ranking 10th with 2 percent and Russia ranking 15th with 1.3 percent, World Trade Organization, 2012, p. 74). The difference between Brazil and China then again is the higher dependency of Brazil on food exports compared to China. Brazil had a GDP between roughly 650.421 billion USD in 2000 and 2.615 trillion USD in 2014 (World

Bank, n.d.). This compares export volume of food products of 12,808 million USD in 2000 and 77,389 million in 2011 (World Trade Organization, 2012, p. 75). Export of food made up 23 (in 2000) and 35 (in 2011) per cent of all merchandise exports. For the same years, China's GDP accounted for 1,205 and 7,492 trillion USD (World Bank, n.d.). The volume of food exports added up to 13,559 million USD (in 2000) and 54,168 million USD (in 2011), equalling a share of 5.43 and 2.7 per cent of all merchandise exports (World Trade Organization, 2012; World Bank, n.d.). This latter point is relevant for the SSH (see 2.2.2.2.1).

Table 6: Selection of country B

	Less strict food safety regulation	Economy not dependent on agri-food exports	Top contributor to global food supply
Least devel. countries	+	-	-
Brazil	+/-	-	+
Russia	+/-	+/-	-
India	+	+/-	-
China	+	+	+

Legend: + = criteria fulfilled, - = criteria not fulfilled, +/- = criteria partly fulfilled
(Source: own)

Thus, the chosen case represents a *crucial* case or at least a *most likely* case – meaning that if the import safety hypothesis is true, for this case the implied effects are very likely to occur, because it "closely fits" the theory (cf. Eckstein, 1975, p. 118; Gerring, 2007, for the discussion of crucial and most likely cases see Blatter *et al.*, 2007, pp. 149–150). If import safety as a motivation for the activities conducted to influence Chinas food safety regulation cannot be found, it is unlikely, that in other cases with less import safety challenges and risk to consumers, import safety measures are taken. In summary, the EU is selected because of the importance of private standards in its food safety system. China is of interest, because it is a country which fulfils the conditions so that both SSH and MAH are potentially possible explanations.

4.1.3 Iterative research process

Qualitative research assumes a reciprocal relationship between theory and empirical observation (Blatter *et al.*, 2007, p. 138). In practical research, this leads to an iterative process. Indeed, collected data may inspire new and more relevant research questions (King *et al.*, 1994, p. 23). The study thus was a process in which empirical findings led to the revision and fine-tuning of the research question as well as the heuristic model which then was applied to further, adjusted, empirical research. Thus, the approach chosen here lies somewhere between the inductive and deductive qualitative research traditions (cf. Blatter *et al.*, 2007, pp. 28–29). Such an iterative approach to explorative research is reflected in Beach and Pedersen's distinct variant of process

tracing termed explaining-outcome process tracing, which allows alternating between inductive and deductive steps in the research process and "involving multiple stages of analysis of evidence and theoretical reformulation" – in contrast to theory-centred variants of process tracing (Beach and Pedersen, 2013, p. 46 and Beach and Pedersen, 2013, chapt. 2 more generally). However, while it has been argued that qualitative research has advantages in its own right, these advantages also depend on a transparent ex-post description of the iterative process (cf. Blatter *et al.*, 2007, pp. 138–139).

For this study, the research process itself can be separated into two phases, an explorative and an analytical phase. This broad distinction conflates the more step-wise iterative process in order to focus on the most important revisions. The first phase of case-centred explorative research serves the purpose of approaching the case and deepen the understanding of its characteristics (Blatter *et al.*, 2007, p. 170). In this phase, the starting research question was to understand the relationship between China as a country with fundamental food safety problems and the global food safety governance regime – or simplified: How does China fit into the global food system given the countries food safety problems? The aim was to pre-test assumptions, to assess the availability of data and ultimately – built on the derived information – to develop a more focused research model. To this end, 11 explorative, non-structured interviews were conducted with persons that have professional knowledge in the area of (international) food safety regulation (see appendix 8.1). For matters of clarity, I henceforth refer to them as pre-interview. Among the interviewed were representatives of German and European public authorities, European and Chinese researchers and representatives of European companies in China. Six of the persons have been interviewed as part of the expert interviews at a later stage. The review of theoretical literature on global food safety governance, regulatory interdependence and processes of policy transfer revealed that there is little theoretical work which includes a push perspective of policy transfer and a regulatory governance perspective of regulation (i.e. the inclusion of transnational regulatory regimes). Resulting from the in itself iterative first phase, I refined the research question and research heuristic. The former towards a focus on explaining *European* public *as well as private* activities that aim to influence China's food safety regulation as measures *to primarily ensure food import safety* – as opposed to analysing only public activities, albeit within a global framework. The latter was refined by taking the perspective of regulatory interdependencies between the EU and China rather than applying the less specific concept of policy transfer.

The refinement as the result of the first phase informed the empirical research during the second phase. Two rounds of semi-structured expert interviews were conducted. After the first round, yet again an iterative step was necessary to refine the research approach. The first round essentially

drew attention to the dependence of all activities on the status of the Chinese regulatory system and secondly to the fact that for European actors China's regulation is also relevant with regard to market access. Additionally, interviews during the first round revealed none or only very limited exchange between public level activities and its actors and private activities and its actors. Thus, the first round led to a specification of the heuristic model. The factors behind the motivation to influence China's food safety regulation from a European perspective could be specified and narrowed down. This served as a first approximation of causal mechanisms to be specified more in detail by the second round of interviews and the then following additional analysis of empirical data (i.e. documents).

4.2 Causal mechanisms and process tracing

In the following paragraphs, the epistemological and ontological foundations of causal mechanisms will be discussed. Following this, process tracing will be introduced as the central method to identify causal mechanisms.

4.2.1 Understanding of causality and causal mechanisms

The focus of the analysis lies on identifying causal mechanisms. As it is often the case with concepts in social science, the understanding of causal mechanisms varies. Mahoney undertook the effort to analyse competing understandings and hence summarized causal mechanisms as „unobserved entities, processes, or structures that generate outcomes and that do not themselves require explanation. Causal mechanisms are hypothetical 'ultimate causes'" (Mahoney, 2003, p. 1). However, he puts much emphasis on the elsewhere disputed non-observability of the entities (Mahoney, 2003, p. 4, for a different view see Beach and Pedersen, 2013, pp. 43–44). Hernes puts a different emphasis, namely on the dynamic element – by defining a mechanism as "a set of interacting parts – an assembly of elements producing an effect not inherent in any one of them. A mechanism is not so much about 'nuts and bolts' as about 'cogs and wheels' – the wheelwork or agency by which an effect is produced" (1998, p. 74).

The concept of causal mechanisms implies a different ontological and epistemological perspective in comparison to variable-centred approaches. Epistemologically, proponents of causal mechanisms argue that "[c]ovariations have important limitations as sources of causal inference" (Bennett and George, 1997, p. 1). Variable-centred research is based on identifying the probability of a causal relationship to occur. However, finding statistical evidence for an independent variable correlating with a dependent variable does not necessarily mean that a causal link was found (Popper, 2005 (1934)). Proponents of causal mechanisms argue that – in contrast to Karl Popper's popular statement that theories cannot be verified – we indeed *can*

find confirmation of causal linkages by tracing the causal mechanism from it root cause(s) to the outcome.

This methodology is based on an ontology that starts with acknowledging the contingency of causal relations. The sociological concept of contingency holds that causal connections themselves depend on specific starting and context conditions (Mayntz, 2002b, p. 22). In other words, this thinking rejects the *ceteris paribus*-concept which demands to design research in a way that context variables are kept constant. Closely connected to this concept is the conviction of causal heterogeneity – that is the observation that in reality multiple different factors may lead to the same social phenomenon. This is another fundamental weakness of variable-centred research (George and Bennett, 2005, pp. 161–162). It assumes that there is only one causal relationship that explains changes in the dependent variable. In this regard finding statistical evidence for an independent variable correlating with a dependent variable does not necessarily mean this is the only factor that may cause such an effect. Variable-centred research thus has no answer to the problem of equifinality, that is "[t]he fact that *different* causal patterns can lead to similar *outcomes*" (George and Bennett, 2005, p. 161, emphasis in the original). As it has been discussed in chapter 2, this exactly is the argument for the case presented here. Both, even the combination of both, the import safety and the MAH may contribute to Europe's motivation to influence China's food safety regulation. The concept of causal mechanisms, in contrast, is open to more than one explanation for observed outcomes. Linearity of the causal process thus should not be expected ex-ante and independent variables might also interact with each other (George and Bennett, 2005, p. 212).

The concept of causal mechanisms thus is different from causal effects in two regards – firstly its mechanismic and, secondly, its deterministic understanding of causality. Regarding the former, causal effect approaches remain utterly silent about *how* an independent variable causes changes in the dependent variable – the process remains in the dark. In contrast, the mechanismic understanding opens up the black box of causality between independent variable(s) and the dependent variable (Beach and Pedersen, 2013, p. 39, see also Brady and Collier, 2004). It aims to describe the concrete empirical mechanism that relates both sides with each other rather than stopping with an abstract theoretic connection which deductive approaches merely deliver (Blatter *et al.*, 2007, p. 133). The mechanismic understanding of causality focusses on "the dynamic, interactive influence of causes on outcomes and in particular how causal forces are transmitted through the series of interlocking parts of a causal mechanism to contribute to producing an outcome" (Beach and Pedersen, 2013, p. 25). The deterministic ontology implies an understanding of causal factors as conditions (Blatter, 2012, p. 12; Beach and Pedersen, 2013, p. 27). Such conditions can either be necessary, sufficient or both, meaning "a condition is necessary if the absence of it prevents an outcome, regardless of the values of other variables,

whereas if a sufficient condition is present, the outcome will always take place" (Beach and Pedersen, 2013, p. 27). Furthermore, it is assumed that a "plurality of causal conditions is necessary to be jointly sufficient to produce the outcome", with this plurality forming what is usually called a causal process (Beach and Pedersen, 2013, p. 12).

A mechanism consists of parts which themselves are composed of two elements. Firstly, entities which are units that are capable of undertaking activities. The second element of each part are the activities undertaken by the entities which actually "transmit causal forces" (Beach and Pedersen, 2013, p. 49). Beach and Pedersen suggest applying the distinction between necessary and sufficient conditions to specify the logical relationship between the different parts of a mechanism. Causal mechanisms consist of parts which all are necessary but insufficient, that is only if all of them are present the causal mechanism takes effect (Beach and Pedersen, 2013, pp. 30–31).

4.2.2 Identifying causal mechanisms by means of process tracing

Identifying causal mechanisms is closely associated with the method of process tracing (George and Bennett, 2005, pp. chap 10). The following specifications build on advanced concepts of process tracing as a research method developed by researches who contributed strongly to demarcating this method from other qualitative methods (Beach and Pedersen, 2013). Their work in turn heavily builds on the seminal book by George and Bennett on case study research (2005) as well as the influential book edited by Brady and Collier on "rethinking social inquiry" (2004).

A basic definition of process tracing was provided by George and Bennett, according to which process tracing can be understood as "attempts to identify the intervening causal process – the causal chain and causal mechanism – between an independent variable (or variables) and the outcome of the dependent variable" (George and Bennett, 2005, pp. 206–207).[68] The focus on making within-case inferences about the (non-)existence of causal mechanisms furthermore distinguishes process tracing from other methods, i.e. the congruence method for within-case inference and small-n methods that are based on comparative approaches (Beach and Pedersen, 2013, p. 4). While there is a widespread agreement that process tracing is the appropriate method to trace causal mechanisms, there are variations in the definition of the concept and the underlying assumptions.

The concept of causal mechanisms does not relate to any theoretical school per se. Based on the fundamental differentiation of theoretical traditions in social sciences structural, institutional, ideational, and psychological causal mechanisms can be distinguished (Beach and

[68] In contrast to later work, which builds on their publication, George and Bennett apply the terminology of "variable" to process tracing.

Pedersen, 2013, p. 53). Since the theoretical argument introduced in chapter 2 is based on the role of "exogenous constraints and opportunities for political action created by the material surroundings of actors" (Beach and Pedersen, 2013, p. 52), this study is looking for structural causal mechanisms. Rational choice and process tracing have indeed been combined in various research already (Risse, 2003, p. 7, see also George and Bennett, 2005, p. 208; Silzer, 2014).

Process tracing has often been applied as a comparatively "thin" technique as a useful addition to deductive research designs. It has been combined with congruence analysis or comparative analysis (Blatter, 2012, pp. 9, 25; Blatter *et al.*, 2007, p. 156). In contrast, and partly as an answer to critical reflections, a distinct and "thicker" understanding of process tracing has been developed which takes into account the specific ontological and epistemological assumptions laid out above. It is such a more intense and rigorous understanding of process tracing which allows for inductive causal inferences – and thus helps to use the full potential of process tracing (Blatter, 2012, p. 25). Beach and Pedersen provided much clarification by pointing out that three different types had previously been summarized under the umbrella of process tracing. They differentiate between two forms of theory-centred process tracing (theory-testing process tracing and theory-building process tracing) and case-centred process tracing, namely explaining-outcome process tracing (Beach and Pedersen, 2013, pp. 2–4, for a very similar categorization see Mahoney, 2003). A wide array of different types of process tracing had already been acknowledged before (George and Bennett, 2005, pp. 210–212). The substantial difference is that Beach and Pedersen provide a structured and theoretically guided differentiation and are able to show the consequences of the different approaches for the research. For example, while George and Bennett hold that process tracing delivers explanations for "a given dependent variable of a *particular case* in a *particular historical context*" (George and Bennett, 2005, p. 176, my emphasis), Beach and Pedersen associate this specification to explaining-outcome process tracing only (cf. Beach and Pedersen, 2013, p. 3). Beach and Pedersen's theoretically guided separation of three distinct types of process tracing greatly facilitates the challenge of using process tracing, which is "to choose a variant of it that fits the nature of the causal process embedded in the phenomenon being investigated" (George and Bennett, 2005, p. 213). Table 7 summarizes the characteristics of explaining-outcome process tracing and compares them to theory-centred variants of process tracing.

Table 7: Types of process tracing

	Theory-testing	Theory-building	Explaining-Outcome
Purpose of analysis – research situation	*Situation one* Correlation has been found between X and Y, but is there evidence that there exists a causal mechanism linking X and Y?	*Situation two* Build a plausible causal mechanism linking X and Y based on evidence in case	*Situation three* Explain particularly puzzling historical outcome by building minimally sufficient explanation in case study
Ambitions of study	Theory-centric	Theory-centric	Case-centric
Understanding of causal mechanisms	Systematic (generalizable within context)	Systematic (generalizable within context)	Systematic, nonsystematic (case-specific) mechanisms and case-specific conglomerates
What are we actually tracing?	Singe, generalizable mechanism	Single, generalizable mechanism	Case-specific, composite, mechanism that explains the case
Types of inferences made	(1) Parts of causal mechanism present/absent (2) Causal mechanism is present/absent in case	Observable manifestations reflect underlying mechanism	Minimal sufficiency of explanation

(Source: Beach and Pedersen, 2013, p. 21)

This study represents an example of explaining-outcome process tracing. As Beach and Pedersen point out, such an approach implies ontological assumptions different from theory-centred process tracing and thus a different treatment of theories:

> *"[C]ase centric researchers agree that the social world is very complex, multifactored, and extremely context-specific. This complexity makes the ambition of producing knowledge that can be generalized across many cases difficult, if not impossible. Instead, the ambition is to account for particularly puzzling outcomes. Theories are used here in a much more pragmatic fashion – that is, as heuristic instruments that have analytical utility in providing the best possible explanation of a given phenomenon. […] The ambition is not to prove that a theory is correct but instead to prove that it has utility in providing the best possible explanation." (Beach and Pedersen, 2013, pp. 12–13)*

As they indicate, this is the most common form of process tracing (Beach and Pedersen, 2013, p. 11). (Blatter *et al;* 2012) support this point by portraying the concern with the outcome as a core characteristic of process tracing studies and argue that such inductive process tracing is the most valuable. The outcome that bears explanation in the case presented here is the specific EU (public and private) activities to influence China's food safety regulation.

A basic feature of process tracing is what Blatter names "configurational thinking" (2012, p. 12). Such configuration can possess additive effects or interaction effects – based on the distinction of necessary and sufficient conditions. In the former case, the force of conditions can be added, regardless whether every single one of them contributes to the joint force. All conditions are sufficient but not necessary. The additive causal force of the conditions is what causes a specific outcome (Blatter, 2012, p. 12). In contrast, a configuration can also possess interaction effects. In this situation, conditions depend on the existence of each other for a causal force to materialize. Hence, all conditions are necessary (Blatter, 2012, p. 12). In Beach and Pedersen's conception, configurational thinking is reflected in the step-by-step analysis of single entities which in conjunction form a causal mechanism. The combination of entities and their respective sufficiency and necessity define the causal mechanism (Beach and Pedersen, 2013, pp. 29–32). Here, Beach and Pedersen's concept is more fine-grained compared to the suggestions from Blatter *et al.*, however, ending up with the same result.

Among those authors, who deserve credit for specifying and developing further the method of process tracing, there are different suggestions about the way causal linkages can and should be presented. Process tracing is often presented in form of narratives – chronological descriptions of (series of) events. Such approaches resemble historical research (e.g. Silzer, 2014, pp. 130–131). For process tracing to be a distinct method and for it to deliver theoretical value, Beach and Pedersen argue, causal mechanisms are more than just a chain of empirical events and more than just intervening variables. The difference is that causal mechanisms include theory based explanation of *how* and *why* exactly the events or causal components led to a specific outcome (Beach and Pedersen, 2013, pp. 32–40, similar: Blatter, 2012, pp. 11–15). The distinctive understanding of process tracing purposely distinguishes itself from historical methodology. Causal mechanisms, the point is, may not only present themselves as temporal sequences but also as other variations of evidence (Beach and Pedersen, 2013, p. 5). Therefore, each part of a causal mechanism has to be conceptualized as an entity plus an activity (Beach and Pedersen, 2013, p. 49). Thus, process tracing should be conducted as a step-by-step analysis and (especially in explorative research) as a process of identifying the mechanism's parts. Temporal sequences and events may be part of the presentation, but the focus should lie on the identification and separation of the parts of the causal mechanism (cf. Beach and Pedersen, 2013, pp. chapter 5). Blatter, in contrast, explicitly advocates an understanding in which it is a *basic* feature of causal process tracing that it "takes advantage of the fact that causality plays out in *time* and space" (Blatter, 2012, p. 10, my emphasis). Accordingly, extracting

storylines from the data is a central technique of identifying and denoting causal linkages (Blatter, 2012, pp. 16–19). In fact, both perspectives do not contradict each other as much as it seems at first sight. Beach and Pedersen argue that temporal narratives alone are not sufficient. This is a point which does not contradict Blatter's understanding. Both thus agree that storylines are one possible way to portray casual mechanisms and which, however, should be complemented. The main difference is that Blatter puts emphasis on the temporal aspect and demands a more rigorous analysis of it. He has a valid point in arguing that process tracing has to take the term "process" seriously and that processes indeed develop over time. It seems, the objective of both is the same, namely to prevent too descriptive, under-conceptualized forms of process tracing. Blatter therefore further specifies the temporal aspect of process tracing by distinguishing between "causal conjunction[s]", that is "causal conditions work together in a specific situation", and "causal chain[s]", that is "causal conditions work together in a specific sequence" (Blatter, 2012, p. 13).

Three elements are useful to identify and describe causal processes (Blatter, 2012, pp. 16–21). First, narratives or story lines, which reproduce the sequence of causal conditions that led to an outcome as a development over time. Here, temporal and spatial proximity are important elements for this analysis. Additionally, turning points and decisive moments can and should be identified. With narratives, we "focus on the temporal contiguity and temporal order of 'turning points' and 'phases of transition' in the development of […] conditions" (Blatter, 2012, p. 18). Secondly, smoking guns help to further verify causal processes as observations that serve as "central pieces of evidence" (Blatter, 2012, p. 19; on the research concept of smoking guns see also van Evera, 1997). Thirdly, confessions complement the first two elements (Blatter, 2012, p. 20). They are important to include motivations of actors which are revealed by explicit statements. As discussed above, a narrative itself is seen as unsatisfying: "Ideally, a full-fledged explanation based on CPT should include all three kinds of empirical evidence […]" (Blatter, 2012, p. 21).

4.3 Data sources and analysis

The data, which I understand as "systematically collected elements of information about the world" (King *et al.*, 1994, p. 23), is based on three separate groups of sources:

- Semi-structured expert interviews form the basis of the analysis. Primary data derived from interviews has the advantage of potentially delivering more relevant and otherwise un-retrievable information.
- Secondly, a set of documents has been systematically retrieved in order cross-validate information derived from interviews. Part of this are existing studies and publicly financed reports and other sources, which provide further insights. Here, sources from

China, international organisations and third countries as well as researchers from various countries have been used in order to avoid the pitfalls of one-sided perspectives.

- The third group of sources derives from non-systematically "cloud" of publications. Part of this is also academic literature with empirical data and media reports, from Western as well as Chinese media.

With this setup of different groups of sources, I aim to avoid a selection bias by means of triangulation. While academic literature was used as source especially in the first phase of the research process, for instance to gain background information on the state of China's food safety regulation, the focus of the study lies on analysing information from the first two groups of sources.

I am interested in understanding the relationship between the public and private activities towards China and to what extent co-regulation or hybridity plays a role in this context. In order to keep this focus, I reduce the number of actors for each side. Thus, the analysis concentrates on the European Commission for the public sector. Given its pivotal role in the politics of extra-EU trade, it is the most relevant actor. More specifically, the EU-commissioned EU-China Trade Project (EUCTP) is a core subject of the analysis. However, as part of the explorative approach, information from member states is included in the analysis. Here, especially German experts were interviewed because the Sino-German Food Safety Project (SGFSP) represents the EU member states' largest and longest running food safety cooperation project in China which had multiple ties with the EUCTP. For private standards, the analysis concentrates on the GFSI. Here, in addition, information from GFSI-benchmarked TPS is included in the analysis to further validate the findings. Again, with GlobalGAP, the focus lies on an especially large and relevant example. While the SGFSP and GlobalGAP were systematically analysed, additional information discovered about other member states and other GFSI-benchmarked private standards is included in the analysis where it is of relevance (see Table 8).

Table 8: Focus and sources

	Focus	Data sources
public	EU Commission	EU delegation interviews, EU Commission interviews, EU Commission reports, EUCTP reports, EUCTP interviews, interviews with member state representatives, documents from member states, media reports
private	Global Food Safety Initiative	GFSI-interviews, interviews with certification bodies, interviews with accreditation authorities, GFSI publications (newsletters, conference reports, etc.), interviews with representatives from GFSI-benchmarked standards, publications by GFSI-benchmarked standards

(Source: own)

4.3.1 Expert interviews

Expert interviews were introduced as a method of retrieving information about decision processes that otherwise are hard to reconstruct, given the fact that much information is never put in writing. Experts can be defined as persons who

- either were or are involved in decisions
- or who have or had access to information, circles of decision makers, or decision-making processes

which are potentially relevant to the subject under inquiry (cf. Lauth *et al.*, 2009, p. 169, for an in-depth discussion of concept of experts see Meuser and Nagel, 2009, pp. 467–470). Experts often are persons with limited time resources, which has to be acknowledged when conducting interviews.

Expert interviews are a variation of semi-structured interviews, which are based on guiding questions (see appendix 8.2). Such guiding questions are developed based on theoretical considerations and already obtained information (Blatter *et al.*, 2007, p. 62). Initially, the questions were based on the widely-used research heuristic to analyse policy transfer developed by Dolowitz and Marsh (Dolowitz and Marsh, 2000, p. 9). As discussed above, although I do not apply this terminology, activities to influence China's food safety regulation can also be understood as a variation of policy transfer (see 2.1.2.2). Their criteria provided a wide angle to start with. After the first round of interviews, the set of questions was reduced and refined to cater for the developed research focus and the restricted time for interviews. During interviews, the order of the guiding questions must not be followed strictly. In semi-structured interviews, the list of questions rather is a checklist of aspects the interviewer wants to raise. At the same time, it guarantees a basic comparability of different interviews. The nature of the conversation during the expert interviews varies between phases of relatively frequent exchange of rather specific questions and phases of long narratives by the interviewee (Blatter *et al.*, 2007, p. 62).

Experts can provide insights into their behaviour, decisions and the applied rules. They may also provide information and assessments about the context under which others act. Both aspects are of relevance and were addressed during the interviews (cf. Meuser and Nagel, 2009, p. 471). However, the experts who have been interviewed are not the unit of analysis but used as carrier of information which otherwise would not or hardly be accessible (Lauth *et al.*, 2009, p. 169). It lies in the nature of the social relationship that interviewer and interviewee enter into, that the quality of the interview and the information shared depends on interviewee's perception of the interviewer (Littig, 2008). Experts are generally more willing to share information if they perceive the interviewer as having a sound understanding of the topic – an observation which could be re-confirmed during the interviews for this study

(Meuser and Nagel, 2009, p. 473). In addition, in China, it is important to build a network of relationships with potential experts for interviews. In a culture, in which the Chinese concept of 关系 *(guanxi)* – roughly translated as social relationships or social network – are essential for conducting any sort of business. The concept of guanxi is often portrayed as an essential aspect of Chinese culture (Gold *et al.*, 2002b). The intensive research of social scientists on guanxi stresses its importance (Chen *et al.*, 2013). For Westerners, its logic and depth is often hard to grasp, but its relevance for achieving anything in China is obvious. Crucial for conducting interviews in China, it also relies on "reciprocal obligation and indebtedness" and is the "basis for a gift economy that exists in China" (Gold *et al.*, 2002a, p. 7). Giving an interview itself is not a reciprocal act. This makes it harder to convince Chinese experts to act as an interviewee. As far as possible, I brought with me information and insights from my network. Especially knowledge about the BfR proved helpful. Also, establishing contacts to potential experts was important *before* requesting interviews. Consequently, I met all Chinese interviewees more than just once. To these two ends – building up a network and being perceived as knowledgeable about the various aspects of food safety regulation and food trade – I participated in food safety conferences, gave presentations based on my previous working experience in European and German food safety regulation and food risk communication, co-organized and moderated food safety expert meetings and published about food safety topics in China (see Table 9). My participation in twelve conferences and workshops on food safety in China and Malaysia also served the purpose to gain additional information from speeches and to identify and approach potential interviewees.

In principle, the sum of all interviewees should cover all sides and all types of identified actors. In addition to the above-mentioned 11 pre-interviews (see 4.1.3), I conducted 41 semi-structured interviews (7 EU Commission, 6 EU member state, 5 Chinese government, 3 Chinese academics, 7 TPS, 6 foreign and Chinese companies, 5 certification professionals, 2 IGO representatives). One of these interviews is the sum of a series of four separate short talks with the same interviewee (interview 37). In addition to the 41 interviews, one presentation of an EU Commission representative has been summarized as a text based on notes taken during his speech and following question and answers session, because he was not available for an interview. The length of the interview therefore was adapted to the availability of the interviewee. The shortest interview lasted 30, the longest just over 90 minutes. Where possible, interviews were recorded digitally and henceforth transcribed. In cases, in which respondents refused recording, extensive notes where taken. While this was a matter of pragmatism, some scholars stress the advantages of handwritten notes as they may reduce the bias in interviewees' answers (Burnham, 2008, p. 239).

Table 9: Networking activities and participation

Type of activity	Instances
Participation in food safety conferences	• International Conference on Food Safety Risk Communication, Beijing, 2011 • Deutsch-chinesisches Symposium zu Krisenmanagement und Gesetzgebung in der Lebensmittelsicherheit, Beijing, 2012 • International Risk Governance Council (IRGC) International Conference, Workshop on Food Safety Governance, Beijing, 2013 • China Food Safety and Sustainability Conference, Shanghai 2013 • M Food Talks, Shanghai, 2013 • China International Food Safety and Quality Conference (CIFSQC), Beijing, 2013 • China Food Safety and Sustainability Conference, Shanghai 2014 • European Chamber of Commerce in China seminar on food safety, Shanghai, 2014 • Panel discussion organized by Asia America Multitechnology Association on food safety, Shanghai 2014 • CIFSQC, Shanghai, 2014 • GFSI Focus Day, Beijing, 2014 • GFSI Global Food Safety Conference, Kuala Lumpur, 2015 • Global Forum for Food and Agriculture, Berlin, January 2016
Presentation of own expertise in food safety-related areas	• Presentation about food risk communication measures and concepts of the Federal Institute for Risk Assessment (BfR), International Conference on Food Safety Risk Communication, Beijing, 2011 • Presentation about European food safety risk governance, annual conference of the IRGC, Beijing, 2013 • Presentation about food risk communication, Center for Food Safety Risk Assessment (CFSA), Beijing, 2013 • Presentation about German food safety inspection system, Shanghai Government Law Office, Shanghai, 2014 • Presentation about food risk communication measures and concepts of the BfR, CIFSQC,

	Shanghai, 2014 • Presentation about China's food safety challenges, Danish Innovation Centre, Shanghai, 2014 • Presentation about linkages between risk communication and food safety regulation, Food and Beverage Innovation Forum, Shanghai 2015
Co-organization and co-moderation of food safety expert meetings	• Session about risk communication and food safety of the annual conference of the International Risk Governance Council, Beijing, 2013 • Workshop "Envisioning food safety solutions 2020" by swissnex Shanghai, an organization of the Swiss Consulate, Shanghai, 2013
Publications	• Regular posting and commenting information about food safety in China that had relevance to industry representatives and government officials via the social media platform LinkedIn, from August 2013 until July 2015. • Publication of 5 articles in non-scientific articles in Chinese media (Oriental Outlook Weekly, and Social Sciences Today), from October 2014 until June May 2015 • Publication of chapter about German food safety risk management in book published by the Chinese Law Society which is planned to be used as a guidance book for the CFDA

(Source: own)

4.3.2 Other sources and triangulation

Given their highly subjective nature, expert interviews should be complemented by the analysis of additional sources to achieve triangulation (Abels and Behrens, 2002). Therefore, as indicated in the right column of Table 8, I used additional sources to generate data. They can be further separated in systematically and non-systematically derived sources. Generally, I focussed on documents for the period from 2001 until the end of 2014.

The focus of the systematically derived sources is on official documents have which have mainly been collected online. I have systematically scanned the EU Commission's website and other websites for relevant information (for details see appendix 8.3). The list of documents was cross-checked against a compilation of official and unofficial documents of EU-China

cooperation published by Snyder (2009). Likewise, all GFSI newsletters and GFSI Focus Day documents were collected systematically (for the period of January 2008 till December 2013). Especially these documents were used as the basis to reconstruct the historical development.

In addition to this, additional documents were included in the analysis which I discovered during the research process. I found most of these documents based on a snowball effect: retrieved information led me to search for further information. In addition, I retrieved documents and information by constantly monitoring a set of sources from January 2012 onwards (see appendix 8.3). Also, speeches at conferences provided another source of information. Furthermore, participant observation during conferences and workshops enabled me to cross check findings derived from the other sources (see the list of participation in conferences, Table 9). For example, at conferences I could observe that speakers from both sides – EU and China – rarely mentioned import safety as a reason for cooperation. In the same manner, I could observe that sessions with representatives of public institutions and private standards were mostly separated and neither side joined the other's session.

4.3.3 Data analysis

In order to transfer observations into useable data, all sources haven been processed in the same manner. In total 479 documents were analysed, including the interview transcripts. The analysis was conducted in two steps. First, all texts were coded using a pre-defined set of codes to identify relevant information in the text – regardless of the nature of the source. The categories were deduced from the theoretical discussion and resembled set of questions posed in the expert interviews. Secondly, during the coding-process, additional new codes were added. After coding all texts, the codes were reviewed, revised and grouped into categories. In some cases, codes were conflated in order to reduce the total number of codes. In addition to that the connection between the codes was defined using Atlas.ti, a software tool for qualitative data analysis. For example, the code "import safety is a challenge for EU" was marked as "is cause of" the code "supply safety". By defining the connections between codes, code-networks covering all aspects of the analysis were created. By doing this, the large number of codes and connected quotes in the documents became manageable. Some codes were added not for interpretative purpose, but for marking instances in which potentially relevant information was given – e.g. about the actors involved or the time when something happened. The process of coding and organizing the codes again reflects the explorative nature of the research.

Table 10: Networks of codes

Aspects covered by network	Number of codes	Number of quotes
Content & Motivation	39	932
How – public (processes and content)	75	730
Why – public (motivation)	67	1047
How and why – private	72	731
Public-private interaction	19	100

(Source: own)

The analysis proceeded with integrating every code (or group of codes) into the full picture, network by network. To qualify the meaning of a code, the quotes in documents linked to the specific code were consulted. In addition, the query function of Atlas.ti was used to dig deeper into specific aspects in order to validate findings (e.g. in order to identify whether specific codes rather appeared in specific types of sources).

Two sets of documents were analysed separately. Reports by the FVO about audits of China's food safety regulation system have been coded with a special set of codes in order to extract the FVO's judgement (for details see 5.4.2.1). Secondly, all activities conducted by the EUCTP were coded and analysed separately. Each activity was allocated to one of the categories, depending on what motive it represents (for details see 5.4.2.3).

4.4 Conclusion

The design of this research is based on a single case study. The case itself is chosen, because it is a crucial case for the SSH. To fully harness the single case analysis, I follow those who propose to identify causal mechanisms instead of searching for causal effects. This enables an explorative, more in-depth research which in turn leads to a better – in the sense of a more nuanced – understanding of the researched phenomenon and what has led to this outcome. In doing so, I develop a specific explanation of the case which does not claim to be generalizable beyond the case itself but adds to the theoretical discussion of regulatory interdependence nevertheless. Regardless of the explanatory width of the study, it still has to adhere to fundamental criteria of sound research: validity and reliability. Both aspects shall be critically discussed in the following paragraphs.

It lies in its nature, that invariant case-centred qualitative research only provides low external validity for its causal inferences. Causal inferences cannot easily be generalized beyond the case.

Instead, case-centred study designs offer the potential of high internal validity (Blatter *et al.*, 2007, p. 137). Blatter *et al.* list two aspects of internal validity: First, single case studies provide more stable context and constant scope conditions. Thus, changes in Y are less likely to be due to changes in the context. If changes in context appear, single case studies enable the researcher, due to the depth of the analysis, to account for changes in the context and control the effects. This leads to the second aspect. For internal validity, high confidence is needed that changes in X are the cause for changes in Y. The researcher should be able to exclude other potential factors that could have contributed to changes in Y. Generally, process tracing methodology is especially suitable to avoid this mistake (Blatter *et al.*, 2007, p. 130). However, it is important to fully identify a causal chain to develop the explanatory power of process tracing (George and Bennett, 2005, p. 222).

Of course, compromises must be made. The pre-development of a research heuristic does bear the risk of ex-ante concentration on specific elements of the observed processes. There is a tension between depth of analysis with the consideration of case-specific aspects on the one hand and theoretical insights on the other hand. As George and Bennett rightly point out, reduction of complexity is the price for a more analytical approach and theorising (George and Bennett, 2005, p. 225). Still, it is important to be conscious of the fact that there may be more than just one causal chain that could be described with the existing evidence (George and Bennett, 2005, p. 207). Process tracing analyses are thus vulnerable to not being able to identify the full causal chain (George and Bennett, 2005, p. 222). These challenges can only be answered by interpretative rigor, a critical reflection of the findings and transparency regarding doubts.

As regards reliability, qualitative research designs suffer from the impossibility to standardize the data generation process. Many factors contribute to the differences of interview situations. After all, interviews are inter-personal communication with all of its facets. On top of that, qualitative research requires the interpretation of text, which again can only partially be standardized. These circumstances necessarily reduce the intersubjectivity of qualitative research designs. King *et al.* argue that therefore one should collect as much data as possible and record as well as report the process of data collection to achieve as much intersubjectivity as possible (1994, pp. 23–27). As discussed in section 4.3, my data collection is based on three pillars. Two, interviews and systematically collected documents, can be replicated based on the description of the procedure provided in the annex. While the third pillar, in its principle, can also be replicated, it most likely will generate a partly different set of documents and sources. However, this serves the objective of triangulation in order to avoid the risk of a biased collection of material in pillar one and two. In order to gather a sufficient yet not unnecessary high amount of data, I stopped collecting when new sources provided only for little additional information.

However, there are limitations with regard to the availability of data. Especially interview data is more detailed for the more recent years. Interview information for the time prior to 2011 is rather

scarce as experts were not available any more. Furthermore, I encountered substantial difficulties in finding interviewees from the Chinese government that are involved in drafting and executing regulation. As one interviewee confirmed in a private discussion, those government representatives are more open to outsiders, who do not consider their work as being political. Thus, my interviewees from CFSA and CFDA understand their work as being scientific. One interviewee answered accordingly by saying that he is just a scientist and he therefore cannot answer questions that touch upon political questions. Other western researchers also experienced similar constraints when researching food safety topics in China (e.g. Ferraro; Broughton and Walker, 2010). This also implies that triangulating information received from interviews with Chinese experts is hard to achieve. This seems the more problematic, as one cannot readily assume that all information obtained from interviews are true.[69] While all these data limitations need to be reflected when discussing the validity of my conclusions, it should not prevent oneself from studying the case: "An important topic is worth studying even if very little information is available. The result of applying any research design in this situation will be relatively uncertain conclusions, but so long as we honestly report our uncertainty, this kind of study can be very useful. Limited information is often a necessary feature of social inquiry" (King *et al.*, 1994, p. 6).

The reliability of the data heavily depends on the type of source. Official publications from governments or other organisations are the easiest case. They can be interpreted as the public position, without further questioning. Chinese media reports play a special role in this category of sources. I interpret Chinese media reports from state-owned media as statements representing the official government's interpretation. However, given that the topic is highly specific, only few reports could be found. Reports from the media and other sources which report about others, needed to be interpreted more critically and checked against other sources. Likewise, judgements and positions in interviews should be treated carefully as interviewees may have an interest to present certain information in a specific light. Here again, theoretical validation and triangulation help to avoid misinterpretation.

Each research design has its built-in limitations. What is important is to consciously discuss and respond to the specific limitations. For single case studies, the answer lies in a more extensive theoretical reflexion of the findings (Blatter *et al.*, 2007, p. 172). This will be done in chapter 7, but before that, chapter 5 and 6 present the analysis.

[69] In one instance, a western expert reported in a side talk on 6 November 2014 during the CIFSQC that to his knowledge what he had just heard from a Shanghai government official about the food safety measures and achievements during the Shanghai Expo 2010 were not only an exaggeration but simply not true.

5 Analysis: Supply safety and market access as motivation for EU's activities

With a research heuristic, a clarification of the context and a definition of my approach, I can proceed to analyse the case itself. The purpose of this chapter is to detect evidence for the SSH and the MAH. To this end, I trace the development of each of the conditions of the model in detail. For each condition in turn, I first present the empirical evidence to then summarize the findings and discuss the results with regard to the respective pre-defined expectations (as defined in 2.2.3). In doing so, I provide a comprehensive overview of the development of China's food safety regulation and the EU Commission's and GFSI involvement from 2001 until the end of 2014. It is comprehensive in the sense that I also include observations that do not strictly fall under my heuristic model.

5.1 The increasing importance of China as an EU trade partner in food products

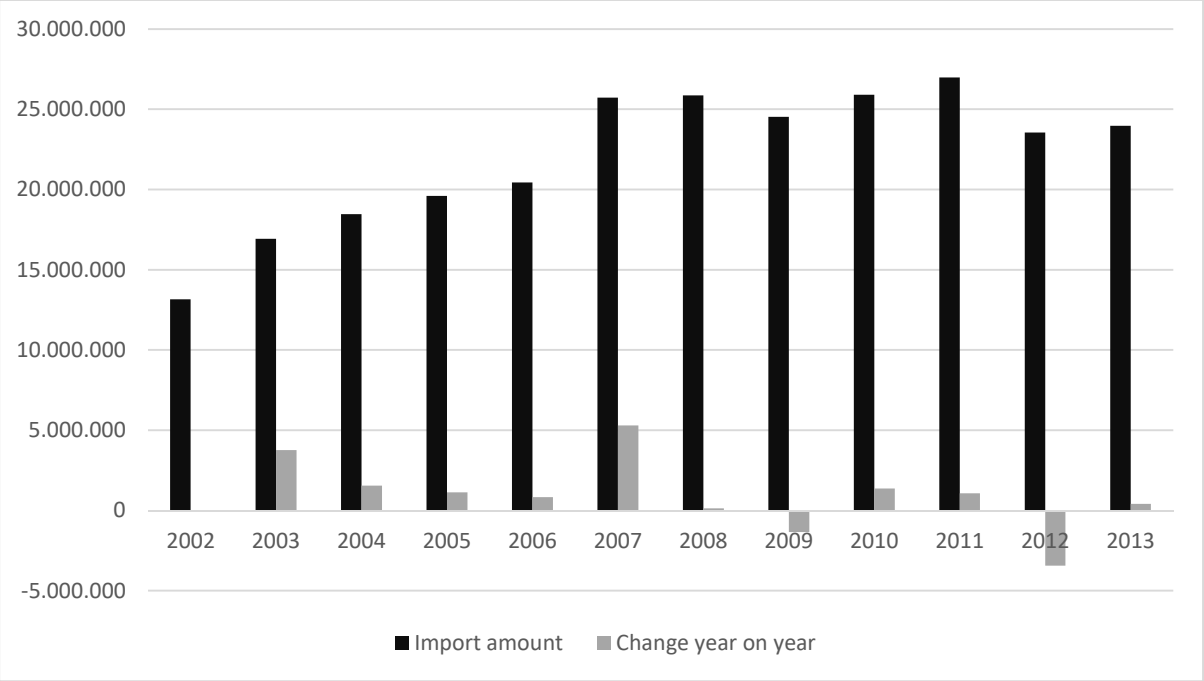
In this section, I analyse whether the trade conditions for the SSH and the MAH can be determined. The first part deals with China's growing food export to the EU, its development and characteristics, showing that the trade-condition for supply safety is fulfilled. The second part qualifies the trade condition for the MAH. I show that there is a point to be made for market access interest in China. I do so by briefly discussing the general food export orientation of the EU, the need for foreign markets due to overproduction and finally the rise of food exports to China.

5.1.1 China's growing food export

China has become the fourth biggest food supplier of the EU by 2016 with 4.5 per cent of all agri-food imports originating in China (compared to 11.6 per cent from Brazil, the EU's largest supplier) (DG AGRI, 2016b, p. 2). China's exports to the EU has risen by 7 per cent on average between 2005 and 2015 (DG AGRI, 2016b, p. 2). Year-on-year, China's export of food to the EU market steadily rose with two notable exception. In 2009, one year after the melamine crisis, the export amount measured in kilograms decreased. In a similar temporal proximity, in 2012, shortly after a norovirus outbreak in Germany caused by strawberries from China, exports to the EU decreased. There has been an especially sharp increase by 25 per cent in 2007 to over 2.5 billion

kilograms where it roughly stayed until 2013, with 2010 and 2011 above and 2009, 2012 and 2013 under this level (see Figure 5).

Figure 5: EU food imports from China 2002-2013 (in 100 kg)



(Source: Eurostat, based on SITC 0 and SITC 1)

However, these figures still lead to an incomplete picture as they aggregate all types of food in one category. In fact, China's world market share is much bigger for specific product groups. Out of all 36 3-digit SITC product groups[70], China is the leading exporter in four SITC groups and among the top three in another eleven groups. What is more, in ten categories China experienced a growth rate of at least 25 per cent (see Table 11).

[70] Standard International Trade Classification (SITC) is a classification system for all kinds of traded goods which has been developed by the United Nations. Here I refer to the 3rd revision of the SITC (United Nations Statistics Division, 2017).

Table 11: China's food export by SITC food categories

SITC Group	Description	Export rank China	value in million USD**	avg. growth 2007-11 in %	growth 2010-11 in %	world share in %
001	Live animals other than animals of division 03	10	570.8	11,1	25,7	2,7
011	Meat of bovine animals, fresh, chilled or frozen	China not among top 15				
012	Other meat, meat offal, fresh, chilled, frozen (for human)	China not among top 15				
016	Meat, edible offal, salted, in brine, dried, etc; flours, meals	China not among top 15				
017	Meat and edible meat offal, prepared or preserved	3	1877.8	8,8	28,5	9,8
022	Milk and cream and milk products other than butter or cheese	China not among top 15				
023	Butter and other fats and oils derived from milk	China not among top 15				
024	Cheese and curd	China not among top 15				
025	Eggs, birds', egg yolks, fresh, dried or preserved; egg albumin	8	174.5	16,7	22,1	3,6
034	Fish, fresh (live or dead), chilled or frozen	2	7172.8	19,4	24,9	12,2
035	Fish, dried, salted or in brine; smoked fish; flours, meals, etc	3	393.6	13,3	11,7	7
036	Crustaceans, molluscs, aquatic invertebrates; flours and pellets	1	3419.1	36,9	26,7	10,8
037	Fish, crustaceans, molluscs, aquatic invertebrates, prepared	1	5983.6	7,4	35,9	23,7
041	Wheat (including spelt) and meslin, unmilled	China not among top 15				
042	Rice	9	427.0	-2,8	2,6	1,8
043	Barley, unmilled	China not among top 15				
044	Maize (not including sweet corn), unmilled	China not among top 15				
045	Cereals, unmilled (other than wheat, rice, barley and maize)	5	115.5	2,1	34,2	3,4
046	Meal and flour of wheat and flour of meslin	11	143.4	-9,2	21,8	2,4
047	Other cereal meals and flours	China not among top 15				
048	Cereal, flour or starch preparations of fruits or vegetables	14	898.2	15,4	34,6	2
054	Vegetables, fresh, chilled, frozen, simply preserved; roots	2	6518.7	17,8	8,1	10,9
056	Vegetables, roots and tubers, prepared or preserved, nes	1	5726.2	14,6	27,9	19,9
057	Fruit and nuts (not including oil nuts), fresh or dried	8	2838.7	19,8	17,7	3,4
058	Fruits, preserved, and fruit preparations (excluding fruit juices)	1	2825.0	11,7	27,7	15,1

059	Fruit and vegetable juices, unfermented and without added spirit	5	1226.0	-2,4	41,9	7
061	Sugars, molasses and honey	9	879.0	24,7	20,1	1,9
062	Sugar confectionery	2	820.6	15,1	20,5	7,8
071	Coffee and coffee substitutes	China not among top 15				
072	Cocoa	China not among top 15				
073	Chocolate and other food preparations containing cocoa	China not among top 15				
074	Tea and mate	3	1017.6	12,5	23,3	12,4
075	Spices	2	875.8	19,2	13,6	11,1
081	Feeding stuff for animals (not including unmilled cereals)	9	2085.4	19,4	5,4	3,1
091	Margarine and shortening	China not among top 15				
098	Edible products and preparations	5	2695.6	14,4	25,7	4,4

* boxed marked indicates strong position/development

** at current prices

(Source: own calculation based on UN Comtrade data 2011, United Nations, 2011)

The EU's food imports from China resemble this global picture. According to an EU Commission report from 2008, fish and aquaculture represented the largest proportion of EU imports from China and thus were relevant from a supply safety perspective (Fischer *et al.*, 2008, p. 10). From a more recent perspective, the top food product groups imported by the EU are vegetables (fresh, chilled and dried); offal, animal fats and other meats (fresh, chilled and frozen); preparations of vegetables, fruit or nuts; tropical fruit, fresh or dried, nuts and spices; oilseeds, other than soybeans; gums, resins and plant extracts; pasta, pastry, biscuits and bread; eggs and honey; unroasted coffee, tea in bulk and mate; miscellaneous seeds and hop cones (DG AGRI, 2016b, p. 6). Even this specification disguises the de facto dominance of single products: fruit and vegetables pre-dominantly were canned mushrooms and garlic. Food preparations and apple juice dominated the import of processed food from China (DG TRADE, 2006a, p. 2). Examples from specific member states indicate the relevance of imports from China. For instance, 90,000 out of 130,000 metric tons of pollack imported by Germany come from China (Dowideit, 2014). An interviewee reported that 60 per cent of Germany's apple juice concentrate originates in China (interview 8) – a figure in line with the general dominance of Chinese apples in juices (Zamiska, 2007; Dowideit, 2014). The amount of dough for bread rolls imported to Germany from China in 2011 equalled the amount of 282 million bread rolls (Lee *et al.*, 2012).

5.1.2 China as a market for EU agri-food business

China has developed into a relevant export market for EU agri-food businesses. To identify this development, I firstly review the general export orientation of the EU agri-food sector. Secondly, I show that China's importance as an export market has grown strongly over time.

5.1.2.1 The export orientation of the EU agri-food sector

The EU has a history of actively managing its food trade balance. Initially, food self-sufficiency was one of the central goals behind the EU's predecessor, the European Economic Union (EEC), when the participating nations depended on food imports. Accordingly, the Common Agricultural Policy (CAP), agreed among the then EEC member states in 1962, had been installed to protect farmers and agricultural production by guaranteeing minimum prices for agricultural products. This policy eventually led to an overproduction of food in the EU. Excess production of food was exported with the support of EU-financed export subsidies. Since the 1980s, numerous reforms of the CAP successfully reduced the overproduction and export subsidies. In the period of interest here, the EU experienced both, periods of net-import and net-export of food (see Figure 6).

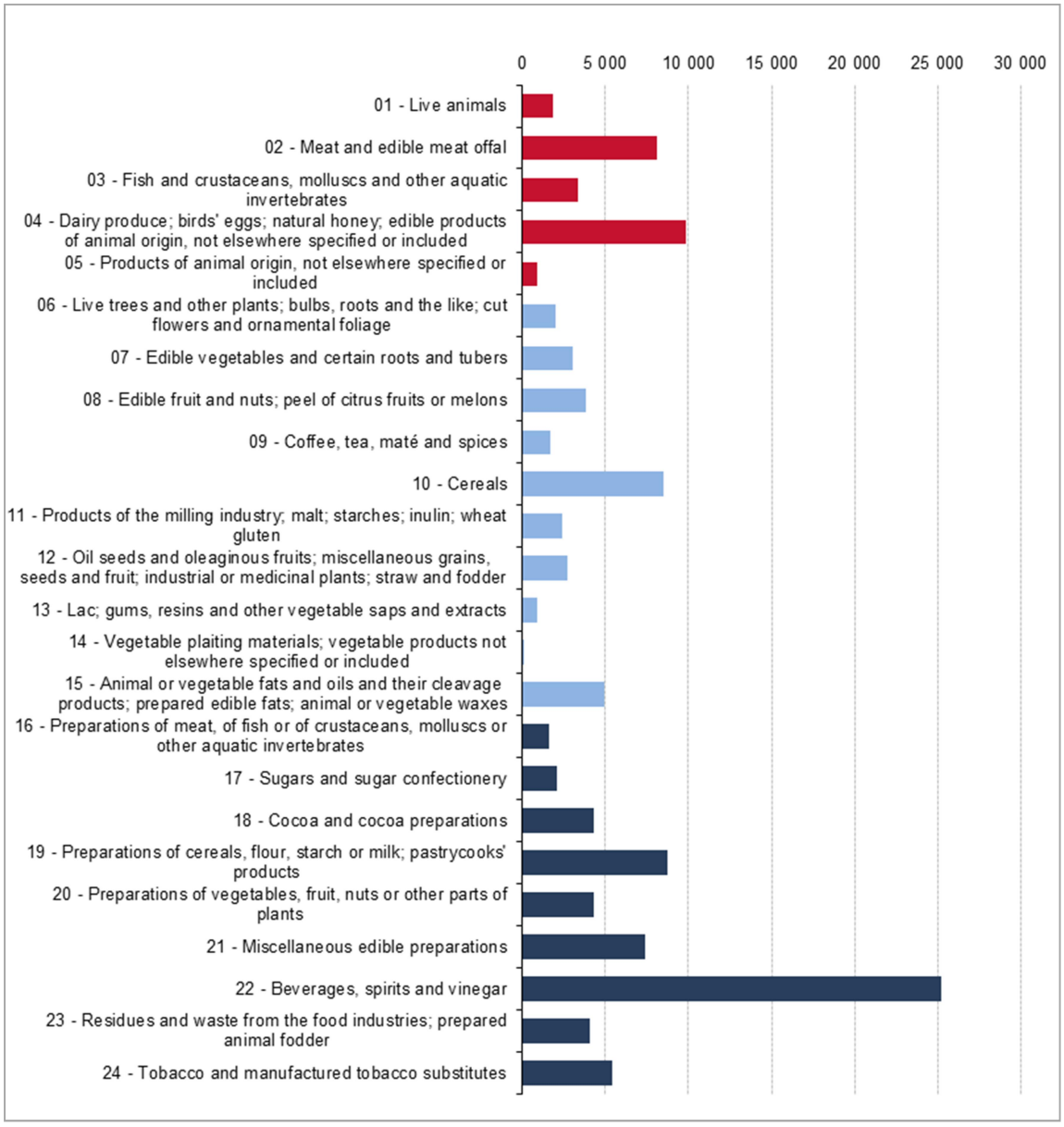
Figure 6: Structure of EU Agri-food Trade with extra EU 28, 2005-2015

(Source: DG AGRI, 2016a, p. 3)

The history of the CAP has left the EU with a highly efficient, widely industrialized and concentrated production system (cf. Bernauer and Caduff, 2006). Consequently, the EU exports mostly processed, finalized products (DG AGRI, 2011). Foodstuffs, especially beverages, wine and vinegar, account for the biggest share (see Figure 7). For specific sectors or products, the EU still produces more than it needs. This implies that there is no strict trade-off between food imports and exports. Imports of commodities partly are used to produce finalized products. For example, imported soy beans are used as feed for raising pork which then are exported. The EU is one of the largest producers of pork meat in the world, second only to China. Overproduction reached 111 per cent of what it needs for its own populations consumption (DG AGRI, 2016d). This is reflected in row "02 – Meat and edible meat offal" in Figure 6. Similarly, I assume that overproduction and hence a need to sell abroad exists for all strong export categories denoted by Figure 6. This is

supported by the general observation that the European food market is highly saturated, leaving growth opportunities mainly in the export sector (Bernauer and Caduff, 2006, p. 84).

Figure 7: Extra-EU 28 exports of agricultural products, by product categories, 2013



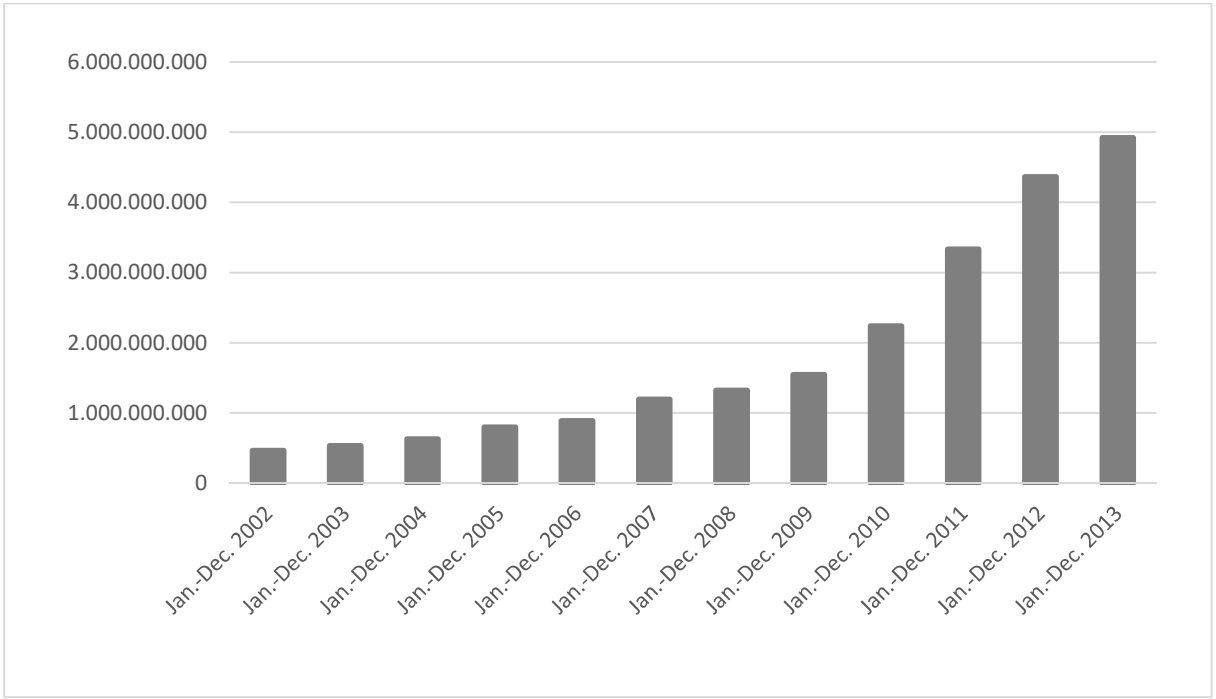
Legend: red = animal products, light blue = vegetables, dark blue = foodstuffs

(Source: Eurostat, 2015)

China has repeatedly been discussed as an opportunity market for agri-food exports. In an official memo, the European Commission argued in 2008 that the future of European agriculture lies – at least partly – in expanding exports: "We see huge opportunities to increase our exports of high quality foods to expanding markets such as China and India" (European Commission, 2008d, p. 4). An EU commissioned report concludes in 2008 that EU-China trade relations in the agriculture sector have strong growth potential for EU businesses (Fischer *et al.*, 2008). The report identifies product areas that were of special relevance to EU-China-relations. For meat, dairy, wine and spirits the report assessed

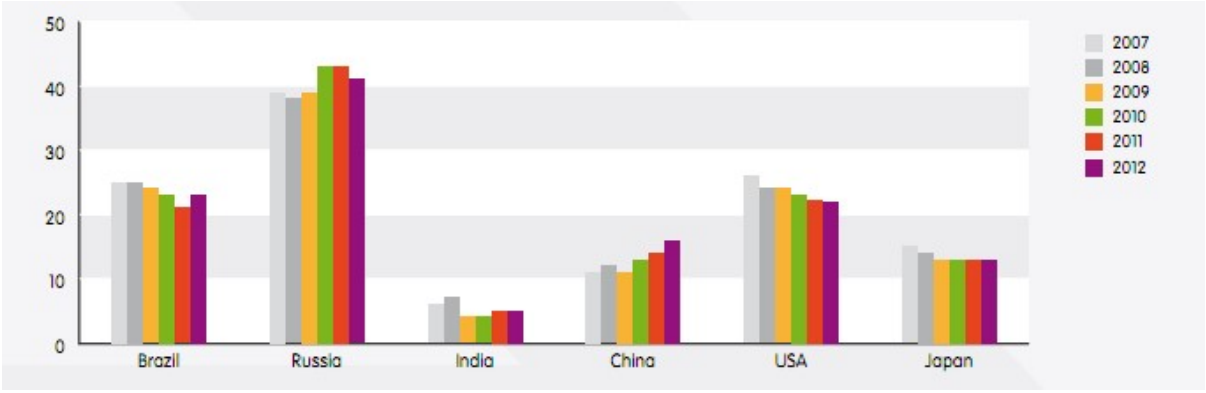
that products "hold great potential for European food producers as a means of boosting investment in the Chinese food market" (Fischer *et al.*, 2008, p. 10). The overall working plan of the EUCTP (OWP, for details see 5.4.2.3) critically notes with regard to the trade of agri-food that "China exports to EU still outweighs [sic!] EU's exports by close to 1 billion euros" (EUCTP, 2010, p. 176). Yet another source to validate specific interests in exporting to China lies on the private side. The European industry association FoodDrinkEurope publishes a yearly report on trends of the European food and drink industry. In these reports, which are available for the period 2008-2014, China constantly plays a role as export market with increasing importance, basically due to the growth rate denoted in Figure 8 (FoodDrinkEurope, 2009; FoodDrinkEurope, 2010; FoodDrinkEurope, 2011; FoodDrinkEurope, 2012; FoodDrinkEurope, 2013; FoodDrinkEurope, 2014). The importance of China as a market for the European food and drink industry, however, becomes more visible in the fact that China at least partly compensates for losses on other export markets (like the USA). This has especially been noted for 2012 (FoodDrinkEurope, 2013). It furthermore is reflected in the fact that China is the only major export market for EU food and drink products in which the share of European products follows a positive trend (see Figure 9).

Figure 8: EU 28 export of food to China (in EUR)



(Source: Eurostat, based on SITC 0 and SITC 1)

Figure 9: EU shares in food and drink imports of key markets, 2007-2012



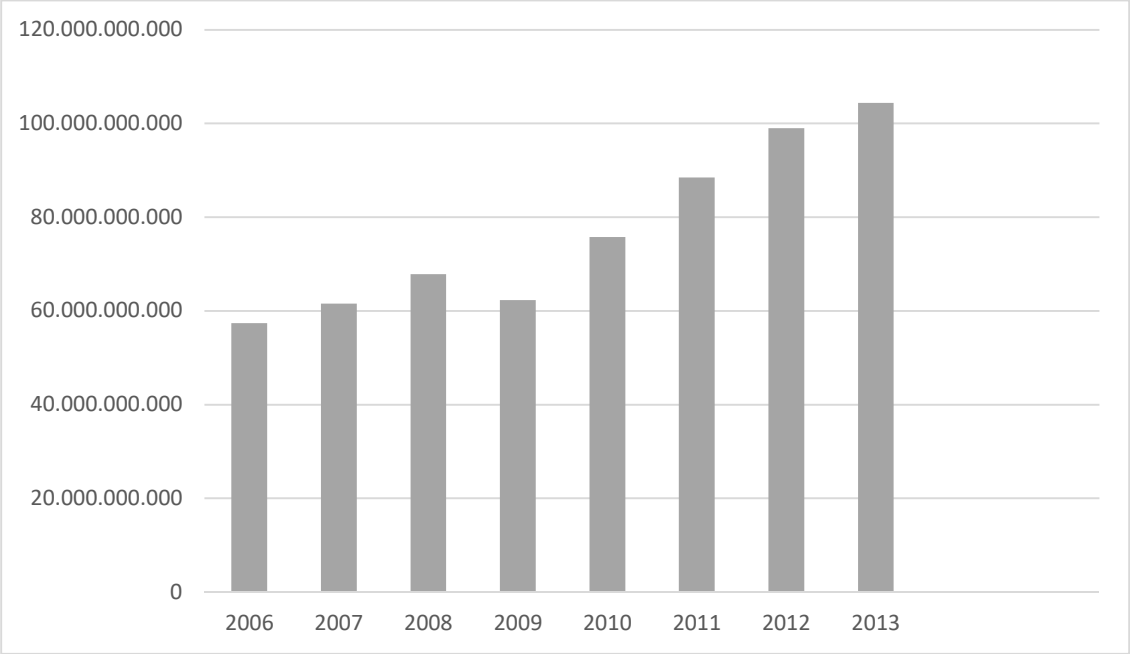
(Source: FoodDrinkEurope, 2013)

5.1.2.2 The EU food export development to China

The development of food exports from the EU to China, measured in Euro, can be summarized easily in one clear trend: food exports constantly rose since 2002. Notably, the curve is much steeper following the year 2009 (see Figure 8).

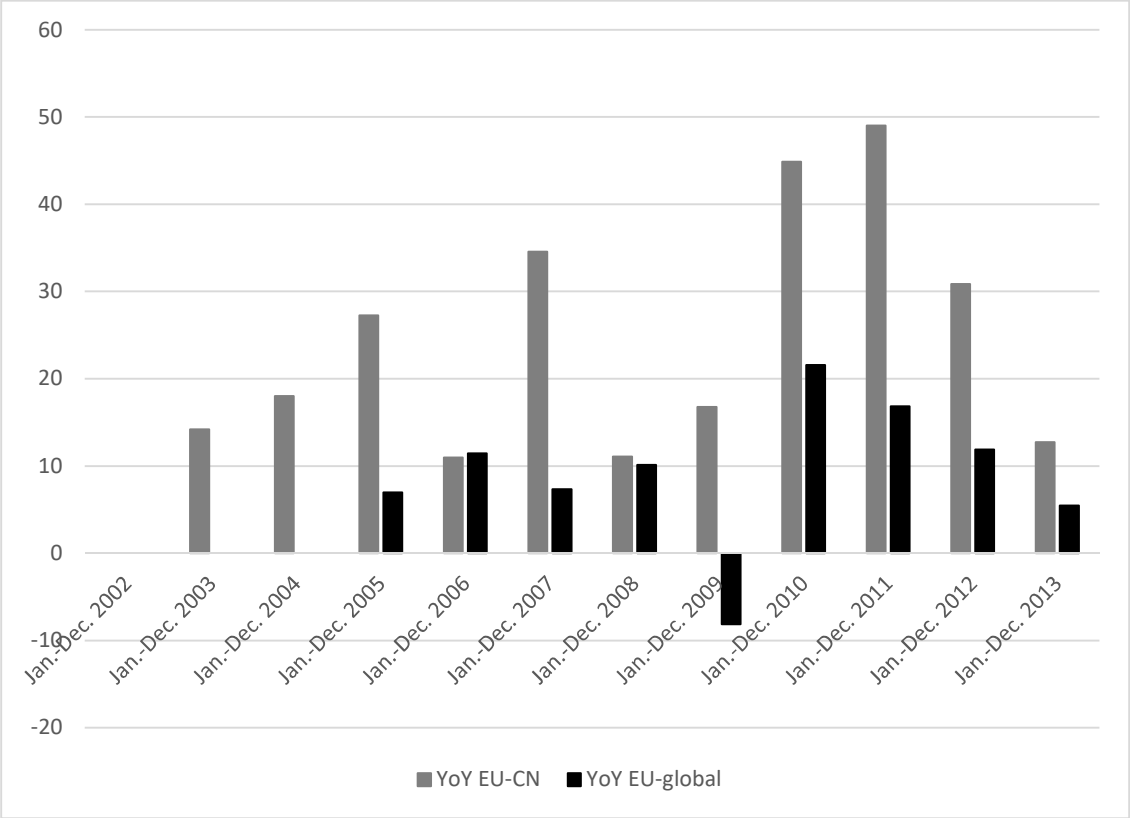
The comparison with the export of food from the EU to all trading partners furthermore shows the rising importance of China as destination. The total food export of the EU has grown considerably less over the same period (see Figure 10). Figure 11 illustrates the difference by comparing directly the year-on-year change measured in percentage of the previous year. While exports to China steadily grew above 10 per cent, with four years even above 30 per cent, growth of exports to the whole world remained around 10 per cent or less with only two years exceeding 15 per cent. Furthermore, the figure illustrates that both trends are largely decoupled and follow different patterns, which suggests that China was a market compensating for sales problems in other markets. Consequently, an analysis by DG AGRI from May 2011 states that "China and Hong Kong are now among the top growth markets for EU exports" (DG AGRI, 2011, p. 9).

Figure 10: EU 28 SITC 0+1 global export (in EUR)



(Source: Eurostat)

Figure 11: Year-on-year change of EU 28 SITC 0+1 export to China and the globe in per cent

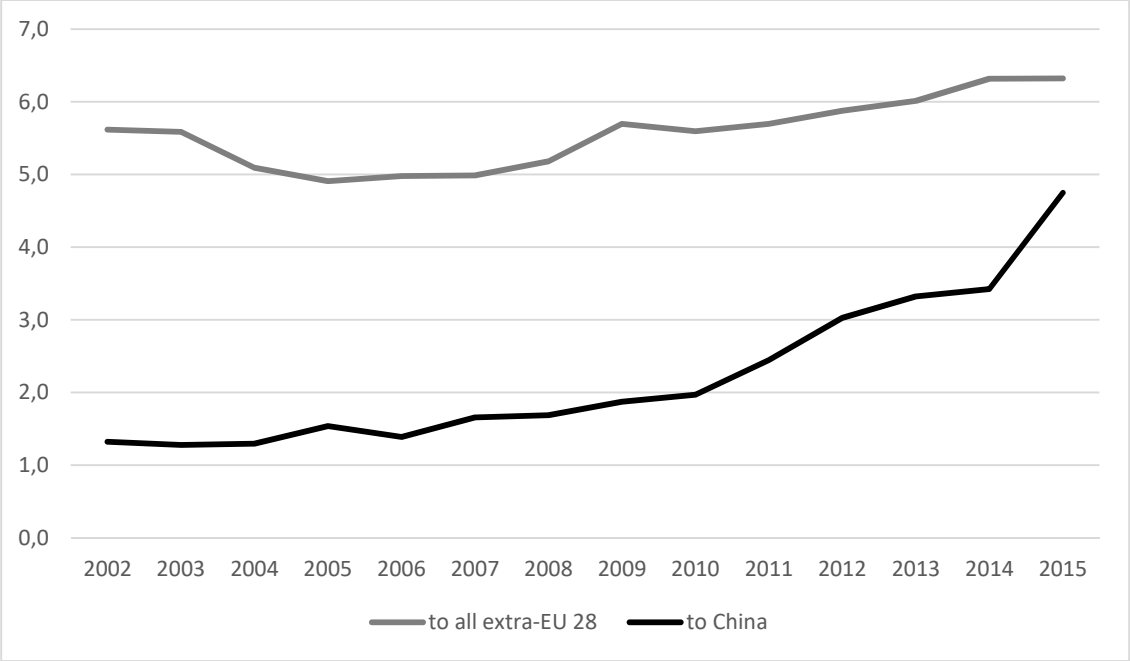


(Source: Eurostat)

In the same manner, the relevance of food exports to China compared to the sum of all exported commodities to China rose (both measured in Euro). While from 2002 until 2010, food exports contributed less than 2 per cent of the total export, this figure steadily rose to 4.7 per cent by 2015. Again, this development is decoupled from the global trend. Exports of the EU 28 to the rest of the

world did not rise steadily and overall only climbed from 5.7 in 2002 to 6.3 per cent in 2015 (see Figure 12).

Figure 12: Share (in %) of EU's agri-food exports in all exported commodities (in EUR)



(Source: Eurostat)

5.1.3 Summary and discussion

The expectation for the SSH – for public actors as well as TPS – is a high or rising EU import volume from China. For the MAH, a high or rising export volume and the search for an export market to sell food products outside of the EU due to overproduction were the two expectations identified for EU public actors. For TPS, this condition is irrelevant for the MAH.

With these expectations in mind, the evidence provides an ambiguous message. On the one hand, China is an important provider for European food consumption. Import has grown over time and China has become an important source for EU's agri-food imports. Specific product groups even play an especially dominant role on the EU market. Hence, from a pure trade perspective, the condition for the SSH is fulfilled. On the other hand, China has become increasingly important as an export market for EU food products, also in direct comparison with the rest of the world. Likewise, export of food has become more important in EU exports to China. This indicates a strong interest in China as a market. However, it does not inform us about the specific need for discussing food safety regulation with the Chinese government in order to achieve market access. I assume that a general rise in exports raises the probability of the need to discuss market access, but whether or not changes in China's food safety regulation were necessary can only be found out by the more detailed analysis in the next section. Furthermore, the relevance of market access varies for specific products. For example, a large share of the EU's pork overproduction goes to China (DG AGRI, 2016d). Then again, for most of the time during the observed period, China de facto

was a minor destination for EU food exports. China rather was a market which provided strong opportunities for export growth, a growth which – according to the figures – could at least partly be achieved. To conclude, the trade figures confirm that the SSH and MAH both are possible. Besides, the analysis of the trade factor revealed that for both directions, import and export, specific product groups are especially relevant.

5.2 Development and changes of China's Food Safety Regulation

This section extends the presentation of China's food safety regulation of chapter 3.3. While the initial discussion served the purpose of clarifying the intensity and severity of China's food safety problems and the government's enduring struggle to tackle the problem, I now will retrace in detail how China's food safety regulation developed and what have been the issues at the time. As the FSL of China, introduced in 2009, marks a major change, I divide this discussion in two parts. In the third part of this section, I collect information qualifying the impact of China's food safety regulation on supply safety and market access. Taken together, the information later allows connecting these pieces of information with the development of the other conditions.

5.2.1 CFSR before the Food Safety Law

As already sketched out in chapter 3.3, the Chinese government struggled to keep regulation up with the development of the market. In the following paragraphs, I show which steps were undertaken to tackle food safety problems and which fundamental limitations remained. In effect, the reforms did not solve the problems.

5.2.1.1 Outdated food safety regulation

China entered the WTO with a severely outdated regulatory framework for food safety. Laws, organisational setup, and standards have been described as insufficient at this point of time (Bian, 2004). It did not meet the requirements of the WTO. At the end of the accession process WTO member states were concerned that China's food safety regulation may violate the SPS agreement and pose trade barriers (World Trade Organization, 2001, p. 40). Nor did it fulfil the necessities from a public health perspective that arose through the rapidly changing and expanding food production sector (Shen, 2013; van der Meer, Cornelius, 2005, p. 1).

China's food safety regulation had a narrow scope and it especially failed to come close to a farm-to-fork-perspective (Broughton and Walker, 2010, p. 472; Shen, 2013). The Food Hygiene Law (FHL) from 1995 primarily covered hygiene issues of industrial production of food with the MoH as the responsible authority (Chung and Wong, 2013). Regulation of food safety in the agricultural section, like pesticide usage, was left to the MoA (Tam and Yang, 2005, pp. 10–11). Likewise, the regulation of aquaculture, food additives, feeds and feed additives were not covered by the FHL (Shen, 2013, p. 156). As a result, the regulator did not see – let alone regulated – sources of food

safety problems at the different steps of the supply chain in conjunction. The regulatory situation was further complicated by an increasing number of additional rules. In response to new problems, authorities were able to issue new regulations[71] in accordance with the FHL, often done without prior evaluation of existing regulation of that specific issue (Bian, 2004, p. 4). What is more, the framework of risk analysis, central to the international understanding of food safety regulation since the mid-1990s, was widely unknown to Chinese regulators. As one interviewee involved in developing China's food safety since the 1980s recalled, China only got to know the risk analysis framework in 1999 (interview 21). Likewise, the HACCP was only introduced in 2002 by China's State Commission on Supervision of Certification. In practice, the concept was only gradually implemented in China in the following years (Organisation for Economic Co-operation and Development, 2005, p. 219, interview 24). The laws at the beginning of the millennium thus document that no modern understanding existed of what constitutes food safety and the regulation thereof. Another indication for the developing understanding of food safety as a concept is the terminology used. Initially, the Chinese term 食品安全 (shipin anquan) was used for both food safety and food security and only with the evolving Western influences, a differentiation between the two issues developed (Löhr and Trappel, 2011, pp. 19–20). As a Chinese expert put it, Chinese food safety regulation lacked a "theoretical basis" and was rather done by "feeling" what was right (interview 20).

Until the introduction of the FSL, fragmentation of governmental oversight was the severest (see Table 5).[72] In addition to MoH and MoA, further ministries and respective laws regulated food safety. The Product Quality Law from 1993 entrusted AQSIQ with the responsibility to regulate the quality of foodstuff (among other products). It oversaw food processers and producers and regulated manufacturing, packaging and labelling. The State Administration of Industry and Commerce (SAIC), in turn, was responsible for regulating food safety in the market – thus, when food came into circulation. Both ministries were entitled to issue and withdraw licences and impose fines. The Ministry of Commerce (MofCom) was entitled to set up and change standards for the processing, packaging, storage, transportation and sales of food. Additional ministries partly had a say in food safety related matters, too (Tam and Yang, 2005, pp. 11–12). Consequently, overlapping responsibilities, lack of coordination and lack of transparency are mentioned as major problems of the regulatory system during this period by interviewees (interview 1, 3, 8 and 9). The harmful result of this situation has been pinpointed by Roger Skinner in 2007, a British expert working for the WHO project on China's food safety reform between 2004 and 2007: "You get buck-passing, frankly, between ministries[.] […] One ministry says, 'It wasn't my job to do that, it was this other ministry'" (Kahn, 2007).

[71] For clarification: the Chinese term used was 规章 (*guizhang*).

[72] For the structural and historical reasons behind the fragmented regulatory system see Ellis and Turner (2008), Liu (2010b).

In addition to the disadvantageous organisational setup, for many areas and products in the food sector, there simply were no or insufficient numbers of technical standards. Existing standards furthermore often did comply with international standards. For pesticide residues, by 2007, China had 484 maximum residue levels defined of which less than 20 per cent conformed to standards defined in the Codex Alimentarius. To put this figure into perspective, the Codex Alimentarius listed over 2,500 maximum residues levels, while the EU had over 22,000, the USA over 8,600 and Japan over 9,000 (Dong and Jensen, 2007, p. 20).

5.2.1.2 Attempts for improvement

Within the Chinese government, the necessity to adjust food safety regulation to international expectations and the rapidly changing industry was acknowledged and indeed, responsible ministries were working on programs to improve regulation and oversight.[73] Major food safety incidents pointing at the deficient food safety situation in China seem to have spurred this development (Ellis and Turner, 2008, p. 162). Tam and Yang argue in their case study that the Fuyang milk powder scandal in 2004 introduced in chapter 1 had "highlighted major weaknesses in China's food safety regulatory regime" (2005, p. 8). Notably, 2004 also marked the start of substantial efforts by the Chinese government. In July 2004, then prime minister Wen Jiabao addressed the problem of food safety at a conference of the State Council, appealing to all provinces and responsible organisations for making food safety one of their top priorities (Löhr and Trappel, 2011, p. 19). As a further indication for the increased political importance of the topic, under the 11th Five-Year-Plan for the period 2006-2011 the Chinese government initiated a National Food and Drug Safety Plan (Ellis and Turner, 2008, p. 29). It "clearly recognized that improving food safety is a critical national task" (United Nations, 2008, p. 4).

The reform process starting in 2004 was to a substantial extent informed and influenced by a project for political advisory that had been initiated by the Chinese government which was financed by the ADB and strongly supported by the WHO. The WHO's specific contribution will be discussed below in part 5.3.1. With this project, the Chinese government openly sought international expertise to ameliorate the food safety situation (Chuan, 2004, interview 3 and 20). As a Chinese interviewee pointed out, when food safety become a major topic, China was eager to learn from other states (interview 20). As part of this, in November 2004, a high level "Global Food Safety Forum" was held in Beijing with 400 participants from China and abroad. At the forum, the Development and Research Centre of the State Council (DRC) presented a study titled "Study on China's National Food Safety Strategy" (Chen, 2004, cf. Organisation for Economic Co-operation and Development, 2005, pp. 216–225, interview 3). The study addressed the need for better coordination of governmental authorities as a key point (Chuan, 2004). At the forum,

[73] See, for example, comment by then Vice-Premier of the State Council of China, Wu Yi (AQSIQ, 2007c) and the 2004 paper prepared by MoA for the WHO/FAO Global Forum of Food Safety Regulators (FAO, 2004).

Chinese high governmental representatives openly acknowledged the problems stressing specifically the need for organisational reform. Vice-Premier Wu Yi is quoted in the state-owned China Daily saying that "the supervision and management system for food safety in China will be perfected. Different government departments will be given clear duties" (Chuan, 2004). To conclude the reform project, a further major international conference on food safety was held in 2007. The High Level International Food Safety Forum in Beijing was initiated and financed by China and jointly hosted by the AQSIQ, the MoH and the WHO. The conference concluded with a "Beijing Declaration on Food Safety". In addition, the advisory project issued a report with key recommendations (interview 3 and 41).

The central government focused on structural adjustments and reorganisation to address the obvious problem of regulatory fragmentation. Already in March 2003, the SFDA was established with the aim "to improve the efficiency and coordination among different state departments" as formulated by the MoA in a report for a FAO/WHO conference in 2004 (FAO, 2004, see also Bai *et al.*, 2007a, p. 482). In 2004, the State Council issued the "Decision on Strengthening Food Safety Control" which re-distributed food safety responsibility between national level authorities. It led to the strengthening of the AQSIQ, especially vis-à-vis the MoH. As for the SFDA, it stipulated coordinating on the national level. The result was what has been termed the "five dragons regime" consisting of MoA, AQSIQ, SAIC, MoH and SFDA (Liu, 2010b, p. 253; Bai *et al.*, 2007a, p. 482). However, it proved to be a half-hearted reform. The aim to overcome fragmented organisation of food safety regulation was not achieved. SFDA, established as the central organisation to coordinate and implement food safety regulation, was only granted a vice-ministry-level – making it the lowest ranking organisation among the five. For this reason and the enduring separation, it could not fulfil its coordinating task (Burns *et al.*, 2010, pp. 14–15; Bian, 2004, p. 8; Asian Development Bank, 2007, p. 3, interview 41). Oddly, the SFDA did not have own capacities but even depended on other ministries to carry out investigations or to enforce regulation (Burns *et al.*, 2010, p. 15). Furthermore, the system divided oversight along the production process, still preventing a holistic approach (Meador and Ma, 2013, p. 4). This situation endured until August 2008, when the coordinating responsibility was shifted from SFDA to MoH. While MoH was ministry-rank organisation, this change did little to tackle the fundamental fragmentation.

From a rule perspective, the introduction of the Law on Agricultural Product Quality Safety under the responsibility of the MoA in 2006 was a first attempt to improve food safety regulation. It was designed as a supplement to the FHL (Calvin *et al.*, 2006, p. 5). However, international observers perceived it as insufficient and disappointing (interview 3). In any case, it extrapolated the separation of food safety regulation between agricultural production and food industry. It thus was a distinct draft for a new food safety law issued by the Legal Office of the State Council in 2004 that eventually became the nucleus for the reform process leading to the FSL (Liu, 2010b, p. 253).

However, in the view of several interviewees, the reform process quickly slowed down. It was the event of the melamine crisis that finally created the pressure for a more fundamental change (interview 1, 3, 8, 15 and 31; see also Pei *et al.*, 2011, p. 412; Xiu and Klein, 2010).[74] The melamine scandal, however, was the tipping point. It hit China amidst the Beijing Olympic in 2008 and made headlines around the world. It seems that the incident created a relevant window of opportunity for changes in food safety regulation, at least on paper. In this sense, 2008 resembles the situation in 2004 – in a more extreme shape.

5.2.1.3 Introduction of voluntary standards as part of the solutions

On a different track, the Chinese government introduced and promoted voluntary standards and the logic of certifications to improve food safety regulation. Voluntary standards and third party certification industry started to develop in China in the 1990s. It rooted in the development of organic production and included the establishment of Chinese certifications as well as certification bodies (Sheng *et al.*, 2009). The organic certification, introduced in 1994, was an answer to requirements resulting from exports and an adoption of the Western organic concept (Scott *et al.*, 2014, p. 161). However, the Chinese government, specifically MoA, introduced further certificates which also addressed domestic needs – among which are the so-called green food certification established in 1990 and the hazard-free certification established in 2001 (Scott *et al.*, 2014, p. 160).

In 2001, with the creation of the Certification and Accreditation Administration of the People's Republic of China (CNCA) out of a previously internal department of AQSIQ an important step was made to further establish, promote and regulate the third party regulation sector. This change addressed the food sector as one among several market segments. Pointing to the same direction, in 2003, a new regulation on certification and accreditation was adopted replacing a regulation from 1990 (Shen, 2013, p. 180). Domestic voluntary certifications were furthermore extended to include system certifications, which extend the certificate beyond products to production processes. Most prominent examples for such certificates are HACCP and ISO22000 (Zhang *et al.*, 2015b, p. 2180). By 2013, domestic voluntary standards and certificates had become a well-established instrument of food safety regulation in China (Zhang *et al.*, 2015b). However, the Chinese third party certification suffered from decreasing trust as it proved to be prone to failures and corruption (Zhang *et al.*, 2015b; Battaglia, 2013).

5.2.1.4 Major insufficiencies of the reform

Overall, despite the reform process, the assessment of China's food safety regulation for the period until 2009 remains bleak. The MoH claims that according to collected data, the number of samples taken that conformed with Chinese standards rose from 60 per cent to nearly 90 per cent already by 2004 (Organisation for Economic Co-operation and Development, 2005, p. 223). However, these figures disguise the fact that Chinese food safety standards neither met international

[74] Of course, other food safety scandals preceding the melamine scandal already had increased the pressure (Shen, 2013, pp. 163–164), see also Table 1).

standards in quality nor quantity. According to the 2004 DRC study, only by the end of 2005 the Chinese government planned that 50 per cent of China's agricultural product standards and 55 per cent of standards for processed food products were in line with international standards (Organisation for Economic Co-operation and Development, 2005, pp. 216–217, referring to the DRC-study).

The changes of organisational setup and rules aside, for the whole period, the implementation and enforcement of existing regulation remained partial at best (Shen, 2013). Most of the problems of enforcement noted in 3.3.2 relate to the time prior the FSL. The inspection system was underfunded with too few and poorly trained personnel (Shen, 2013, p. 157), (United Nations, 2008, p. 17)). Furthermore, corruption and the "willingness of some local authorities to prioritize growth over health and safety" reduced the effectiveness of any improvement on paper (Ramzy, 2009, see also Ellis and Turner, 2008, p. 25; Yan, 2012, p. 713). For example, pesticides and other agricultural chemicals forbidden, were still available on the black market (Gale and Buzby, 2009, p. 3). Burns *et al.* report that local officials simply did not have the technical means to enforce the national law (2010, p. 11). Implementation even starts to fail with proper registration of businesses. Figures from the early 2000s show that in Hunan province, a mere 20 per cent of small food producers had the necessary permits and licences (Chung and Wong, 2013, p. 476). An investigation conducted by the SFDA published in 2007 revealed the extend of non-compliance. According to these official figures, 29% of the surveyed 450,000 food companies did not implement any food production standard. Almost half of them failed to have sanitation certificates or production licenses (Liu, 2010a, p. 298). Another assessment comes from the analyses conducted as part of the joint project by the Chinese government, ADB and WHO, which states that "the PRC [People's Republic of China] still has not achieved high-level comprehensive coordination or many other earlier envisaged targets" (Asian Development Bank, 2007, p. 1). It goes on to stipulate the need for a fundamentally new food safety law (Asian Development Bank, 2007, p. 1). Ellis in Turner summarized the situation prior to 2008 pointedly: "China's capacity to effectively protect food quality is hampered by a weak legal, political, and regulatory infrastructure that has not forced food producers and processors to be accountable." (Ellis and Turner, 2008, p. 3)

5.2.2 CFSR after the Food Safety Law

In the following paragraphs, I show that while the FSL was a major step, it still had a number of shortcomings. As a result, the Chinese government undertook further adaptions of its food safety regulation.

5.2.2.1 Improvement of rules and organisation by Food Safety Law

In February 2009, the Standing Committee of the National People's Congress passed the FSL which came into effect in June the same year. It was complemented by implementing rules issued

by the State Council and further implementing regulations issued by other ministries (Shen, 2013, p. 167). With this, the year 2009 marks a substantial change in China's food safety regulation. The FSL was widely considered to be a major step towards modernizing China's food safety regulation, bringing it in line with international standards and improving its effectiveness (Lam *et al.*, 2013, pp. 2049–2050; Collins and Gottwald, 2011, p. 151; Shen, 2013; Chung and Wong, 2013; Jia and Jukes, 2013; Meador and Ma, 2013, interview 1, 2, 8, 21 and 31). The WHO described China's food safety regulation post 2009 as "modern" (World Health Organization).

Compared to the FHL, the central step forward was the fact that with the FSL China for the first time had a comprehensive law covering a wide array of food safety aspects. This is already obvious in the amount of provisions. While the FHL had a mere 57, the FSL comprises over 100 provisions (Shen, 2013). The FSL brought improvements in the following areas (Jia and Jukes, 2013, p. 238, for details see Shen, 2013, pp. 168–173):

- It clarified the organisational framework and distribution of principal responsibilities between the different authorities, including the integration of an inspection system.
- It introduced a risk surveillance and risk assessment system.
- It required the establishment of a unified food safety standard system.
- It stipulated the prime responsibility of food business operators to ensure the safety of food.
- It enhanced legal sanctions and clarified legal liability for food producers and law enforcement personnel.

The inter-ministerial cooperation was not only enhanced by the definition of responsibilities, but also by introducing the State Council-level national Food Safety Commission (FSC) as the prime coordinator, which was set up in 2010 (Poms *et al.*, 2011, p. 11). Then vice-premier Li Keqiang was appointed head of the commission, further stressing the importance the central government attached to food safety. Placed between the FSC and the four other main ministries MoA, AQSIQ, SAIC and SFDA, the MoH regained weight and became the ministry with an overall coordinating role (Chen *et al.*, 2015, p. 2206, see also Table 5). In addition, it was charged with the responsibility to unify the system of food safety and quality standards. In 2011, a new authority, the CFSA, was founded in order to improve risk assessment and risk surveillance (Meador and Ma, 2013). Food safety monitoring capabilities were expanded across the country (China Daily, 2010). However, despite all the nationally and internationally welcomed improvements, the FSL fell short of changing the situation in a number of areas as I will discuss in the following paragraphs.

5.2.2.2 Enduring segmentation

Most importantly, at its core, the fundamental problem of fragmentation remained (Collins and Gottwald, 2011, p. 149; United Nations, 2008, p. 12). The attempt by the government to turn the fragmentation into a clearly defined segmentation of oversight, proved to be insufficient (Jia and Jukes, 2013, p. 243). The continuous problem of fragmentation and insufficient clarity in the distribution of responsibilities has also been raised in interviews with Chinese experts (interview 15, 20 and 33). Chen Junshi, a high ranking Chinese government scientist involved in the reform process from its beginning, likewise commented on the organisational reforms during his speech at a conference of the American Chamber of Commerce in 2013 in Shanghai (American Chamber of Commerce China, 2013, p. 3). Despite the redistribution of responsibilities, in early 2013 as many as 14 authorities were still involved in food safety matters in China on the national level (Wu and Chen, 2013). A report commissioned by the EU described the resulting situation during that time as follows: "Some departments are linked vertically under the direct auspices of a higher level authority, whilst others are linked latterly at the same level of government, and commonly with each department being responsible for certain parts of whole food safety chain which makes coordination more difficult" (Norse *et al.*, 2013, p. 48). The main weakness, however, was, that the FSL still did not break with the tradition of splitting food safety regulation in the agricultural sector and the industrial sector (Liu, 2010b, p. 253).

Jia and Jukes (2013) provide an example, how, after the FSL, fragmentation of oversight led to regulatory failure. In April 2011, police discovered 40 tonnes of tainted bean sprouts in Shenyang, Liaoning province. The vegetables had been illegally treated with various chemicals to improve their appearance (Foster, 2011). Jia and Jukes describe the following buck-passing between Chinese authorities:

> *"The AQSIQ declared that its responsibility focused on production processing and that the IAC [SAIC – the author] should take the responsibility for the sprouts because the problem occurred in the market. However [sic!] the IAC declared that the Agriculture Department should take the responsibility, because the sprouts were a primary agricultural product. The Agriculture Department declared that the illegal producers and traders ran away before the analytical evidence of contamination was available and that in any case the department did not have the right to detain people. The SFDA declared that it just supervised the food in restaurant and catering. Overall it appears that in this case, no department was willing to take responsibility for tackling the problem." (2013, p. 241)*

Further clarification also was needed in the relationship between the central and local government levels. Especially, the supervision of local governments remained insufficient (Jia and Jukes, 2013, p. 243).

5.2.2.3 Enduring lack of implementation and enforcement

The improvement of regulation with respect to rules contrasted with an enduring lack of implementation and enforcement of food safety regulation in China (FORHEAD, 2014, pp. 42–43, for details see Lam *et al.*, 2013). Observers have argued that the lack of implementation of laws and regulations explain why China has continued to be shaken by food safety scandals (The Lancet, 2014, pre-interview 3). In 2012, the FAO put much emphasis on implementation and enforcement aspects, when listing the reasons for China's food safety problems: "incomplete and unscientific safety and quality standards for agricultural and fishery products and processes, poor or disjointed legal framework, under-developed and under-resourced institutions, weak enforcement of law and regulations, lack of consumer protection measures, lack of quality control and quality management infrastructures, and insufficient trained human resources" (FAO, 2012a). Implementation of China's food safety regulation remained uneven across provinces and types of food (Yasuda, 2013). Consequently, enforcement remained uneven, too (Collins and Gottwald, 2011, p. 149). The FSL did not fundamentally change the situation when it comes to putting rules into business practice. There remained "an obvious need to improve monitoring, inspection and law enforcement" (Chung and Wong, 2013, p. 477). GFSI cites Chen Junshi, a Chinese high-ranking government scientist, in 2010 saying that small scale producers are not adequately controlled by the Chinese government: "In the [official] documents they may say that they are exporting bicycles, but really it is food, or pet food" (GFSI, 2010a, p. 4). Reports about the food safety situation point to misuse and overuse of chemicals in food production as a fundamental problem, despite the fact that pesticide regulation became stricter and GAP-concepts were introduced (FORHEAD, 2014, pp. 32–35; Lam *et al.*, 2013, p. 2048).

A major scandal in July 2014 involving the Shanghai branch of the US meat producer OSI indicates the depth of the implementation problem. A local TV station discovered that at this specific production site, fresh meat and expired meat were mixed and sold (Xinhua, 2015a). Although Shanghai has been described as one of the most developed provinces in China when it comes to the implementation of food safety regulation, seven inspections of the Shanghai OSI production site during the three years before the scandal did not detect or report any abnormalities (The Lancet, 2014, interview 3 and 7).

Official data from testing food which would provide information of actual compliance with food safety regulation is patchy if available at all (FORHEAD, 2014, pp. 80–82). However, the issue of implementation and enforcement deficits is reflected in the monitoring data provided by private standard schemes in China. In its 2014 report, BRC disclosed that in China only 25.5 per cent of all inspected sites achieved the A grade, which is the "lowest percentage across all regions and countries" (BRC, 2014, p. 35). China accounted for 32 per cent of all major nonconformities worldwide and in two criteria it represents the vast majority (30 out of 33 and 18 out of 26) of cases of major nonconformity with BRC requirements (BRC, 2014, p. 35). A China-based private

food quality control company released figures for 2011, claiming that "51% of all food facility check-ups conducted in the country failed, with 'major' defects […] accounting for around 10%" (Astley, 2012).[75] These figures illustrate a substantial gap between standard requirements and actual implementation even for food producers who applied for a private certificate. There is little reason to believe that companies, which did not even apply for a certification do better than that. These findings are supported by numerous anecdotal evidence about the non-implementation of existing rules. For example, in a side talk during the CIFSGC 2013 in Beijing, a representative of a US food producer, who was responsible for sourcing in China reported about the lack of conformity of Chinese farmers with basic food safety rules, concluding "in reality, in China, we have to go out and train the farmer".[76]

The continued fragmentation of the market combined with the sheer size of the Chinese food market remained a major obstacle on the road to safe food production (Lam *et al.*, 2013, p. 2050, cf. Yasuda, 2013). According to a statistic issued by the MoA, by the end of 2012, the number of small scale farms was still as high as 877,000 across the country, mainly run by families (China Financial and Economic News, 2013). The high number of food producers brings along high costs for monitoring, increasing the barrier to implement enforcement (Chung and Wong, 2013, p. 476).[77] In relation to the high number of food businesses to be regulated, governmental authorities struggled with insufficient funding (Liu, 2010b, p. 256).[78] As a Chinese official publicly stated, following the FSL, process control, inspection capacities and stronger technical support for improving risk management in China were still lacking (Chen, 2014b).

In sum, in China implementation and enforcement kept lagging behind the development of its food safety rules. Improving the practice of regulation seemed to be a more pressing task compared to improving the rules-side of China's food safety regulation (Collins and Gottwald, 2011, p. 151). Still in 2016, an industry initiative complained that implementation on the ground remained vague, varied widely among regions and often contradicted each other (Jiang, 2016).

5.2.2.4 Need to improve standard system

With regard to rule-making, despite the FSL demand for a unified food safety standard system, inconsistencies and contradictions between numerous standards regulating the same topic prevailed. Furthermore, public food safety standards for specific substances still often did not meet the levels of safety set by Codex Alimentarius (Jia and Jukes, 2013, p. 243). In 2010, the MoH,

[75] According to the company, major defects include "mould, strong odours showing spoiled food, any sort of living specimen, mud or dust traces, feathers in chicken meat, bones in a fish filet, etc" (Astley, 2012).
[76] Personal notes of a side talk with a representative of a US food producer on 7 November 2013 at the CIFSQC in Beijing.
[77] In the dairy sector, for example, the Chinese government responded to this problem by pushing for higher market concentration (Dendler *et al.,* n.d.).
[78] This topic also was brought up with reference to the CNCA in a background talk with an official representative of an EU member state on 16 November 2013 in Shanghai.

responsible for food standard unification, had created a National Food Safety Standard Review Committee, which had the daunting task to streamline the standard system and reduce the total number by 2015 (Xu, 2014).[79] In addition, the task was to identify areas which needed standards and to develop such standards (Meador and Ma, 2013, p. 5). This topic was dealt with in the 12th Five Year Plan of National Food Safety Standards (Meador and Ma, 2013, p. 5). However, the plan seemed to be too ambitious. By 2011, still the vast number of food safety standards did not meet international standards set by the Codex Alimentarius and other international standard setting organisations. According to an analysis by Mangelsdorf *et al.*, a mere 14 per cent of all standards were based on international requirements – 70 per cent of which only partially fulfilled international standards (2012, pp. 512–513). In 2012, China daily quotes Su Zhi, a senior supervision official of the MoH pointing out the need to improve the food safety standards: „[P]roblems still exist in the present standards of food safety" (China Daily, 2012). In 2013, the ministry came up with a survey indicating the extent of the problem. The analysis found 4,934 food safety standards with 1,492 contradicting others or being redundant (Xu, 2014). Hence, the development, unification and revision of public food safety standards turned out to be a lengthy process, remaining high on the political agenda at the time (Meador and Ma, 2013; Jia and Jukes, 2013, p. 244). The revision process of the National Food Safety Standard Review Committee, scheduled to end in 2015, had not been officially accomplished by the beginning of 2016 (Balzano, 2016). Interviewees confirm the struggle with the Chinese food safety standards in practice. In many cases, China still did not have detailed standards to regulate products new to the Chinese market (interview 7). Thus, for example, toast with raisins was regulated like toast without raisins. Likewise, shredded lettuce was regulated as ice cream in lack of any better matching food safety standard (interview 40).

5.2.2.5 First amendments of Food Safety Law

There was a widespread dissatisfaction with the FSL. In the section about food safety, the American Chamber of Commerce in China stated in its 2012 White Paper: "Still, inconsistency and lack of clarity remain in regulations, and coordination of efforts between different authorities needs improvement" (American Chamber of Commerce China, 2012, p. 102). The Chinese government was aware of the shortcomings of the FSL, not least because food safety scandals kept occurring. Government experts publicly acknowledged that the regulatory reform had not been finished (American Chamber of Commerce China, 2013, p. 3). The State Council's Food Safety Supervision System plan for 2012-2017 came to similar conclusions and recognised the challenges with regard to coordination of food safety supervision, insufficient capabilities, lack of implementing regulations and a consistent system of food safety standards, inadequate risk surveillance assessment and too low food safety awareness (Meador and Ma, 2013, pp. 10–11).

[79] Information additionally derived from Chen (2014b). Notably, the task that was not completed by 2016 (Balzano, 2016).

As yet another step to improve food safety regulation, in March 2013, an additional administrative reform considerably reduced the number of authorities responsible for regulating food safety. It also upgraded the SFDA to become the CFDA with ministerial status and a comprehensive, vertical authority over the production process including the power to set food safety standards (the latter obtained from MoH). Respective supervision responsibilities of AQSIQ and SAIC were integrated in the CFDA (Chen *et al.*, 2015, p. 2207). Set up as the new coordinating ministry, it took over the coordinating role from the MoH and furthermore was tasked to perform the functions of the FSC (FORHEAD, 2014, p. 41). At the same time, the MoH became the NHFPC while keeping the responsibility for risk assessment and risk surveillance. MoA kept its responsible for primary production, supplemented with responsibility for pig slaughter (formerly under belonging to MofCom) and AQSIQ retained responsibility for import and export (Chen *et al.*, 2015, p. 2207). In addition to the organisational re-shuffle, the same year, the revision process for the 2009 FSL was started that proceeded throughout 2014 (see Table 5).

5.2.3 Implication of CFSR development for supply safety and market access

This part retraces the effects of China's changing food safety regulation on supply safety and market access issues. As I show separately for both perspectives, there is no clear tendency. Neither did supply safety nor market access issues become considerably less or more intense.

5.2.3.1 Development of supply safety

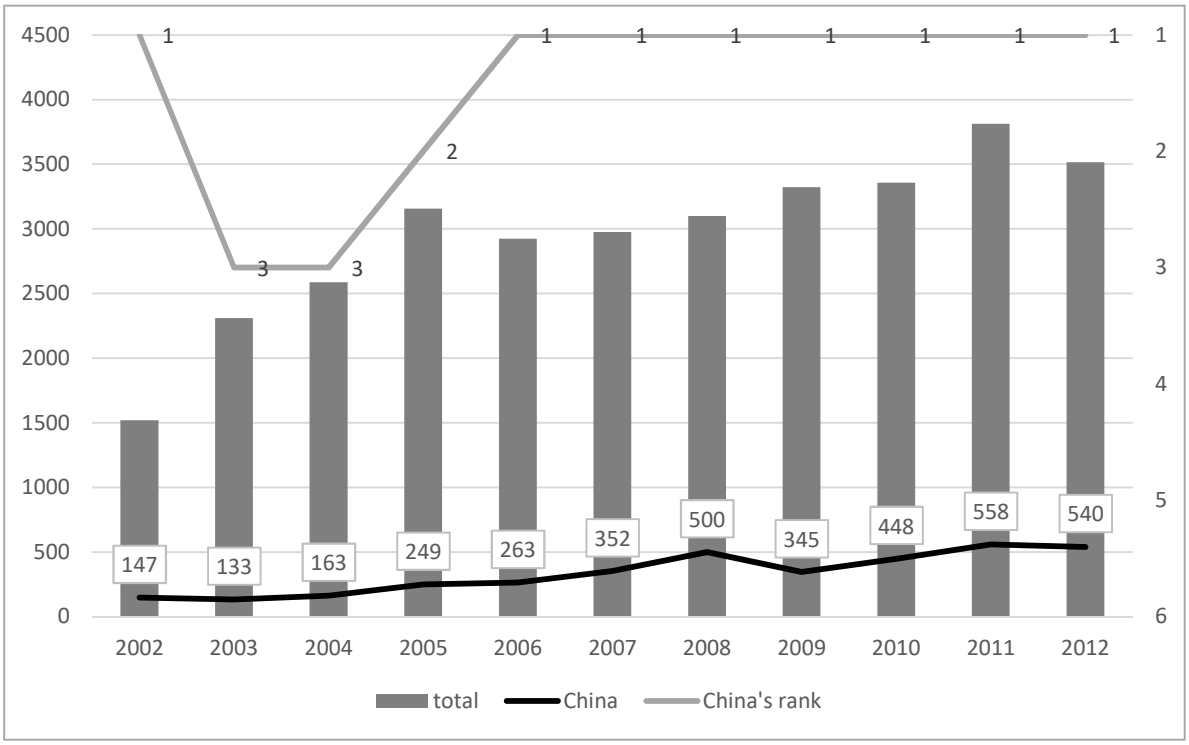
RASFF notifications are a problematic indicator for assessing the status of an exporting country's food safety regulation (interview 17 and 25, Battaglia, 2013). Statistically, they are not valid, especially because the intensity of border controls may change over time or is not the same for two different countries.[80] What RASFF does show, however, is a mixture of the extent of import safety problems the EU has with a specific country *combined with* the risk of unsafe imports as anticipated by the EU Commission. Rising numbers of notification are the result of a combination of both factors. Thus, in any case, RASFF notifications roughly indicate the extent to which the EU has a problem with import safety with a specific country. The fact that the picture drawn by RASFF reports for China is rather plain and clearly different from other countries additionally justifies their usage in this specific context.

In the first years of China's accession to the WTO, the number of RASFF notifications from China remained relatively stable and this is also the period in which China was not the number one country for notifications. This situation only changed in 2005, when the number of notifications from China increased sharply. This was followed by a steady increase until 2008, which marked a

[80] Additionally, effects from stricter EU regulation lower the value of RASFF figures for interpretations. Theoretically, stricter regulation leads to an increase in RASFF notifications although the exporting country has kept its level of food safety. However, as in the context considered here, the relative distance between EU and third party food safety regulation is what matters, this does not pose a problem.

second sharp increase. At the same time, from 2006 onwards, China was the number one country for RASFF notifications (Figure 13). Since 2009, RASFF notifications originating from China remained stable on a high level around 500 per year and with China being the number one origin of notifications throughout the period.

Figure 13: Number of RASFF notifications by country of origin



(Source: own compilation based on RASFF annual reports 2002-2012)

RASFF notifications in fact often represent the prevention of food import safety problems. However, unsafe food from China also de facto led to massive food safety incidents in the EU. In September 2012, over 11,000 students in Eastern Germany suffered from diarrhoea which was caused by a norovirus on strawberries. The product was imported from Shandong province, China, as frozen fruits and was served in school canteens (Spiegel Online, 2012).

5.2.3.2 Market access issues deriving from China's food safety regulation

China's food safety regulation also indirectly and directly affects the access of foreign products on the market. As Prévost points out, the regulatory updates in China's food safety regulation following 2009 pose the risk of additional market access issues for the EU (Prévost). Indirectly, the fast establishment of new regulation potentially posed problems for EU exporters to catch up with these developments, an issue raised by the EU within the WTO (Committee on Sanitary and Phytosanitary Measures, 2010, 15–16). The EU Commission provides a database of ongoing SPS topics with all trading partners which tracks market access issues directly resulting from China's food safety regulation. The SPS issues with China still open by the end of 2014 are listed in Figure 14. Since the data has been retrieved in 2015, it remains unclear whether the database also includes older resolved SPS issues. A comparison with the WTO database of Specific Trade

Concerns shows three additional SPS issues all of which had been resolved rather quickly: (1) import ban on products of Dutch origin (raised 2002, resolved 2003), (2) Quarantine measures for the entry and exit of aquatic products (raised 2003, resolved 2003), (3) import restrictions on products of animal origin due to dioxin (raised 2007, resolved 2007) (World Trade Organization).

Figure 14: SPS issues raised by the EU by end of 2014

No	Reported date	Title	Remark
1	01 Jan 2005	Burdensome application process for approval of meat establishments for exports to China	
2	07 Mar 2006	Non recognition of EUs regionalisation due to avian influenza	Raised as Specific Trade Concern within WTO on 16 Mar 2016
3	01 Apr 2012	Unjustified Chinese import ban imposed on bovine/ovine genetic material due to Schmallenberg virus	Trade restrictive measures since 2002
4	26 Aug 2014	Non-recognition of EUs regionalisation measures strictly implemented due to African swine fever	Ban started February 2014
5	12 Dec 2014	Import conditions related to milk and dairy product	
6	07 Jan 2015	Unjustified barrier for alcoholic beverages due to phthalate (plasticizers) levels.	Trade restrictive measures started in February 2013; resolved in May2016
7	27 Jan 2016	Longstanding and unjustified import ban on EU Bovine/Ovine and products thereof due to BSE.	Topic since 2005

(Source: own, based on DG TRADE, 2017)

5.2.4 Summary and discussion

For the SSH, I formulated two expectations which are the same for EU public actors and TPS actors: First, food safety standards do not fulfil international criteria and secondly, food safety regulation is only partially implemented or enforced. The expectations for the MAH differ for EU public actors and TPS. For the former, food safety regulation which is not compatible (in other words harmonized) with EU regulation and thus hinders EU export would potentially indicate market access motivation. For TPS the expectation is that China's food safety regulation allows or even supports TPS.

The discussion above clearly shows that prior to the FSL, the state of China's food safety regulation gave sufficient reason to become active to influence China's respective regulation to increase supply safety. China's food safety regulation was far behind international criteria with existing regulation loosely enforced. Reoccurring food safety incidents furthermore diminished

national and international trust in the capability of China to ensure safe food. At the same time, given the lack of harmonisation with international standards, there were also sufficient reasons for market access motivated activities by EU public actors.

After the introduction of the FSL in 2009, the situation changed and became less clear. The overall perception is that with the FSL and subsequent changes, China's food safety regulation improved (Meador and Ma, 2013, interviews 6, 7 and 8). EU representatives especially see it more in line with international standards, praise the increased transparency and clearer responsibilities (interview 1, 2, 8, 21, 31). Especially, the structural changes in 2013 have been commented on positively (interview 1 and 2). At the same time, China's food safety regulation is clearly still work in progress (Chung and Wong, 2013). The comparable high speed of regulatory change in 2009 and the following years happened mainly on paper and were not reflected to the same extent in improvements in market practice. Implementation and enforcement were still lagging behind the regulators' requirements. China's government itself stressed the need of capacity building to achieve its own goals (interview 13, 18, 21). So, until 2014, the state of China's food safety remained a "continuing global problem" (The Lancet, 2014). This leaves sufficient reason for supply safety-motivated activities by the EU Commission and the GFSI. The RASFF figures bear witness to that. At the same time, specific standard (re-)definition bear the potential for market access activities, especially when targeted at important European export products. The EU's list of SPS issues with China indicates that updates of China's food safety regulation did not lead to a situation in which market access barriers vanished. As for the TPS' market access expectations, I found a similar situation. The gradual extension of China's food safety regulation towards voluntary standards and certification systems laid the regulatory basis for TPS in China.

To conclude, the evidence found for the condition "Sate of China's food safety regulation" allows for both hypotheses and for both types of actors, EU public and TPS.

5.3 IGOs supporting China's food safety reforms

In this section, I trace the activities of those IGOs, which potentially affected EU Commission's and GFSI' behaviour. The analysis concentrates on the WHO, as this is the organisation featuring most prominently in the interviews. Often it is mentioned in conjunction with the FAO which I dedicate the second part to. Lastly, I summarize further organisations which were active in China, most importantly the World Bank.

5.3.1 WHO

The WHO played a decisive role in the changes of China's food safety regulation, especially during the development of the FSL. The basis for this was laid early before. The office of the WHO Representative in China was already set up in 1981 (World Health Organization, 2013, p. 19).

Accordingly, WHO was already involved in supporting China's food safety before 2001. For example, in the mid-1990s, WHO sponsored a project, which aimed at improving street food safety by introducing HACCP principles (FAO, 2002). Such kind of training programmes also continued after China's WTO accession and contributed strongly to establishing the concept of risk analysis and risk assessment in China (Liu, 2002). For example, WHO sponsored, in collaboration with FAO and other organisations a training programme on risk assessment for microbiological risks in China in 2002 (Liu, 2002, interview 8). These activities were intended to support the establishment of a Western-style food safety monitoring system in China continued over several years and have been acknowledged as a relevant contribution by several interviewees outside of the WHO (interview 3, 8 and 23).

In 2004, WHO and MoH signed a memorandum of understanding (MoU) to strengthen cooperation in the health area in general. Among the five key areas for cooperation identified in the MoU, one is about non-communicable diseases, including inter alia food safety as a sub aspect**.** Commencing with the MoU, both partners regularly agreed on a country cooperation strategy (CCS). The first CCS covered the period 2004–2008 and was based on the MoU. For the following CCS (2008-2013) food safety has ex post been described as one of the successful collaboration projects (World Health Organization, 2013, pp. 19–20). The 2013-2015 CCS addressed food safety again as part of a main focus area which reads: "Support the Government in the preparedness, surveillance, early warning, assessment, risk communications, epidemiological investigation and response for risks to health security and food safety." Specifically, the WHO's approach is to "provide technical and policy support" (World Health Organization, 2013, p. 24). The review of the CCS indicates that, overall, food safety remains one aspect of a broader objective (that being improving public health) – a perspective confirmed by an interviewee (interview 41).

The major importance of WHO for China's food safety regulation, however, stems from its involvement in the reform process from 2004 until 2007. The roots can be traced back to 2002, when WHO China made food safety a priority. However, at the time, this did not meet any interest from the Chinese side (interview 41). This however changed shortly afterwards, when China asked the ADB for support on setting up the newly created SFDA (interview 41, likewise reported in Ellis and Turner, 2008, pp. 37–38). ADB initially planned to focus the project on avian influenza[81]. It turned to WHO in China as a partner for such a project with expertise in the field. According to an interviewee, the WHO office in China seized this opportunity to push forward its more general food safety agenda for China and agreed to join the project under the condition that it deals with food safety regulation in general instead of focussing on avian influenza only

[81] Avian influenza is a zoonotic disease prevalent and reoccurring in China since the mid-1990s, but also occurring in other parts of the world, including Europe.

(interview 41). As a result, a joint project was set up with ADB as the financing organisation, WHO providing technical support and SFDA as the Chinese governmental partner.

The main result of the project was the "Study on China's National Food Safety Strategy" already mentioned in section 5.2.1.2. It was led by an international and a domestic expert, who both have been portrayed by interviewees as crucial for the high impact of the report (interview 3 and 41). The international expert, Roger Skinner, a retired public servant of the British Food Standards Agency, was appointed by the WHO (Kahn, 2007, interview 3 and 41). The Chinese expert, Han Jun, was an expert from the influential DRC.[82] Both explicitly advocated for change (interview 3 and 41). The report included detailed recommendations for reform on about 1,000 pages, for example providing suggestions for the capacities needed (interview 41). It was handed over to the Chinese government in 2004 (interview 3). While the report itself remained confidential, a short version was made public entitled "Focused Synopsis of Consultant's Findings and Recommendations on a Regulatory and Strategic Framework for Food Safety in the People's Republic of China" (interview 3 and 41). The synopsis presents the two key recommendations of the project: First, the project advocated a new overarching food safety law covering all aspects of food safety. Second, the report included recommendations for a new organisational arrangement of food safety regulation in China. Specifically, it proposed to install a coordinating body with a hierarchical status above the ministries involved in food safety regulation. This could be done by either upgrading SFDA's status or creating a new commission (interview 41, see also Asian Development Bank, 2007). These suggestions were made public during the Global Forum on Food Safety in 2004 by Han Jun (Chuan, 2004).[83]

Following the presentation, the WHO engaged in advocating the implementation of the report's recommendations. The project itself was extended until 2007 (interview 41). Likewise, ADB and SFDA contributed to the widespread dissemination of the report among the Chinese government (interview 41). An interviewee described the activities as straight forward lobbying (interview 41). To this end, the WHO engaged in organizing several consultations with "neutral" Chinese governmental bodies to convince them of the necessity of reform (interview 41). Arguably, the FSL and the following organisational reform in 2013 strongly reflected the report's recommendations. Thus, interviewees ascribed the direction of the reform to a strong degree to the WHO/ADB/SFDA study (interview 3, 41 and pre-interview 4). Consequently, a WHO representative expressed "a sense of achievement" when reflecting on the WHO's support of China's food safety regulation (interview 41).

[82] The DRC is an advisory body conducting research and developing policy recommendations to the State Council and the Central Committee of the Communist Party, thus two of the highest bodies of China's political system.

[83] The report and conference have also been portrayed as a crucial moment in the development of China's food safety regulation by a former EU representative in Beijing, who was working in Beijing during that time (pre-interview 4).

WHO kept supporting China in the development of food safety regulation beyond this specific project. It provided comments on drafts of the original FSL in 2009 and its revision in 2014 to the Chinese government (interview 35 and 41). The contacts established during the period 2004-2007 are still used for mutual projects (interview 41). For example, a technical workshop on chemical risk analysis in the food chain organized jointly with FAO and CFSA in 2013 in Beijing was targeted at a wider Asian audience as part of the WHO regional food safety strategy (World Health Organization, 2014b, p. 40). WHO also supported projects on microbiological resistance and provided training on monitoring microbiological risks (interview 8 and 35). In addition, WHO sent an expert to the CFSA's international advisory committee (interview 19 and 35). In July 2014, WHO and CFDA agreed on capacity building measures for staff of Chinese authorities. In general, however, technical trainings have become of lesser importance. Instead, issues of risk communication play a larger role, as an interviewee described the approach in 2014 (interview 35). In addition to its active involvement, the WHO also is an important source of knowledge on food safety topics. For example, it tracks closely the progress of food safety in Asian countries like China (World Health Organization, 2014b). Likewise, China participated in WHO conferences, like the Global Forum of Food Safety Regulators in 2002 and 2004 (FAO, 2002; FAO, 2004).

However, the relevance of the WHO's work for the EU's activities in China derives from the health organisations deep involvement in developing the FSL. The WHO enabled China to establish food safety regulation which in its basic concepts followed internationally agreed principles (interview 41). With this step forward, the WHO contributed – in theory – to increasing supply safety. Accordingly, WHO activities have been acknowledged by the EU Commission (interview 1, 2 and 3). In the case of EUCTP I, the WHO/ADB/SFDA-project was seen as a major milestone and used as an opportunity to engage stronger with China on food safety topics (interview 3). After the introduction of the FSL, also, coordination with WHO was stressed as important. However, it is noteworthy that beyond the WHO/ADB/SFDA-project, interviewees made no specific reference to any WHO project (interview 2). As for TPS, WHO's activities have no direct effect. Occasionally, WHO is portrayed as a potential partner for cooperation (GFSI, 2012c, p. 3). In a global context, WHO representatives were speakers at GFSI conferences (GFSI, 2013d; GFSI, 2011a). However, neither documents nor interviewees made any specific references to WHO's work in China.

5.3.2 FAO

By 2011, the FAO was already active in China for three decades with over 400 field projects implemented (FAO, 2011, p. 1). Overall, the activities of the FAO in China reflect the organisation's main purpose to reduce hunger. After all, ensuring food security was a major objective for China over decades (Ghose, 2014; Ash, 2012). Food safety thus is a subordinated topic, but nevertheless part of the FAO's programme in China. Accordingly, its Chinese partners

are government organisations dealing with agricultural issues. The FAO does not list CFDA or other food-related organisations as partners (FAO, 2017). The achievement report covering FAO's activities until 2011 lists food safety as one of nine sub-categories (FAO, 2011, p. 3). In accordance with that, food safety projects played a minor role in China. For the period from 1978 until 2012, an official report lists 227 selected projects in China of which 15 are related to food safety (FAO, 2011, pp. 11–18). Likewise, out of the five success stories, FAO presents on its website about China, three foci on food security and two on the special issue of avian influenza (FAO, 2016a). Likewise, in FAO's country programming framework (CPF) 2012-2015 for China, agreed as part of a memorandum of understanding between the FAO and the MoA, "Strengthening capacities for quality and safety management of agricultural product" was one of the five priority areas (FAO, 2016b; FAO, 2012a).

Three topics are most relevant when looking at FAO's work in China with respect to food safety. Firstly, the FAO has a history of fighting avian influenza (Ellis and Turner, 2008, p. 36). Here, FAO's capacity building programs supported the Chinese management of the zoonotic disease. One interviewee reported that especially in the case of avian influenza, coordination with the FAO and other international actors in China was strong (interview 1). Since the first outbreak in 2004, the FAO continuously supported China, notably mostly financed by US funds (FAO, 2011, pp. 6–7).[84] In 2013, the long-term cooperation between the FAO and China on avian influenza yielded the official recognition of the Harbin Veterinary Research Institute (which belongs to the Chinese Academy of Agricultural Sciences) as an FAO Animal Influenza Collaboration Centre (FAO, 2016b). Secondly, another food safety-related focus of the FAO's activities also lies on animal health, but goes beyond avian influenza. It encompassed a series of events starting in 2012 which focused on increasing surveillance capacities in China by supporting the China Field Epidemiology Programme for Veterinarians (FAO, 2012c). It was jointly organized with EUCTP II (for details on the series, see 5.4.2.3.6). According to the 2012 MoU and CPF, Integrated Pest Management forms a third focus of the FAO in China with regard to food safety with a project in Yunnan (Ellis and Turner, 2008, pp. 36–37). Furthermore, like discussed for the WHO, the FAO also exerted indirect influence on China through its authority as the global expert organisation in the field. For example, a Chinese expert reported that he translated the FAO Paper 76 "Strengthening national food control systems - A quick guide to assess capacity-building needs" into Chinese to make it accessible for Chinese policy makers (interview 20, FAO, 2003). FAO's activities played a role for EUCTP. The EU Commission used the momentum generated by FAO's engagement to cooperate on the topic of animal diseases (interview 1 and 2, see also 5.4.2.3.6). As for the GFSI, the FAO had an even lesser importance compared to the WHO. No single interviewee mentioned the FAO, nor features it specifically in TPS-related documents.

[84] According to a paper published in 2013, the support is ongoing (FAO, 2013).

5.3.3 Others

The World Bank started looking into supporting food safety regulation in China only in 2006, when it conducted a first study on China's compliance with food safety requirements for fruit and vegetables (van der Meer, Cornelius, 2005), followed by a policy note on food safety in general in 2008 (World Health Organization, 2010). The result of both studies was the World Bank's first (and until the end of 2014 only) food safety project in China effectively providing technical support. Having started in 2010 in the northeast province Jilin, it set out to improve safety of agricultural products. It was the World Bank's largest food safety project with a loan of 100 million USD loan to China (World Health Organization, 2010). A more long-term involvement with China's food safety developed with the GFSP (see 3.4.1.3). From 2012 until 2014, World Bank's GFSP was still in its built-up phase. However, it already showed a focus on China with first HACCP-trainings conducted in Shanghai (GFSI, 2015d). Part of the GFSP work is supporting the CFDA with advice and research since its establishment in 2013 (Hakobyan and Eliste, 2015). Part of this is an assessment of China's capacity building needs in food safety to identify priority areas for action (Batmanian, 2014). GFSP also brings together different actors engaged in supporting China's food safety. During the third GFSP conference in 2014, a session was dedicated to China where IGO representatives as well as several country and industry representatives presented their activities (World Bank, 2014c). Likewise, in 2014, a joint CFDA/CFSA/FAO/WHO/World Bank Food Safety Symposium was held in Beijing (World Bank, 2014a, see also Godefroy, 2014). The World Bank's efforts have a development aid focus that is to improve China's domestic food safety regulation. The focus on China was re-confirmed in a GFSP meeting in 2015.[85] Arguably, the World Bank's efforts contribute to strengthening China's safety regulation, thereby indirectly improving supply safety. The EU Commission acknowledged the World Bank's increased efforts after 2012 (interview 1). However, details of those activities were unknown to EU public representatives and the World Bank's work in general did not affect the EU Commission's behaviour – which is indicated by the fact that none of the respective interviewees referred to the World Bank. In contrast, TPS showed greater interest the World Bank's food safety activities. GlobalGAP and GFSI joined the GFSP (interview 5, GFSI, 2012a). In both cases this was part of a global approach and not specifically directed at China. However, GFSI planned to cooperate with GFSP for capacity building measures in China (Kranghand, 2013).

Although listed in section 3.4, UNEP and its food safety-related programmes did not appear during my case-specific research, neither in interviews nor in any of the documents. However, in a larger context, the UN involved in China's food safety situation. It published a "Occasional Paper" on China's food safety in 2008 (United Nations, 2008). However, the implication of this paper – and any more intensive involvement of the UN office in China with this topic – remains unclear.

[85] For example, GFSP presented itself during the CIFSQC 2014 in Shanghai; see also World Bank (2015).

Indeed, one interviewee dismissed the report as irrelevant as it only served the purpose that the UN wanted to say something about the then hot topic, too (pre-interview 9). The UN itself has not been mentioned in any of the other interviews.

Lastly, a short reflection on the role of the ADB is in order as I have not discussed it separately in this section although this IGO re-appears as part of the historical development. While the ADB played an important role by enabling the WHO/ADB/SFDA-project, its function was limited to a coordinating role. It initiated the project on request by the Chinese government. However, the WHO was the partner with the necessary technical expertise (Ellis and Turner, 2008, pp. 37–38). What is more, the ADB did not involve in any other substantial project on food safety in China.

5.3.4 Summary and discussion

I defined two expectations for this condition: first, the non-existence of activities by IGOs to influence China's food safety regulation; second, no or limited awareness of activities by IGOs to influence China's food safety regulation by EU sources or awareness but perception as being insufficient. These conditions are the same for EU public actors as well as TPS.

Among the IGOs being active in China on food safety topics, WHO stands out. While FAO and World Bank – being the two other important IGOs – mainly engaged in capacity building and trainings, WHO had substantial influence on shaping China's food safety regulation with regard to its rules and organisational setup. However, a closer look shows that a clear-cut distinction of the effects of these activities between supply safety and market access is hardly possible. The WHO contributed strongly – at least in theory - to an improved implementation and enforcement, because with the FSL the basis was laid for progress in these areas, which – according to virtually all observers – would not have been possible otherwise. At the same time, the reform process kicked off with the FSL and especially the standard revision process opened the possibility for extensive involvement by the EU Commission to influence rules and standards so that market access barriers were to be reduced (interview 1). In a similar manner, FAO's engagement in China affects both SSH and MAH. Capacity-building measures for surveillance contribute to supply safety as they reduce the spread of food risks. Establishing a reference laboratory for avian influenza in China at the same time establishes international approaches for dealing with this risk in China. This in turn connects with the SPS issues the EU had with China. A Chinese reference laboratory[86] potentially is helpful for the EU because it follows and promotes internationally accepted risk assessments. In EU perception, trade barriers based on avian influenza are not justified if one accepts international risk assessment standards (see Figure 14). Lastly, the World

[86] According to the OIE, reference laboratories "are designated to pursue all the scientific and technical problems relating to a named disease." They should furthermore "provide scientific and technical training for personnel from Member Countries, and coordinate scientific and technical studies in collaboration with other laboratories or organisations […]" (OIE, 2017). Laboratories need to fulfil a number of criteria and have to apply for the status as reference laboratory, in this case at the OIE.

Bank and GFSP rather clearly contribute to supply safety by focussing on the built-up of implementation and enforcement capacities. There is yet another aspect to be noted. IGO activities rely on cooperation with the Chinese government – an official request or at least agreement. The major WHO/ADB/SFDA-project was possible because the Chinese government initially requested support from ADB.

With regard to the awareness and judgement of IGO activities in China, data provides a mixed picture. To start with, the EU Commission was aware of IGO activities, however not constantly informed about detailed activities. GFSI was much less aware of IGO activities and concentrated on GFSP, since the project specifically invites the cooperation between public and private actors. IGO activities have not been portrayed as contributing to one's objectives and thus creating less need to become active. A critical remark about the high number of organisations running projects on improving food safety indicates that from the EU Commission's perspective, IGO activities could not substitute for own activities (interview 25). However, IGO initiatives have partly been utilized as a helpful basis for own activities – as it was the case for EUCTP I with WHO, EUCTP II with FAO and GFSI with GFSP.

Aside from actively involving in China's food safety regulation, IGOs exert influence in a passive manner. Especially WHO and FAO as organisations with substantial expertise provide knowledge resources which have been used by Chinese authorities in the process of improving China's food safety regulation. The participation in international conferences and the translation of a FAO paper are two instances of presumably larger phenomena.

5.4 The EU's public engagement with China's food safety regulation

The EU activities are presented in two steps. Firstly, an overview is given about the intensity of the diplomatic exchange between the EU Commission and the Chinese government on food safety related issues. Secondly, I denote specific activities conducted by the EU Commission that aimed at influencing China's food safety regulation.

5.4.1 Food safety and agricultural as topics in the EU-China dialogue

Among the many trade issues, food safety, SPS measures specifically, played a role early on. The EU supported China's entry into WTO due to its rising importance as a trade partner (Tondl, 2006). As part of a trade agreement between both, which contributed to paving the way to China's WTO accession, China committed itself to phytosanitary measures as demanded by the EU (Tondl, 2006, p. 158). However, food safety, SPS and agricultural topics generally have not been the highest on the EU's agenda in dealing with China. Thus, the picture painted in the following paragraphs reflects the EU-China exchange within this specific sectoral dialogue. Nevertheless,

agriculture, food safety and SPS topics do occasionally reappear in high level documents outlining the overall strategy of the EU towards China. The following part reconstructs when these issues have been brought up and with which motivation behind – supply safety or market access.

5.4.1.1 Food safety within the architecture of EU-China relations

By the beginning of the new millennium, the EU and China had built a complex architecture for organising their political relations, with bilateral relationships between EU member states and the People's Republic not even included in the consideration. The basis for this was laid in 1985 with the Trade and Economic Cooperation Agreement between the then European Economic Community and the People's Republic of China.[87] In the new millennium, bilateral political relations include a long list of institutionalized meetings on a wide range of political levels ranging from an annual summit at the highest level to a regular working group level between experts on both sides. The long list of separate dialogues reflects the depth of the relations EU and China have reached. The External Action Service counts over 60 high-level and senior official dialogues between the EU and China (European External Action Service, 2015). They are organized in three pillars, the High-Level Strategic Dialogue (HSD), the High Level Economic and Trade Dialogue (HETD), and the High-Level People-to-People Dialogue (HPPD). This structure originates in a long established approach by both sides to distinguish between the political dialogue (now HSD) and sectoral dialogues (now HETD). Only recently, in 2012, the HPPD, dealing with topics around "education & training, culture, multilingualism and youth" has been added (European Commission, 2012a). The political dialogue addresses topics which are deemed to be inherently political in nature (e.g. security, human rights, migration, arms exports). The sectoral dialogue deals with issues related to economic relations, including development and trade (Snyder, 2009, pp. 656–657). The number of sectoral dialogues keeps changing and information provided by the External Action Service of the EU varies by source. In 2015 there were as many as 24 to 27 sectoral dialogues, up from 23 in 2005.[88] The new HPPD pillar aside, the functional separation between political and economic relations is hard to uphold in practice. The main function is to cut out controversial political issues between EU and China (like human rights, Tibet, Taiwan) from more technical and less controversial topics around economic development and trade (Snyder, 2009, p. 657). Results of most of the institutions for collaboration between the EU and China are in most instances not legally binding for either side. Influence on behaviour of both sides thus is rather indirect (Snyder, 2009, p. 657).

Issues of food safety are discussed between both parties under the HETD pillar. The institutionalisation of the communication developed over time, eventually establishing a specific

[87] It provided for an annual EC-China Joint Committee meeting, which included several sectoral Working Groups and enabled the political dialogue, including annual EU-China Summits and the human rights dialogue (European Commission, 2002a, p. 6).

[88] Numbers based on Snyder (2009, p. 656), European External Action Service (2015), European External Action Service (2012).

sectoral Dialogue on Food Safety and Sanitary/Phytosanitary (SPS, for details see 5.4.1.4 further below). According to the EU perspective, it aims "at considerably enhancing co-operation on these issues and at establishing better communication and collaboration between the responsible authorities on food safety and SPS issues" (European External Action Service, 2012). Issues of food safety regulation in China potentially are topics within the Agricultural Dialogue and the Trade Policy Dialogue.[89] In the regular meetings of the Agricultural Dialogue "[f]rom the beginning, food security and related issues – for example, *food safety* and the environmental implications of changing dynamics of food demand and supply - were identified as core issues" (Ash, 2012, p. 22, highlighted by me). The Trade Policy Dialogue covers a yet wider scope of topics. It supplements other institutionalized forums for exchange on, inter alia, trade issues – namely the Economic and Trade Working Group and the Joint Committee (European External Action Service, 2012). Naturally, issues of import and export are related to trade and with this issues of restrictions for food trade due to regulatory barriers are potential topics for the trade policy dialogue. Lastly, all issues of sectoral dialogues may be discussed on a higher level as part of the High-Level Economic & Trade Dialogue, the highest level dialogue of the HETP pillar or even in the annual leaders' summit.

The sectoral dialogue is not the realm of classical foreign policy diplomats, who on neither side play an important role in these dialogues. Rather, on the European side, DG TRADE and the respective DGs responsible for a specific topic are involved. Likewise, from the Chinese side, a number of ministries, like MofCom and further ministries with special responsibilities are involved (Snyder, 2009, p. 658). The DGs involved in food safety related sectoral dialogues, DG SANTE and DG AGRI, each have a representative present at the Delegation of the EU in Beijing. They coordinate between their EU Commission colleagues in Europe and Chinese partners. An interviewee explained:

> *"I am the link between the headquarters in Brussels and the Chinese authorities in both ways. So, I report regularly to my head of hierarchy in Brussels […]. I receive instructions from my office in Brussels but I am in close contact with them. […] So, from a more formal point of view let's say that every letter which is sent from the headquarters to the Chinese authorities has to go through the delegation. So, it has to go through me basically. Normally, I'm not supposed to modify very much the content of the letter. Because normally I have been associated with the drafting of this letter before, but if there is a case where a letter would be sent which I have seen, because I have specific information that it is not appropriate or that it would generate problems, or that we could avoid to create problems, then I can report back to Brussels and say – look we should not do this, we should do that. And modify the content and so forth." (Interview 2)*

[89] The sectoral dialogue on fisheries is concerned with all issues around fishing rights and sustainable fishing. It does not address matters of food safety.

The same logic links the high-level meetings and sectoral meetings on the EU side, resulting in a circular logic. The results of high-level meetings set the frame for the more technical exchanges on the working level, coordinated in China by the EU Delegation representatives and vice versa. The EU Delegation representative feeds information into the preparation of each high-level meeting (interview 2).

5.4.1.2 Food safety in EU's strategy papers

The 2002-2006 China Country Strategy Paper, approved by the EU Commission on 25th February 2002, mentions food safety very briefly as part of supporting China on its way to become a market economy. It is part of the objective to develop China's status as a market economy and "to support future policies and integration into China of EU technical standards" (European Commission, 2002a, p. 26). Food safety problems in China are not noted.[90] The National Indicative Programme 2002-2004 for China (NIP), the implementing plan of the country strategy, furthermore determines the establishment of the EUCTP with a funding of 15 million Euro as a specific action. It explicitly includes SPS topics: "Particular consideration will also be given to the inclusion of the area of sanitary and phyto-sanitary standards and inspection, with a view to bringing Chinese standards and inspection procedures in line with the WTO SPS Agreement and relevant international practice" (European Commission, 2002a, p. 7).[91] Given the emphasis on market economy status and WTO-alignment, the NIP rather points to a market access motivation. Food safety as consumer safety or import safety is not discussed. During the preparation of the 2005-2006 NIP, Chinese representatives agreed with the suggestion made by the EU side and in particular to the suggestion to focus activities on assistance with SPS standards and food safety (European Commission, 2004, p. 45). The NIP 2005-2006 itself refers on a side note to supporting better enforcement of *inter alia* food quality and SPS standards as part of the governance capacity building priority (European Commission, 2004, p. 18).

The 2007-2013 China Country Strategy Paper focused on continuity. The EUCTP project was highlighted as the project to implement trade cooperation. Notably, the relevant areas of activity are termed "agriculture and agro-food" and "technical barriers to trade/sanitary and phytosanitary measures". Hence, the EU Commission expresses a clear market access focus for the EUCTP. In a similar vein, the dialogue established between DG SANCO and AQSIQ is reduced to product safety only, ignoring its food safety dimension. Accordingly, the 2007-2010 NIP makes no remark on food safety or SPS topics, but stressed the importance of EUCTP for opening China's market for imports in general (European Commission, p. 12).

This strong market access focus is reflected in the Commission's Communication on China. SPS issues appear explicitly in the update on the EU Commission's Communication on China in 2003,

[90] For example, the problem of water pollution is mentioned but no reference to food safety implications is made (European Commission, 2002a, p. 16).
[91] On an assessment of NID see Snyder (2009, p. 512).

where disputes on food safety issues are mentioned that pose market access barriers (European Commission, 2003). This is in contrast to the original Communication from 2001, where no such reference is made (European Commission, 2001). The 2006 Communication on China followed this trend. It first stressed the strong will to solve "trade irritants" with China to achieve market access. Import safety is portrayed as a beneficial result of such efforts: "This will also help to ensure compliance of Chinese imports with EU standards for food and non-food products" (European Commission, 2006a, pp. 7–8).

5.4.1.3 Market access as initially dominant focus

The joint statement of the 5h EU-China Summit in 2002 refers to "recent food and consumer safety problems" which both sides wish to resolve "to open the way for more fruitful co-operation on sanitary and phytosanitary issues" (European Council, 2002). While the document does not disclose the specific food safety issues, the historic circumstances suggest that the document refers to the EU's BSE crisis. This, in turn, suggests a market access motivation as BSE caused export problems for the EU. A document listing the "Highlights of the EU-China Agreement on WTO" from 2003 point into a similar direction as it stresses the envisaged market access for specific EU food products (namely rape-seed oil, dairy products, pasta, wine and olives) (DG TRADE, 2003). While the 2003 Summit statement makes no reference to food topics at all, the 2004 joint statement of the EU-China summit addresses the issue again. It stresses that consultations between the two had helped to mitigate trade restrictions in the area of SPS measures (European Council, 2004). It remains unclear, to which trade direction this statement refers precisely. In 2005, food safety again was raised on the summit conclusion as a market access topic. Also in July 2005, EU Agricultural Commissioner Mariann Fischer Boel discussed matters of agricultural trade facilitation with Chinese ministers of the MoA and MofCom. Additionally, a Joint Declaration was signed between DG AGRI and MoA to start an annual EU-China dialogue on Agriculture in 2005 (European External Action Service, 2012; European Commission, 2005b). It established exchanges on agriculture policies and laws, agricultural production and trade, agricultural technologies, and quality policies (including geographical indicators and organic production) (Snyder, 2009, pp. 795–796).[92] It was a major step, as exchanges on food safety topics had been complicated during this period (pre-interview 4). Geographical indicators[93] mark a clear market access motivation, since the concept is about protecting products associated with a specific region against competition from other geographical origins. The fact that an expert representing the EU Commission in China at the time recalls geographical indicators as a major topic, additionally highlights the dominance of

[92] See also EUCTP (2011c). These topics prevailed over time, see respective comment in EUCTP (2011d).
[93] DG Trade defines geographical indicators as "a distinctive sign used to identify a product as originating in the territory of a particular country, region or locality where its quality, reputation or other characteristic is linked to its geographical origin" (DG TRADE, 2013). They have been established to protect products, traditionally deriving from specific locations (e.g. parma ham, champagner).

market access topics (pre-interview 4). The first meeting of the dialogue was in November 2006 (European Commission, 2007b).

Meetings of the EU-China Economic and Trade Joint Committee provide a similar picture with occasional discussion of food safety, agriculture and SPS issues with a market access connotation.[94] During the 17th Joint Committee in January 2002, during the discussion between EU Trade Commissioner Pascal Lamy and China's Minister for Trade and Co-operation Shi Guangsheng, food and agriculture were not a topic (European Commission, 2002b). On the 20th Meeting of the China-EU Mixed Committee on Trade and Economic Cooperation in November 2005 held in Brussel, agricultural and SPS-issues were on the agenda (Ministry of Commerce, 2008). The European Commission's press release dominant focus on market access issues in general suggests that both topics also have been discussed under this overarching theme (European Commission, 2005d).

The market access aspect gained further momentum in 2006 and 2007. During a speech in Beijing in June 2006, Trade Commissioner Peter Mandelson specifically criticized "unjustified sanitary barriers in agricultural trade" (Mandelson, 2006). A comprehensive study conducted on behalf of the EU Commission in 2006 and published in 2007 which assessed market opportunities for EU businesses in China backed his claim. For agriculture specifically, the study argues that SPS issues with China hinder trade (DG TRADE, 2007b). In total, the authors calculated a loss of 20 billion Euro in trade opportunities every year for the EU in EU-China trade because of market access barriers.

Internally, the EU Commission started a process of coordinating a strategy on the problem of SPS market barriers for EU food and agricultural exports to China. In July 2006, DG TRADE, DG AGRI and DG SANCO organized an SPS export China workshop. A documentation of the workshops conclusions details the approach how to achieve the reduction of SPS-based trade barriers. The paper lists priority actions to achieve better market access, which shows the EU's issues with China's food safety regulation from a market access perspective at the time. Firstly, the paper proposes regulatory cooperation and technical assistance: change to risk-based SPS measures, adhere to international standards, engage in independent risk assessment, and provide technical assistance. Notably, the list includes the aim to improve coordination of food safety controls in China and information sharing between responsible Chinese ministries. The documented justification for this points to supply safety interests. Secondly, it was envisaged to negotiate SPS protocols, export certificates and to lift import bans. Lastly, business operators shall be supported with promotional support and export advice (DG TRADE, 2006b). Following the workshop, the EU Commission asked for member state contribution to this topic. It suggested setting up three working groups – indicating the main market access issues: fruit and vegetables, bovine meat and

[94] Not all Joint Committee Statements were available for the full period.

other animal products, and dairy (DG TRADE, 2006e). Finally, as a result of the communication between EU Commission and member states, technical working groups under the framework of Market Access Advisory Committee were established in 2007. They covered two areas: (a) horizontal issues, affecting all types of EU food exports, explicitly including the "bans related to BSE"; and (b) specific phytosanitary issue, especially dealing with member states interest to export kiwi fruit, apples and pears to China. The consultations furthermore revealed that member states were competing over market access of pork products to China, which is why this field was taken out of joint activities. The technical working groups prepared arguments for the EU delegation in Beijing (DG TRADE, 2006c).

The establishment of these technical working group for improved market access of food products was inspired by a large conference on trade with China, held in July 2006 and organised by DG TRADE which made market access to China a strategic priority (DG TRADE, 2006b). Notably, the conference puts the relevance of food and agricultural exports to China for the EU into perspective. While the conference highlighted EU's overall interest in improving access to the Chinese market for a wide array of business sectors, none of the 10 working groups dealt with food or agricultural topics (DG TRADE, 2006d). Nevertheless, a comprehensive study into the "Future Opportunities and Challenges in EU-China Trade and Investment Relations 2006-2010" which followed the conference, includes a detailed section on agriculture exports. According to the report, the loss due to market access barriers for agri-products accounts for 750,602,000 US dollars per year (based on figures from 2004) – 2,75 per cent of the total estimated loss calculated across all sectors.[95] The report states SPS-regulations by China as a major factor preventing agriculture exports (Fischer *et al.*, 2007, p. 29). It details the specific hindering SPS measures as (Fischer *et al.*, 2007, p. 29)

- zero tolerance for pathogens,
- tightened import policy with regard to BSE,
- non-application of risk analysis to import restrictions,
- standard on the upper limit on higher alcohols in spirits (so-called fusel oils),
- overly restrictive food additive standards,
- and arbitrary maximum residue land certificate regulation for cereals.

Accordingly, the authors recommend to "[n]egotiate timely removal of SPS measures and provide better access to information on SPS measures […]" (DG TRADE, 2007c, p. 21).

[95] The total sum was estimated to be 25,645,993,000 USD (DG TRADE, 2007b, p. 13).

The 22nd Joint Committee held in June 2007 brought up China's interest that the ban on Chinese poultry meat to the EU shall be lifted (European Commission, 2007a). During the same meeting, the EU brought up its substantial overall trade deficit with China (DG TRADE, 2007a). During the 23rd EU-China Joint Committee on 25 September 2008 in Beijing, SPS issues were discussed more specifically. The two sides agreed to improve mutual information about SPS problems and increase discussion to conclude SPS protocols for kiwi fruits, pear, citrus, apples and pork – reflecting a strong market access agenda, as these products were destined to be exported to China (see above mentioned internal discussion of these products) (European Commission, 2008a). China additionally welcomed that the EU lifted the ban on Chinese poultry meat exports. This information indicates that both sides perceived SPS issues through their export interest lenses (European Commission, 2008b).

5.4.1.4 Increasing importance of supply safety considerations

In 2002, a Joint Technical Group was already established between the EU Commission and the Chinese government to deal with regulatory questions with regard to food safety and SPS issues (European External Action Service, 2012). While no further information is available on the specific activities, the upgrading to the sectoral dialogue with the 2006 MoU covering product and food safety, signed between DG SANCO and AQSIQ in January 2006, indicates that the working group was considered insufficient and intensified exchange was needed (DG SANTE, 2008; European Commission, 2005a). It initiated an annual dialogue (under the name of "EU-China Food and Consumer Goods Safety Joint Committee") on food safety – explicitly mentioned as part of product safety –, which "specifically seeks to support Chinese authorities in their efforts to ensure product safety, particularly for consumer goods exported to the EU" (Delegation of the European Union to China, n.d.). Thus, there was a change towards a supply safety focus. The text of the MoU stresses the establishment of communication mechanisms for timely notification, which furthermore underscores a motivation which is more driven by a supply safety issue rather than a market access interest, since the latter is a mid- to long-term issue that does not require urgent action. In a memo issued on the occasion of the signature, the EU Commission describes the MoU "[as] a voluntary agreement between legislators on food and non-food product safety, which aims to promote common interests and enhance the safety of products traded between the regions. It provides the basis for the establishment of a consultation and cooperation mechanism, which will help in reaching solutions to any trade problems and in forging a common view on safety standards" (European Commission, 2005a). With respect to the food safety part, the memo specifies: "The aim of the Memorandum of Understanding is to generate reciprocal confidence and trust when it comes to trade in these products, through improved contact between the EU and Chinese authorities. Among the measures foreseen in the agreement are the timely notification of relevant information concerning agricultural or food products (particularly when there are problems), the establishment of SPS communication and consultation channels, the exchange of

information on SPS issues, and regular meetings between EU health and consumer protection officials and those of AQSIQ when necessary" (European Commission, 2005a). The External Action Service of the EU Commission describes this double-purpose and task of the food safety dialogue as follows: "Co-operation between China and the EC in this field can bring **benefits to consumers both in the EU and China, and facilitate trade in agricultural goods"** (emphasis in the original) (European External Action Service, 2012).

The dialogue on agriculture, the EU-China Trade Dialogue[96] and the exchange in the EU-China Food and Consumer Goods Safety Joint Committee were separate but often linked with each other (Snyder, 2009, p. 795). Thus, ever since 2006, regular annual dialogues have been held between DG SANCO/SANTE, AQSIQ, MoA, MoH/NHFPC on agriculture, food safety and SPS issues (EUCTP, 2012f).

Overall, more emphasis was put on supply safety after the MoU in 2006. The joint statement of the 9th EU-China Summit in 2006 still interprets the newly established EU-China food safety dialogue as a tool serving the objective to facilitate bilateral trade (European Council, 2006). This clearly formulated market access motivation, however, becomes less clear in the following developments. To start with, the Joint Statement of the 9th EU-China Summit in 2006 additionally mentions a hot safety issue that features strongly in this phase, namely avian influenza. Clearly, the issue is raised from a consumer safety and thus supply safety perspective. This is supported by the fact that 3 out of the 14 FVO audits in this phase dealt with avian influenza (see Table 12 and the discussion in 5.4.2.1). Likewise, in January 2006, the EU, China and World Bank jointly hosted an international pledging conference on avian influence in Beijing (European Commission, 2006b).

The joint press statement of the 2007 summit furthermore underscores that both partners were to "enhance cooperation and exchanges in areas of food sanitation and safety, and health personnel training." As this point is made within the paragraph on health issues and avian influenza, it indicates a stronger safety motivation. Whether it is China's intrinsic interest or an EU's supply safety interest, cannot be determined. Generally, the document suggests an increasing sense for supply safety. Cooperation in the agricultural sector is stressed to ensure safety of agricultural products and the dialogue on product safety is explicitly mentioned with reference to trade (European Council, 2007).

The High-level International Food Safety Forum in November 2007 (see 5.2.1.2) marks a noteworthy moment in EU-China relations on food safety, as it sheds a light on the underlying tensions and dissatisfaction with unsafe imports from China.[97] On the forum, DG TRADE

[96] The annual Trade Policy Dialogue (now Trade and Investment Policy Dialogue) had been initiated by DG TRADE and MofCom in May 2004 (Snyder, 2009, p. 787).

[97] I received this hint during a conversation with the organiser of the CIFSQC at the 2015 Global Food Safety Forum in Kuala Lumpur.

commissioner Peter Mandelson held a speech in which he – for the first time – stressed the issue of import safety of food and consumer products prominently: "During the summer some Chinese officials pointed out that less than 1% of China's exports to Europe had alleged health risks. But Europe imports half a billion Euro worth of goods from China every day - so even 1% is not acceptable." Reportedly, this remark was seen as a provocation by the participating Chinese Vice Minister Wu Yi, who left the conference as a response. She later told reporters "I am very dissatisfied with Peter Mandelson's speech" (Spiegel Online, 2007).

An incident reported by an interviewee further underlines the increased tensions on supply safety topics between the EU and China around that time. He reports about a meeting of the FVO with the Chinese in 2007, which "was [on] avian influenza and a lot of things on the agenda" (interview 25). The meeting was a follow-up to the 2006 FVO poultry meat and avian influenza audit. At the end of the meeting, the Chinese side did not accept the FVO conclusions. In the view of the head of the EU's delegation in this meeting, the Chinese "totally destroyed what we did for two days" (interview 25). Generally, to his experience, the discussions of FVO with Chinese were "always very, very tough" (interview 25).

This observed tendency towards more supply safety sensitivity, is put into context by the reflection of an interviewee who was responsible staff from the EU side during that period and who qualifies the EU's perception in those years. He stated that while the EU was aware that "there were enough problems" with Chinese food safety, but the EU felt relatively safe due to the RASFF: "The rapid alert system allows DG SANCO to have a very good idea where food safety issues are. So, focussing on food safety issues in China at that juncture was very much in response to the number of rapid alerts there were" (interview 3). As Figure 13 shows, there were three years of sharp increase of RASFF notifications from China, namely 2005 (plus 53 per cent), 2007 (plus 34 per cent) and 2008 (plus 42 per cent). The 2007 RASFF report included a special country report on China (European Commission, 2008c). This unusual focus on a specific country in the annual report indicates the extent to which EU officials were alerted by (potential) unsafe food imports from China. From 2002 until 2012, never before or after, a country had been specifically highlighted in the RASFF annual reporting. The "country report" sets out by pointing out the exceptional amount of RASFF notifications for China. It goes on by listing in detail the different types of problems with food imports from China: residues of veterinary medicinal products, illegal imports, mycotoxins, food contact material, food additives and other problems (including the detection of melamine in rice) (European Commission, 2008c, pp. 41–42). Therefore, if the interviewee's judgement is correct, the rising number of RASFF notifications after 2005 support the analysis and explain why supply safety issues gained importance.

The increasing relevance of supply safety does not imply a reduced importance of trade and market access, quite to the contrary. The same year, the EU Commission and the Chinese

Government gave exchanges on trade topics another boost by establishing an additional channel for communication. The High Level Economic and Trade Mechanism (HLM) was proposed by the Chinese and it deals with short as well as long-term issues in EU-China trade, investment and economic cooperation (DG TRADE, 2008b). Still, the HLM included consumer protection topics. The Commissioner for Consumer Protection was one out of the eight participating EU commissioners participating in the inaugural meeting. Accordingly, an official EU document on this meeting includes as section on improving consumer product safety (DG TRADE, 2008a).

5.4.1.5 Implications of the melamine crisis

In September 2008, the EU Commission became aware of the melamine crisis unfolding since July in China and discussed counter measures internally. Since milk and milk product imports from China had never been allowed, the EU was safeguarded against the worst possible consequences. Additional measures, like increased border controls were set up as an immediate reaction. However, the discussion between the EU Commission and member states showed that bans could not ensure, that melamine-tainted remained absent from the EU market (DG SANCO, 2008c).[98] Shortly afterwards, in November 2008, the MoU between DG SANCO and AQSIQ was reaffirmed and extended (DG SANTE, 2008). In comparison to the 2006 MoU it specifies the organisation of the collaboration (e.g. frequency of meetings to be held). In addition, the renewed MoU adds "cooperation instruments" on two topics: First, the "Arrangement for the cooperation on joint prevention of illegal action in the import and export of food". Secondly, the "Cooperation Mechanism between both sides to improve the means of information concerning notifications of the Rapid Alert System for Food and Feed" (DG SANCO, 2008a). In a statement addressed to AQSIQ, DG SANCO commits itself to provide AQSIQ with an access to the RASFF online portal. Through this portal, the EU provides the Chinese side with all available information on cases of RASFF notifications that affect Chinese food products (DG SANCO, 2008b). Both additional aspects of the 2008 MoU imply an EU motivation of import safety. The first, tackling illegal exports and imports, can be seen as more relevant for the EU as illegal exports and imports were more a phenomenon in China (with illegal exports being an import safety issue). The reference to the RASFF of the second aspect, more directly points to the EU's wish to tackle unsafe food imports from China. The plan was to extend RASFF to China (Alemanno, 2009, p. 184). However, the implementation never went beyond China's access to EU's notification. It seems reasonable to assume that these amendments in the cooperation with China were at least partly triggered by the melamine crisis. As a further indication to support this assessment, a media article about the updated MoU as of November 2008 may reflect the situation at the time well. It points to the need to increase efforts, because "[a] previous memorandum of understanding was signed in 2006; however, safety has been a recurring topic, notably recently in the contamination of milk with the industrial chemical melamine" (anonymous, 2008).

[98] Thereby reaffirming the general argument, that bans alone are an insufficient protection.

In November 2008 as well, a High-Level Consumer Product Safety Trilateral Summit was held in Brussels summoning EU, US and China representatives to discuss safety of traded products. The three trading partners signed a revised MoU on product and food safety. The joint press statement laid out general agreements, especially with regard to improving traceability. No explicit reference to food safety is made (European Commission, 2008e). On the second EU-China HETD meeting in May 2009, EU Commissioner for Consumer Protection, Meglena Kuneva, and EU Commissioner for Agriculture and Rural Development, Mariann Fischer Boel, both participated. The topic of product safety was discussed from a supply safety and a market access perspective. A supply safety perspective is indicated by the announcement that both sides see the responsibility for safety primarily with the businesses involved and furthermore that the initial statement stresses "the importance of enhancing consumer product safety through close collaboration" (DG TRADE, 2009). The paragraph in the EU's official memo on the meeting ends with mentioning that "the close collaboration also helps the two sides act more focused and diminishes the risk of hindering access to markets" (DG TRADE, 2009). Both remarks have been made with reference to product safety in general, indicating that food safety was not a specifically important topic during the meeting. This two-sided formulation of the issue has been replicated in the joint statement of the 12th EU-China Summit half a year later, in November 2009, which stresses the need to "further strengthen" cooperation in SPS matters in order to improve consumer protection and facilitate trade (European Council, 2009).

5.4.1.6 Effects of Food Safety Law on EU Commission's motivation

In the meantime, in February 2009, the FSL had been issued and changed the state of China's food safety regulation considerably (see 3.3.2). Besides the general improvements on the rule level, the FSL also particularly integrated EU approaches to food safety regulation. Pei *et al.* portraits the Chinese food safety regulatory reforms as modelled on the EU regulatory framework (2011). As one interviewee stressed, the FSL is "full of European language" and introduced principles of European legislation, notably the responsibility of the private sector to ensure the safety of food (interview 3). Another interviewee seconds this judgement on the FSL by saying: "[…] the rules were quite good and quite close to the European rules" (interview 1). Other interviewees, from EU as well as Chinese side, have confirmed the impression that in general the Chinese government had a tendency to follow EU food safety approaches (interview 1, 2, 19 and 20). It fits into this picture that the EUCTP was involved in supporting China in implementing the FSL (as will be discussed in more detail below).[99]

The FSL fulfilled the EU Commission's wishes with regard to increased food safety and with this market access returned as the prime motivation for action. Until the end of 2014, food safety or agricultural topics only appeared three times again in high level consultations – that is Summits, HETD or Joint Committee meetings. Firstly, the joint declaration of the 15th EU-China Summit in

[99] There also are US influences in the FSL, as other experts pointed out (interview 15 and Dionisi, 2015)

September 2012 made a reference to further strengthen geographical indicators. This seems to be related to the fact that the "10plus10" programme, which promoted the joint acceptance of geographical indicators, ended the same year (for details on the programme see 5.4.2.3.3). Likewise, market access oriented, the joint statement of this summit stresses the need to fight counterfeiting of alcoholic beverages. Secondly, the 16th EU-China Summit in 2013 led to the conclusion of the EU-China 2020 Strategic Agenda for Cooperation, a milestone in EU-China's bilateral cooperation. Food safety appears in the document agreed upon between both countries. It states: "With regard to food safety, intensify cooperation with the objective to protect consumer health, recognising the importance of food safety as a key element for consumer health, sound food markets, economic development and social welfare, highlighting the continuous and already fruitful cooperation between the EU and China on food safety, and underlining that risk analysis should form the foundation of any food safety policy, laws and regulations" (European Commission, 2013a, p. 8). Furthermore, the agenda envisaged food and agriculture as one of the foci of joint research (European Commission, 2013a, p. 8, interview 30). An interviewee pointed out that the specific mentioning of "risk analysis" in the joint strategy had been an important success of the EU and DG SANTE especially (interview 2). Thirdly, in 2012, DG AGRI and MoA signed a new cooperation plan on agriculture and rural development, extending the agricultural dialogue of 2005. The EU press release on this occasion makes a short reference to food safety without further explanation (European Commission, 2012b). However, both the strategic agenda and the new cooperation plan on agriculture and development point to a new mutual understanding. Explicitly, both formulate the plan to joint research, indicating cooperation on a playing level field. Specifically, the EU and China started the Research Innovation Cooperation in Food, Agriculture and Biotechnology (FAB) (DG AGRI, 2013a). The letter of intent was signed during the 16th Summit, on 21 November 2013, in Brussels between the four European Commissioners responsible for Agriculture and Rural Development, Research, Innovation and Science, Health, and the Environment and the president of the Chinese Academy for Agricultural Sciences (CAAS). FAB is financed from the EU side under the Framework Programme for Research and Innovation, HORIZON 2020 and goes back to an agreement of both parties in 2011 (European Commission, 2013b). Agriculture and food had been defined as two out of five priority areas for cooperation in research and development (Geoghegan-Quinn, 2011, p. 11).

The objective of FAB is to conduct joint research in "an ambitious strategic long-term partnership" (DG AGRI, 2013b). Food safety is one of the topics of the programme, which however puts more emphasis on agriculture techniques and topics like "green economy" (European Commission, 2013c). FAB marks a development in EU-China relations in the food safety area, as it operates on a level-playing field. It is not about knowledge provided by the EU for China's development but rather finding areas for joint research which are beneficial for both sides. The Joint Report of EU and Chinese Experts which put forward the FAB's framework, decisively mentions both

objectives: protecting EU consumers from Chinese unsafe food imports and improving trade of food products for both sides (European Commission, 2013c, p. 34). FAB reflects a changing relationship between EU and China in food topics. Interviewees stressed specifically that by 2014 experts from both sides have met each other more on eye level than they did previously (interview 17, 18, 19 and 21).

The EU kept the issue of market access for food products on the agenda. The continued interest in market access for European food products is reflected in two promotional trips of agricultural EU Commissioners, of Mariann Fischer Boel with her "Tasty Europe Tour" in 2009 and Dacial Cioloș visit in 2011 (European Commission, 2009; European Commission, 2011). The same year, the EU Commission put additional market access pressure on China by issuing a communication within the WTO Committee on SPS measures. In the document, it reminded China of several areas in which the country was not yet compliant with WTO rules. Those areas were food additives and aids, beef and BSE, and live pigs (Committee on Sanitary and Phytosanitary Measures, 2011).

Internally, the EU Commission defined expanding export of bovine products as a priority. Already mentioned in 2006 it remained high on the agenda (DG TRADE, 2006b, interview 1, 2 and 31). Accordingly, in 2010, the EU pushed the issue of meat exports to China by making an agreement with AQSIQ and MoA to promote the understanding of BSE among Chinese food safety regulators. China kept blocking imports of bovine products from the EU on the grounds of the BSE outbreak in the 1990s and was little willing to change this stance (interview 2). The EU had to convince the Chinese side to work on this topic. An EU expert recalls that Chinese authorities were "less enthusiastic to participate, to be part of training or cooperation activities because there was clearly a political dimension in this ban" (interview 2). Another EU expert reflects that specifically in 2011 and 2013 there was a strong pressure from the EU side to make progress on this market access topic: "We had a huge pressure from the EU who wanted more. To make every possible action to move in the direction that China will lift the ban for beef products from the EU" (interview 1). The prevailing focus on market access is furthermore reflected in statements made by a DG SANCO representative in 2015, who argued that that the EU should continue to cooperate with China on food safety related matters because this would bring the Chinese regulation more in line with the EU system which is necessary to facilitate trade. He explicitly argued that, if the EU would not involve with China and ensure that China follows EU's suggestions, other nations would do so. China's food safety regulation would deviate more strongly from EU's approach which would hinder trade (Dionisi, 2015).

5.4.2 Activities to influence China's food safety regulation

Next to the dialogue between the EU Commission and the Chinese government, the actual activities conducted by the EU Commission in or in relationship with China reveal the motivations behind. As introduced in section 3.1, EU Commission's activities take different forms

when it comes to import safety. I analyse each in turn. First, I review FVO activities. Secondly, I address the BTSF programme. Lastly, and most importantly I discuss the EUCTP as a China-specific large scale and long-term project.

5.4.2.1 FVO audits

In the period from 2004 until 2014, the FVO had planned 96 audits for China. Of all so called "other third countries", excluding countries of the European Free Trade Association and EU applicant countries, China is the country for which the most audits had been planned. In 11 of the 21 working plans issued during this period, China was the country with the most planned for audits with a total of 96 (see Table 12). The number of actually conducted audits is lower. Over the 11 years, the FVO implemented 46 audits. However, one has to take into account that some of the 96 planned audits were repetitions due to the fact that previously planned audits had not been conducted. The gap between these two figures thus looks bigger than it is de facto. While the data is not conclusive on this question, nevertheless, the number of planned audits remains higher than the number of conducted audits. If a repetition is understood as a situation in which the same topic is mentioned in two successive plans and in the meantime no audit on this topic has been conducted, 39 repetitions can be counted.

14 FVO audits were conducted until the release of the FSL, unevenly distributed with four each in 2001 and 2006. Until 2005, only one of the audits concluded that China was (partly) compliant with EU requirements. From 2006 until the end of 2008, in contrast, five audits only required minor changes by the Chinese side and two declared the situation unsatisfactory (see Table 12). The number of audits increased strongly for the time after the FSL to a total of 31. Most of them were conducted in two years, namely 2009 (9) and 2013 (11). While overall the results of the FVO audits improved, still 8 ended with the assessment that China had failed to meet the criteria and another 6 were still not seen fully in line with EU requirements. In 16 cases, minor changes were requested and in one case no further amendments were needed. Furthermore, there is no clear tendency that the assessments became more positive from 2009 until 2014.

The FVO reports which conclude with a need for improvement of China's food safety regulation mainly criticize insufficient implementation and a lack of enforcement. In four cases, FVO also found inadequate rules (see Table 12).

Table 12: Overview and assessment FVO audits 2001-2014

No	Year	Month	Topic	Result*	Reason**
1	2001	May	Aflatoxin in peanuts	-1	i
2	2001	June	Pine Wood Nematode	1	
3	2001	October-November	Avian influenza	-1	i/e
4	2001	November	Residues in live animals and animal products	-2	e
5	2003	September	Control of residues in live animals and animal products	-2	r/i
6	2004	October-November	Avian Influenza, Poultry & Rabbit Meat	-2	r/i
7	2005	February-March	Fishery and Aquaculture products	-1	e
8	2006	February	Poultry meat and avian influenza	-1	i
9	2006	March	Control of residues and contaminants in live animals and animal products, including controls on veterinary medicinal products	-1	i
10	2006	October	Poultry meat products	1	
11	2006	November	Aflatoxin in peanuts	1	
12	2007	April	Food Contact Materials	1	
13	2007	November-December	Feed hygiene in additives and premixtures	1	
14	2008	November-December	GMO - Controls	1	
15	2009	February	Plant Health - Anoplophora chinensis	-1	i/e
			and EU requirements for wood packaging material	1	
16	2009	February-March	Food irradiation facilities	-2	i
17	2009	March	Pet food of animal origin	1	
18	2009	May	Fishery Products	-2	i/e
19	2009	September	Bivalve molluscs	-2	i/e
20	2009	September	Food Contact Materials	-2	i/e
21	2009	October-November	Control of residues and contaminants in live animals and animal products, including controls on veterinary medicinal products	1	
22	2009	October-November	Public Health - Rabbit Meat	1	
23	2010	January-February	Animal health - equidae for export to EU	1	
24	2010	September	Plant Health - Anoplophora chinensis	-2	r/i
25	2011	March-April	Genetically modified organisms in respect of seed, food and feed intended for export to the EU	1	
26	2011	September	aflatoxin contamination in peanuts	1	
27	2011	October-November	Poultry meat products	-1	i/e
28	2011	October-November	Animal health - poultry meat products for export to EU - controls	-2	i/e
29	2012	February-March	export controls - anoplophora chinensis	1	
30	2012	September	Pesticides	1	

31	2012	October	Animal health - aquaculture animals for export to EU	-2	r/i
32	2013	June	Wood packaging material	-1	i
33	2013	October	organic production standards and control measures applied by a recognised Control Body in China	1	
34	2013	October	organic production standards and control measures applied by a recognised Control Body in China	1	
35	2013	October	microbiological contamination in seeds for human consumption	-2	i/e
36	2013	October	organic production standards and control measures applied by a recognised Control Body in China	1	
37	2013	October	Pesticides	-1	i/e
38	2013	October	Microbiological contamination in soft fruit intended for export to the European Union	-1	i
39	2013	November	Fishery products	1	
40	2013	November	evaluate the control of residues and contaminants in live animals and animal products including controls on veterinary medicinal products	1	
41	2013	November	Public Health - Casings and Rabbit Meat	1	
42	2013	November	Bivalve molluscs intended for export to the European Union	-1	i/e
43	2014	June	evaluate the implementation of requirements for feed additives and premixtures	1	
44	2014	September	Microbiological contamination in seeds for human consumption	2	

*The FVO reports conclusion has been transferred in to an ordinal scale, with -2 being the most negative and 2 being the most positive audit result. In detail, -2 was given, when China has failed to pass the audit; -1 was given, when China passed but fundamental improvements were requested; 1 was given when minor improvements were requested and 2 was given, when no further requests were stated in the audit conclusions.

** This column specifies which dimension of regulation is seen as insufficient by the FVO and let to the overall assessment – with r=rules (incl. organisational setup), i=implementation (incl. coordination), e=enforcement. The term implementation refers to a situation in which not even the procedures for controls are in place (or laboratories are criticized by the FVO for not having an implementation plan). Enforcement refers to a situation in which the implementation is not executed thoroughly.
(Source: own, based on FVO audit reports)

5.4.2.2 BTSF

Chinese delegates participated in BTSF workshops throughout the whole period (see Table 13). In addition, China hosted six BTSF workshops or missions. Hosting a workshop indicates a stronger interest in the specific topic, as more participants from the hosting country can participate. Participant figures for 2013 and 2014 confirm this. Out of a total of 65 Chinese participants in BTSF workshops 55 alone participated in the BTSF World workshop on Food safety and Plant Health held in China.[100] Taking this factor into account, there is a considerable difference in participation before and after the FSL. In 2011 and 2012 Chinese participation in BTSF is especially high. Delegates joined five workshops in 2011 and 2012. Furthermore, China hosted three BTSF workshops in 2011 and in total three BTSF missions were conducted in China in 2009

[100] Information provided on request by the Consumers, Health, Agriculture and Food Executive Agency of the EU Commission (CHAFEA) via email on 12.11.2016.

and 2011.[101] The first BTSF workshop held in China corresponds with the following decision to open RASFF to Chinese authorities and the Chinese plan to develop a similar system (Alemanno, 2009, p. 184). As DG SANTE claims, it had been a direct result of the MoU with AQSIQ and was a measure to increase import safety from China (European Commission, 2007d).

An interviewee mentioned one BTSF project with China as specifically relevant (interviewee 25). Partly as an answer to the complicated discussions with Chinese officials about FVO audit results, DG SANCO initiated the Sino-European Food Safety Cooperation Forum in the EU pavilion of the Shanghai Expo in 2010 (interview 25, AQSIQ, 2010). The Forum was financed with BTSF funds and is listed under the EU food standards section in the BTSF's 2010 annual report. The Forum primarily served supply safety purposes, by showing and explaining EU food safety regulation (DG SANCO, 2011). One of the experts involved in developing the programme explained: "The core element right there and the idea was to explain our rules and to explain them how to have a better understanding of our legislation and to export in a better condition and maybe for some commodities that they don't export until now" (interview 25).

[101] Figures based on examination of all Better Training for Safety Food annual reports 2006-2013.

Table 13: China participation in BTSF 2006-2014

Year	Chinese delegates	Workshop hosted by China
2006	• Welfare standards concerning the stunning and killing of animals in slaughterhouse and disease control situations	
2007	• Welfare standards concerning the stunning and killing of animals in slaughterhouse and disease control situations • EU food standards (for fishery and aquaculture products; residues and contaminants in fruit, vegetables, nuts, herbs and spices; food contact material)	• Training on the EU RASFF and the possible introduction of a similar system in other regions of the world
2008	• EU food standards • Highly pathogenic avian influenza control	
2009		• 2009: Avian Influenza mission to China with Chinese participants
2010	• Prevention, control and eradication of transmissible spongiform encephalopathies	• Sino-European Food Safety Cooperation Forum
2011	• Quality schemes: organic farming and geographical indications • Food testing • Analysis of genetically modified organisms	• Mission: Animal disease control (food mouth disease) • EU food rules (irradiation)
2012	• Food hygiene and controls • Feed Law • Quality schemes: organic farming and geographical indications • Food testing • Feed rules and import requirements • (RASFF and other EU information technology systems)*	
2013	• Animal welfare • Feed • Food composition and information • Food hygiene	
2014	• Audit • Feed • Food composition and information • Quality schemes	• BTSF World Food safety and Plant Health

* Chinese participation not made transparent, but likely since 575 participants "from all over the world" with roughly one quarter from Asia.

(Source: own, based on BTSF annual reports 2006-2014 and additional information received by email from CHAFEA on 12.11.2016)

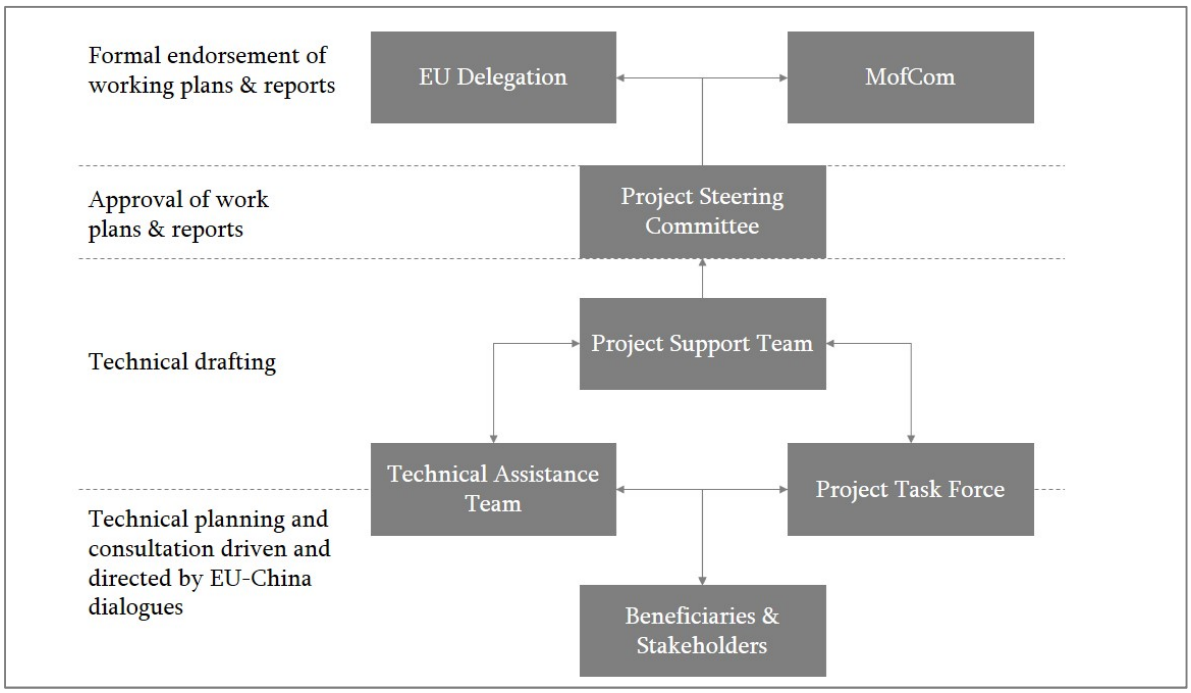
5.4.2.3 EUCTP

5.4.2.3.1 Background and setup

The by far most intensive involvement of the EU Commission with China's food safety regulation stems from the EUCTP which ran in two phases from 2004 until the end of 2015. It had been built on the Framework Programme for EU Support to China's Accession to the WTO (also named WTO1), which ran from 1999 until 2003 and had the prime purpose to support China's accession to the WTO (European Commission, 2007c, pp. 16–17). Results of WTO1 were meagre and in hindsight the project essentially seemed to have been the mutual preparation for a more sustainable succeeding project, namely EUCTP. Also, while information is not available on the thematic or sectoral foci, it is documented that the programme introduced the main instruments also applied by EUCTP (namely "research studies, seminars, study tours, internships, and qualification courses for specialised personnel") (European Commission, 2007c, p. 17).

The EUCTP is jointly financed by the European Commission and the Chinese government (EUCTP, 2009, p. 1). Its overall direction, its project plans and budget, is determined by a Project Steering Committee which meets once per year. It is jointly chaired by the Chinese Ministry of Commercial Affairs and the European Delegation, the two organisations formally responsible for the EUCTP. Each activity of the EUCTP is a result of an agreement between the EU and Chinese side of the project (interview 3 and 32). This procedure makes the list of all activities a consensus between both sides. Projects are designed, managed and implemented by a technical assistance team which is based in Beijing. A non-permanent Project Support Team assists with the implementation. It consists of experts outside of the EUCTP, e.g. representatives of stakeholders, academics, etc. The Technical Assistance Team reports to a Project Task Force which consists of MofCom staff (see Figure 15).

Figure 15: EUCTP structure, consultation and approval pathway



(Source: EUCTP, 2013a, p. 12)

EUCTP I ran a total of six years, from 2004 until 2009 with a budget of 20.6 million Euro for EUCTP I (2009; EUCTP, 2009, p. 1). It consisted of six components: Customs & Import/Export Regulations, Agriculture, Agri-Food & SPS, Technical Barriers to Trade and Standardisation, Trade in Services, Legislative and Legal Aspects of Domestic Implementation, Transparency, Co-operation & Policy Develop (EUCTP, 2009). Starting in the end of 2010, a second EUCTP project (EUCTP II) was set up for the period 2010 to 2015.[102] The budget increased to 25 million Euro. For this period, information is available on the cost sharing between both partners. The European Commission contributed the bulk of the total budget (20 million Euro). The Chinese government provided the remaining 5 million Euro (EUCTP, 2013a, p. 9). EUCTP II comprised of five components: Services, Quality Infrastructure & Technical Barriers to Trade, Agriculture & Food Safety, Customs, and Cross-cutting Trade Issues. For component 3 "Agriculture & Food Safety" EUCTP II distinguished five technical files: animal health and welfare, biotechnology and GMO, food safety, geographical indications, organic agriculture and plant health (EUCTP, 2014a).

EUCTP conducts what it calls "technical assistance activities", mostly via studies, training seminars, conferences, workshops, internships and study tours to the EU for Chinese participants.[103] The purpose of the EUCTP project was to continue and intensify the WTO1's work, to "support China's integration into the world trading system" – as the project wrote on its webpage (EUCTP, 2006a) – and "to assist the Chinese government with the implementation of its

[102] Initially to be ended February 2015, then extended until December 2015.
[103] This list names the activities *commonly* mentioned by documents and interviewees (interview 1 and 3, EUCTP, 2013a, p. 11; EUCTP, 2006b). Some official documents list further activities (e.g. field trips).

WTO obligations, and to increase China's capacity in the process of wider economic, regulatory, legal and administrative reform necessary for further trade liberalisation" – as defined by the NIP (European Commission, 2004). An interviewee confirms that this also was the dominant perspective in practice, characterizing the EUCTP as "the EU's largest trade facilitation project" and stressing that although it was financed by funds designated for development aid, EUCTP was "not really an aid project" and was rather driven by trade interests. Interviewees likewise describe the initial purpose to foster EU's connections to the Chinese government to improve market access to overcome trade barriers. Food safety, in fact, was not a component when the project started (interview 3 and – in a more general sense – interview 1). As one interviewee put it: "[W]hen I came into the EUCTP job, my brief was really to work on agriculture, to some extent, SPS as part of agricultural access but certainly there wasn't a food safety component to the position at the time" (interview 3). According to this interviewee, agriculture and SPS became a topic within the EUCTP, because the EU was lagging behind other major agricultural trading partners in supporting its own exports to China. However, the EUCTP in its achievement report for the first phase claims to have "contributed significantly to Chinese efforts in response to the recent food safety crises, to enhance Food Safety and SPS measures, drawing strongly from European best practices" (EUCTP, 2009, p. 7). As the report was written from the perspective of the situation in 2009, it seems to reflect the general change in perception towards supply safety outlined above in the review of EU-China official exchanges (see 5.4.1). Thus, a shift of focus occurred during the EUCTP I period.

In the same vein, EUCTP II has been characterized as a duality of market access and supply safety themes with market access being the more dominant aspect. An EU expert involved with EUCTP II stresses this balance: "I have a direction that is more EU to China. I have more issues with a bigger flow of commodities or products from the EU to China. We want to get milk here, we want to get beef, we want to get lots of wines, from animal production systems, get them here." He argues that much less food products are imported by the EU from China (interview 1). Likewise, the OWP, laying out the plan for the whole project period, mentions market access as the first focus for component 3. However, in contrast to EUCTP I, supply safety is explicitly included in the projects objectives: "The harmonisation of the application of SPS and the creation of SPS compatible domestic policies in China will increase EU food exports to China, enhance domestic, EU and international consumer protection and global health. In practical terms; improved trading" (EUCTP, 2010, p. 178). More specifically, the project states as the first strategic initiative to "[d]ecrease the share of Chinese non-compliant food products imported into the EU" (EUCTP, 2010, p. 178). Representatives from DG AGRI and DG TRADE pre-dominantly expressed EU Commission's interest in market access, when talking about EU-China exchanges on food safety regulation (interview 30 and 31). In this context, one interviewee also stressed the technical exchanges implemented by EUCTP as especially helpful to reduce trade barriers for the EU

(interview 31). According to a DG SANCO representative, the majority of his work is related to supply safety aspects, as it includes FVO inspection missions and RASFF notifications. However, when discussing EUCTP activities specifically, he mostly referred to market access topics (interview 2).

5.4.2.3.2 Analysis of EUCTP activities

In addition to the experts' judgements, the individual assessment of the EUCTP activities provides additional clarity about the purpose and direction of the EUCTP food safety-related component. Until 2009, when the first phase of EUCTP ended, 56 activities had been conducted for component agriculture, agro-food & SPS (EUCTP, 2009). EUCTP II conducted 88 activities for component three. This represents an increase of nearly 100 per cent of the number of activities per year compared to EUCTP I.[104] Initially, even 132 activities had been planned for EUCTP II (see Table 14).

Table 14: EUCTP II agriculture and food safety related activities

Year	Working plan	Planned activities	Conducted activities
2010	IPA	2	2
2011	AWP 1	33	11
2012	AWP 2	27	15
2013	AWP 3	34	23
2014	AWP 4	36	35[105]
Total		**132**	**86**

(Source: own, based on EUCTP annual working plans, AWP, 2011-2014 and EUCTP Brief Activity Reports)

In order to include this large number of activities in my analysis, I proceeded as follows: Based on the activity descriptions provided in the achievement report for EUCTP I, the annual working plans (AWP) and the brief activity reports for EUCTP II, I assessed each activity alongside the distinction between market access and supply safety. In the process of this assessment, it became obvious that an additional distinction was necessary. The activities also need to be separated between those which are clearly based on the EU's initiative and those for which this is less clear and we also need to assume of have specific evidence that the activity was requested by the Chinese side. For the latter, I use the term "pull". Thus, I distinguish four types: market access, supply safety, market access pull, supply safety pull.

[104] Statistically, EUCTP I conducted an average of 8.5 activities per year and EUCTP II conducted 17.6 activities per year.
[105] Including activities in 2015 and 2016.

Following this procedure, EUCTP I conducted 26 market access activities of which 14 are clearly indicated as such and 22 supply safety activities of which only five are clearly indicated as such (eight activities could not be specified). During the course of the EUCTP I the two types of activities are not evenly distributed. Starting in 2007, the share of supply safety-oriented activities increased. The changes in the content of activities thus reflect the shift from market access to supply safety already discussed above. Of the 88 total activities, the majority is associated with supply safety. This, however, is largely based on pulled supply safety activities (37) and only nine supply safety activities which were clearly driven by the EU. For market access, 28 have a strong indication and another 11 activities rather seem to have been requested from the Chinese side. For three activities, the direction could not be specified (for details see appendix 8.4). I will discuss examples for all four types of activities to explain better the details which provide further hints to causal mechanisms.

5.4.2.3.3 Activities due to EU market access interest

A good example for a market access motivated activity with the aim to influence China's food safety regulation is the study on fusel oils conducted in September 2004 (EUCTP, 2007). As an interviewee involved in the project explains:

> *[T]here was a problem with the standard used to measure fusel oil in liquor. In spirits, so in European brandies and other distilled spirits there's a component called fusel oil. And fusel oil actually is what all the smell and the aroma is about. But it's a product of secondary fermentation and Chinese liquors don't go through a secondary fermentation process so therefore they don't have fusel oil. So, China can't measure it or didn't want to measure it and they said that it was too volatile and that it was used as a non-tariff barrier. So, we agreed to do a study on fusel oil and the Chinese side understood the problems or understood what the issues of fusel oil were. What role it played in the fermentation or how it was derived in the fermentation of spirits. And then we managed to overcome that trade barrier. (Interview 3)*

Hence, the EU side identified a specific regulatory topic which hindered EU exports to China and used EUCTP to address this topic with the Chinese side. The implicit assumption behind is that a clarification of the scientific assessment convinces the Chinese side to change their regulation in EU's favour.

Following the same logic, a whole set of EUCTP activities aimed at educating Chinese officials on animal diseases which occurred in the EU and led to import stops by China. Next to BSE, those are African swine fever[106] and the Schmallenberg[107] disease (see brief activity reports A458-C3, A336-C3, A371-C3, A457-C3 at EUCTP, 2015c). In 2011, an EUCTP activity specifically taught Chinese

[106] African swine fever is a usually fatal infectious disease of pigs for which no vaccine has existed by 2016. It does not affect humans (for more details see European Commission, 2016a).

[107] The Schmallenberg virus affects cattle, sheep and goats. It potentially leads to defects of unborn animals and may cause stillbirths. As of March 2014, no negative effects for humans had been detected (for more details, see Friedrich-Loeffler-Institut, 2014).

government experts how the EU manages to contain any BSE-related problems (EUCTP, 2011e). BSE related activities have been still held in 2015, showing the long-term approach of the EU on this issue. As for African Swine Fever, although the outbreak occurred in Poland in February 2014 in domestic pigs, China decided to block pork imports from the whole EU. Consequently, part of the efforts by the EU were trainings organised via EUCTP about a risk-approach, basing market access restrictions on separate risk assessments for different regions within the EU (interviews 1, 2 and 31). Similarly, due to temporary trade restrictions enacted by China in 2011 because of Schmallenberg disease, EUCTP conducted activities to "to increase the capacity of the Chinese authorities in the area of risk analysis, diagnosis and surveillance of Schmallenberg disease" (EUCTP, 2014c, see also EUCTP, 2015b).

Likewise, EUCTP conducted a series of activities to facilitate exports of alcoholic beverages from EU to China. In this context, EU experts engaged with their Chinese counterparts in discussions about food additive standards, especially related to phthalates (see brief activity reports A013-C3, A114-C3, A053-C3, A150-C3, A239-C3, A297-C3, A332-C3 and A318-C3 at EUCTP, 2015c). This topic was triggered by an import stop of spirits from the EU due to phthalate (interview 1, 2 and 31). Other activities of this series addressed issues how to detect and prevent counterfeit alcohol products as result of a high-level agreement between DG AGRI and AQSIQ (European Commission, 2013d). In another instance, a regulation for dairy products newly introduced in 2014 was effectively threatening EU exports to China (interview 2, Dionisi, 2015). An EU Commission expert described dairy trade as "the biggest current issue for the EU with China" (Dionisi, 2015). Accordingly, in 2015, EUCTP conducted an activity on "EU-China roundtable on the global integration of the Chinese dairy industry" (EUCTP, 2015a). Even before this specific regulation, EUCTP activities showcased the quality and safety of EU's dairy production (EUCTP, 2012b). Cases like phthalates and the dairy regulation notably also led to direct meetings between EU delegation in China, EU member states and Chinese authorities in which EU and member states raised their concerns (interview 2).

5.4.2.3.4 Activities with market access character pulled by China

Other activities are less clearly associated with an EU interest in market access. For example, EUCTP sent Chinese government officials to the EU for internship programs. The purpose was to improve communication between the two sides, and to increase "mutual understanding of agricultural issues". Exchanges on agricultural trade specifically were part of the activity. A better understanding of EU food safety on the Chinese side and improved channels for communication increase the opportunities to successfully discuss market access barriers in the long run. However, such activities are designed with a broad spectrum of aspects and are not clearly dedicated to a specific market access topic. What is more, they likewise improve China's export opportunities in the long run.

In 2009, the EUCTP I project conducted four seminars to support the implementation of the FSL, a fact which also had been stressed by China Daily in its report about the EUCTP I (EUCTP, 2009; anonymous, 2009). As the brief descriptions for each of the seminars reveal, supporting the implementation of the FSL served both aims from a long-term perspective – supply safety and market access. EU input on topics, such as "human health food and feed risk assessment, essential areas of potential food/feed risks, surveillance approaches and methodology" supports China in increasing the effectiveness of its food safety regulation by better implementation, effectively increasing the safety of food products. Thus, these measures rather improved supply safety. On the other hand, discussions about the development of food safety standards based on risk assessment and the installation and organisation of scientific committees to this end served the EU's interest formulated by an interviewee: "We want the Chinese to have as far as possible rules and laws of food safety based on science. So, we want them to apply the principle of risk analysis, risk assessment, risk management and risk communication" (interview 2).

The case of geographical indicators follows a different logic, as it does not deal with food safety risks. The purpose rather is to protect brand value of specific types of products. The agreement between DG AGRI and MoA introduced above initiated a pilot under the term "10plus10" in which EU and China agreed to mutually recognize and protect geographical indicators for 10 products from both countries respectively (EUCTP, 2011c).[108] It was facilitated by a previous workshop organized by the EUCTP in December 2006 as well as further support in 2007 to implement the project (EUCTP, 2009). This was the starting point for the pilot project on geographical indicators which ended in 2012 (EUCTP, 2011b). However, GI do not have a direct effect on food safety regulation.

5.4.2.3.5 Activities due to EU supply safety interest

EUCTP activities which clearly go back to the EU's import safety interests often can directly be linked to respective RASFF notifications. For example, high numbers of RASFF notifications from China regarding food contact materials led to "a comprehensive training programme with AQSIQ on the handling of food contact materials", according to the achievement report (EUCTP, 2009). The direct linkage between RASFF notifications and these specific activities was also reported by an interviewee (interview 3). These activities thus directly addressed supply safety concerns of the EU. However, while the first two activities have been portrayed as being initiated due to EU interest, the last one on this topic specifically was implemented because of an AQSIQ request. This reflects the reciprocity of supply safety. Problems with supply safety also concern the Chinese side, as they may lead to decreased export opportunities for Chinese food businesses. Notably, two experts involved in the Food Contact Material projects expressed their frustration about the fact

[108] The implementation of this project took nearly 10 years.

that an online training platform which had been developed in this context by EUCTP was not sustained.[109] The EU Commission was not willing to keep financing this activity (interview 3).

Just like for the case with food contact material during EUCTP I, RASFF notifications in conjunction with a FVO audit in 2011 brought up the topic of mycotoxins especially in nuts imported from China (FVO, 2011; European Commission, 2014). Notably, the FVO-report states the volume of imports as a reason for the audit. Starting 2012, three activities were conducted to tackle this issue.[110] Interviewees stressed this topic as an example for supply safety-oriented activities of EUCTP II (interview 1 and 2). Notably, respective activities were planned for 2011, 2012 as well as for 2014 but only conducted in 2014. Food contact material also remained on the EU's supply safety agenda as well due to RASFF notifications and respective capacity building measures were initiated by the EU and conducted by EUCTP (interview 1, EUCTP, 2014b).

Furthermore, the EUCTP implemented measures to train Chinese food inspectors by conducting internships in EU member states and informing about the functioning of RASFF (Broughton and Walker, 2010, p. 473). The RASFF 2007 report notes that the EU financed a workshop in November 2007 attended by representatives of Chinese authorities to explain the functioning of the RASFF. The report explicitly states that the aim was to promote the establishment of a similar Chinese rapid alert system (European Commission, 2008c, p. 43). Such measures have specifically been referred to as a measure to increase import safety by DG SANCO (European Commission, 2007d, p. 19). Furthermore, EUCTP conducted three activities on the topic of antimicrobial resistance resulting from the overuse of antibiotics in feed (EUCTP, 2013f; EUCTP, 2013c; EUCTP, 2013b). The latter has been portrayed as an especially challenging topic for the Chinese side and they had to be convinced to accept this topic for EUCTP II (interview1).

5.4.2.3.6 Activities with supply safety character pulled by China

EUCTP conducted a large number of activities that contribute to supply safety for which there is no indication that they have been requested by the EU side. At the same time, the content of the activity does not allow for an interpretation as being directed at market access. The supply safety character rather stems from a long-term perspective. Examples for such topics are traceability and pesticide controls. Clearly, both is not relevant to market access for the EU and rather increases the safety of Chinese food and with this, supply safety. However, it remains unclear whether activities on these topics had been requested by the EU. An interviewee gave the impression that it was rather the Chinese side actively seeking for support on these topics (interview 3).

Another instance for this logic is a series of activities on feed safety (EUCTP, 2012d; EUCTP, 2013d; EUCTP, 2013g). The conferences specifically dealt with a new regulation issued by the

[109] Interview 3 and presentation given by an expert from the EU reference laboratory for food reference materials during the internal EU Commission workshop on 23 March 2015 in Brussels listed in Table 9.
[110] Namely activities A385-C3, A122-C3 and A275-C3 (EUCTP, 2015c).

State Council in 2011 on feed and feed additives. The purpose of the EUCTP activities was "to create awareness about the newly implemented Chinese feed and feed additive regulation, and support its enforcement" (EUCTP, 2013g). While this partly overlapped with critical findings for aquaculture animals in 2009 and 2012 (see Table 11), these measures explicitly had been requested by China.

A long series of activities in EUCTP II also falls into this category. In fact, it makes up 19 out of the 38 pulled supply safety activities in this period (see appendix 8.4). The focus was on supporting China to establish a reference laboratory for animal disease and building up animal disease surveillance capabilities. This was induced by an agricultural dialogue meeting in March 2012, in which EU and China agreed to cooperate in order to improve the quality of Chinese laboratories with the specific objective to of "twining European and Chinese animal health reference laboratories" (EUCTP, 2012e). The 19 EUCTP activities dedicated to this topic stretched from 2012 until the end of 2015. However, it was based on a MoA activity already initiated and conducted in collaboration with FAO (interview 1 and 2, EUCTP, 2010). There are numerous indications for supply safety effects of this series. First, for several activities within this series, the EUCTP explicitly stresses the aim of enforcing the FSL (e.g. EUCTP, 2012c). Second, and more critically, the series to large extent is justified with supporting China in its fight against brucellosis, "a disease which currently poses a food safety hazard in China" (EUCTP, 2013e). Third, interviews with EU experts support a differentiated assessment of this series. An interviewee mentions the objective to establish a reference laboratory in China as an example for cases, in which he had to convince the EU Commission to approve the idea, because "[i]t's something that initially benefits only the domestic situation [in China]. But in the medium term it will benefit the international compliance of China" (interview 1). This firstly indicates that the series rather supported the improvement of food safety in China and thereby indirectly improved supply safety but which, secondly, was not seen as a priority by the EU Commission. A second interviewee confirms the EU's hesitation. The Chinese side was especially pulling for activities that support laboratory capabilities and knowledge detection methods also for animal diseases and the EU side answered to this to "accommodate the Chinese" (interview 2). Overall, this intensive series of activities in the long run should yield supply safety affects by improving food safety implementation and enforcement in China domestically.

5.4.3 Summary and discussion

When considering the SSH, three expectations are relevant for this condition: first, the need formulated to protect European consumers; second, the need formulated to improve implementation and enforcement of food safety regulation in China; third, the need for action formulated with regard to specific imported products/product groups that are typical for import from China. For the MAH, I also defined three expectations: first, need/willingness to enter

Chinese market formulated; second, the need formulated to especially change rules and standards in Chinese food safety regulation; third, the need for action formulated regarding specific products/product groups that are typical for export to China.

The EU Commission was continuously involved in discussions about food safety-related topics. Especially via EUCTP, it likewise continuously conducted activities which contributed to shaping China's food safety regulation. Thus, over the whole period, there has been a sustained effort been made by the EU Commission to influence China's food safety regulation. In fact, the intensity increased after the FSL with regard to quantity. The quality also changed towards cooperation increasingly at eye level, as exemplified by the FAB. Discussion and activities focused on technical details of food safety regulation. This contrasts with the project conducted by WHO, ADB and SFDA which involved in organisational setup and fundamental agenda setting and law making.

There is ample evidence that the EU Commission justified its activities to influence China's food safety regulation with the need to protect European consumers. This argument does appear in interviews as well as in documents of the EU-China dialogue on food safety-related matters. Likewise, this argument was mentioned as an explanation of EUCTP's SPS respective components. The relatively high number of FVO-audits furthermore indicates that the EU Commission was indeed concerned about the safety of food imports from China. As the retracing especially of the high-level dialogues shows, the protection of EU consumers is not a constant topic in EU-China discussions about food safety, though. It rather re-appears every other instance. It gained prominence especially between 2006 and 2009, when the dialogue on food safety was started. Also, BTSF – normally an instrument which merely serves as an offer – was actively used by the EU Commission to train Chinese authorities on RASFF. There are also concrete instances in which the need for improving implementation and enforcement is mentioned. This is most prominent in the FVO audit reports, which show that from an EU perspective, especially implementation and enforcement needed improvement. This seemingly is reflected in remarks about the need for implementation and enforcement in official documents, especially from EUCTP. However, a closer look reveals that stressing the need for implementation and enforcement in these instances does not necessarily imply a supply safety motivation. This point has been made for EUCTP II. "The times for policy development and regulatory tools of the government has already passed in China", as one interviewee involved in EUCTP II explained (interview 1). By this he explicitly referred to the implementation of food safety standards, naming both market access topics (wine) as well as supply safety topics (food contact materials, pesticides) (interview 1).

There is less evidence for the third expectation. Specific products or products groups are discussed with regard to food safety, but rarely. The prime example is the case of food contact materials. While it rather refers to a specific food risk rather than to a product, it was an issue discussed between the EU and China as a supply safety issue. This case also illustrates how the EU

Commission's import safety system works and that it indeed is responsive to occurring food risks: a high level of RASFF notifications led to FVO audits on the same topic to substantiate the problems behind the notifications. In order to ameliorate the import safety situation, the EU Commission than decided to conduct EUCTP-activities to build up Chinese capacities on this topic. In the same vein, the EU Commission was active to influence China's food safety regulation on the topic of aflatoxins in peanuts (interview 1, 2 and 3). The strawberry-incident reported in 5.2.3.1 likewise led to a quick response by the EU Commission, which sent FVO to China to address the issue by assessing the controls systems in place to control microbiological contamination in soft fruit intended for export to the EU in October 2013 (FVO, 2009). In general, the high number of planned FVO audits for China furthermore indicate a specific awareness on the EU Commission's side that it was necessary to improve supply safety from China. FVO data also shows some reluctance on the Chinese side to accept critical comments on supply safety problems and to agree to related measures. The gap between planned and conducted measures is one indicator for this. In addition, an interviewee provided anecdotal evidence supporting this assessment (interview 25). This, however, is not to say that China's behaviour in this regard was significantly different from other countries, as another interviewee pointed out (interview 39).

I also found evidence for all three MAH-expectations. The difference is that the evidence for the MAH is more – more frequent, more continuous over time, and more specific. The need to achieve market access is mentioned more often in high level exchange between the EU commission and China compared to the need to protect EU consumers. In fact, it is a continuous theme in the dialogue. While there are several instances in the document in which market access is mentioned but consumer protection is not, there is virtually no instance in which the reverse is true. Likewise, when talking about specific activities, interviewees pre-dominantly talked about market access issues. Consumer protection was only mentioned, when it had specifically been addressed in the question. As for the second expectation, especially the need to shape standards and to harmonise food safety regulation rules is formulated regularly – both in high level exchanges as well as in EUCTP documents. Again, this need is formulated continuously over the whole period. The EU Commission also discussed which specific product groups should have priority in achieving market access. The evidence shows a stringent process from internal coordination within the EU until the implementation of respective EUCTP-activities. In this regard, the strategic decision to push for bovine exports and the related EUCTP-activities on BSE may serve as an example. Likewise, the EU first decided to make the export of fruit and vegetables an issue in 2006. An according EUCTP activity (EU-China Roundtable on Prospects for Fruit and Vegetable Trade) followed swiftly in 2007. The discussion about African swine fever, Schmallenberg disease, phthalates follows similar patterns. According to a Chinese expert, the dominance of market access topics is part of a more general trend. He argued that with the increasing role as a food importer, interest of other countries in access to the Chinese market grew and accordingly, China

increasingly found itself in discussions about market access-restrictions with the EU and other countries (interview 32).

Thus, the analysis of the motivation of EU public actors provides evidence for both hypothesis. The EU Commission itself presents the sectoral dialogue on food safety as serving both objectives: "Co-operation between China and the EC in this field can bring benefits to consumers both in the EU and China, and facilitate trade in agricultural goods" (European External Action Service, 2012). This duality is reflected in both the dialogue on food safety topics and the specific activities. Supply safety and market access are portrayed as objectives not contradicting each other. The distribution of supply safety and market access topics in bilateral discussions and actions between EU and China follows a general pattern: market access sustained and was the main driver for EU Commissions continuous interest in exchange. It features more prominent in the dialogues as well as in the EUCTP activities. Instances, in which the EU Commission pushes for supply safety issues reoccur more irregularly. This dominance of market access motivation is reflected both in the analysis of documents as well as expert interviews.

The explorative analysis revealed another, not anticipated aspect: a large number of those activities, which contribute to supply safety rather than market access, have effectively been asked for by the Chinese side. Regarding measures directed at market access, it is important to note that often such activities were designed so that the Chinese side benefitted as well. For example, on the market access issue of phthalates in alcoholic beverages, EUCTP held activities to convince China of its approach. Such activities at the same time were capacity building measures to increase China's food safety experts' knowledge in risk assessment procedures. As a Chinese expert stressed, Chinese authorities were especially interested in learning more about risk assessment (interview 32). Thus, the activities by the EU Commission were strongly influenced by the need to find consensus with the Chinese side.

5.5 TPS drive for a stronger role in China

The emergence of TPS in China occurred in parallel to the engagement of the EU Commission in China. I retrace the development of TPS' influence on China's food safety regulation as part of the outcome I aim to explain in two steps. First, I show that there was a passive development of TPS in China, the effect of which remained limited. Driven by demand, this development occurred partly in a legal grey zone. Second, with some delay, GFSI started to actively push TPS in China. [111]

[111] This section is largely based on Kottenstede (2017).

5.5.1 Passive development of TPS in China

TPS specifically gained importance after China joined the WTO (Kottenstede, 2017, pp. 219-224). Experts recall that, in 2003, GlobalGAP and IFS were the first to have issued certificates in China with BRC following shortly afterwards in 2005 (interview 4 and 24, Battaglia, 2013). The growing relevance of TPS is also reflected in the CB's behaviour. Around that time, no foreign CB were present in China (interview 11). With increasing demand for food safety certifications from Chinese suppliers, foreign certification bodies also discovered China as a potential market. For example, TÜV financed a study clarifying the legal requirements for certification bodies to operate in China (interview 18, Kottenstede, 2017).

The number of food production facilities in China, which are certified against TPS has remained low until 2014. This becomes obvious when comparing figures for China with global figures. About 2,800 certifications had been issued in China as of 2014. This contrasts with 195,000 certifications globally (see Table 15). In other words, 1.4 per cent of all private standard certificates have been issued in the People's Republic. What is more, the relation to the especially large number food producers of all sorts in China shows a very limited penetration of the market. These figures in turn show a limited impact of TPS on China's food safety regulation that is also reflected widely by interviewees (interview 4, 5, 7, 24, 26, 27, 33 and 34; Kottenstede, 2017 p. 222).

Table 15: Number of GFSI recognized certifications worldwide and in China, 2014

Transnational private standard	geographical origin	global number of certifications	geographical outreach	number of certifications in P.R. China
FS22000	The Netherlands/ Europe	10915	109 countries	852
GlobalGAP	Germany/Europe	130000	113 countries	300
IFS Food Standard	Germany	14000	96 countries	272
BRC	UK	17289	113 countries	1329
primusGFS	USA	12947	North America	0
GRMS	Denmark	27	Europe	0
Global Aquaculture Alliance	USA	No information available	No information available	No information available
CanadaGAP	Canada	954	Canada	0
SQF	USA (Australia)	6910	30 countries	6
For comparison[112]				
ChinaGAP	*China*	*2000*	*P.R. China*	*2000*

(Source: Kottenstede, 2017)

[112] ChinaGAP is indirectly recognized by GFSI through benchmarking against GlobalGAP.

As interviewees pointed out, as a general rule, the motivation for TPS to engage in a country is driven by the demand for certification(s) of their standard(s) (interview 10 and 26). Indeed, this is a straight forward mechanism: buyers request a specific certification from their supplier in China, which leads them to apply for this certification. This requires CB to conduct audits in this country. Given a sufficient number of requests for certification, there is a demand for TPS to actively engage in a certain country (interview 26 and 27). Thus, TPS certifications can be found, where buyers demand the respective TPS certification from their suppliers (Kottenstede, 2017, pp. 220-222). The sources of information for private standard organisations to learn about a growing demand in a specific market are threefold: the companies using the standard, the board of the TPS organisation and CBs. This mechanism is also confirmed by an official document in which GFSI explains the need for its engagement with China: "As GFSI is an industry-driven initiative and as more and more buying companies begin to request that their supply chain partners achieve certification against a GFSI recognised scheme, there is need for communication on exactly what this means for a business" (GFSI, 2013a).[113] It is important noting, however, that this is not a China-specific phenomena but a logic that theoretically applies to any sourcing market (Kottenstede, 2017).

The demand for private standard certifications in China mainly is the result of Western companies sourcing in China. Interviewees reflected this when they argued that the reason the GFSI is so active in China lies in the fact that international companies source in China (interview 24, 26, 28 and 29). Chinese companies hardly request TPS-certifications if they do not need it due to their commitments towards their western customers (interview 33 and 34; Kottenstede, 2017, p. 222). In accordance with this assessment by two interviewees, clients of international CB are "either an international company working in China, sourcing in China or exporting from China and we have as well Chinese customers, but those are mainly prescribed by our customer abroad that is a customer, for instance, in the US or in France who asks them to work with us" (interview 9). In order to understand the motivation behind TPS activities in China, we have to differentiate between companies sourcing in China for overseas markets (effectively importing from China) and companies sourcing in China for the Chinese domestic market (interview 5 and 27). According to the experts interviewed both is relevant: international companies source in China for the Chinese

[113] Likewise, this logic is reflected in an announcement of the private standard SQF in 2011 to move to China: „The SQF Institute is planning to move into China to address the global retailer and supplier need brought on by the 30 percent rise in Chinese agricultural exports in the first eight months of 2010. Due to increasing interest in the SQF Programme in China, the SQF Institute has been marketing there since early last year, primarily at conferences like the fifth annual China International Food Safety & Quality (CIFSQ) Conference & Expo, held in Beijing last November. Currently, the SQF Institute is conducting implementation and auditor training classes, with an overall objective of developing synergy between qualified auditors and sites awaiting certification. Plans are also under way for formal meetings with specific manufacturers in China to begin the certification process, as well as meetings with key retailers and the establishment of a regional office in Shanghai" (SQF, 2011).

market and many international companies source from China for export markets (interview 26 and 29; Kottenstede, 2017). Which phenomena is more relevant cannot clearly be determined from the data.

Clearly, for Chinese exporting food businesses, private standards do have a strong impact. This is not only the assessment of experts interviewed (interview 10 and 40), but also suggested by earlier research, which showed that those food companies in China having adopted HACCP principles were mainly export-oriented companies (Bai *et al.*, 2007b; Zhang *et al.*, 2015b, p. 2182, interview 40). Other sources go further and suggest that export causes the largest share of TPS certification in China. For example, an expert stated during a presentation that "[m]ost factories in Asia exporting to Europe have introduced BRC and/or IFS" (Battaglia, 2013, p. 16). According to BRC, "Chinese sample site assessments were generally in response to overseas customer requirements" (BRC, 2014, p. 35). SQF announced in 2011 that it will increase its presence in China because of the rising demand for certifications driven by exports (SQF, 2011). Likewise, it is mainly export oriented companies in China, that apply for GlobalGAP certification (interview 10; Kottenstede, 2017, p. 222). Statements made by Chinese experts second the assessment that export-induced certifications make for the larger share (interview 24 and 34). According to a presentation by a co-founder of the GFSI, export was the initial reason that has led to the certification of private standards in China: "After a carefree period of exporting to Europe until 2000, resulting in many quality complaints, the European retailers demanded the implementation of the standards from their Chinese suppliers[.] The industry was initially unaware of the problems and therefore reluctant to introduce the standards, but was forced to" (Battaglia, 2013, p. 15).

The dominant role of export as the reason for TPS certification in China seems to wane. A Chinese CB expert portrays western companies sourcing for their domestic business in China as an increasingly relevant factor (interview 33). A CB representative even reports that clients sourcing in China for the Chinese market are a much bigger part of the business compared to clients sourcing in China for export (interview 9). A representative of a western food manufacturer explained his company's interest (and priorities) in supporting GFSI's expansion to China: "[W]e cannot export to China, because our products shelf life is too short. We must produce in China for the Chinese market. However, we want to maintain our high quality in the Chinese market as well. This is why we have an interest in safe food supply in China. On top of that comes food supply from China to other parts of the world" (interview 29). Although not specifically related to China, the 2008 GFSI newsletter indicates that exports indeed may play a secondary role. The newsletter reports that a GFSI working group had been set up "to support auditors in emerging markets", which "has been concentrating on local sourcing and selling rather than exporting" (GFSI, 2008a).

Partly, TPS certifications spread in China outside of the regulatory frame for certification business set by the Chinese government. During interviews, it was frequently pointed out that Chinese regulation, in international comparison, sets unusual strict boundaries for the implementation of TPS in China (interview 9, 11, 14, 27 and 28). For a TPS to acquire a legal status in China, it has to be licensed by the CNCA, because the CNCA is responsible for 3rd party certification in China (interview 36). This implies that CBs in China are only able to certify standards which previously have been accepted the CNCA (interview 33). CBs operating in China in turn require an accreditation from the China National Accreditation Service for Conformity Assessment (CNAS), a government organization authorized by the CNCA (interview 33, CNAS, 2015). Only those certification bodies are allowed to issue certifications, which are accredited by CNAS. This specific Chinese approach to certification deviates from international practice. Many governments do not require the accreditation of CBs (IAF, 2011, p. 2). Instead, the requirement for an accreditation is organized within the private realm. For example, the GFSI benchmarking requirements make it mandatory for CB to be accredited.[114] China's regulation also deviates from the principle to mutually accept accreditation across countries established by the International Accreditations Forum (see for example DAKKS, n.d.; cf. Kottenstede, 2017, p. 230). For a European business expert based in China, this strict regulation had a purpose as "it was clear that China wants to control extremely carefully the company to do certification, to do testing, to do everything" (interview 9). Consequently, attempts by the European industry to lobby the Chinese government for a freer system in which certification for TPS could have been done without specific allowance by the Chinese government had not been successful. "There was nothing else but no", the interviewee described the Chinese government's response (interview 9; Kottenstede, 2017).

Most GFSI standards did not apply for a registration with the CNCA (with BRC being a notable exception) (interview 33). However, Chinese companies, which want to export to Western markets need a TPS certification, simply because their buyers make it a precondition. Also, Western companies producing in China require their suppliers to be certified for TPS officially not licensed in China (interview 33). Consequently, market actors ignore the Chinese regulation of TPS and quickly business practices deviated from the official requirements. Chinese companies obtain certifications of TPS, including those accepted by the GFSI, from international CBs not licensed by the CNCA. Such CBs send an auditor to the facility to be certified, often even from outside of China (interview 24). The certificate is provided officially by an office of the CB outside of China. This way, Chinese companies are able to get TPS certifications needed for their business with Western buyers, although the specific TPS has not been approved by the CNCA. The CNCA is aware of this frequent bypassing of the legal rules and disapproves of the situation (interview 28 and 33). However, the Chinese government faces a dilemma. On the one hand, it is not in control

[114] "Scheme owners shall ensure that all Certification Bodies with which they have contractual arrangements are accredited" (GFSI 2013b, p. 66).

of something it obviously had the intention to be in control of. On the other hand, a strict enforcement of TPS regulation would potentially have too negative effects on Chinas food export businesses (interview 28). Besides, enforcing the regulation would require resources and capacities the CNCA does not have (interview 33). In the view of one interviewee, by 2014 the Chinese government had considerably lost influence on the development of voluntary standards, because of the increasing activities of international CBs on the Chinese market (interview 11, Kottenstede, 2017, pp. 230-231).

5.5.2 GFSI's push for stronger establishment of TPS in China

It was primarily the GFSI, that pushed TPS in China (cf. Kottenstede, 2017). Individual TPS organisations did not make China their focus country, as numerous TPS experts pointed out (interview 5, 10, 11, 26, 27 and 29). While there is little record of GFSI's relationship towards China prior to 2008, a statement by Wenyi Che, Deputy Chief Administrator of CNCA, suggests that relations have been built early on. He is quoted in a GFSI publication of 2011 expressing his positive experience in working with GFSI since 2004 (GFSI, 2011a). In June 2007, the CIES held its Annual World Food Business Summit in Shanghai with GFSI participation (CIES, 2007). According to an official statement by the GFSI, the commitment of seven major retailers to accept GFSI-benchmarked standards on this occasion, allowed to redirect the resources at enhancing collaboration with developing countries (GFSI, n.d.a). Consequently, GFSI's engagement with China became more substantial from 2008 onwards. This year in April, GFSI conducted its first road show to Shanghai and Tokyo – a fact so relevant for GFSI that still in 2016 it marked it as a milestone in GFSI history (GFSI, n.d.a). From this point onwards, GFSI continued to actively build its presence in China (see Table 16). The activities from 2008 until 2014 can be traced based on the official GFSI newsletters (Kottenstede, 2017).

The activities conducted by GFSI reveal two objectives. First, GFSI aimed at local Chinese food business to raise awareness for the initiative and eventually increase TPS usage in China. Accordingly, GFSI organized the GFSI China Focus Days annually since 2012. It advocated the event by claiming that it provided answers to the following questions: "What are the benefits of GFSI? What are the GFSI recognized schemes? What is the process to comply with GFSI's guidelines? Is it accessible to small producers and manufacturers? How can we achieve: 'Once certified, accepted everywhere'? What does it mean? How can GFSI help me boost my business? Are there any case studies showcasing the benefits of GFSI?" (GFSI, 2013a). The fact that individual GFSI-benchmarked private standards had the opportunity to present themselves on these conferences furthermore supported this objective (GFSI, 2012a).[115] An interviewee stressed GFSI's interest in pushing for wider usage of the benchmarked schemes globally: "[T]he aim was to have as many companies as possible becoming certified against one of the GFSI benchmarked

[115] Also based on the authors observation at the GFSI China Focus Day 2014 in Beijing.

schemes. This was mainly a task of communication in order to inform food businesses around the world to know about it and to make use of the GFSI's approach" (interview 29). The GFSI Spring 2012 newsletter shows that China plays a key role in this objective. Increasing the number of businesses using GFSI recognized standards is presented as a strategic focus, adding that "China and India will be [sic!] top of our list" (GFSI, 2012c).

In China, like in developing countries, especially small and medium-sized food companies had (and still have) substantial problems fulfilling all criteria of GFSI-benchmarked TPS (interview 24). For GlobalGAP, one interviewee reported that his suppliers would comply with "something like 8 per cent" of the full set of requirements (interview 7). Chinese companies therefore needed training and education to eventually be able to fulfil GFSI-criteria (interview 24 and 29). GFSI was well aware that a further spread of GFSI-benchmarked certifications in China depended on capacity building.[116] At the China International Food Safety and Quality Conference (CIFSQC) 2013 in Beijing, a GFSI official said, "you need to give training" for a success of GFSI in China (Kranghand, 2013). In this context, GFSI also claims to have been active in conducting capacity building measures. Reported instances of capacity building were:

- Coca-Cola conducted a pilot training project in 2009 (GFSI, 2009), that was acknowledged as helpful by CFSA-representative (interview 21);
- Carrefour uses an own programme to train suppliers to eventually achieve a full GlobalGAP certification (interview 7);
- In 2012, during a Sino-France CEO Forum 2012, GFSI held a food safety session that served training purposes (Kranghand, 2013);
- A pilot project conducted in Shanghai in cooperation with Jiaotong University and SSAFE117 in 2013 marked the start of the Global Markets Programme in China (Yao, 2013). It included six sessions with about 500 trained persons and lasted until 2015[118];
- Metro conducted a capacity building workshop in 2014 in Shanghai in which GMP tools were discussed with the Shanghai FDA.[119]

[116] This problem also became visible during Q&A session at the CIFSQC 2013 in Beijing, the CIFSQC 2014 in Shanghai and the GFSI China Focus Day 2014 in Beijing, during which Chinese participants complained that GFSI certifications were too hard to achieve.
[117] SSAFE is a non-profit organisation founded in 2006 by globally operating food companies with the mission to promulgate "internationally recognized food protection systems and standards" through public-private-partnership projects. It collaborates with OIE and FAO. Four of its ten member companies are also active members of GFSI (Cargill, Coca-Cola, Danone and McDonald's) (SSAFE, 2014).
[118] Presentation by Yue Jin from Bor S. Luh Food Safety Research Center of Shanghai Jiao Tong University on 28 August 2014 at the GFSI China Focus Day in Beijing, personal notes of the author.
[119] Presentation by Jiang Xin from Metro China on 28 August 2014 at the GFSI China Focus Day in Beijing, personal notes of the author.

Another GFSI expert said during an interview: "The […] objective of GFSI was to make the processes of becoming certified easier. We want to lower the hurdle of becoming certified. To this end, GFSI is offering training programs which are essentially capacity building measures. Increased food safety competency for food producers increases their likelihood to be certified against GFSI benchmarked schemes" (interview 29). To overcome this barrier, GFSI advocated the Global Markets Programme and the according low-level unaccredited status as intermediate steps to full certification in China. GlobalGAP and CNCA had introduced a similar approach with ChinaGAP in 2006 which allows for two grades of certification, a partial and full certificate (interview 4). A problem for conducting capacity building measures was financial resources, as a GFSI official explained in a short encounter at the GFSI China Focus Day in 2014. Accordingly, GFSI sought strategic alliances with other institutions such as the World Bank" (GFSI, 2012b). Part of this is the GFSI's discussion with World Bank's GFSP.[120]

With regard to the second objective, GFSI engaged intensively with the Chinese government in order to achieve an officially accepted status in China. A partnership with a Chinese authority was the declared aim, which was stated in GFSI's conference presentations (Kranghand, 2013). To both ends, GFSI participated in and organized own conferences and held several meetings with Chinese officials (see Table 16). Often, Chinese government representatives also participated as speakers in GFSI events, for example in all GFSI China Focus Days (Groenveld, 2013; GFSI, 2012b).[121] The engagement with the Chinese government yielded several Memorandums of Understanding. The first one signed in 2011 between GFSI and CNCA was a major milestone in GFSI's China-strategy as it established the grounds on which GFSI was able to build its localization strategy in China (see discussion further below in this part).

As for the motivation behind this active programme of GFSI in China, one of its leading representative explained: "We must produce in China for the Chinese market. However, we want to maintain our high quality in the Chinese market as well. This is why we have an interest in safe food supply in China. On top of that comes food supply from China to other parts of the world" (interview 29). This clear hierarchy of motives – supply safety for the Chinese market first, then for export – is the same for retailers. Retailers source few products in China (interview 6). Hence, their most important concern is sourcing safe food in China for the Chinese market (interview 6 and 7). As other interviewees stressed, if companies in China take food safety seriously, companies

[120] No formal partnership had been set up by the end of 2014, but GFSI took steps to establish closer contact with GFSP. For example, it was mentioned as an envisaged partner in a GFSI speech in 2013 (Kranghand, 2013). In 2015, the official report about GFSI's Global Food Safety Conference featured GFSP as a topic (GFSI, 2015d).

[121] Also based on the authors observation.

had to take it into their own hands (interview 14 and 40). Making use of TPS was a major element in their strategy to his end. [122]

Table 16: GFSI activities in China 2008-2014

Year	Activities
2007	GFSI representatives participate in CIES Annual World Food Summit in Shanghai
2008	April: first Asia road show with event in Shanghai (220 participants)
	Start of partnership with China Chain Story & Franchise Association (CCFA)
2009	April: 2nd Asia road show with Beijing event
2010	April: GFSI delegation spends a week in China for meetings, including with members of the Chinese government administration "to establish links there"
	Meetings include discussion with CNCA about mutual recognition
	April: co-branded conference with CCFA in Shenzhen
	November: Participation of GFSI in CIFSQC
	GFSI team has China coordinator
2011	April: 7th GFSI-session at CCFA China Food Safety Annual Conference in Hangzhou
	April: GFSI workshop with Chinese food company Cofco (Beijing), meeting with CNCA (Beijing)
	April: participation in International Forum on Food Safety Beijing
	April: participation in the fourth International Food Safety Peak Forum in Beijing
	April: meeting with CNCA to discuss collaboration, incl. China HACCP benchmarking
	November: GFSI official partner of CIFSQC with half-day GFSI session
	November: memorandum of understanding between GFSI and CNCA
2012	March: GFSI Food Safety workshop at the 18th Franco-Chinese economic forum, Beijing
	March: memorandum of understanding between GFSI and the CNCA Certification and Accreditation Institute of Technology (CCAI)
	July: 1st GFSI China Focus Day (422 delegates) with speakers from AQSIQ, CNCA, Chinese Center for Disease Control and Prevention (CDC)
	March: official announcement of GFSI China Local Group
	November: GFSI partner of CIFSQC

[122] I take this impression from visiting conferences in China in which companies as various as Metro, Chiquita, Element Fresh, Carrefour, Hormel, Kerchin, Danone, Coca-Cola and Cargill presented their approach

2013	April: GFSI session at International Forum on Food Safety, Beijing
	June: 2nd GFSI China Focus Day (332 delegates), Beijing, with speakers from CFDA, CNCA, CDC, CIQ
	June: official launch of China Food Safety Initiative (CFSI)
	July: GFSI presentation at International dairy development Forum, Hohhot, Inner Mongolia
	July: GFSI presentations at 9th CCFA Food Safety Annual Conference
	November: 4th meeting of GFSI China local group
	November: GFSI partner of CIFSQC
2014	3rd GFSI China Focus Day GFSI (359 delegates), Beijing, with speakers from CFDA, CNCA, CFSA (former CDC)
	GFSI China local group office set up in Shanghai
2015	GFSI announces technical equivalence of China HACCP

(Source: own, based on Kottenstede, 2017; GFSI, 2010b; GFSI, 2011b; CNCA, 2011)

The story of GFSI in China took a turn at this point of the development. The relationship between the GFSI and the Chinese government changed towards institutionalized cooperation which included a substantial adaption of GFSI to Chinese political conditions. This development unfolded along two separate but related paths (Kottenstede, 2017).

Firstly, GFSI pushed for the establishment of a local GFSI group (Kottenstede, 2017, p. 224). This idea was first publicly presented during the 2012 GFSI China Focus Day combined with a "call for action" to establish a China Food Safety Initiative (CFSI) (GFSI, 2012b, p. 13; GFSI, 2012d, p. 12). A GFSI representative explained the reasoning behind the establishment as follows: "For making the implementation of GFSI in China easier and in order to bridge the global-local gap, GFSI has set up a local team in China. […] The CFSI also takes care of the communication between the GFSI and the Chinese government" (interview 29). During the 2013 China Focus Day, GFSI officially launched the local group and announced that it had 20 members on board which already had met three times (GFSI, 2013c, p. 12; Kranghand, 2013). In 2013, GFSI also announced first activities of the local group. It had established a working group on the GFSI's Global Markets Programme and a working group on communication and implementation (GFSI, 2013c, p. 12). In 2014, the number of members had expanded to 30 Chinese and Western companies and seed funding as well as a secretariat office in Shanghai were in place (interview 29 and 37). However, an official inception only was declared end of 2015 (GFSI, 2015e; GFSI, 2015a). The reason for this delay was that GFSI aimed for the support from a Chinese governmental partner for a successful official registration of the CFSI. Initially, GFSI planned to set up CFSI as an independent NGO in China. However, regulation for foreign non-profit organisation issued by the Ministry of Security changed the situation and made an official partner necessary (interview 37). Initially, CNCA was

supposed to become the partner (interview 37, Kranghand, 2013). However, when GFSI gained the impression in 2014 that CNCA behaved too engrossing, it turned to the by then established CFDA as a potential partner (interview 37). Eventually, CFSI was set up as a part of partnership with the China Nutrition and Health Food Association (CNHFA), "an independent, national and non-profit social organisation, co-initiated by the Chinese leading food production and operation entities, scientific research institutes and inspection institutions, with the approval from the State Council and the Ministry of Civil Affairs and endorsed by China Food and Drug Administration" (GFSI, 2015a).

Secondly, GFSI engaged with the Chinese government to benchmark a Chinese public standard (Kottenstede, 2017, p. 231). Notably, this was not the first time, a TPS benchmarked a governmental voluntary food safety standard in China. Previously, GlobalGAP had already accepted ChinaGAP as benchmarked on request of the standard owner CNCA (interview 11). In March 2012, an additional memorandum between GFSI and CCAI, a CNCA body, was signed to facilitate this process, which already had started before (CNCA, 2016a). Specifically, the CNCA and the GFSI agreed to subject China HACCP, a voluntary national standard owned by the CNCA, to the benchmarking procedure. CNCA had developed this new standard based on the ISO 22000 standard.[123] The CNCA purposely designed China HACCP so that it would be suitable for benchmarking against GFSI requirements. To this end, Western GFSI member companies and Western certification bodies consulted and supported the CNCA in the development and benchmarking of China HACCP (interview 24 and 33). However, the lead of the CNCA working group for the China HACCP benchmarking was mainly organized by the Chinese CB CQM, which also became a member of the CFSI (interview 33). It proved to be a lengthy and complicated process (interview 26). Discussion about this can be traced back to 2010 according to the CNCA website (CNCA, 2016b). Results initially were expected by the end of 2013 (GFSI, 2013c, p. 7; Groenveld, 2013). However, even at a late stage, the successful benchmarking had to be postponed and had not been completed by the end of 2014.[124] This view is shared by the Chinese side. By characterizing the establishment of China HACCP as an "intensive process", a Chinese expert insinuates that the discussion between both sides was complicated (interview 36).

Reportedly, the technical equivalence of China HACCP with the GFSI guidance document was achieved without problems (Kottenstede, 2017, p. 231). The reason for the prolonged benchmarking process was the governance structure of China HACCP (interview 26, 29 and 37). The guidance document requires scheme owner, certification body and accreditation body to be

[123] ISO 22000 is a food safety management standard published by the International Organization for Standardization (ISO) in 2005. It is especially suitable for food manufacturers. The Western FSSC 22000 TPS likewise is based on ISO 22000.

[124] It was announced publicly by GFSI representatives at the CIFSQC in 2013 to be completed in February 2014 (Kranghand, 2013).

separate organizations (GFSI, 2013b, p. 17). In the case of China HACCP, however, this was not guaranteed: CNCA was the standard owner and CNAS was the authority responsible for accreditation. However, CNAS was authorized by CNCA. The discrepancy between the China HACCP governance structure and the GFSI requirements resulted in a deadlock of the benchmarking process within GFSI, as participants struggled to find a solution (interview 26 and 37). Eventually, in 2015, GFSI made a solomonian decision. It explicitly created a new category of benchmarking, the so called "technical equivalence". This category, GFSI claims, was deliberately established for public standards. It "is an acknowledgement of the equivalence of the content of the certification scheme to the relevant scope of GFSI requirements (Part III)" and thereby confirmed the equivalence of the technical aspects (GFSI, 2015b). It thus is less than a full benchmarking, which would also confirm the equivalence of the standard's governance system (Kottenstede, 2017, pp. 235-236).

CFSI and the China HACCP-benchmarking bound both sides closer together: With China HACCP, GFSI has a standard in its portfolio, which connects the initiative to the Chinese market. This was seen as helpful as many GFSI members run businesses in China (interview 37). However, it seems GFSI had little other choice if it wanted to establish itself better in China. When asked by an attendee during the GFSI session of the 2013 CIFSQC, why GFSI opted for China HACCP as the standard in China rather than applying existing Western TPS, then GFSI chairman Yvey Rey answered publicly that this was a government decision of China and that GFSI cannot make China accept any other private standard.[125] The fact that GFSI went so far to change its own rules in order to create a second type of benchmarking for China HACCP furthermore shows the extent to which GFSI depended on the Chinese governments conditions. The Chinese government, in turn, received business support to improve food safety through capacity building and increased export opportunities for its food sector. The former point is supported by a GFSI representative, who argued that it was the problem pressure in the area of food safety, that created the Chinese government's interest in the GFSI and drove China's interest in benchmarking China HACCP (interview 29). A Chinese government official involved in the matter put the emphasis on the latter point. He stressed that once China HACCP is benchmarked against GFSI, it will be much easier for Chinese food producers to export their products" (interview 36). Likewise, Liu Weijun, a CNCA official stated during his presentation at the 2014 GFSI China Focus Day: "GFSI standards have an impact on China and the Focus Day is an important platform for Chinese companies to learn about best practices and to be able to expand to overseas markets" (Liu, 2014). This stance on GFSI is mirrored in statements of several Chinese companies during their presentations at the 2014 GFSI China Focus Day in Beijing. For example, Chen Chunhua, Co-Chairwoman and CEO of New Hope Liuhe, a Chinese food producer, said: "We are expanding to the international market and with GFSI, we can shoulder food safety responsibilities in different markets" (Chen, 2014a). In

[125] Personal observation by the author.

the same vein, Gu Shaoping, a CNCA representative stressed that in order to increase the number of HACCP-certified exporting Chinese food businesses, China needed the "GFSI-mechanism" (Gu, 2013). At the same time, with the benchmarking of China HACCP, the Chinese authorities created the opportunity to reduce the number of unlicensed TPS in China and to regain control over the certification sector in China (Kottenstede, 2017). With a China HACCP being equivalent with GFSI, Chinese market actors have little incentive to request for certificates of Western TPS (Kottenstede, 2017, p. 235). As for the CFSI, the deal is similar. GFSI received an official status and governmental recognition while the Chinese government profits from the impetus of the GFSI that activated Chinese food companies to take responsibility for food safety while at the same time staying in control over this development. Both parts of the cooperation, however, were not officially connected with each other, as a GFSI representative stressed: "Of course it [benchmarking China HACCP – the author] well helped the establishment of CFSI, but that was not the reason in this case" (interview 37).

5.5.3 Summary and discussion

Two expectations are relevant for the SSH: first, the need formulated to protect European consumers; second, the need for action formulated with regard to specific imported products/product groups that are typical for import from China. When analysing TPS in China with respect to the MAH, I concentrate on the following expectation: determination to establish TPS in China for domestic market formulated.

GFSI standards in China at first predominantly occurred in China in the export part of China's food sector, because customers outside of China requested respective certifications. As TPS play an important role within the Chinese export sector, there is a clear supply safety dimension. This however, is not the result of TPS pursuing a more active role in China. It rather is the result of the very core mechanism built-in in supply chains: if Chinese companies want to become a supplier, they need to provide the requested TPS certificates. Likewise, interviewees do mention the need to protect European consumers rather more on a side note. As regards the second expectation, it follows the same pattern. There is no specific drive to improve China's implementation of specific product groups because of export. Again, TPS involvement is driven by demand. The BRC report cited above serves as a good example: it shows which product groups had been certified on request by the respective Chinese companies (which in turn thereby fulfil requests from their buyers). In comparison to the overall engagement of TPS with China, this supply safety-driven presence of TPS in China makes for the much smaller share.

The more active and intense involvement of TPS in China rose when GFSI started pushing for wider usage of TPS in China. While the motivation for this drive has not been made fully transparent, interviewees' statements and additional facts indicate that this drive primarily derived from the need to have TPS in China for sourcing and selling *within* China. Ensuring safe imports

from China plays a secondary role. One of the additional facts is the observation that the leading actors for GFSI in China represent retailers (Metro) and food service companies (Coca-Cola, McDonald's), thus companies which heavily rely on sourcing in China for their China business. What is more, GFSI showed a strong will to establish itself in China, indicated by its persistence over the years and willingness to establish a new benchmarking status for China HACCP. Given that businesses are behind the GFSI, such an enormous investment needs to be reflected in according business opportunities which the growing Chinese domestic market offers more strongly than then increased sourcing from China. This is reflected in an interviewee's statement: "It [the benchmarking of China HACCP – the author] was more or less a move from GFSI to have China as a country on board since a lot of members are having [or] doing business in China" (interview 37). Thus, for Western companies behind GFSI, the prime motivation is the same motivation for which TPS have been setup in general: safeguarding their reputation against food scandals while keeping costs at bay by means of harmonisation of standards (interview 26 and 29). After all, their reputation is an important distinction from Chinese competition. Chinese consumers trust Western brands and especially imported products more with regard to their safety (Wang, 2012). The cooperation of GFSI with the Chinese government, the CFSI as well as the benchmarking, arguably are measures that respond to the stricter regulation of third party regulation in China (Kottenstede, 2017).

The GFSI's support of China HACCP also indicates a focus on supporting the local Chinese food safety regulation, because this standard will foremost be used and accepted by Chinese market actors. As China HACCP has not been fully benchmarked, it is very unlikely that China HACCP will be accepted by companies sourcing in China for Western markets. Thus, in sum, while a stronger establishment of TPS in China in theory contribute to both supply safety and market access and this dual objective is reflected in interviewees statements, the GFSI's investment into China seems to rather stem from market access interests. Thus, TPS occurred in China because of both reasons, ensuring import safety as well as to ensure safety of supply chains within China (interview 8). The notable difference is that the latter motivation was combined with an active push, especially by the GFSI. Regardless of the specific motivation, TPS exert influence on China's food safety relation, as stressed by an interviewee: „GFSI brings new ideas, new concepts and a new system" (interview 24).

The development of TPS in China to a large extent is also shaped by the interest of the Chinese government to establish a certification system based on private responsibility for food safety. The strong interest occurred twice, in the case of GlobalGAP and GFSI. China seems to see advantageous in using TPS to improve implementation and enforcement of food safety regulation in China. However, the Chinese government at the same time kept control over the certification system. Establishing own respective government owned standards which were then benchmarked

against GlobalGAP and GFSI together with strict regulation for CB and foreign TPS were means to secure governmental oversight of the certification sector in China.

5.6 Limited interaction between EU public actors and TPS

The theoretical discussion suggested that interaction between the EU Commission and TPS may be another potential component of the causal mechanism explaining both actors' behaviour. I understand interaction broadly, covering a continuum ranging from mere awareness to close cooperation (see chapter 2.2.2.3.4). The analysis is rather short as the main finding is that interaction is very limited. I discuss the finding for both the EU public and TPS perspective, starting with the former.

5.6.1 Interaction from EU public perspective

The EU Commission has a principal awareness of TPS and – to a varying degree – interviewees reflected the role TPS play in influencing China's food safety regulation. However, there is no cooperation between the EU Commission and TPS in China. One EU Commission representative interviewed was not aware at all of GFSI (interview 30). DG SANCO and DG TRADE representatives were aware of TPS and GFSI but were decidedly reserved about any cooperation. They portrayed TPS as problematic. Firstly, because they potentially interfere with the work of DG SANCO in ensuring import safety (interview 2 and 25). Secondly, because they potentially distort trade due to their stricter requirements compared to public food safety standards (interview 31). In this the DGs followed the EU's position within the Codex Alimentarius, as one interviewee pointed out (interview 2).

The negligence of TPS is reflected in EUCTP as well. During EUCTP I and EUCTP II there were no exchanges with private standard organisations (interview 1 and 3). One expert argued that interaction or cooperating with TPS was a too sensitive area, as the Chinese government would not accept it (interview 1): "And if I had a chance, and if I had a budget, I would very much get involved with them [private standards – the author] and invite them to every one of our activities. But I can assure you that I might run into a conflict of interest with the government of China. I might run into a conflict with them saying that we are the ones that...Even though the future is promising, for that, I think the status quo now in China doesn't allow us as a project... not to step our nose into that direction" (interview 1). EUCTP, interviewees argued, by its definition was a government-to-government project, not allowing for public-private cooperation (interview 1 and 3). What happened in EUCTP more frequently is the invitation of specific business representatives as experts (interview 1 and 3). This indirectly established links for TPS as the examples mentioned in the interviews are experts representing companies that are active within GFSI – notably Metro and Carrefour (interview 1 and 3). What the interviewees did not refer to, was the fact that,

during EUCTP II, TPS were addressed as a topic in EUCTP activities. The Original Working Plan for EUCTP II specifically contains the objective C3e "Awareness raised on private standards and their impacts on food producing and international trade" (EUCTP, 2010, p. 294). In the same vein, a number of measures specified in the annual planning documents supposedly contributed to this goal (EUCTP, 2011a; EUCTP, 2012a; EUCTP, 2013a; EUCTP, 2014a). Thus, it seems that TPS have been discussed with some notable distance, not as a means to achieve food safety regulation, but as phenomena to be aware of.

The EU Commission's ignorance towards TPS occurred despite the fact that TPS contribute to supply safety by supporting implementation of international food safety approaches (and enforcing them). This happens via two already described ways. Firstly, the logic of TPS with the required certification puts an additional layer of enforcement on Chinese companies that supply to Western companies. Secondly, TPS show a strong will to conduct capacity building in China. Although for GFSI within the period under observation there are only limited capacity building measures implemented in China, with the view from 2016, it is possible to see that GFSI was working on establishing such projects (although not exclusively for China) (anonymous, 2015b, see 5.5.2). Accordingly, many sources re-confirm that TPS contribute to the implementation and enforcement of food safety regulation and thereby complementing public regulation or even filling a void left by insufficient public controls:

- A representative of GFSI confirmed in a side talk during the 2015 GFSI Global Food Safety Conference in Kuala Lumpur that industry perceives implementation of food safety regulation as the strength of private standards and it "would not use certification systems, if state inspection and implementation would be sufficient to protect the own brand".126
- Likewise, Chen Junshi, representing CFSA, said that "GFSI standard guarantee implementation of government regulation" and "GFSI can significantly enhance food safety in China, if it plays it role like in other countries" (Chen, 2014c).
- A representative of a Chinese food producer said "Especially in the beginning, Chinese law often provided unclear rules or specific rules for products were not established. In cases, in which the Chinese law was unclear, my company followed a number of regulations and international standards. One example for such standards is the GlobalGAP standard" (interview 40).
- Even EU Commission officials reflect this view. One speculated that TPS are used to "to compensate for the abandoned public services" (interview 25). Another acknowledged that TPS are training suppliers. This was seen as helpful for exporting countries, so that they

[126] Personal notes of a side talk with a GFSI representative on 4 March 2015 at the GFSI Global Food Safety Conference in Kuala Lumpur.

> could meet EU requirements and were able to export more easily. The interviewee portrayed public and private influence on third countries as complementary in this regard (interview 31).

The EU's negligence of TPS seemed to root in the EU's primary motivation for market access. A statement from one expert directly points in this direction: "if it was my project, I would interact with the private standard developer, straightforward. Because I think that it is the game that is going to prevail in the future. But because this project is come under government, I have to play these games. I have to play these games, because the medium term of this project is to harmonise the Chinese standards, you know. The official Chinese standards, you know, the ones that the gate opener is going to use to open the gate for international products. So, this is the game" (interview 1). A further indication is that, in contrast to cooperating with TPS, cooperation with the private sector in general was seen as highly positive. An EU delegation representative stressed how well the European Chamber of Commerce in China (EUCCC) supports his work (interview 2). Similar, an EU Commission representative stresses the exchange with business associations (interview 30). EUCTP II Original Working Plan mentions coordination with Chambers of Commerce, but makes no reference to TPS (EUCTP, 2010).

5.6.2 Interaction from TPS perspective

The TPS perspective mirrors the negligence by the EU Commission. In principal, there have been several meetings and exchanges between GFSI and the EU Commission in Brussels, as reported by GFSI (GFSI, 2008b, p. 3; GFSI, 2009, p. 4). A GFSI interviewee claims that GFSI also has a partnership with DG SANCO and EFSA on food fraud (interview 29). However, specifically for China no such connection exists. For instance, EU officials did not participate in any of the GFSI activities in China (e.g. GFSI China Focus Days). Nor did GFSI representatives or GFSI documents suggest that involvement with EU officials in or about China as an objective.

However, activities by EUCTP I interacted in an indirect manner with TPS. Several CB approached EUCTP I to discuss problems in setting up their business in China. This did not result in any further cooperation with EUCTP I (interview 3). What is more, EUCTP I was in close contact to the co-founder of Sino Analytica, the first privately run food testing laboratory which fulfilled western companies' requirements and which developed into a CB (interview 3). EUCTP I also organized a study and a workshop on co-regulation between public authorities and food industry and possible lessons China could learn from the EU. This was part of the EUCTP support to implement the FSL (interview 32). Thus, EUCTP I activities indirectly supported TPS and their establishment in China.

5.6.3 Summary and discussion

The interaction condition is only relevant for the SSH. For the interaction condition to be present in the case of EU public actors, one of two expectations must hold true: first, activities by TPS in China being portrayed as insufficient by EU sources; second, no or limited awareness of activities by TPS in China by EU sources. The expectations for TPS mirror those expectations with EU public actors instead of TPS.

The above discussion, however, leads to the conclusion that the level of interaction is very low – no matter the type of interaction (see 2.1.3.3). From the EU Commission's side, statements suggest that this is partly due to the generally critical judgement of TPS. The positive attitude towards collaboration with chambers of commerce and business associations is striking in this regard as it contrasts with the refusal to interact with TPS. Thus, the EU Commission is aware of TPS but rather ignores it, which – in effect – is similar to portraying their contribution to supply safety as irrelevant. This is despite the fact that numerous experts confirmed a supply safety void left by public regulation (see the discussion of the void in chapter 2.2.2.2.1). GFSI likewise shows no interest in interaction from their side. Even the awareness of EU public activities is low. This suggests that TPS do not expect any advantages in interacting with EU public actors on China. For the objective, GFSI is after, the EU Commission cannot be of any help. This in turn supports the observation that the drive for GFSI in China especially comes from a market access motivation. Ironically, a market access motivated expansion of TPS in China – as discussed in section 5.5 – may well indirectly contribute to improved overall supply safety. Efforts to improve food safety knowledge and practices in the Chinese market at least theoretically improve overall food safety and thus mitigate supply safety risks in the long run. To conclude, there is no evidence that interaction between both sides substantially influences their respective behaviour.

5.7 Conclusion

The purpose of this chapter was to verify whether the conditions for supply safety and market access hypothesis can be found. To this end, for each condition I briefly discussed the evidence supporting the expectations as defined in chapter 2.2.3.

In a nutshell, the conditions support both hypotheses. The results for the condition trade and condition state of China's food safety regulation as well as the findings for third parties allow for both hypotheses. A more decisive result derives from the detailed discussion of EU Commission's and GFSI's activities. It showed an emphasis on market access as a motivation in both cases. For the EU Commission, market access continuously sustained EU-China relation – on the negotiation level as well as on the level of EUCTP activities. This is where the EU pushed the hardest. In contrast, supply safety-motivated discussions appeared more irregularly. It is noteworthy and at

first sight in contradiction to the theoretical considerations in section 2.2.2 that the state of the CFSR as well as the perception of the deficiencies of the CFSR by the EU Commission did not lead to a bigger push for supply safety measures. At the same time, the analysis of the CFSR showed that – despite all reforms – fundamental food safety problems remained throughout the full period, especially with regard to implementation and enforcement. For GFSI and TPS in general, they fulfil their supply safety-function to the extent requested by market actors sourcing in China for other countries. However, this appears to be more of a passive development. An active involvement with decisive interest to push for TPS-development in China rather derives from the interest of Western companies to establish business within China.

IGO activities contributed to the development of China's food safety regulation, thereby increasing de facto food safety. In this context, especially WHO stands out as it contributed decisively to the development of the FSL, which (unintendedly) was in EU supply safety interests. Thus, IGOs' engagement may have contributed to a reduced need for conducting supply safety-oriented activities, especially in the view of the EU Commission.

Notably, the focus on market access seems constitutive for the meagre interaction between the EU Commission and TPS. Market access for both follows separate specific needs and interests, leaving little areas of overlapping interest and potentially mutually supportive actions. Thus, the finding of hardly any interaction is another indication which supports the MAH.

An additional major finding, however, brings in yet another explanatory element. China's government plays a crucial role for both public and private actors. Activities conducted by EU public and private actors to influence China's food safety regulation to a strong degree depend on whether the Chinese government is willing to let it happen. This is less surprising for the EU's public involvement as this is the natural limitation of bilateral relations, as discussed at the outset of this analysis (see 2.2.2). What is more noteworthy is the Chinese government's deliberate involvement in the development of TPS in China. Contrary to the argument that TPS are a market-mechanism, China's government has brought itself in this regulatory realm by its specific regulation of CB and creating state-owned "private" standards.

The retracing in this chapter analysed all causal components identified as potentially necessary in the research heuristic. However, the analysis so far is not sufficient to describe the causal mechanisms that explain EU's activities to influence China's food safety regulation. In other words, I have not yet identified the causal components sufficient to explain the outcome. I will now turn to this task in the following chapter.

6 Discussion: Identification of the causal mechanisms

The analysis in chapter 5 leaves us with an ambiguous result. Expectations for both hypotheses have been fulfilled. While I was able to show, that the MAH proved to be more relevant compared to the SSH, overall the analysis of chapter 5 only provides a partial answer to my question. It asks for the *specific causal mechanisms* that explain the outcome. With my research question, I have defined the outcome as the activities conducted by EU Commission and GFSI that aim to influence China's food safety regulation. By answering this question in this chapter, I will complete my analysis. Building on the results of chapter 5, I discuss EU Commission and GFSI as well as supply safety and market access separately. This shall clarify, which components of the research heuristic are actually sufficient for the causal mechanism. Those observations with causal relevance that I derived from my analysis in chapter 5, but which have not been part of the research heuristic, play an important role. As it becomes clear in the following discussion, such observations were missing pieces in the re-tracing of the causal mechanisms. I first discuss the causal mechanisms for the European Commission and then turn to the causal mechanisms of the GFSI. This separation is a direct result of the finding in chapter 5, that interaction between both is very limited.

6.1 The outcome-explaining mechanisms for the EU Commission

As discussed in section 5.4, market access was the initial and sustained motivation of the EU Commission to influence Chinese food safety regulation. However, I also found supply safety-motivated activities. The difference in timing and frequency of market access and supply safety access suggest that different processes and mechanisms were at work. In this section, I firstly introduce three factors, which I extract from the analysis in chapter 5. In the second section, I use these factors as missing parts to develop two causal mechanisms. The last section summarizes this section and combines both causal mechanisms to define one causal mechanism explaining the outcome for the EU Commission.

6.1.1 Additional causal components

I first show that supply safety motivated activities each needed a triggering event. I then proceed to discuss a second causal component that was necessary and sufficient to explain the EU

Commission's activities that address supply safety problems. China, I argue, forestalls the EU in that it pulls for capacity building and training activities which support supply safety. It does so because of intrinsic motivation to improve food safety regulation in China. Lastly, I turn to the MAH. China's reform process with regard to food safety regulation opened up an initially closed and opaque governance structure to outside influence. This was an essential factor leading to increased EU activities, thus providing windows of opportunities.

6.1.1.1 Triggering events

The EU-China dialogue and likewise the EUCTP activities shifted towards food supply safety objectives after the first series of major food safety incidents had occurred between 2003 and 2005. Especially the "Fuyang baby formula" incident and the "sudan red dye" incident stirred attention (see Table 1). During the same period, avian influenza reappeared as a topic in China, because in 2006 a first human victim of H5N1 was confirmed retrospectively for 2003 (World Health Organization, 2017). In addition, during the same period, unsafe non-food imports from China became a topic, especially toys. Consequently, unsafe imports of consumer goods from China in general rose on the political agenda in the following years:

> *Since early 2007, a crisis of confidence has developed around the world regarding products made in China. A series of product quality scandals involving items such as toys, toothpaste, pet food, and milk powder has resulted in a dramatic decline of confidence in Chinese products among global consumers. Of the concerns, food safety is the most serious. (Liu, 2010b, p. 244)*

It was with this development that food import safety gained more attention. This becomes especially obvious in the EU Commission's stocktaking report of consumer protection (European Commission, 2007d). Notably, the MoU between DG SANCO and AQSIQ, which strengthened supply safety as a topic in EU-China relations, was signed in 2006. It was directed at product safety in general, including food safety (European Commission, 2007d, p. 19). How "hot" the topic was in this period is furthermore indicated by the sharp comment by trade commissioner Peter Mandelsohn at the 2007 Beijing Forum and the resulting éclat (see 5.4.1.5). As a further indication, EUCTP-activities with a supply safety-character became more frequent after 2007. This connection between specific supply safety problem and supply safety measures is also embodied in the EU Commissions procedure already described at length in section 5.4.3, which connects RASFF notifications, FVO audits with EUCTP-activities. Again, it needs a specific event, a trigger, for the EU Commission to engage in supply safety motivated activities.

This trigger-effect seems not to be limited to EU public actors. As one interviewee explained, when food safety incidents occur, international actors tend to coordinate better: "Most of the activities that I see where people get together, like, FAO or WHO, the World Bank, are when we had a crisis. You know, like the avian flu crisis. You have an immediate crisis so everybody gets together" (interview 1). What is more, a similar process can be found for Germany, which

redirected the aim of its long-running SGFSP in 2012 towards supply safety, after the Chinese strawberries sickened German pupils (interview 23). Crucially, the connection between a triggering event and supply safety-motivated activities also explains the erratic appearance of such activities throughout the whole period of observation.

The observation of a trigger-effect fits well with another observation. In this line of thinking, triggering events were necessary, because the Chinese government was rather reluctant to agree to activities which directly addressed supply safety issues when the EU pushed (interview 2 and 25, see also 5.4.1.4 and 5.4.3). In fact, it seemed to have been seen rather critical by the Chinese side, when supply safety-induced topics had been brought by the EU side: "No matter how much DG SANCO told them that any domestic crisis would affect their international market. They believed that they could quarantine all of their companies and farms that were exporting. And they could make sure that export criteria, export standards were very high. But they couldn't of course do it across the board so they didn't want to include the domestic market" (interview 3). Actual cases of food safety incidents put the necessary additional pressure on the Chinese side to agree to measures improving supply safety. The reported reluctance furthermore is notable as it contrasts with the logic discussed in the next part, where China pulled for support. Thus, we need to distinguish activities pushed for by the EU and which were motivated by supply safety interests from activities with supply safety characteristics sought after by the Chinese side.

6.1.1.2 The pull factor

The above described steadiness of market access motivation and un-steadiness of supply safety motivation (see 5.4) especially can be observed in high level dialogue and strategy papers. On the level of concrete activities, especially within EUCTP, the picture becomes less clear. The reason, I suggest, is that the trigger-logic does not explain all instances of supply safety activities. Especially the list of EUCTP I and EUCPT II activities leaves a large number of activities, which rather contribute to supply safety than to market access but for which I could not find or assume any specific EU interest in this activity. The answer to this phenomenon lies in the motivation of China's government to request for capacity building measures. In other words, the Chinese side actively pulled for support from the EU to conduct measures with supply safety effects.

The pressure on the Chinese government to improve food safety was immense (interview 23 and pre-interview 10) and – as I recap in detail in section 3.3 and 5.2 – it was active in stepwise reforming regulation at latest since 2003 when having created the SFDA. Chinese academics and government representatives stressed the country's need and strong will to learn from Western approaches especially during that time (interview 15, 19, 20, 21 and 32). This corresponds with the perception of European and Chinese interviewees alike that a substantial part of the EU's activities to support China's food safety regulation go back to requests from Chinese authorities (interview 1, 2, 32 and 34). As one EU expert said: "When China started to look at the implementation of the law [FSL – the author], it realized that it created a monster. Officials of Chinese institutions were

overwhelmed because there were too many things which had to be installed and set up. Officials signalled that it is too much work (pre-interview 5). Other interviewees confirm this tendency by pointing out that China generally strongly pulled for knowledge in food safety matters (interview 12, 13, 20, 30 and 38). In addition, China's early and sustained participation in BTSF further substantiates this assessment (see 5.4.2.2). The reform process leading to and implementing the 2009 FSL was an important driver for this pull from China. It created a substantial demand for capacity building to put the new law into practice (interview 1). In this sense, the trigger-effect reappears in an indirect manner, as the Chinese reforms, especially the 2009 FSL, themselves had been the result of China's food safety crises (interview 18, see also 5.2.1).

There is an obvious overlap between EU's interest in supply safety and China's interest in domestic food safety improvements: "So, I would say, the intentions, the basic principles that are motivating, are the same in both countries. It has to do with the food safety for the population, which has such strong implications in the political business, the political management of a country. I mean, in Europe, when something happens with food safety it shakes the country, the continent – the horse meat, E.coli. And a minimum of incidents come forward. What is going on in this country [China – the author], and around this country is a mess […]. So, I think the objectives are the same" (interview 1). Ge Zhirong, former Vice Minister of AQSIQ, confirmed this Chinese position when addressing Chinese and international participants at the 2014 CIFSQC. He pointed out, that there was still a gap of food safety in China, especially compared to the first world. He proposed to enhance cooperation and exchange of opinions and expertise through international cooperation to resolve this situation. In this context, he specifically demanded that advanced economies "need to give more support to poor countries", especially with regard to technical assistance (Ge, 2014). Teng Jiacai, Vice Minister of CFDA, argued similarly at the 2014 GFSI Focus Day in Beijing (Teng, 2014).

It is not only the internal pressure for better domestic food safety that drives this logic. Likewise, China's own interest in food export motivates China to request for capacity building, because the better Chinese regulation matches with EU requirements, the better the export opportunities for China (interview 28 and pre-interview 10). As an EU Commission representative said: "If you see that China has also some problems, from an SPS point of view, with bringing goods in safety to other markets like the EU, there are plenty of opportunities that they are begging for a better understanding why we block certain products and what would be our motivation and justification behind. And it's one of the first things in a bi-lateral discussion that I say there is. The question is, why do you block it, what is your legislation behind, what is your motivation behind? You have detected problems, what are the analytical matters that you use, can you share your knowledge with us because we have a different approach because we don't find anything and when we bring it to your market you find products or substances which we were looking for but did not find"

(interview 31). Another interviewee confirmed that the Chinese are highly interested in help from the EU to solve problems of exporting to the EU due to too many notifications (interview 1). In 2008, an EU study found that Chinese agri-food exports to the EU had been much below the expectations by the Chinese due to rejections based on SPS-issues (Fischer *et al.*, 2008, p. 25). The strong interest by the Chinese government to improve food safety regulation because of pertaining problems with unsafe export is furthermore stressed by an expert from the East Asian Institute in Singapore, who argued in 2007 that "They [the Chinese government – the author] will not let a tiny percentage of bad exports damage their reputation." (Kahn, 2007). This topic prevailed. An AQSIQ speaker at the 2014 CIFSQC in Shanghai also pointed out that China had to step up its capacities to meet export market requirements. In 2016, rejections of Chinese food at EU borders endured, indicating the remaining need of alignment (Whitworth, 2016).

There are indeed numerous instances in which the Chinese interest in a specific activity conducted by the EU Commission is stressed. For example, Yu Jun, Deputy Director General of Bureau of Food Safety Integrated Coordination and Health Supervision, MoH is quoted in the EUCTP I achievement report, saying: "The EUCTP activities highlighted EU practices and approaches for food safety risk assessment and risk surveillance which is relevant to China's own challenges to develop a strong food safety system" (EUCTP, 2009, p. 7). In accordance with this general statement, China's specific interest is presented as the reason for a number of EUCTP II activities. For example, a large part of the series of activities directed at increasing China's capacities for animal diseases, especially the nine activities supporting the China Field Epidemiology Training Programme for Veterinarians are a response to a request by MoA (EUCTP, 2012c).

The discussion showed, that there are several reasons why the Chinese government has interest in support from the EU. This is relevant for the bigger picture: Regardless of where the specific motivation lies with the Chinese government, the more it has an intrinsic interest in stepping up on food safety regulation, the less the incentive for the EU to actively push for supply safety-measures.

6.1.1.3 Windows of opportunities

A third finding is that it were specific situations in restricted periods of times which made actions possible, a phenomenon often referred to as window of opportunities. The extent to which the EU Commission was able to conduct measures to influence China's food safety regulation was highly dependent on the Chinese side. This firstly is due to the fundamental logic of diplomatic relations, that a consent needs to be achieved for cooperation between two state actors (as already discussed in chapter 2). However, there is a second, China-specific factor that increased this dependency. The complex organisational setup and fragmentation of China's regulatory competencies (as described in 3.3.2 and 5.2) prevented effective action. EU interviewees complained that unclear responsibilities hindered them in taking action (interview 1, 3, 30 and 38). This was also a specific

problem for the EUCTP. In this regard, a reoccurring theme in the interviews are the unclear distribution of responsibilities for food safety regulation between Chinese ministries, the related unwillingness of these Chinese ministries to collaborate and the negative impact on effectivity of cooperation (interview 1, 2, 3, 4 and 5). Two quotations from interviewees from the EU side referring to different points in time illustrate the degree to which the fragmentation affected cooperation with the Chinese side. For the years of EUCTP I (2004-2009), an interviewee said: "The main problem I had in dealing with the ministries was that the Ministry of Agriculture was always the major stumbling block. In that the Ministry of Agriculture considered itself the most important policy ministry and so therefore it had great difficulty discussing issues with AQSIQ. […] We could not possibly organise a meeting which had representatives of the Ministry of Agriculture and AQSIQ" (interview 3). Another interviewee, referring to discussing specific market access topics with Chinese governmental organisations in a later period stated: "So, first you have to clearly understand the steps, then to see who is doing what, and this, for me, it's one of the difficult situations in China, to know to whom to speak" (interview 4).

Crucially, when China started its reform process, this situation improved with subsequent changes in the organisational structure of food safety regulation in China (interview 1, 8 and 38). As an EU-expert with view on the time after 2013 argues: "I think that through the last year we've seen a light of reform, that is basically giving us a better picture of who is in charge of what. Maybe we'll be in a better position to act with respect to certain issues. Because I think that previously there was a lot of effort put in the wrong institutions. And the institutions were just taking advantage of that, of those wrong efforts" (interview 1). What is more, China's extensive request for capacity building and training that came with the reform process and which has been described already above created the opportunity for the EU to engage with the Chinese on food safety related matters. This thus provided an entry point for starting discussions, potentially also on EU's interests. An EU Commission representative refers to this as windows of opportunities which the EU needed to use, in order to exert influence on China's food safety regulation: "But we have to invest our cooperation now because we have a window of opportunity to promote our own rules so that the Chinese when they adopt new rules they would in the best case replicate those rules which are totally identical to ours. Or at least not too far. […] So, they admire very much our system and they request us to help them. That's why as I told you before I believe that we have a window of opportunity now to influence the review of the new rules on food safety by the Chinese authorities" (interview 2). An EU expert directly involved in negotiating, planning and implementing EU Commission's food safety-related activities in China describes this logic in a similar manner: "And when you're trying to do something here you have to be able to sense where the [Chinese] government wants to go. And in order to do that you just got to educate yourself really, the programmes and all these things, and if that makes sense according to the rest of the world. […] So, if you see that the government of China is going into a plan, a programme that

makes sense in comparison. The best thing that you can do is, just join the mainstream, you mainstream your programme" (interview 1). Likewise, for the EU, the Chinese early reform process starting in 2004 with the research project conducted by WHO, ADB and SFDA opened up a window of opportunity. An EU representative at the time referred to it as "just a useful serendipitous time" (interview 3). For instance, EUCTP supported the 2004 DRC conference in Beijing (EUCTP, 2009). The project also organized European input to and comments on the Chinese Food Safety Law, which was drafted at that time (interview 3). EUCTP also provided input to the WHO/SFDA-2007-report which was a major building block of the 2009 FSL by sending a DRC delegation to the EU for them to "to learn about food safety developments, including the process of food safety system reform and food safety policies issues" (EUCTP, 2009, p. 33). Likewise, the EUCTP organised a meeting with the "chief drafter" of the WHO/ADB/SFDA-report for EU and Chinese officials to learn about and discuss the main suggestions for food safety regulatory reform (EUCTP, 2009). The FSL draft was translated and distributed to European stakeholders by the EUCTP to enable the European side to comment on the draft. EUCTP itself did provide input and comments to the FSL during the public consultation period (interview 3). Notably, a German representative involved in a national project with China gives exactly the same view when asked what facilitated her project: "It was just at the right time and it were the right topics. MoH, CDC and AQSIQ (at a later stage) were highly motivated to participate and to learn" (interview 23). The important point is that the Chinese reform process not only led to a pull for EU expertise. It thereby also created the (window of) opportunity for the EU Commission to bring her interests and topics in.

6.1.1.4 Summary

Beyond the pre-defined elements discussed in chapter 5, the analysis revealed three additional components relevant for the causal mechanism explaining EU Commission's activities to influence China's food safety regulation. Firstly, instances, which clearly demark EU interest in supply safety were reactions to triggering food safety incidents. Secondly, a larger number of activities, which in effect contributed to supply safety, were sought after by the Chinese side. Thirdly, China's regulatory reform process was crucial in providing the EU Commission with windows of opportunity to influence China's regulation. The Chinese government was looking for ways to effectively improve food safety regulation. Therefore, it was open to outside approaches and suggestions. These three additional factors need be considered when depicting the full causal mechanism in the following part.

6.1.2 Causal mechanisms

I now turn to the question, how all the causal components connect with each other to form a causal mechanisms which establish a causal link between the interest of the EU in safe food supply on the one hand side and market access on the other with the outcome of EU Commissions influence on China's food safety regulation. From the wealth of historical data and experts'

information, I can distract two causal mechanisms. First, the trigger-mechanism is only concerned with supply safety and presents the exception to the rule. Second, the deal-mechanism describes the mechanism which sustains the EU-China relationship over the whole period. In this deal, the EU Commission trades with China the provision of know-how and training with the opportunity to engage with China on specific issues. I proceed by presenting each of the mechanism and how its parts interact with each other in a causal manner.

6.1.2.1 The trigger mechanism

The central part of the trigger mechanism has already been described above (see 6.1.1.1). Here, I integrate this causal link into the full process. Starting point is the EU Commission's interest in supply safety (causal part 1, see Figure 16), which I could confirm in principle in my analysis (see chapter 5). This interest in itself is not sufficient to explain any activity by the EU Commission to influence China's food safety regulation. Arguably, for the mechanism to take effect, also Chinese exports to the EU needed to exist (causal part 2). Yet another necessary part of the causal mechanism is the state of China's food safety regulation – as identified ex ante in section 2.2.2 (causal part 3). I can now specify this part. The general observation of food safety problems in China is necessary but itself not sufficient. What leads to further steps by the EU Commission, are especially critical incidents – i.e. food safety scandals. Initially, such critical incidents have been domestic food safety scandals in China which drew the attention to the severity of the problems in China. This came in conjunction with increasing import safety problems in non-food consumer products, fuelling the overall fear of unsafe imports from China. Admittedly, no document or statement clearly stated this connection between triggering event and actions. However, the timely proximity is striking between the occurrence of first incident in China and the sudden appearance of supply safety in EU-China relations. In addition, further findings support my interpretation. I was able to show the same causal mechanism for specific products and food safety-problems. For example, rising RASFF notifications (being the trigger) for food contact materials or aflatoxins in peanuts led to activities by the EU Commission. The important point is: without a trigger, the EU Commission would not have pushed for measures to influence China's food safety regulation which especially increase supply safety (causal part 4). The EU Commission pushed for specific activities, like FVO missions and EUCTP activities, to influence China's food safety regulation with the objective to mitigate the import safety problems.

It is important to note, that in cases like dairy products, such exports did not exist, because the EU already had issued an import ban based on SPS grounds. The possibility of blocking Chinese imports is the last part of this mechanism. It explains, why China agreed to engage in the specific activities pushed for by the EU side, although it initially often was less interested. The interest of keeping access to the EU market motivated Chinese authorities to consent to EU suggestions (causal part 5). This in turn means that the trigger-mechanism explains activities for which the interests of the Chinese side in exporting food to the EU overlap with the interest of the EU side in

safety food imports. Again, the activities on aflatoxins are a case in point. An interviewee argued that the interests of the EU and China on the topic of aflatoxins in peanuts "match perfectly" and according activities by the EU created a "win-win situation" (interview 1).

6.1.2.2 The deal-mechanism

The second mechanism describes the more fundamental process. It connects especially China's pull for support with the EU Commission's interest in market access in one causal chain. It answers the questions, why the EU reacted positively to a pull by the Chinese side and why the Chinese side reacted positively to EU's market access motivated activities. In contrast to the trigger-mechanism, the Chinese specific interest and the EU Commission's interest did not converge, because here I am not looking at instances in which China asked for specific support in export-related matters. This mechanism describes and explains how both sides reached agreement on activities which initially were not in both sides interest (see Figure 17).

The initial causal component is the EU Commission's market access interest, which I discussed at length in 2.2.2.2.2 and which continuously appears as a topic in the EU-China food safety-related exchanges in 5.4. The second part of the causal mechanism establishes an actual market access problem. Only when China hinders EU exports to China, the EU Commission initiated market access motivated activities. From EU side, this appears as a lack of harmonisation with international or more specifically EU state of food safety regulation. As the analysis showed, this problem appears with regard to specific product or product groups. Here, a sufficient interest in trading this product with China is needed within the EU to identify it as a priority topic for discussions with the Chinese side (causal part 3). The following parts of the causal mechanism are based on the above discussion of the window of opportunity (6.1.1.3) and establishes the deal-character: China experienced massive problems with its food safety regulation and therefore conducted a fundamental reform process (causal part 4). The reform process was possible, because WHO and ADB provided substantial support (causal part 5). However, China's government needed additional support and the depth and width of the reform process led China's government pull for further expertise and support from outside, including from the EU (causal part 6). Importantly, activities deriving from this pull also supported supply safety issues. In other words, this mechanism explains the list of pulled supply safety measures identified in Table 19. At the same time, the EU Commission approached the Chinese government with suggestions for activities to support China's food safety regulation, however directed at improved market access (causal part 7).

At this point an additional part 8 needs to be added to the mechanism which relates to the IFSR. As discussed in part see 3.4.2, the international food safety regime is the reference point for internationally accepted rules and approaches for food safety regulation. With the WTO requiring China to harmonize with these concepts, especially the risk analysis approach, China pulled strongly for expertise and support in this regard during the reform process. In other words, the

international food safety regime indirectly defined, what China pulled for (causal part 8). As discussed further below, this is a necessary causal part of the mechanism as it provided the basis for technical exchanges between the EU and China.

The EU used the pull by China for expertise and support during the reform process to bring in its own market access-related topics in measures which still served the Chinese interest. This resulted in an exchange, which can be characterized as a deal (causal part 9). This deal was implicit but also explicit at times. As one interviewee stated: "[…] most of the time we are dealing with two topics at the same time more or less because you know the Chinese it's always 'I give you this, but you give me that'" (interview 2). Another EU expert explicitly describes how this mechanism had been established: "The EU at that stage when I started working with them in 2004 was just so many light years behind the other major agricultural trading countries - the South Americans, Americans, Australia – that I had to look for something which was a, to use a Chinese term, a win-win for both sides and that would allow us to talk about agricultural issues and allow us to work on them. And [something] that in terms of the aid programme would look as if it was really being of assistance to China and also issues that China was very interested in working on itself" (interview 3). What is traded in this deal is the EU's technical knowledge, regulatory expertise and experience in implementing international food safety standards against the opportunity to influence China's food safety regulation so that existing trade barriers vanish – a logic, one EU Commission representatives has described as a "long term investment" (interview 31). The deal becomes apparent in specific EUCTP activities. For example, in a study visit on the topic of "EU regulations, standards, production practices and safety of medical specialties derived from milk" in May 2012 Chinese government officials from MoH and AQSIQ received information that helped the implementation of a new Chinese standard. At the same time, it supported the Chinese understanding of EU regulation in this field and "increased their awareness of the rigorous EU regulatory and technical systems in place to produce safe milk for general and FSMP use". Also "European public and private institutions became better acquainted with the standard development and enforcement procedures in China" (EUCTP, 2012b). With this the EU could hope for lowering export problems of infant formula and related products to China. Likewise, EUCTP conducted a number of workshops on the implementation of food safety standards. This supported the MoH in its task to revise food safety standards after the introduction of the FSL. At the same time, it provided the EU Commission with the opportunity to raise specific market access related issues. For example, in a workshop in November 2011 on food additives also included the sub-topic of wine standards formulation. As described in part 5.4.1, wine and alcoholic beverages were a market access issue for the EU Commission and here especially the Chinese assessment of additives was an issue.[127] The deal logic also extends beyond single activities. For each year, the

[127] Specifically, for the EU, the Chinese zero-tolerance of phthalates was a problem (interview 1 and 2, see also 5.4.2).

Chinese and EU partners in the EUCTP agreed on a set of activities, which represent a mix of activities representing Chinese and EU interests (see appendix 8.4).[128] Thus, the window of opportunity deriving from China's reform process was a window of opportunity for striking give-and-take-deals.

Importantly, the concept of risk analysis and more specifically the methods of risk assessment provided a basis on which both sides could agree. The EU Commission clearly has a strong interest in pushing China's food safety regulation into the direction of higher convergence with the risk analysis-approach. This is exemplified by a statement of an EU Commission representative who pointed out that integrating the objective of increased risk analysis-based regulation in China in the joint 2020 strategy paper was a major success (interview 2). A more risk analysis based approach by China would reduce market entry barriers as interviewees argued for the cases of beef (BSE) and pork (swine fever) (interview 1 and 2).[129] At the same time, China generally has a strong interest in building up capacities in risk assessment since this helps fulfilling international requirements (interview 19, 21 and 32). The transfer of knowledge on how to apply, conduct and implement the risk analysis concept seems to be an essential link between the motivations of both countries to cooperation on food safety regulation in a long term. Thus, the concepts developed by the IFSR facilitate the cooperation between both sides as they provided the basis for the deal.

6.1.3 Summary and discussion

In this section, I first discussed three additional causal components to then integrate them in two causal mechanisms which explain the EU Commission's influence on China's food safety regulation. The trigger-mechanism explains supply safety-motivated influence. It shows that incidents which raised the EU Commission's attention to supply safety risks led it push for activities addressing this problem. There are in fact several instances in which this mechanism occurred during the observation period. The deal-mechanism explains additional activities with supply safety character and activities with market access character. It shows that the reform of China's food safety regulation led the Chinese government pull for support to harmonize regulation with international approaches, leading to activities with facto supply safety characteristics. This also created the opportunity for the EU Commission to include their market access topics in their specific support activities. The distinction of two mechanism is analytical. In reality, both causal mechanisms were connected. This point has been made by an EU official: "China they self – for some of the difficult long-standing issues we have – see it also as one of the steps necessary for them to lift the ban […]. It's these technical changes and they are quite used to say, let's create a working group, bring the experts around the table and discuss one day or a half day on this particular topic. So, it's an argument which is used on both sides, both for offensive

[128] As discussed in 6.1.1.2, EUCTP activities marked as supply safety also reflect Chinese interests.
[129] Which is also reflected in the EUCTP activities on these two topics.

[meaning "market access" – the author] and defensive [meaning "reduction of trade barriers on one's own side" – the author] issues, so. And it does not work if there is no interest by one of the parties to sit around the table" (interview 31). What this means is, that in exchanges between the EU Commission and the Chinese government, the supply safety and market access issues were dealt with in conjunction. A second connection of both causal mechanisms is depicted in Figure 16. For both mechanisms, the deficient state of China's food safety regulation was a necessary part of the causal mechanism. This confirms my initial thoughts that the state of China's food safety regulation was of major relevance for EU-China food trade.

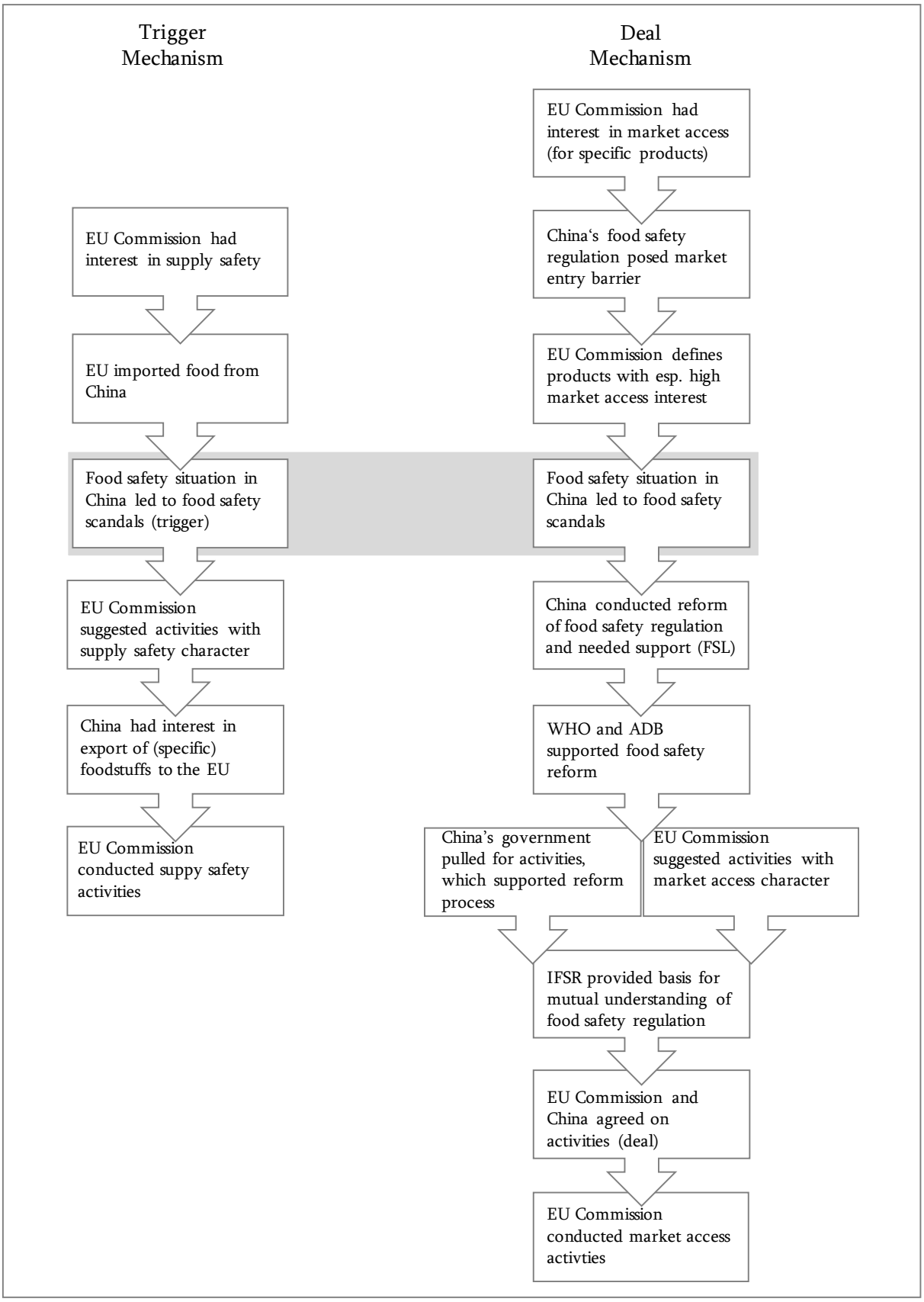
The heuristic model introduced in section 2.2.3 suggests that the state in China's food safety regulation, trade and third parties play a role in the causal mechanism.[130] Indeed, all three reappear in the two causal mechanisms. As for trade, it remains a necessary condition. The EU Commission's activities to influence China's food safety – regardless whether motivated by supply safety or market access – are connected with trade between both markets. More specifically, I was able to show that product-specific trade and is relevant for specific activities. However, the analysis does not reveal a more general causal connection between changes in trade volume and intensity in activities by the EU Commission. While higher trade export and import volumes co-occur with more EUCTP activities, interviews and documents did not suggest a causal connection between both. As for the state of China's food safety regulation, a clear causal connection could be identified. For the SSH, the trigger-mechanism ascertains that the (deficient) state of food safety regulation in China is a necessary condition for EU public actors' supply safety-directed activities. The mechanism furthermore specifies the causal connection. It is not the overall and broad situation of insufficient food safety regulation in China, but the occurrence of specific incidents and/or specific cases which were necessary. With regard to the MAH, the state of China's food safety regulation likewise is part of the causal mechanism. Firstly, as discussed in part 2.2.2.2.2, lack of harmonization of China's food safety rules created trade barriers for EU exports. Secondly, the reform process resulting from China's fundamental food safety problems created the necessary opportunity for exchanges between EU and China on food safety regulation. Third parties' engagement to support China's food safety reforms only appears as a causal condition in the deal mechanism, as described in detail in part 6.1.2. Beyond that, IGOs or any other third parties' activities to influence China's food safety regulation do not play a role. What was rather remarkable, was the limited awareness of interviewees representing the EU commission of third parties' activities.

Lastly, I predicted that the respective motivation for supply safety and market access are necessary conditions. Here, a differentiation needs to be made. At first, the assumption holds true for both

[130] As discussed in 5.7, I already excluded "interaction" from further analysis due to the very limited findings for any interaction.

mechanisms. It needed the specific motivation by the EU Commission to conduct activities addressing supply safety issues. Likewise, market access-oriented activities required the distinct motivation to act. However, the analysis showed that a large part of activities which supported a supply safety-objective did not need the respective motivation by the EU Commission, because they were sought after by the Chinese side. Specific supply safety-directed activities by the European Commission needed a respective specific motivation in product- or risk-specific instances. Expressed in formal terms, the trigger-mechanism and the deal-mechanism both are sufficient but not necessary to explain the full set of supply safety-activities.

Figure 16: Causal mechanisms explaining outcome for analysis of EU Commission



(Source: own)

6.2 The outcome-explaining mechanisms for the GFSI

This section mirrors the preceding section. I first review the analysis of section 5.5 to point out an additional factor relevant for the causal mechanisms explaining GFSI behaviour. Again, the pull for support from the Chinese side played an important role in the development. In the second part, I proceed by defining two causal mechanisms – one explaining supply safety motivated activities and another explaining market access motivated activities. Finally, I discuss the findings and recap the extent to which the initially identified factors contribute to the causal mechanisms.

6.2.1 Additional causal component: Pull for TPS support

The Chinese government also pulled for support from private actors to develop food safety regulation in China. Representatives from Western businesses report that Chinese authorities approached them repeatedly with requests for support (interview 6, 7 and 37). Notably, it also was the CNCA which approached GlobalGAP to learn about certification systems (interview 8 and 11).

Chinese government's interest in GFSI firstly rested on its interest to improve domestic food safety (as discussed above in 6.1.1.2). It pulled for GFSI and other TPS' support, because TPS provide additional resources and ways to improve implementation and enforcement of food safety regulation. Audits can fill the void of insufficient state inspections. In fact, the Chinese government discovered voluntary standards and 3rd-party certification as one method to improve the situation and therefore created CNCA. As one GFSI expert explained: "My personal […] judgement […] is that China will come up with the solution towards GFSI [about the then pending China HACCP benchmarking – the author], because they have no other choice. They have no other choice. They have the same prisoner's dilemma as everybody else: they just don't have enough state inspectors to protect the whole country" (interview 26). Another GFSI representative confirmed that the Chinese government was very interested in capacity building, especially with regard to inspections (interview 29). A Chinese government representative confirms: "The government authorities alone can do little, therefore 3rd party certification is needed" (interview 36). The revision of the FSL in 2014 reconfirmed that the Chinese government perceives private approaches as part of the solution. The revised version introduced the concept of shared responsibility including the obligation of food businesses to ensure food safety (Kottenstede, 2014). The connection between this concept and the pull for GFSI-support becomes apparent in remarks made by Chinese companies' representatives. With reference to this new regulation, representatives of Cofco and Vanguard, both GFSI members, stressed during the 2013 CIFSQC in Beijing that GFSI had helped them to fulfil their legal obligation to take responsibility (Wan, 2013; Jiang, 2013).[131] Accordingly, Teng Jiacai, Vice Minister of CFDA thanked GFSI at his speech during the 2014 GFSI Focus Day in Beijing "for support in improving food safety in China

[131] COFCO is a Chinese state-owned company and the country's largest food processor, manufacturer and trader. Vanguard is a retailer and belongs to Hong Kong based company China Resources.

und the world" and demanded that more Chinese companies should get involved in GFSI (Teng, 2014).

As discussed for the pull-factor in the public realm, China is also interested in TPS because certification facilitates food exports for Chinese producers. "If China HACCP is benchmarked against GFSI, it will be much easier for Chinese food producers to export their product", argues a representative of the Chinese government (interview 36). The same point has also been made publicly during the 2014 GFSI Focus Day in Beijing by Liu Weijun, Vice Director of CNCA, as well as Gu Shaoping, Director of CNCA, during the 2013 CIFSQC in Beijing (Liu, 2014; Gu, 2013).

6.2.2 Causal mechanisms

I am now able to depict the causal mechanisms explaining the behaviour of TPS in China. The pull-factor is a necessary part of the causal mechanism explaining TPS market access-motivated behaviour. Before turning to this mechanism, I first describe the causal mechanism which illuminates the process leading to supply safety-motivated activities.

6.2.2.1 Standard TPS-mechanism

The first causal mechanism that explains influence of TPS in China mirrors the inherent logic and functioning of TPS in general, as explained in 2.2.2.1.2. Western, especially European, companies require their Chinese suppliers to obtain certificates of specific TPS (causal part 1). Thus, Chinese companies who wanted to export to the EU needed to obtain such certificates (causal part 2). As part of this certificate, CB conduct audits and thereby influence the way such Chinese companies are de facto regulated (causal part 4). Between causal part 2 and causal part 4, I include an additional China-specific part of the causal mechanism. As discussed in 5.5.2, Chinese companies and CBs circumvented Chinese regulation of certifications (causal part 3). If they would have followed Chinese regulation, proliferation of TPS in China would have been less.

I refer to this causal mechanism as the standard TPS-mechanism, because it firstly describes the functioning of TPS for which they have been created for. This secondly also points to the fact that this mechanism has not especially been applied to China or Chinese suppliers. Quite to the contrary: the mechanism applies globally and simply was extended to China once the first Chinese suppliers applied for certifications. Thirdly, it is standard, because it represents the repeated and ongoing mechanism which is constantly iterated in the relationship between TPS and China.

Lastly, there is an analogy to the import ban by the EU Commission. Chinese supplier can only sell to the EU, if there is demand from Europe. As one interviewee explained, especially for fresh produce, European retailers still widely refrain from sourcing in China at all because of food safety and related reputation risks (interview 6).

6.2.2.2 Localisation-mechanism

The analysis in section 5.5 revealed that market access was the more dominant motivation for GFSI to become active in China. This points to a second, separate causal mechanism. It starts with the companies which are steering TPS and their interest in operating on the Chinese market (causal part 1). Secondly, in China they were confronted with suppliers which did not fulfil their requirements and a public regulation which did not sufficiently guarantee protection from unsafe food supply. In other word, they identified the state of the CFSR as deficient (causal part 2). In order to protect themselves from unsafe supply and associated risks for their reputation, the GFSI pushed for the proliferation of TPS in China (causal part 3). At this point in the causal mechanism, the Chinese government comes in. For the same reason for which the Chinese government pulled for the EU Commission's support, namely the internal pressure to improve food safety, it was open to more TPS engagement in China (causal part 4). In addition, the Chinese government was confronted with a situation in which its certification- and TPS-regulation was de facto widely ignored (causal part 5). By establishing state-owned voluntary standards which were then benchmarked by GlobalGAP and GFSI respectively, the Chinese government achieved a localisation of TPS as with this, the benchmarked state-owned standards played or are likely to play the dominant role on the Chinese market (causal part 6 and 7).[132] At the same time, the Chinese government limited the extent to which certificates are issued in China for un-licensed TPS, potentially restoring governmental control over the certification business (cf. Kottenstede, 2017). Because of the adaption of GFSI and GlobalGAP to the Chinese regulatory circumstances as it is expressed in the benchmarking of CNCA-standards, I refer to this causal mechanism as the localisation-mechanism.

6.2.3 Summary and discussion

As for the EU Commission, I traced two causal mechanisms to explain GFSI behaviour. The first illustrates the process which confirms the SSH. As pointed out, it is a confirmation of the anticipated logic with which TPS regulate Chinese companies. Thus, I was able to partly confirm my theoretically deduced assumptions about TPS influence in China. It is the application of a globally used mechanism to China. In fact, this causal mechanism increases the confidence in the regulatory power of TPS. As discussed, TPS occurred in China despite Chinese legislation hindering their proliferation. The second causal mechanism represents the stronger dedication to influence China's food safety regulation deriving from the motivation to access the Chinese market. Here, the Chinese government's pull for support provided the necessary basis for GFSI to further establish TPS in China. It opened up and clarified the regulatory situation for TPS in China. Figure 17 depicts how both causal mechanisms are connected. It shows that the strict TPS

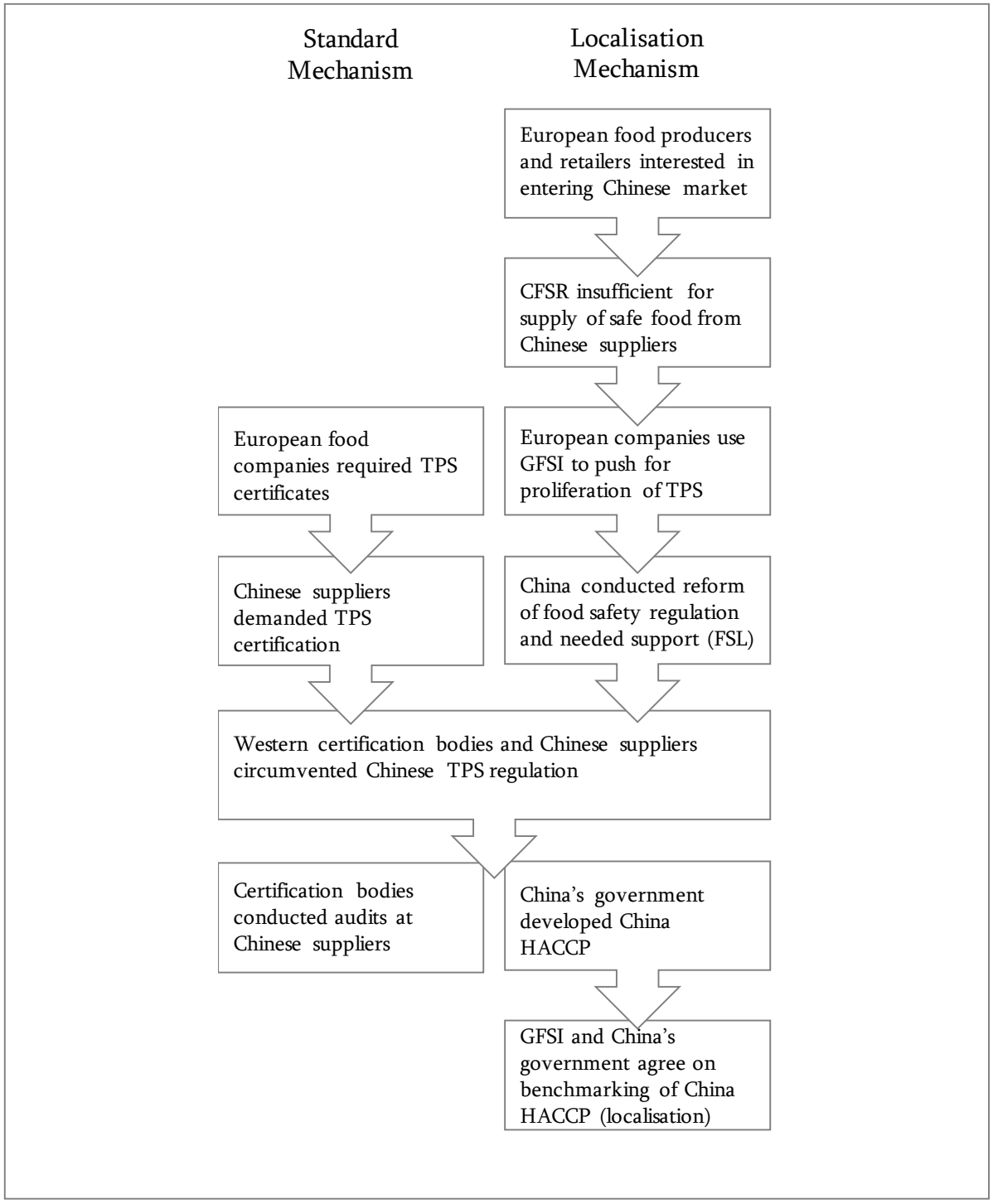
[132] This can already be observed for ChinaGAP as the benchmarking was completed earlier. For ChinaHACCP, however, the benchmarking was only confirmed in 2015, so that no effects could be observed.

regulation in China is a necessary part in both causal mechanism. The interpretation is straight forward: The standard mechanism represents a short-term solution which developed in the certification market. The localisation mechanism represents a long-term approach to the same problem, potentially diminishing the relevance of the standard mechanism. However, this highly depends on the reliability of Chinese voluntary standards and Western companies trust in them (cf. Kottenstede, 2017).

Two aspects need a short discussion in this regard. First, especially for the GFSI, the actual influence deriving from this causal mechanism on China's food safety regulation remained rather hypothetical by the end of the observation period. While the causal mechanism provides an answer to the research question, why GFSI took action to influence China's food safety regulation, GFSI can only claim very limited de facto influence. To date, it remains an investment to this end with unknown return. Secondly, to the extent to which GFSI's activities (will) impact the behaviour of Chinese suppliers with regard to food safety, they tend to positively affect EU's import safety. The argument is: GFSI advocates and requires food safety regulation based on Western standards (see 2.2.2.1.2). It thereby supports the proliferation of food safety-expertise and increases the food safety understanding, knowledge and capacities at the basic production level in China. This, in the long run, contributes to increasing the overall level of food safety in China. This far from being a certain development, but nevertheless a theoretically plausible development.

When reflecting the conditions defined in the heuristic model on the outset, the different causal role played by the CFSR stands out. In contrast to the initial assumption, the state of CFSR is not a necessary condition for the SSH. Instead, as the analysis has shown, the standard TPS-mechanism had been used regardless of China's food safety regulation as a default mechanism which generally applied to suppliers around the world. As for the localisation-mechanism, the principal assumption held true. The state of CFSR was a necessary condition. Trade, more specifically imports from China, are necessary for the standard TPS-mechanism, as they cause the request for TPS-certification in China. The last condition addresses the motivation of the actors. The motivation appears indirectly in the standard TPS-mechanism. There is no motivation necessary to specifically protect consumers from China's food safety risks. It rather is part of the more fundamental considerations, why European companies require TPS-certifications from their suppliers in general. In contrast, the motivation to establish TPS in China was necessary condition for the localisation-mechanism. The information provided especially by interviewees does not suggest that GFSI's activities in China were only due to request by the Chinese government.

Figure 17: Causal mechanisms explaining outcome for analysis of GFSI



(Source: own)

6.3 Conclusion

For the EU Commission and GFSI, I traced two causal mechanisms each. In both cases, one mechanism explains the SSH while the other explains the MAH. I was able to do so only after having identified causal parts from the empirical data presented in chapter 5. The conditions derived from the theoretical discussion in 2.2.2 were not sufficient to explain the full process.

Between the public and private strand there are striking similarities in the causal mechanisms. First, in both cases the domestic food safety problems of China and the resulting pressure for improvements played an important role in facilitating EU activities which influenced China's food safety regulation. For the EU Commission, the Chinese government's own reform process created the window of opportunity. GFSI's influence especially grew out of the interest of Western companies to access the Chinese domestic market and it was answer to the persisting domestic supply safety problems. Second, the causal mechanisms explaining the dominant MAH in both cases include some sort of arrangement with the Chinese government. This shows that an explanation of the EU's influence on China's food safety regulation cannot forego a consideration of the Chinese government's motivation and behaviour.

The fact that I was able to confirm and at times also to specify the conditions pre-defined in my research heuristic shows that the model helped to look at relevant causal parts. At the same time, it proved to be vitally important to conduct the research in an explorative manner, because it was only with this approach that I was able to identify causal components which I previously had not anticipated and which proved to be essential for describing sufficient causal mechanisms. However, the opposite is also true: some aspects I deemed to be important based on my theoretical reflections, played a minor role in the analysis of chapter 5 and chapter 6. The differentiation between product and process safety did not prove useful for the analysis as it has not provided additional insights. Yet another difficulty in the analysis resulted from the inconclusiveness of some observation. The information obtained did not always allow the differentiation made in my theoretical considerations. It proved difficult to distinguish the content of activities based on the separation of regulation in different components. In most of the cases, be it interviews or official documents, the terms technical support or capacity building are used. However, especially capacity building is inconclusive since it may relate to overall regulatory approaches, formulation of rules and standards, specific implementation aspects or knowledge for enforcement. Likewise, the reference to risk analysis or risk assessment being the content of activities is inconclusive. It may refer to including risk analysis in the regulatory approach (agenda setting) or the technical questions of application (implementation), to name two examples. There is one exception though: while implementation and enforcement appear less in the interviews and joint statements, the do more so in the 44 FVO reports. This indicates that implementation and enforcement are more

relevant from a supply safety perspective than from market access perspective, which is in line with my theoretical argument in chapter 2.

In its pure form, outcome-explaining process tracing should produce one causal mechanism explaining a specific historical outcome. There should be only one repetition for the causal mechanism. Multiple instances of a causal mechanism rather point to generalizability. As the discussion in chapter 5 and 6 suggest, my findings lie somewhere in between. For all four mechanisms, I can claim that they explain the outcome for a specific historical configuration. With China having improved especially its technical knowledge in food safety, this specific situation has already changed. At the same time, the mechanisms have been iterated multiple times. The melamine crises led the EU Commission to push for more exchanges with the Chinese government on supply safety in general, but RASFF notification also triggered supply safety measures at later instances. Market access topics have been part of EUCTP-negotiations for each year. The TPS standard mechanism has taken place countless times for each certificate issued. Even the localisation of Western TPS via benchmarking has occurred twice, namely with GlobalGAP and GFSI. Thus, I suggest thinking of the four mechanisms as an abstract formulation of mechanisms that occurred multiple times and variations during the observed period.

7 Conclusions

In this case study, I examined the activities undertaken by the EU Commission and the GFSI have undertaken to influence China's food safety regulation since 2001 and the reasoning behind these activities. My starting point were two empirical observations brought together: China posed an exceptionally high risk to global food safety supplies and at the same time, the EU conducted intensive activities in China on topics related to food safety. Based on a review of the academic discourse on regulatory interdependence, I argued that the relationship between EU and China with regard to food safety and food trade is a special case, because it hardly falls within the categories used in theories about regulatory interdependence. Existing research had focused on regulatory interdependencies between highly regulated major markets (e.g. between USA and EU, Lofstedt and Vogel, 2001) or between developing countries and highly regulated countries. China escapes this categorization, as it possessed a food safety regulation equal to developing countries but already had become a major market. I therefore used the existing theories to develop a research heuristic which allowed me to approach the case in a theory-guided but nevertheless explorative manner. The ultimate aim was to identify the causal mechanisms by means of process tracing which explain the observation described above.

The research heuristic suggested two possible motivations and their necessary conditions. The starting hypothesis is that the EU indeed became active in order to improve the safety of food imports (supply safety hypothesis). This reflects regulatory interdependency which derives from physical externalities. The discourse about regulatory interdependence additionally identified regulatory externalities. This led to a second hypothesis, namely that the EU's activities served the purpose of gaining better market access (market access hypothesis). As I showed in 2.2.2.2.1 and 2.2.2.2.2, both hypotheses are based on theoretical arguments and both specifically apply to the case of China. I argued that, against conventional wisdom, existing instruments for import safety may not be sufficient and that China potentially poses a specific severe risk. In addition, the SSH makes China a crucial case: If no evidence for the EU to influence China's food safety regulation based on supply safety motivation can be found, this hypothesis is very unlikely to hold true for any other case. Likewise, I demonstrated that there is a case to be made for an explanation based on market access interests. The combination of an enormous market size with a preserved and widely different eating culture and diet and a lack of regulatory answers to changing eating habits

and its associated Western food products potentially causes negative regulatory externalities for countries which want to export to China.

The review of literature on regulatory interdependence furthermore points to the increasing relevance of non-state forms of regulation, which partly emerged as an answer to the challenges deriving from globally spread supply chains. TPS have especially gained prominence in the food sector, which at least partly results from EU regulation stressing businesses' responsibility to ensure food safety. Therefore, I extended both hypotheses and analysed how and why the EU Commission (representing EU public side) and the GFSI (representing TPS side) took actions to influence China's food safety regulation between 2002 and 2014. My focus was on analysing this one special case in depth, with the conviction that a mechanistic understanding of causality can provide insights variable-based methods typically do not. The aim therefore was to identify by means of process tracing the causal mechanisms that provide an answer to these questions. Based on information gathered from 52 interviews with Western and Chinese experts, participation in 13 food safety conferences and 428 documents, I retraced the processes.

7.1 Essential findings: importance of economic interest

The study showed that the necessary expectations for the pre-defined conditions in my research heuristic (see 2.2) were fulfilled for both hypotheses. The importance of food trade in both directions was high or even rose over time. The state of China's food safety regulation gave reason for both supply safety- and market access-directed actions by EU actors. While IGOs were active in China and supported measures to increase supply safety, their actions were not seen as sufficient. Even more, IGOs partly were partners for EU actors to influence Chinese food safety regulation. However, the analysis revealed a decisive imbalance between the specific motivations. Market access clearly was the more dominant motivation for the EU Commission as well as TPS to influence China's food safety regulation. It was more dominant especially as it has been pursued in an active manner. Supply safety plays a secondary, albeit not irrelevant role. The hypothesis that China, with its deep and far reaching food safety problems and rising food export position triggers import safety measures by the EU therefore needs to be put in context. As for the EU Commission, supply safety activities exist, but they are more of reactive nature and limited to short phases. In principle, the EU trusts its established import safety regime based on the monitoring based on RASFF, FVO audits and import bans and only selectively conducts China-specific activities. As for TPS, the balance between supply safety and market access is similar: TPS initially occurred in China as part of companies' usage of third party-certification to protect themselves against supply safety risks. However, the more intense activities to boost TPS in China derived from the market access motivation. Companies behind TPS, especially the GFSI, wanted to safeguard their domestic business in China against supply safety risks within China. Summed up, economic motives were

the dominant drivers for influencing China's food safety regulation. Thus, the answer to the research question, what motivated EU actors, can by answered by paraphrasing the popular words of the former US president Bill Clinton: It was the economy, stupid!

> **Finding 1: EU Commission's and TPS' activities to influence China's food safety regulation overall were rather motivated by economic interests than supply safety interests.**

A second finding of the analysis was that the Chinese government had an own interest in improving domestic food safety regulation and entered into a reform process to this end which stretched over about 10 years. This led to two phenomena which affected the EU's activities. On the one hand, it provided a window of opportunity for the EU Commission's push for their food safety-related interest. Because the Chinese government was in the process of changing regulation, it was more open to listen to suggestions how to change it. On the other hand, as part of the reform process, China's government actively sought external expertise to build its own capacities with regard to developing regulation as well as implementing and enforcing it. This pull for support affected the EU Commission as well as TPS. In the case of the EU Commission, activities have been conducted on topics requested by the Chinese side. Such topics addressed issues relevant to improve China's domestic food safety regulation. In other words: China requested activities, which (at least indirectly) contributed to improving the EU's supply safety. This in turn, reduced the need for the EU Commission to push for activities increasing supply safety. In a similar vein, the CNCA pulled for support in establishing China HACCP as a voluntary standard in China. While this was not against the GFSI's plan, this development was driven by the Chinese government.

> **Finding 2: Chinese government authorities pulled for support from the EU Commission and TPS to improve the country's food safety regulation. This explains a substantial part of activities by the EU Commission and TPS that appear to be directed at improving supply safety.**

I furthermore found that IGOs contributed to the development of the EU Commission's activities. They supported the reform process and thereby contributed to the window of opportunity. In this regard, especially WHO's involvement in the run-up to the FSL was helpful for the EU Commission and its EUCTP to connect with the reform process. In a similar, but less prominent manner, FAO enabled activities during the second phase of the EUCTP. What the analysis did not find, is any evidence for the anticipated potential effect that IGOs support of food safety regulation in China was a cause for less EU public or TPS involvement. Thus, in sum, IGOs' involvement appears to have been a necessary only in the sense that the WHO and ADB contributed to China's regulatory reform.

> **Finding 3: WHO's and FAO's support of China's food safety regulation reform provided a window of opportunity for the EU Commission.**

Lastly, the data showed virtually no relevant interaction between the EU Commission and TPS. In fact, it is the mutual negligence which is striking. The most we can consider as interaction is the standard TPS-mechanism complementing the EU Commission's import safety measures. By standard TPS-mechanism, I refer to the third party certification-system which are the essential element of TPS. However, especially from the EU Commission's side this interaction had not been acknowledged which makes any influence on their behaviour questionable. Rather, the non-interaction seems to reflect the dominant market-access-motivation, as market access does not provide grounds on which interaction makes sense. In market access, the interests of the EU Commission and TPS simply do not overlap.

Finding 4: EU Commission's and TPS' actions were not substantially affected by interactions between both sides.

The analysis thus provided me with different causal parts, partly as specification of the ex-ante defined conditions and secondly as a result of the explorative research and as an addition to the hypothesized research heuristic. With this set of causal components, I identified four sufficient causal mechanisms with each explaining a part of the outcome. Two mechanisms explain the EU Commission's activities, two the TPS activities. The trigger-mechanism explicates the EU Commission's supply safety-induced activities and denotes that it needed triggering incidents for the EU Commission to take action. Such incidents were either the broad appearance of unsafe imports of consumer products from China or import safety issues with specific foodstuffs. The more dominant mechanism describes a deal between the EU Commission and the Chinese government. Both sides had to agree on specific activities (or a set there of). This is the central element of this mechanism. Both sides needed to see their interests served in such activities. This led to a number of activities which served supply safety objectives, but effectively were requested by the Chinese government which needed such support as an answer to internal pressure to improve food safety regulation. In return, the EU had the opportunity to conduct activities directed at market access issues. Often, activities combined both elements.

Finding 5: The activities conducted by the EU Commission to influence China's food safety regulation which were motivated by supply safety can be explained by a trigger-mechanism.

Finding 6: The activities conducted by the EU Commission to influence China's food safety regulation which were motivated by market access can be explained by a deal-mechanism.

With regard to TPS, the first causal mechanism reflects the standard mechanism that is built in TPS and justifies their existence. TPS occurred in China, because Western buyers requested their suppliers to provide certificates for TPS. It thus was a direct result of supply safety motivation. However, it had not been a supply safety consideration specifically directed at China but the result of general approach. While this only led to a limited development of TPS in China, it already occurred in a grey zone. Foreign CBs had issued certificates for western TPS in China without the

TPS being licensed as required by the strict Chinese regulation. The second mechanism explains a by far more active and directed development that aimed at increasing TPS proliferation in China. It rests on market access motivation of Western companies to enter the Chinese market mainly to serve the Chinese market. Just as they utilized TPS to safeguard themselves against food safety risks and associated reputation losses in the EU and other markets, they aimed at establishing this logic in China as well and adopted it to local circumstances. The driving actor is the GFSI which represents the majority of the most relevant TPS for food.

Finding 7: The activities conducted by TPS to influence China's food safety regulation which were motivated by supply safety can be explained by a standard TPS-mechanism.

Finding 8: The activities conducted by TPS to influence China's food safety regulation which were motivated by market access can be explained by a localisation-mechanism.

7.2 My findings in context: contributions to the theoretical discourse

With this study, I thus contributed to the wider discourse and understanding of the logics of regulatory interdependence. Now, I first briefly discuss the potential limitations of my research and then proceed by pointing out that my findings indeed deliver contributions to the wider theoretical discourse.

It lies in the nature of a single case study and more precisely the purpose of an outcome-explaining process tracing approach that its results cannot be generalized. As I have argued in chapter 4, the argument rather goes the other way around: Given the historical specific circumstances of my case, any attempt to approach it with generalizable theories risks overseeing specific attributes. The result of this study illustrates exactly this point. The case was chosen as a crucial case for the SSH. The initial argument was as follows: If one accepts the argument that China presented an especially drastic case of import safety risks, we can conclude that in no other instance the EU would set out to influence a trading partner's food safety regulation to improve supply safety. The analysis, however, showed that China's own interest to improve food safety regulation – an aspect in the causal mechanism not anticipated – may indirectly have catered to the EU's objective to improve import safety. Another potential limitation of my research seems to have limited effect on the overall results. I excluded other nations' (e.g. the USA) activities to influence China's food safety regulation from the analysis. However, asked for other actors involved in supporting China with changes in its food safety regulation, the interviewees showed little awareness of such activities and attached little importance to it. A potentially more problematic limitation lies in the fact that my analysis concentrated on the EU Commission.[133] A full EU influence on China's food

[133] The concentration on the GFSI is much less problematic as it indeed represented the major TPS and included their activities (see 4.3).

safety regulation would need to include member states' activities as well. First of all, this, would have exceeded the scope the of this paper, as individual process would have needed to be traced. Secondly, a concentration on the EU Commission can be justified as this is the organisation primarily responsible for food import safety. If anything, member states are likely to act in their individual market access interest.[134] The theoretical considerations for the SSH thus would make less sense for member states.

Yet another limitation roots in the empirical situation. The information available from EU public actors and TPS are substantially more detailed than the information from Chinese sources (see discussion in 4.4). This is especially true for interviews. In any case, especially for foreign researchers without an affiliation to Chinese institution, it is more time consuming to organize interviews. In many cases, interviews are impossible. This reflects a principle problem with political systems like in China which can be characterized as more hierarchical, less transparent and in some areas simply opaque. The answer to this situation, however, should not be to avoid research. Due to the research question, which focusses on the EU-side and its motivation, this study did not rely on Chinese governments' insights too heavily and thus was only partially affected by this limitation.

The understanding of case study research reflected in this study assumes that no single piece of research can claim to have untangled the complexity of social realities. Instead, this is the constant task of social research, to add evidence to further the validity of theoretical claims (cf. George and Bennett, 2005, pp. 90–91). Therefore, the potentially promising path for future research lies in following up on the potential theoretical suggestions which derive from this study. Again, the objective of this study was to explain a specific outcome and the findings cannot be readily transferred to other cases. However, the findings relate to specific aspects of the existing theoretical discourse on regulatory interdependence and transnational regulatory governance.

First, the fact that China pulled strongly for support in upgrading its food safety regulation poses the question for the exact reason for this pull. As discussed, there indeed was domestic pressure. However, export may have played a role, too, as my data indicated at numerous points. In order to further validate the claim that market size matters in regulatory interdependence, more research on the exact reasons for the specific changes in China's food safety regulation are needed. If indeed the objective of increased export played a major role, the condition of relative market size would need to be specified more. An in relation larger export market had been a necessary condition for the California effect and other theories which long to explain convergence of a smaller economy's

[134] Several separate pieces of information confirm this theoretical consideration: firstly, an EU document discussing market access mentions that member states had diverging interest with regard to the market access for specific products to China and thus would pursue their objectives individually; secondly, I came across several instances of member state activities on food safety with clear market access direction (e.g. by Denmark and Italy, interview 12, anonymous, 2015a; Ministry of Foreign Affairs of Denmark, 2012).

regulation to the regulation of a bigger market. My findings suggest that export interests may play a relevant role between markets of similar size, too. Here, theories of policy transfer (Dolowitz and Marsh, 2000), policy learning (Haas, 1992) and lesson learning (Rose, 1991) could be helpful, as they take the perspective of the state which adopts a specific policy. These theories and their case studies provide insights how and why policies in one country derive from policies to a similar problem in another political country.

The deal-mechanism reveals a striking similarity to the California effect from yet a different perspective (Vogel and Kagan, 2004). The California Effect describes how business interests lead to the stricter regulation in their home country as a result of trade. The findings here suggest another connection between business interests and changes in regulation. As for the California Effect Vogel and Kagan (2004) argue that market A adjusts its regulation in a specific field to the regulation of (the bigger and stricter regulated) market B because companies in country A depend on sales to market B. The mechanism is straight forward: the exporting companies in market A have a strong incentive to join with other interest groups to fight for regulation as strict as in market B, because this provides them with an advantage over their competition which is not fulfilling the stricter regulation. Thus, the California Effect argues that exports lead to a "trading up" (Vogel, 1995) of regulation in the exporting country. In contrast, in the case presented here, export interests lead to changes in the *country exported to*. The objective is to "harmonize" with the exporter's regulation. The desired changes often represent a "trading down" in which Chinese regulation hindered EU exports because it was stricter than the corresponding EU regulation. In case of pththalates, for example, the EU Commission longed for a less strict maximum residue level in spirits. However, in the case of China, this was not necessarily always the case. In many cases, according standards for specific western products did not exist at all.

The results presented in the previous chapters hint to another aspect discussed in regulatory theories. As discussed, market access seemed to be the dominant motive in comparison to supply safety. This suggests that business interests (in sales) prevailed over consumer interests (in health and safety). This in turn connects to Mancur Olson's logic of collective action and the resulting argument that special interests are organized more easily and therefore tend to succeed in influencing regulation over broader interests which are less easily organized (Olson, 1971). Thus, my findings reflect the theory of regulatory capture in general (as discussed in chapter 2) and confirm that this logic applies beyond national borders as suggested by Büthe and Mattli (2013).

Lastly, there are also points to be made for further research in the field of transnational regulatory governance. My findings help to further specify the vividly discussed hybridization of food safety governance in the EU and beyond (Verbruggen and Havinga, 2017). As for the EU, on the one hand, TPS de facto do regulate imports to the EU from China by demanding certification. On the other hand, I observed a decisive indifference between actors of both sides. This suggests that

there is room for more effective co-regulation (cf. Garcia Martinez *et al.*, 2007). In a much more indirect sense, however, my research hints to a potential connection between the European Commission strand and the GFSI strand in the analysis. The EU Commissions exchange on food safety topics with the Chinese government may have contributed to the Chinese interest in GFSI. This hypothesis rests on the judgement that the Chinese government specifically followed the EU example when including the private responsibility for food safety in the 2014 revision of the FSL. This would imply, that China-EU exchanges on food safety had contributed to this regulatory change in China. At the same time, China – government as well as food companies – need to find practical answers, how Chinese food businesses can fulfil this new obligation. TPS and GFSI offer an answer to this question. This may have contributed to the interest of the Chinese government and Chinese major food companies like Cofco and Vanguard in GFSI. In short, a transfer of the EU's concept of business responsibility for food safety to China may have been an essential element in driving GFSI and voluntary standards in China. My research cannot confirm this connection, but it would be an interesting connection worth following up on by scholars researching hybridization of regulatory governance as it would imply a transfer of "hybridization-policy". In any case, further research is needed to understand the emerging Chinese variant of hybridization of food safety governance, which rests on benchmarking state-owned voluntary standards by Western TPS (Kottenstede, 2017).

7.3 Final reflections

This study is an appraisal of a specific configuration between 2001 and 2014 and my findings are at least partly bound to the specific circumstances during this period. Changes in the circumstances may quickly alter the causal mechanisms. It seems the greater dynamic for change will come from China due to its ability to swiftly develop and implement new solutions on a wide scale. If there is the political will, little is impossible in China, it seems – whether it is relocating more than 1 million people to build a damn (Chao, 2004) or the fast introduction of electric cars (Winton, 2017). However, one should not be too confident about the progress of China's food safety regulation. As described, the challenges are massive and the problem complex as well as deeply tied into the economic structure of the country. Still in 2017, basic problems like the disastrous hygienic situation in Chinese wet markets has not been solved (Minter, 2017). The government faces two rather cruel trade-offs: firstly, between economic development and costly environmental improvements which would mitigate the pressure on food safety and secondly between growing sufficient food for 1.3 billion people (at the risk of unstable safety) and safe food (at the cost of reduced productivity). Furthermore, as the melamine case showed, the risk of political priorities of the Communist Party of China (CPC) overruling food safety concerns remains (McGregor, 2010). As long as such cover-up approaches are likely, trust in any food safety

regulation can hardly be built – nor with trading partners and most likely neither with the Chinese public. However, Western risk perception research tells us, that a mere technical solution of risk regulation is insufficient. In order to achieve a socially accepted regulation of risks like food safety, trust is an essential component (Slovic, 1993).

Thus, changes may also come from another side. Chinese consumers have increasingly become impatient with the enduring food safety problems (Wang, 2013). For some products like infant milk powder, those who can afford it, import them from outside of China (Wang, 2012). The perception and acceptance of risks – including food risks – seem to change, especially in the middle-class where ecologically and locally grown food become increasingly popular (Coonan, 2013; Grassegger, 2013; Little, 2014). In rural areas organic farming grassroots movements emerge, partly with evangelistic attitudes, that perceive themselves as answer to the food safety problems they consider part of a wider set of negative social issues in modern China (Cody, 2016). All these aspects led scholars to wonder whether China is developing into a post-industrial risk society, in which technological modernisation is increasingly perceived as a risk to personal health and environmental safety (Thiers, 2003; Suttmeier, 2008; Yan, 2012).[135] In the USA and the EU, transparency and participation have widely been proposed and often been implemented as answers to the question how to deal with critical perceptions of risks (Lofstedt, 2010; Renn, 2015). In the current political system of China, such approaches can hardly be imagined.[136] So how can China ever reach a food safety regulation which does not lead to (perceived or real) food safety risks? What are the implications for regulatory interdependencies? Will China ever be willing, for example, to provide information similar to those shared by EU member states within the RASFF system?

Such questions become much less speculative as they seem at first, when considering the discussions about free trade agreements with China. Switzerland has already led the way and established a free trade agreement with China (anonymous, 2014). With a USA currently withdrawing from concepts of free trade, already existing ideas about a similar free trade agreement between EU and China may gain new momentum (Maurice, 2016). Such bilateral trade arrangements increase the need for bilateral understandings, procedures and agreements for regulatory interdependencies, like food safety. At the same time, advancements in China's food safety and regulatory capacities may soon change the balance between the EU and China. The deal-mechanism is not likely to last long. The more China has developed its own capacities, the less it is interested in outside advice and the less open it will be to outside influence. Internationally agreed standards like those provided by the IFSR are crucial for achieving a mutual understanding. A potentially diminishing role of the WTO and changing global power relations

[135] Risk society is a concept developed by Ulrich Beck (1986).

[136] Although Tracy argues that in a wider, multifunctional and multimodal understanding some progress in transparency has been made in China (2016).

may also change the nature and results of the "food fights" (Post, 2005) in institutions like the Codex Alimentarius, where China is already leading to important working groups. Besides, the question is, what difference the private level of food safety regulation will make under such circumstances. The localisation-mechanism for TPS in China has only started. With no changes in the preferences of the Chinese government, the establishment of private food standards further consolidates the importance of private food safety regulation in the global food supply.

All these aspects are highly political in their consequences. In the end, the question is who profits from the specific dealings with regulatory interdependencies. Do business interests overrule consumer interests in safe food to an undue extent – or vice versa? With a diminishing role of the WTO, rising influence of China in the debate on how to deal with food safety and the increase in bilateral trade agreements, the balance between consumer protection and free trade may need to be renegotiated. While many aspects of the future are uncertain, one basic logic is likely to remain: as long as the EU trades with China, the question how physical and regulatory interdependencies are managed with this country remains crucial.

8 Appendix

8.1 Interviews

Table 17: List of pre-interviews

No.	Affiliation	Date & Time	Place
1	German public organisation	15.12.2011, 1pm-1.30pm	Berlin
2	European retailer	23.03.2012, 10.30am-12.00	Shanghai
3	German public organisation	27.03.2012, 12.30pm-2pm	Beijing
4	EU public organisation	14.05.2012, 12.30am-1pm	Shanghai
5	EU public organisation	07.06.2012, 4.15pm-5.45pm	Beijing
6	German public organisation	08.06.2012, 12.15pm-2pm	Beijing
7	European certification body	11.06.2013, 10am-11pm	Shanghai
8	EU public organisation	01.11.2013, 3pm-5pm	Beijing
9	EU public organisation	02.11.2013, 12.20pm-3pm	Beijing
10	Chinese academic	05.11.2013, 2pm-2.45pm	Beijing
11	Chinese private company	15.11.2013, 4.15pm-5pm	Shanghai

(Source: own)

Table 18: List of interviews

No.	Affiliation	Date & Time	Place
1	EU public organisation	29.04.2014, 3pm-4.40pm	Beijing
2	EU Commission	01.05.2014, 4pm-5.20pm	Beijing
3	EU public organisation	02.05.2014, 10.30am-12.10pm	Beijing
4	Private standard organisation	29.04.2014, 3pm-4pm	Beijing
5	Private standard organisation	14.05.2014, 11am-11.50am	Cologne
6	European retailer	04.06.2014, 3.15am-4.35am	Düsseldorf (by phone)
7	European retailer	03.06.2014, 9am-10.22am	Shanghai
8	German public organisation	11.06.2014, 7pm-8.06pm	Frankfurt (by phone)
9	European certification body	12.06.2014, 9.30am-10.10am	Shanghai (by phone)
10	Private standard organisation	18.06.2014, 10.10pm-11.50pm	Cologne (by phone)
11	Private standard organisation	05.11.2014, 1pm-1.40pm	Shanghai
12	Expert from EU member state government	05.11.2014, 3.30pm-3.40pm	Shanghai
13	Chinese government	05.11.2014, 6.15pm-6.25pm	Shanghai
14	European food producer	10.11.2014, 12.30pm-2pm	Shanghai
15	Chinese university	19.11.2014, 3.10pm-3.50pm	Beijing
16	European industry association	01.12.2014, 12.40pm-2pm	Shanghai
17	EU member state government	18.12.2014, 10.40am-12.15pm	Berlin
18	Chinese government	26.01.2015, 8.20pm-9.20pm	Beijing
19	Chinese government	27.01.2015, 10.25am-11.20am	Beijing

20	Chinese university	27.01.2015, 5.20pm-5.50pm	Beijing
21	Chinese government	28.01.2015, 10.20am-11.00am	Beijing
22	German public organisation	28.01.2015, 1.15pm-1.40pm	Beijing
23	German public organisation	29.01.2015, 11.45am-12.30pm	Beijing
24	European certification body	04.03.2015, 10.10am-10.55am	Kuala Lumpur
25	EU Commission	03.03.2015, 6.10pm-7.10pm	Kuala Lumpur
26	Private standard organisation	04.03.2015, 5:45pm-6.30pm	Kuala Lumpur
27	Private standard organisation	05.03.2015, 3.30pm-3.50pm	Kuala Lumpur
28	German public organisation	05.03.2015, 6pm-6.45pm	Kuala Lumpur
29	Private standard organisation	20.03.2015, 11.30pm-12.20am	Paris (by phone)
30	EU Commission	24.03.2015, 10.40am-11.20am	Brussels
31	EU Commission	25.03.2015, 11.10am-12.15pm	Brussels
32	Chinese university	04.05.2015, 3.20pm-4.10pm	Beijing
33	Chinese certification body	05.05.2015, 11.30am-12.30pm	Beijing
34	Chinese retailer organisation	06.05.2015, 2.30pm-3.30pm	Beijing
35	International governmental organisation	07.05.2015, 10.25am-11.55am	Beijing
36	Chinese government	08.05.2015, 10.15am-11am	Beijing
37	European retailer	05.11.2013, 12:1am5-13pm	Beijing
		06.11.2014, 10am-11:15am	Shanghai
		13.12.2016, exchange via email	
38	German public organisation	09.02.2016, 3pm-4pm	Bremen (by phone)
39	German public organisation	28.06.2016, 10am-12pm	Berlin
40	Chinese private company	01.10.2016, 2.15pm-3.30pm	San Francisco (phone)
41	International Governmental Organisation	26.10.2016, 3pm-3.45pm	Beijing (phone)

(Source: own)

8.2 Questionnaires

8.2.1 Questionnaire European public/private organisation

Question	*Specification*
• What is the background and purpose of your (organizations) activities in China with regard to food safety?	• What role does safeguarding European consumers from unsafe food play? • What role does trade facilitation play?
• On the Chinese side, who are your partners? • Who else is active in supporting China's food safety regulation and what do they do?	• Did this change over time? • Which are the most important actors and relationships for your work beside Chinese partners?
• What are the core themes you are discussing with the Chinese side?	• Do they include one of the following: policy ideals/goals | Institutions | regulatory/administrative/judicial tools| ideas/ideologies | personnel? • To what extent are you involved in China in agenda setting | rule formulation | implementation |monitoring |enforcement • Did the focus of your work change over time?
• To what degree are your activities due to requests from the Chinese side? • Please describe the expectations from your side and Chinese side to your organisations activities in China and the differences between both.	• What are examples for especially diverging interests? • Did this change over time?
• In which areas have you been most successful and what proofed to be too difficult to accomplish?	• What are major achievements?
• Which were critical, important moments in working with the Chinese side?	
• What circumstances particularly facilitate or hinder your activities?	
• Where and how do you exchange with other actors?	
• How do the activities by European companies / European government organisations to support China's food safety relate to your work?	• How has the relationship with other actors developed in quantity and quality?
• Who would you recommend interviewing further?	

8.2.2 Questionnaire Chinese expert

Question	*Specification*
• When Chinese government organisations exchange and collaborate with European or US organisations about food safety: What kind of expertise are they specifically interested in?	• Are Chinese government institutions interested in expertise in risk assessment, rule-making, implementation, monitoring, or enforcement? • How did this change over time?

• How does the interest in collaborating on China's food safety differ between Chinese government organisations and foreign government organisation?	• How did this change over time?
• What are the specific measures and activities of exchange and cooperation between Chinese government organisations and European or US organisations?	• How did this change over time?
• Is exchange and collaboration with EU and US organisation more based on China's request or their request?	• How did this change over time?
• Which European countries are in your experience most active in supporting China's food safety and how does this compare to the US?	• How did this change over time?

8.2.3 Questionnaire third party

Question	*Specification*
• What do you/your organisation do to support China's food safety?	• Did this change over time?
• Are your activities based on sourcing food in China or providing food to China?	• Did this change over time?
• To what degree are your activities due to requests from the Chinese side?	• Did this change over time? • Please describe the expectations from your side and Chinese side to your organisations activities in China and the differences between both.
• How do your activities compare to the approach taken by European countries/companies?	• Did this change over time?
• What circumstances particularly facilitate or hinder your activities?	
• Where and how do you exchange with other actors?	• Did this change over time?
• How do the activities by your country's companies / your country's government organisations to support China's food safety relate to your work?	

8.3 Procedure for sourcing of documents

Procedure applied to retrieve information from the EU Commission's website:

- The press release database RAPID was search for the keyword "China" for the period 2001-2014 and the following policy fields
    - Agriculture and rural development: 54 results of which 34 were taken in to the analysis
    - Consumer policy: 4 results of which 0 were taken into the analysis (because all were non-food related)
    - Health: 3 results of which 1 was taken into the analysis (of the other one was non-food related and on a RASFF-report)
    - International cooperation and development: 46 results of which 4 were taken into the analysis (because the rest were non-food related information)
    - Justice, consumer and gender equality: 84 results which led to a refining of the research,
        - with the additional keyword "food": 2 results of which 1 was taken into the analysis (other was not food related)
        - with the additional keyword "agriculture": 1 results of which 0 was taken into the analysis (other was not food related)
        - with the additional keyword "sanitary": 0 results
        - with the additional keyword "sps": 0 results
        - with the additional keyword "product safety": 7 results of which 2 were taken in to the analysis (rest non-food related)
- The EEAS website Beijing was scanned for the topic of food safety
- The website of DG AGRI was scanned for reports on China-relations
- The website of DG SANTE was scanned for the "Better Training for Safer Food" (BTSF) program. The annual BTSF reports were then scanned for all China related information.
- The website of DG TRADE was scanned for all China related documents in the "more documents on China" section for the time period 2001-2014. Of the resulting 412 documents only those with a relation to the topics of food and china were taken into the analysis.
- All audit reports by the EU Food and Veterinary Office in the period 2001-2015 for China were taken into the analysis
- Usage of search function on the EU Commissions website to complete specific topics identified during the previous search for documents, i.e. all documents related to EU-China Summits, HED/HETD, EU-China Joint Economic and Trade Committee
- The EUCTP website was scanned for all brief activity reports and annual plans (partly by using web archive tools to retrieve documents no longer on the current EUCTP website)
- The FAO website was scanned for all China-related documents
- The WHO website was scanned for all China-related documents
- The ADB website was scanned for all China and food safety-related documents

Websites constantly monitored between 2012 and 2014 for latest food safety developments:

- www.chinadaily.com.cn
- www.foodnavigator.com

- www.foodnavigator-asia.com
- www.barfblog.com

Newsletters monitored between 2012 and 2014 for latest food safety developments:

- Euraxess China newsletter
- Health and Food Safety e-News update published by DG SANTE
- Press release newsletter of the BfR
- EUCTP newsletter
- LinkedIn EU Food Law newsletter
- Sinocism newsletter
- ICTSD newsletter

8.4 EUCTP activities

Table 19: Assessment of EUCTP I and II activities

No	Code	Title	Date	Assessment
EUCTP I				
1	A0009	AQSIQ Food Safety Workshop	Nov-04	MarAcc/pull
2	unspec.	Study on Fusel Oils*	Sep-04	market access
3	A0010	Global Food Safety Forum	Nov-04	SupSaf/pull
4	A0008	Agricultural Biotech Symposium	Nov-04	none
5	A0018	Forum - China and the WTO: Meeting the Challenges Ahead	Dec-04	market access
6	A0030	Workshop on Farmers' Cooperative Law	Apr-05	SupSaf/pull
7	A0002	GI Study Visit to Europe	May-05	market access
8	A0047	Round Table Discussion: Implications of new legislative developments for food sector in Europe	Jun-05	market access
9	A0043	National Training on Agriculture International Exchange and Cooperation System	Jun-05	MarAcc/pull
10	A0032	Study of Impact Tariff Reduction Formulae on Agricultural Trade	Aug-05	none
11	A0033	Study of the Impact of the Elimination of Export Subsidies on Agricultural Trade	Oct-05	none
12	A0052	EU-China GIs Seminars	Nov-05	market access
13	A0053	Study Visit on EU Agriculture Policies	Nov-05	SupSaf/pull
14	A0052	Laboratory Security Training for Highly Pathogenic Avian Influenza	Dec-05	supply safety
15	A0073	DRC Food Safety Mission to EU	Dec-05	MarAcc/pull
16	A0045	Plant Breeder Rights Study	Apr-06	market access
17	A0098	DG SANCO Food Safety Strategy Meeting	Jul-06	SupSaf/pull
18	A0104	EU-China Seminar on the Protection of Geographical Indications	Nov-06	market access
19	A0121	EU-China Workshop on GI Administrative Cooperation	Dec-06	market access
20	A0056	Agriculture and SPS Internship Programme	Jan-07	market access
21	A0123	EU-China GMO Detection Training	Jan-07	MarAcc/pull
22	A0133	Workshop - Overview of Chinese Agriculture and Agricultural Policies	Mar-07	none
23	A0127	AQSIQ Food Safety Training	Mar-07	MarAcc/pull

24	A0131	EU-China Traceability Management and Pesticide Control Training	Mar-07	SupSaf/pull
25	A0126	China participation to the expert meeting on Pilot ASEAN Rapid Alert System for Food and Feed (RASFF)	Apr-07	supply safety
26	A0133b	Workshop - Food Safety Control: Policies and Issues	May-07	none
27	A0146	Information session on WHO proposal for Regulatory and Strategic Framework for Food Safety in the PRC	Jun-07	MarAcc/pull
28	A0147	EU-China Traceability Management and Pesticide Control Training	Jun-07	SupSaf/pull
29	A0159	EU-China Workshop on GI Administrative Cooperation	Jun-07	market access
30	A0079	EU-China Roundtable on Prospects for Fruit and Vegetable Trade	Jul-07	market access
31	A0170	Food Safety Brochures	Sep-07	SupSaf/pull
32	A0166	SFDA Food Safety Senior Fellowship	Oct-07	SupSaf/pull
33	A0194	Support to China Organic Food Certification Center (COFCC) Annual Organic Training	Nov-07	SupSaf/pull
34	A0198	Traceability visibility activity: CCTV interview	Dec-07	SupSaf/pull
35	A0057	Study on the Impacts of GI's on rural development in China	Jan-08	market access
36	A0133c	Workshop - Current and Future Directions in China's GMO Policy	Jan-08	none
37	A0197	Agricultural and SPS Internship Programme	Apr-08	MarAcc/pull
38	A0199	Traceability Management and Pesticide Control Training	Apr-08	SupSaf/pull
39	A0208	Food Contact Material Training	Apr-08	supply safety
40	A0219	Food Contact Material Dissemination Tools	Apr-08	supply safety
41	A0107	Q&A Manual: European Union Legislation on Geographical Indications	May-08	market access
42	A0171	Report on China Organic Agriculture Situation and Challenges	May-08	SupSaf/pull
43	A0133d	Workshop - Organic Agriculture in China	Jun-08	none
44	A0215	GMO Internship Programme	Jun-08	MarAcc/pull
45	A0231	Dissemination workshops of EUCTP report on China Organic Agriculture	Jul-08	SupSaf/pull
46	A0238	Food Contact Materials Internship	Nov-08	supply safety
47	A0133e	Workshop - Land Reform	Dec-08	none
48	A0259	EU-China Practical Training of GM Rice and Rice Products Detection Method	Apr-09	SupSaf/pull
49	A0260	Study Visit on GMO Detection Methods	May-09	MarAcc/pull

50	A0229	Report on Sustainable Aquaculture in South China: Shrimp and Tilapia Farming in Hainan And Guangdong	Jun-09	SupSaf/pull
51	A0227	EU-China Workshop on Environmental Sustainability in Aquaculture	Jun-09	MarAcc/pull
52	A0288	EU-China Workshop on Practical Implementation of Risk Assessment	Sep-09	MarAcc/pull
53	A0289	EU-China Food Safety Risk Assessment Training for Experts	Sep-09	MarAcc/pull
54	A0290	EU-China Training on Food Safety Risk Surveillance Principles and Methodology Food Safety Risk	Oct-09	SupSaf/pull
55	A0291	EU-China Training on the Development of Food Safety Standards	Oct-09	market access
56	A0272	EU-China Food Safety Workshop	Nov-09	SupSaf/pull
EUCTP II				
57	A029-C3	Seminar on Geographical Indications	Mar-11	market access
58	A027-C3	Technical Consultation on EU GI Products	Mar-11	market access
59	A012-C3	EU-China Workshop on BSE	Mar-11	market access
60	A034-C3	Study visit for EU milk safety systems	Jun-11	market access
61	A060-C3	Seminar on Registration and Protection of Agro-product Gis	Sep-11	market access
62	A042-C3	Study visit for the Regulation and Practices Performed by the EU MS to ensure Chemical Residue Standard Compliance of Agriculture Products	Sep-11	SupSaf/pull
63	A035-C3	Technical Training to Improve the Capacity of BSE Risk Analysis	Oct-11	market access
64	A053-C3	workshop on Food Safety Standards	Nov-11	market access
65	A097-C3	Workshop on Agro-Product Processing	Dec-11	MarAcc/pull
66	A108-C3	The use of traceability to support food safety and the implementation of the Food Safety Law	Mar-12	SupSaf/pull
67	A114-C3	Standards, Management and Traceability of Alcoholic Beverages	Apr-12	Market access
68	A138-C3	Harmonising Animal Health Reference Laboratory Standards	Apr-12	SupSaf/pull

69	A122-C3	The EU Quality Assessment System for Imports of Peanut Products	May-12	supply safety
70	A129-C3	The EU regulations, standards, production practices and safety of medical specialties derived from milk (study visit)	May-12	MarAcc/pull
71	A142-C3	Programs to certify and control the production of organic agricultural products	May-12	SupSaf/pull
72	A166-C3	Standardising Animal Health Reference Laboratories	Jul-12	SupSaf/pull
73	A169-C3	Technical Assistance to Support GMO Inspection	Jul-12	SupSaf/pull
74	A149-C3	Consultation to Harmonise Animal Health Reference Laboratory Standards	Oct-12	SupSaf/pull
75	A363-C3	EU-China forum on technologies used in food safety and product authentication	Oct-12	MarAcc/pull
76	A150-C3	EU-China Forum on Technologies Used in Food Safety and Product Authentication	Nov-12	market access
77	A193-C3	Seminar on Feed Materials Safety and Quality Management	Nov-12	SupSaf/pull
78	A220-C3	Seminar on the Management and Surveillance of Zoonosis to Improve the Capacity of Animal Health Reference Laboratories	Dec-12	SupSaf/pull
79	A141-C3	EU Practices on Laboratory Testing, Surveillance and Risk Analysis for Schmallenberg Disease	Dec-12	market access
80	A013-C3	EU-China Workshop on Standards for Alcoholic Beverages	Jan-13	market access
81	A209-C3	Enhance Laboratory Capacity to Support Animal Diseases Surveillance	Mar-13	SupSaf/pull
82	A228-C3	Validation of Laboratory Diagnostic Tools for Schmallenberg Disease	Mar-13	market access
83	A229-C3	EU-China Seminar on Antimicrobial Resistance in the Veterinary and Food Sector	Mar-13	supply safety
84	A280-C3	Enhance Laboratory Capacity to Support Animal Diseases Surveillance	Mar-13	SupSaf/pull
85	A239-C3	Workshop on Risk Assessment of Phthalates in Food	Apr-13	market access
86	A256-C3	EU-China Workshop on Aquafeed Formulation, Feed Quality and Safety Control	May-13	supply safety

87	A275-C3	EU Regulations related to the International Trade of Nut Products	Jun-13	supply safety
88	A249-C3	Consultation to Harmonise Animal Health Reference Laboratory Standards	Jun-13	SupSaf/pull
89	A258-C3	Risk Assessment for Agro-products	Jun-13	SupSaf/pull
90	A271-C3	EU Standards and Regulations Governing Manufacture Practices for Veterinary Drugs	Jun-13	supply safety
91	A274-C3	Slaughtering Industry Forum	Jun-13	SupSaf/pull
92	A251-C3	Impact of Animal and Human Health Control Systems on Animal Origin Food Safety	Jul-13	SupSaf/pull
93	A252-C3	Increasing the Capacity of Animal Health Surveillance Systems	Jul-13	SupSaf/pull
94	A231-C3	Epidemiology Training Workshop for Chinese Executives	Jul-13	SupSaf/pull
95	A277-C3	Food Safety and Risk Regulation (study assignment)	Jul-13	MarAcc/pull
96	A204-C3	HACCP in international transportation and mycotoxins in peanuts	Aug-13	supply safety
97	A250-C3	Workshop on Agro-Product Processing Technology	Sep-13	MarAcc/pull
98	A272-C3	Seminar on EU Regulations to process feed and maintain feed catalogues	Sep-13	SupSaf/pull
99	A292-C3	Workshop to simulate a Codex Alimentarius session	Oct-13	none
100	A298-C3	Workshop on quality and trade of olive oil	Oct-13	market access
101	A301-C3	Roundtable on Animal Health Risk Assessment	Nov-13	SupSaf/pull
102	A304-C3	Seminar on understanding the EU system to govern residues in Agriculture	Nov-13	SupSaf/pull
103	A306-C3	Consultation to Harmonise Animal Health Reference Laboratories	Nov-13	SupSaf/pull
104	A291-C3	Food Additive Risk Analysis and Safety Standards	Dec-13	MarAcc/pull

105	A297-C3	EU regulatory and scientific approach on wine and Alcoholic beverages safety and authenticity	Dec-13	market access
106	A293-C3	EU Governance to ensure animal origin food safety	Jan-14	market access
107	A318-C3	Laboratory exchange to fight counterfeiting in trade of alcoholic beverages and to enhance quality and safety of alcoholic products	Mar-14	market access
108	A300-C3	Internship at DG MARE	Mar-14	none
109	A319-C3	Enhancing Laboratory Capacity to Support Animal Diseases Surveillance	Apr-14	SupSaf/pull
110	A325-C3	Harmonisation of risk analysis, standards and management of food contact materials	May-14	supply safety
111	A332-C3	Technical Standards and authenticity of agricultural products	May-14	MarAcc/pull
112	A362-C3	Biosafety management of animal health laboratories	May-14	Market access
113	A331-C3	The EU Governance strategy to ensure food and feed safety	Jun-14	SupSaf/pull
114	A336-C3	International Standards: The basis for policy making for animal origin products	Jun-14	market access
115	A338-C3	EU Regulation and practices to ensure feed security and safety	Jun-14	market access
116	A359-C3	Impact of animal and human health control systems on animal origin food safety	Jul-14	SupSaf/pull
117	A360-C3	Increasing the risk analysis capacity of animal health surveillance systems	Jul-14	SupSaf/pull
118	A361-C3	Epidemiology and risk analysis for Chinese Executives	Jul-14	SupSaf/pull
119	A364-C3	Study assignment on Standards, Food safety and Risk Regulation	Jul-14	SupSaf/pull
120	A337-C3	Application of models in risk assessment	Aug-14	SupSaf/pull
121	A371-C3	EU standards and regulations to control African Swine fever	Oct-14	market access
122	A383-C3	EU Regulations and practices to assess risk in agricultural products	Oct-14	SupSaf/pull

123	A386-C3	Consultation to Harmonise Animal Health Reference Laboratories	Oct-14	SupSaf/pull
124	A390-C3	Simulation of Codex Alimentarius Sessions	Nov-14	none
125	A385-C3	EU regulations to ensure safe international transportation for agricultural products	Dec-14	supply safety
126	A408-C3	Increasing the risk analysis capacity of the animal disease surveillance systems	Apr-15	SupSaf/pull
127	A409-C3	Impact of Animal and Human Health Control Systems on Animal Origin Food Safety	Apr-15	SupSaf/pull
128	A424-C3	Control measures for animal origin products during disease outbreaks	May-15	market access
129	A425-C3	Technical consultation on food safety risk assessment	Jun-15	MarAcc/pull
130	A447-C3	EU regulations, standards and best practices to ensure the safety of agricultural products	Jun-15	market access
131	A433-C3	EU Standards and regulations governing slaughterhouses and meat processing plants	Jun-15	SupSaf/pull
132	A443-C3	EU management of risk communication and data exchanges	Jul-15	SupSaf/pull
133	A445-C3	Food Safety Legislation and Governance (study assignment)	Jul-15	MarAcc/pull
134	A446-C3	Food Safety surveillance and risk assessment	Jul-15	SupSaf/pull
135	A330-C3	EU regulations to govern animal waste disposal	Sep-15	MarAcc/pull
136	A453-C3	EU-China exchanges on food safety governance	Sep-15	market access
137	A444-C3	Seminar on food safety legislation and regulation	Nov-15	market access
138	A451-C3	Standardization of Animal Health Reference Laboratories	Nov-15	SupSaf/pull
139	A457-C3	EU standards and regulations to control animal disease	Nov-15	market access
140	A458-	International standards for regionalization and zoning to mitigate risk	Nov-15	market access

	C3	during animal disease outbreaks		
141	A460-C3	EU-China roundtable on the global integration of the Chinese dairy industry	Nov-15	MarAcc/pull
142	A441-C3	Comparison of the current oenological practices in China and the EU	Dec-15	market access
143	A394-C3	Enhancing Laboratory capacity to support animal diseases surveillance	Dec-15	SupSaf/pull
144	A465-C3	EU-China Seminar Antimicrobial resistance prevention	Mar-16	Supply Safety

*not listed in final achievement report because under different component

References

Media reports

'EUCTP born out of China's WTO entry' (2009). *China Daily,* 30 November: 14.

anonymous (2008) *China gains access to EU rapid alert system*. Available at: «http://www.feednavigator.com/Regulation/China-gains-access-to-EU-rapid-alert-system». Accessed 3/30/2016.

anonymous (2009) 'Increased interdependency - common solutions'. *China Daily,* 30 November: 15.

anonymous (2011) *Questions Remain Over Mengniu Milk Scandal, Experts Say*. Available at: «http://english.caixin.com/2011-12-27/100343210.html». Accessed 5/31/2016.

anonymous (2012) *USA: Erster BSE-Fall seit sechs Jahren*. Available at: «http://www.aerztezeitung.de/medizin/krankheiten/infektionskrankheiten/article/811719/usa-erster-bse-fall-seit-sechs-jahren.html?sh=34&h=-825835998». Accessed 7/20/2017.

anonymous (2014) *Die Schweiz traut sich: Freihandel mit China*. Available at: «http://www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/freihandel-mit-china-die-schweiz-traut-sich-13020733.html». Accessed 6/8/2017.

Astley, M. (2012) *China food safety inspection results are 'alarming' - AsiaInspection*. Available at: «http://www.foodqualitynews.com/Public-Concerns/China-food-safety-inspection-results-are-alarming-AsiaInspection». Accessed 8/29/2013.

Balzano, J. (2016) *Lingering Food Safety Regulatory Issues For China In 2016*. Available at: «http://www.forbes.com/sites/johnbalzano/2016/01/10/lingering-food-safety-regulatory-issues-for-china-in-2016/#33d3ffc95f5a». Accessed 11/15/2016.

Beijing Review (2007) *Premier: Food Safety a Top Priority*. Available at: «http://www.bjreview.com/health/txt/2007-07/26/content_70426.htm». Accessed 2/11/2016.

Boehler, P. (2012) *Bad Eggs: Another Fake-Food Scandal Rocks China*. Available at: «http://newsfeed.time.com/2012/11/06/how-to-make-a-rotten-egg/». Accessed 11/15/2016.

Cai, W. (2012) '15% of Chinese made ill by food every year'. *Shanghai Daily,* 07 May: A5.

Chao, L. (2004) *More bid farewell to Three Gorges*. Available at: «http://www.chinadaily.com.cn/english/doc/2004-07/15/content_348413.htm». Accessed 6/8/2017.

China Daily (2010) *Govt moves to improve food safety systems*. Available at: «http://www.chinadaily.com.cn/bizchina/2010-09/03/content_11254900.htm». Accessed 11/22/2016.

China Daily (2012) *China to set food safety standards by 2015*. Available at: «http://www.chinadaily.com.cn/china/2012-08/13/content_15672298.htm». Accessed 10/9/2012.

China Financial and Economic News (2013) *877.000 small-sized farmers in China (全国家庭农场达87.7万个)*. Available at: «http://finance.chinanews.com/cj/2013/06-09/4917470.shtml». Accessed 6/17/2013.

Chuan, Q. (2004) *Global forum highlights food safety*. Available at: «http://www.chinadaily.com.cn/english/doc/2004-11/18/content_392804.htm».

Coonan, C. (2013) *Food safety at top of China menu*. Available at: «http://www.thenational.ae/business/industry-insights/economics/food-safety-at-top-of-china-menu#full».

Dong, F. and Jensen, H.H. (2007) 'Challenges for China's Agricultural Exports: Compliance with Sanitary and Phytosanitary Measures'. *Choices*, Vol. 22, No. 1, pp. 19–24.

Dowideit, A. (2014) *Deutschen wird Essen aus China untergejubelt*. Available at: «http://www.welt.de/wirtschaft/article125912110/Deutschen-wird-Essen-aus-China-untergejubelt.html».

Flynn, D. (2013) *Letter From The Editor: Our Stake in China's Food Safety*. Available at: «http://www.foodsafetynews.com/2013/09/letter-from-the-editor-our-stake-in-chinas-food-safety/#.Uj-cnz-z7bh». Accessed 9/22/2013.

Foster, P. (2011) *Top 10 Chinese Food Scandals*. Available at: «http://www.telegraph.co.uk/news/worldnews/asia/china/8476080/Top-10-Chinese-Food-Scandals.html». Accessed 11/22/2016.

Fu, L. (2016) *What China's food safety challenges mean for consumers, regulators, and the global economy*. Available at: «https://www.brookings.edu/blog/order-from-chaos/2016/04/21/what-chinas-food-safety-challenges-mean-for-consumers-regulators-and-the-global-economy/». Accessed 11/15/2016.

Grassegger, H. (2013) *China auf der Zunge*. Available at: «http://www.zeit.de/wirtschaft/2013-11/china-auf-der-zunge-essen-kochen». Accessed 6/8/2017.

Howitt, N. (2013) *Arsenic poisoning threatens 20 million in China*. Available at: «https://www.chinadialogue.net/blog/6331-Arsenic-poisoning-threatens-2-million-in-China/en». Accessed 2/9/2016.

Huang, Y. (2012) *China's Corrupt Food Chain*. Available at: «http://www.nytimes.com/2012/08/18/opinion/chinas-corrupt-food-chain.html?pagewanted=all&_r=1&». Accessed 8/27/2013.

Huehnergrath, N. and Siegel, B. (2014) *Chicken from China? Your Seafood is Already Being Processed There*. Available at: «http://www.foodsafetynews.com/2014/03/chicken-from-china-your-seafood-is-already-being-processed-there/#.WHY2l1xPLVI». Accessed 6/7/2017.

Jourdan, A. (2013) *Overcrowding on farms behind mystery of China's floating pigs*. Available at: «http://www.reuters.com/article/us-china-farming-pigs-idUSBRE93N1C720130424». Accessed 3/15/2017.

Kahn, J. (2007) *Can China Reform Itself?* Available at: «http://www.nytimes.com/2007/07/08/weekinreview/08kahn.html?pag&_r=0». Accessed 1/5/2016.

Kottenstede, K. (2014) '**食品安全**监管是政府和企业共同的责任 (Food safety regulation is the shared responsibility of the government and business)'. *China Social Sciences Today,* 21 November. Available at: «http://sub.cssn.cn/xk/xk_tp/201411/t20141121_1409544.shtml».

Lee, F., Meßing, F. and Wohland, A. (2012) *Brötchen, Spinat, Apfelsaft – alles kommt aus China*. Available at: «http://www.derwesten.de/politik/broetchen-spinat-apfelsaft-alles-kommt-aus-china-id7183327.html». Accessed 2/8/2016.

Li, Z. (2014) *China's tainted meat scandal explained*. Available at: «http://edition.cnn.com/2014/07/29/world/asia/explainer-china-meat-scandal/». Accessed 6/5/2017.

Lin, L. (2013) *Food safety scandals bring reality-check to 'Chinese dream'*. Available at: «https://www.chinadialogue.net/blog/6035-Food-safety-scandals-bring-reality-check-to-Chinese-dream-/en». Accessed 2/11/2016.

Little, A. (2014) *Building the Whole Foods of China*. Available at: «https://www.bloomberg.com/news/articles/2014-07-31/tonys-farm-organic-food-provider-to-chinas-elite». Accessed 6/8/2017.

Manila Bulletin (2014) *WTO fails to agree on definition of private standards for food safety*. Available at: «https://ph.news.yahoo.com/wto-fails-agree-definition-private-standards». Accessed 9/12/2014.

Maurice, E. (2016) *EU envisages China free-trade pact*. Available at: «https://euobserver.com/economic/133947». Accessed 6/8/2017.

Mbengue, M.M. (2011) 'Private standards and WTO law'. *BioRes Review*, Vol. 5, No. 1, pp. 10–11.

Minter, A. (2017) *How China Can Stop a Pandemic*. Available at: «https://www.bloomberg.com/view/articles/2017-02-26/how-china-can-stop-the-world-s-next-pandemic». Accessed 6/8/2017.

Newcomb, T. (2011) *Growth Chemical Leads to Exploding Watermelons in China*. Available at: «http://newsfeed.time.com/2011/05/17/growth-chemical-leads-to-exploding-watermelons-in-china/». Accessed 6/5/2017.

Patoka, M. (2013) *Three Food Safety Rules Grow Moldy at OIRA as Import-Related Outbreaks Continue*. Available at: «http://www.foodsafetynews.com/2013/06/three-food-safety-rules-grow-moldy-at-oira-as-import-related-outbreaks-continue/#.UdDw-Zzhdz1». Accessed 7/1/2013.

Ramzy, A. (2009) *Will China's New Food-Safety Laws Work?* Available at: «http://www.time.com/time/world/article/0,8599,1882711,00.html». Accessed 5/16/2012.

Reuters (2014) *Wal-Mart recalls donkey product in China after fox meat scandal*. Accessed 2/9/2016.

Schönmann, J. (2007) *"Gehen Sie niemals in ein Restaurant": Lebensmittel-Horror in China*. Available at: «http://www.spiegel.de/wirtschaft/lebensmittel-horror-in-china-gehen-sie-niemals-in-ein-restaurant-a-522693.html». Accessed 3/15/2017.

Spiegel Online (2007) *EU Leaders Call for Reform at Trade Summit in China: Globalization Jitters*. Available at: «http://www.spiegel.de/international/world/globalization-jitters-eu-leaders-call-for-reform-at-trade-summit-in-china-a-520140.html». Accessed 3/14/2017.

Spiegel Online (2012) *'You Get What You Pay For': The Hidden Price of Food from China*. Available at: «http://www.spiegel.de/international/world/europe-worries-about-health-hazards-of-cheap-food-from-china-a-861406-2.html».

Thompson, T.N. (2012) *Glowing Pork, Exploding Watermelons: Why China Can't Keep Its Food Safe*. Available at: «http://www.foreignaffairs.com/articles/137329/thomas-n-thompson/glowing-pork-exploding-watermelons?cid=nlc-this_week_on_foreignaffairs_co-031512-glowing_pork_exploding_waterme_3-031512#». Accessed 3/19/2012.

Wang, H. (2012) 'Consumers turn toward imported food'. *China Daily USA,* 22 August: 13.

Wang, H. (2013) *Food safety tops public's concerns*. Available at: «http://www.chinadaily.com.cn/china/2013-08/21/content_16909016.htm».

Wei, Z. (2012) 'Food Safety in China'. Chinadialogue.

Whitehead, R.J. (2015) *Death for man who sold 19k tonnes of slaughtered cattle waste as lard*. Available at: «http://www.foodnavigator-asia.com/Policy/Death-for-man-who-sold-19k-tonnes-of-slaughtered-cattle-waste-as-lard». Accessed 2/11/2016.

Whitworth, J. (2016) *'Uncertainty' for Chinese agri-food exporters due to rejection risk*. Available at: «www.foodqualitynews.com/R-D/Impact-of-EU-food-safety-regulations-on-Chinese-agri-food-exports». Accessed 12/20/2016.

Winton, N. (2017) *China Will Lead The Electric Car Revolution With More Than 10.5 Million Sales By 2025, Per Report*. Available at: «https://www.forbes.com/sites/neilwinton/2017/04/21/china-will-lead-the-electric-car-revolution-with-more-than-10-12-million-sales-by-2025-report/#7eaa15067931». Accessed 6/8/2017.

Xinhua (2010) *Chinese vice premier orders more efforts to improve food safety*. Available at: «http://news.xinhuanet.com/english2010/china/2010-04/20/c_13258667.htm». Accessed 2/11/2016.

Xinhua (2013a) *Premier Li vows to tackle environment, food problems "with iron fist"*. Available at: «http://news.xinhuanet.com/english/china/2013-03/17/c_132240293.htm». Accessed 2/11/2016.

Xinhua (2013b) *FAO experts express pollution concerns*. Available at: «http://news.xinhuanet.com/english/world/2013-06/10/c_132444853.htm». Accessed 2/13/2017.

Xinhua (2014) *China Focus: Shanghai vows harsh punishment after major food scandal*. Available at: «http://news.xinhuanet.com/english/china/2014-07/27/c_133513949.htm». Accessed 2/13/2017.

Xinhua (2015a) *China Focus: Shanghai vows harsh punishment after major food scandal*. Available at: «http://news.xinhuanet.com/english/china/2014-07/27/c_133513949.htm». Accessed 12/21/2015.

Xinhua (2015b) *China vows "zero tolerance" of food safety crime*. Available at: «http://news.xinhuanet.com/english/2015-06/11/c_134318999.htm». Accessed 2/11/2016.

Xu, W. (2014) *Health agency to trim excess food standards*. Available at: «http://www.chinadaily.com.cn/china/2014-01/17/content_17241253.htm». Accessed 11/15/2016.

Zamiska, N. (2007) 'Who's Monitoring Chinese Food Exports?' *Wall Street Journal,* 09 April. Available at: «http://online.wsj.com/article/SB117608207682763704.html».

Documents

American Chamber of Commerce China (2012) *White Paper*. Available at: «http://web.resource.amchamchina.org/cmsfile/2012/04/23/deea513f1f5f0e1e15dded6766c7f57e.pdf». Accessed 10/9/2012.

American Chamber of Commerce China (2013) 'China Food Safety and Sustainability Conference: Executive Summary'.

anonymous (2015a) *Made in Italy Food & Wines: III Sino-Italien Dialogue on food safety in Beijing*. Available at: «https://www.100ita.com/blog/iii-sino-italian-dialogue-on-food-safety/?lang=en». Accessed 6/6/2017.

anonymous (2015b) *Public-Private Partnership to Tackle Food Safety in Asia*. Available at: «http://foodindustry.asia/public-private-partnership-to-tackle-food-safety-in-asia». Accessed 3/13/2017.

AQSIQ (2007a) 'China's Food Quality and Safety'. Available at: «http://english.aqsiq.gov.cn/NewsRelease/NewsUpdates/200708/t20070819_36578.htm».

AQSIQ (2007b) *Further Strengthening Food Production and Processing Small Workshops and Supervision Work: Three Prominent Regulatory Systems to Ensure the Quality and Safety of Food*

[国家质检总局发布《关于进一步加强食品生产加工小作坊监管工作的意见》突出三项监管制度确保食品质量安全]. Available at: «http://www.aqsiq.gov.cn/zjxw/zjxw/zjftpxw/200707/t20070711_33419.htm». Accessed 2/11/2016.

AQSIQ (2007c) *The High-level International Food Safety Forum Held in Beijing-Enhancing Exchange and Cooperation,* 26 November (Beijing).

AQSIQ (2010) *Sino-European Food Safety Cooperation Forum held*. Available at: «http://english.aqsiq.gov.cn/NewsRelease/PhotoGallery/201006/t20100618_147054.htm». Accessed 11/30/2016.

Asian Development Bank (2007) 'ADB Observations and Suggestions Policy Note: Suggestions on Strengthening Food Safety in the PRC". Available at: «http://www.adb.org/publications/suggestions-strengthening-food-safety-prc». Accessed 21.12.15.

Batmanian, G. (2014) *From farm to chopsticks: Improving food safety in China*. Available at: «https://blogs.worldbank.org/eastasiapacific/farm-chopsticks-improving-food-safety-china». Accessed 12/22/2016.

Battaglia, R. (2013) *Certificates! or: There and Back Again: Use and Abuse of Food Safety Standards*. Speech at IRGC International Conference, 10 January (Beijing).

BRC (2014) 'Food Safety: A Global View'.

Bundesministerium für Ernährung und Landwirtschaft (2016) *Förderprogramm für den Export deutscher Unternehmen der Agrar- und Ernährungswirtschaft*. Available at: «https://www.agrarexportfoerderung.de/». Accessed 10/20/2016.

CHAFEA (2012) *Better Training for Safer Food*. Available at: «http://ec.europa.eu/chafea/food/about.html». Accessed 5/28/2015.

Chen, C. (2014a) *Panel Discussion "Food Safety: A Shared Commitment from the Top - Industry Leader Insights"*. Speech at GFSI Focus Day, 27 August (Beijing).

Chen, J. (2014b) *Food Safety in China: Regulatory Updates & Implications*. Speech at China Food Safety and Sustainability Conference, 22 May (Shanghai).

Chen, J. (2014c) *Academia insights*. Speech at GFSI Focus Day, 27 August (Beijng).

China Daily (2004a) *Top Concern for Food Safety*. Available at: «www.china.org.cn/english/BAT/101861.htm». Accessed 12/2/2016.

China Daily (2004b) *47 detained for selling baby-killer milk*. Available at: «http://www.chinadaily.com.cn/english/doc/2004-05/10/content_329449.htm». Accessed 1/11/2017.

CIA *The Wold Factbook*. Available at: «https://www.cia.gov/library/publications/the-world-factbook/». Accessed 12/3/2014.

CIES (2000) 'CIES launches Global Food Safety Initiative'.

CIES (2003) *CIES – The Food Business Forum announces compliance of the first 4 food safety standards in the Global Food Safety Initiative Benchmark Project,* 28 January (Paris).

CIES (2007) *Global Food Safety Initiative Breakthrough,* 20 June (Shanghai).

CNAS (2015) *CNAS Introduction*. Available at: «https://www.cnas.org.cn/english/introduction/12/718683.shtml». Accessed 11/16/2015.

CNCA (2011) *Vice Chairman Che Wenyi met with Chairman of the Board of Directors of the Global Food Safety Initiative (GFSI) and representatives of technical committee [车文毅副主任会见全球食品安全行动倡议（GFSI）董事会主席及其技术委员会代表一行]*. Available at: «http://www.cnca.gov.cn/xxgk/tpxw/201104/t20110420_28182.shtml». Accessed 1/6/2017.

CNCA (2016a) *Wang Daning, deputy director attended the signing ceremony of cooperation memorandum of understanding between CCAI and GFSI (王大宁副主任出席CCAI与GFSI合作谅解备忘录签字仪式)*. Available at: «http://www.cnca.gov.cn/xxgk/tpxw/201203/t20120328_28452.shtml». Accessed 3/14/2017.

CNCA (2016b) *Wang Daning, deputy director, met with the chairman of the global food safety initiative (GFSI) Jurgen MATERN [王大宁副主任会见全球食品安全倡议（GFSI）Jurgen MATERN主席一行]*. Available at: «http://www.cnca.gov.cn/xxgk/tpxw/201004/t20100415_27908.shtml». Accessed 3/14/2017.

Committee on Sanitary and Phytosanitary Measures (2010) 'Summary of the meeting of 29-30 June 2010', G/SPS/R/59. Available at: «https://docs.wto.org/dol2fe/Pages/FE_Search/ExportFile.aspx?id=91843&filename=Q/G/SPS/R59.pdf». Accessed 12/15/2016.

Committee on Sanitary and Phytosanitary Measures (2011) 'Transitional Review Mechanism Pursuant to Paragraph 18 of the Protocol on the Accession of the People's Republic of China ("China"): Questions from the European Communities to China concerning Sanitary and Phytosanitary Measures', G/SPS/W/262. Available at: «https://www.wto.org/english/news_e/news11_e/sps_19oct11_e.htm».

DAKKS (n.d.) *Internationales Netzwerk*. Available at: «http://www.dakks.de/content/internationales-netzwerk». Accessed 11/16/2015.

Delegation of the European Union to China (n.d.) *Food Safety*. Available at: «http://eeas.europa.eu/archives/delegations/china/eu_china/food_safety_and_consumer_protection/food_safety/index_en.htm». Accessed 3/14/2017.

DG AGRI (2011) *Global and EU agricultural exports rebound*. Available at: «http://ec.europa.eu/agriculture/trade-analysis/map/01_11_en.pdf». Accessed 11/9/2016.

DG AGRI (2013a) '3rd meetingof the EU-China Task Force in Food, Agriculture and Biotechnology Research and Innovation (FAB): Joint Conclusions'.

DG AGRI (2013b) *EU, China to cooperate on food, agriculture and biotechnology research,* 21 November.

DG AGRI (2016a) *Agri-food Trade Statistical Factsheet: European Union - Extra EU 28*. Available at: «http://ec.europa.eu/agriculture/trade-analysis/statistics/outside-eu/regions/agrifood-extra-eu-28_en.pdf». Accessed 11/8/2016.

DG AGRI (2016b) *Agri-food Trade Statistical Factsheet: European Union - China*. Available at: «http://trade.ec.europa.eu/doclib/html/149251.htm». Accessed 11/8/2016.

DG AGRI (2016c) *Food Quality Certification Schemes*. Available at: «http://ec.europa.eu/agriculture/quality/certification/index_en.htm». Accessed 6/28/2016.

DG AGRI (2016d) *Pigmeat*. Available at: «http://ec.europa.eu/agriculture/pigmeat/index_en.htm». Accessed 11/9/2016.

DG SANTE (2008) 'Memorandum of Understanding on Administrative Co-operation Arrangements between The European Commission's Directorate General for Health and Consumer Protection (DG SANCO) and The General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ)'.

DG SANTE (2012) *International Affairs - Import Conditions*. Available at: «http://ec.europa.eu/food/international/trade/index_en.htm». Accessed 8/27/2012.

DG SANTE (2016) *Third Countries*. Available at: «http://ec.europa.eu/food/safety/international_affairs/trade/third/index_en.htm». Accessed 3/25/2016.

DG TRADE (2003) 'Highlights of the EU-China Agreement on WTO'. Available at: «http://trade.ec.europa.eu/doclib/docs/2003/september/tradoc_113818.pdf». Accessed 1/5/2017.

DG TRADE (2006a) *Agriculture Countries: China*. Available at: «http://trade.ec.europa.eu/doclib/html/120305.htm». Accessed 5/19/2015.

DG TRADE (2006b) 'China SPS Export Discussion Paper'. Available at: «http://trade.ec.europa.eu/doclib/docs/2006/august/tradoc_129785.pdf». Accessed 11/29/2011.

DG TRADE (2006c) 'Conference report sent to the Committee 133'.

DG TRADE (2006d) 'European Commission Conference "EU trade and investment with China: changes, challenges and choices": Minutes of afternoon working groups'.

DG TRADE (2006e) 'Implementation strategy to enhance co-operation between MS for exports to China subject to SPS measures'.

DG TRADE (2007a) 'EU-China Trade Ministerial Meeting 12 June 2007', MEMO/07/237.
DG TRADE (2007b) 'Study into the Future Opportunities and Challenges in EU-China Trade and Investment Relations 2006-2010'. Available at: «http://trade.ec.europa.eu/doclib/docs/2007/february/tradoc_133299.pdf». Accessed 12/23/2016.
DG TRADE (2007c) 'Study into the Future Opportunities and Challenges in EU-China Trade and Investment Relations 2006-2010: Abstract of the sectoral studies'.
DG TRADE (2008a) 'Inaugural meeting of the EU-China High Level Economic and Trade Dialogue Mechanism'.
DG TRADE (2008b) *Mandelson in China to discuss new High Level Trade Mechanism,* 22 February (Brussels).
DG TRADE (2009) *Second meeting of the EU-China High Level Economic and Trade Dialogue: 7 and 8 May 2009 in Brussels: Factsheet,* 08 May (Brussels).
DG TRADE (2013) *Geographical indications*. Available at: «http://ec.europa.eu/trade/policy/accessing-markets/intellectual-property/geographical-indications/». Accessed 3/6/2017.
DG TRADE (2017) *Market Access Database: SPS: Sanitary and Phytosanitary Issues*. Available at: «http://madb.europa.eu/madb/sps_crossTables.htm?isSps=true». Accessed 3/14/2017.
DG SANCO (2004) 'Food & Veterinary Office: Programme of Inspections 2004 July - December'. Available at: «https://ec.europa.eu/food/sites/food/files/audits_analysis/audit_programmes/docs/fvo_inspect_prog_audit_en_2004_07-12.pdf». Accessed 2/4/2017.
DG SANCO (2006) 'Guidance Document: Key questions related to import requirements and the new rules on food hygiene and official food controls', 2014th edn.
DG SANCO (2008a) 'Joint statement on the extension of the memorandum of understanding on administrative co-operation arrangements between DG Sanco and AQSIQ'.
DG SANCO (2008b) 'Statement addressed to the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) of the People's Republic of China'.
DG SANCO (2008c) 'Summary Record of the Standing Committee on the Food Chain and Animal Health held in Brussels on 25 September 2008: Contamination of milk by melamine in China'. Available at: «https://ec.europa.eu/food/sites/food/files/safety/docs/reg-com_toxic_summary25092008_en.pdf». Accessed 12/16/2016.
DG SANCO (2009) *Better Training for Safer Food: Annual Report 2008* (Luxembourg: Office for Official Publications of the European Communities).
DG SANCO (2011) *Better training for safer food: Annual report 2010* (Luxembourg: Office for Official Publications of the European Communities).
DG SANCO (2014) *WTO/SPS Private Standards*. Available at: «http://ec.europa.eu/food/international/organisations/sps/otherissues_en.htm». Accessed 9/12/2014.
DG SANCO (2017) *Health and Food Audits and Analysis*. Available at: «http://ec.europa.eu/food/audits_analysis_en». Accessed 2/4/2017.
Dionisi, A. (2015) *Food standards in the EU and cooperation with China, including the revision of the Chinese Food Safety Law*. Speech at EU experts' Workshop on "Food safety of agro-food products in the context of research and innovation cooperation between the EU and China", 23 March (Brussels).
EFSA (2009) *International Activities - A Strategic Approach: Document Describing EFSA's strategic approach to its international activities*. Available at: «http://www.efsa.europa.eu/en/corporate/doc/intstrategicen.pdf». Accessed 8/27/2012.

EUCTP (2006a) *Beneficiaries*. Available at: «https://web.archive.org/web/20061018034334/http://www.euchinawto.org/en/selection.asp». Accessed 12/28/2015.

EUCTP (2006b) *What is Trade-related Technical Assistance?* Available at: «https://web.archive.org/web/20061017182916/http:/www.euchinawto.org/en/faq.asp». Accessed 12/28/2015.

EUCTP (2007) *Study Tour Fusel*. Available at: «https://web.archive.org/web/20070216185812/http://www.euchinawto.org/en/view_cmpt05.asp?iID=60». Accessed 3/11/2017.

EUCTP (2009) 'The EU-China Trade Project: An Important Contribution to China's Integration into the World Trading System: Results and Achievement Report'.

EUCTP (2010) 'Overall Work Plan: 1st September 2010-31st January 2015'.

EUCTP (2011a) 'Annual Work Plan: 1st March 2011 – 28th February 2012'.

EUCTP (2011b) 'Brief Activity Report: Technical consultation EU GI products', A027-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2011c) 'Brief Activity Report: Seminar on Geographical Indications (GIs)', A029-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2011d) 'Brief Activity Report: Workshop on Agro-Product Processing', A097-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2011e) 'Brief Activity Report: Technical Training to Improve the Capacity of BSE Risk Analysis', A035-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2012a) 'Annual Work Plan: 1st March 2012 – 28th February 2013'.

EUCTP (2012b) 'Brief Activity Report: The EU regulations, standards, production practices and safety of medical specialties derived from milk (study visit)', A129-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2012c) 'Brief Activity Report: Management and Surveillance on Zoonosis to Improve Capacity of Animal Health Reference Laboratories', A220-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2012d) 'Brief Activity Report: EU-China Seminar on Quality and Safety Management of Feed Materials', A193-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2012e) 'Brief Activity Report: Harmonising Animal Health Reference Laboratory Standards (roundtable)', A138-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2012f) 'Brief Activity Report: The use of traceability to support food safety and the implementation of the Food Safety Law', A108-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2013a) 'Annual Work Plan: 1st March 2013 – 28th February 2014'.

EUCTP (2013b) 'Brief Activity Report: EU-China Seminar Antimicrobial resistance prevention', A465-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2013c) 'Brief Activity Report: EU Standards and Regulations Governing Manufacture Practices for Veterinary Drugs', A271-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2013d) 'Brief Activity Report: EU-China Workshop on Aquafeed Formulation, Feed Quality and Safety Control', A256-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2013e) 'Brief Activity Report: Enhancing Laboratory Capacity to Support Animal Diseases Surveillance', A209-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2013f) 'Brief Activity Report: EU-China Seminar on Antimicrobial Resistance in the Veterinary and Food Sector', A229-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2013g) 'Brief Activity Report: EU regulations to process feed and maintain feed catalogues', A272-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2014a) 'Annual Work Plan: 1st March 2014 - 28th Februar 2015'.

EUCTP (2014b) 'Brief Activity Report: Harmonisation of risk analysis, standards and management of food contact materials', A325-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2014c) 'Brief Activity Report: International Standards: The basis for policy making for animal origin products', A336-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2015a) 'Brief Activity Report: EU-China roundtable on the global integration of the Chinese dairy industry', A460-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2015b) 'Brief Activity Report: EU regulations, standards and best practices to ensure the safety of agricultural products', A447-C3. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html».

EUCTP (2015c) *Downloads: Agriculture and Food Safety*. Available at: «http://www.euctp.org/index.php/en/downloads/viewcategory/10-agriculture-and-food-safety.html». Accessed 3/11/2017.

European Commission. 'Multiannual Indicative Programme'. Available at: «www.eeas.europa.eu/china/csp/07_10_mip_en.pdf». Accessed 12/22/2016.

European Commission (2000) *Weißbuch zur Lebensmittelsicherheit: KOM (1999) 719*.

European Commission (2001) *Communication from the Commission to the Council and the European Parliament. EU Strategy towards China: Implementation of the 1998 Communication and Future Steps for a more Effective EU Policy: COM(2001) 265*.

European Commission (2002a) 'Country Strategy Paper China'.
European Commission (2002b) *EU-China relations: Visit of Chinese Trade Minister,* 30 January (Brussels).
European Commission (2003) 'Commision Policy Paper for Transmission to the Council and the European Parliament: A maturing partnership - shared interests and challenges in EU-China relations'.
European Commission (2004) 'National Indicative Programme 2005-2006: China'. Available at: «http://eeas.europa.eu/archives/docs/china/csp/05_06_nip_en.pdf». Accessed 12/22/2016.
European Commission (2005a) 'EU-China Memorandum of Understanding on Product Safety: Memo'.
European Commission (2005b) *Commissioners Mandelson and Fischer Boel in China for WTO trade talks,* 11 July (Brussels).
European Commission (2005c) *Counterfeiting: State of play,* 12 July (Brussels).
European Commission (2005d) *EU–China talks focus on Doha, market access, intellectual property rights,* 04 November (Brussels).
European Commission (2006a) *Communication from the Commission to the Council and the European Parliament. EU – China: Closer partners, growing responsibilities: COM(2006) 631*.
European Commission (2006b) *Commission pledges €80 million to fight bird flu in third countries: IP/06/29,* 13 January (Brussels).
European Commission (2007a) 'Agreed Results of the 22nd EC-China Joint Committee June 12, 2007'.
European Commission (2007b) 'Country Strategy Paper China: 2007-2013'. Available at: «http://ec.europa.eu/europeaid/country-strategy-paper-china-2007-2013_en». Accessed 12/23/2016.
European Commission (2007c) 'Evaluation of the European Commission's co-operation and partnership with the People's Republic of China: Country Level Evaluation', Volume 2.
European Commission (2007d) 'Stocktaking Report: Detailed Outcome of the Activities Undertaken with the Stakeholders'. Available at: «http://ec.europa.eu/consumers/safety/news/stocktaking_report_en.pdf». Accessed 12/12/2016.
European Commission (2008a) 'EU and China push positive trade agenda'.
European Commission (2008b) 'Points of consensus: The 23rd EU-China Joint Committee'.
European Commission (2008c) 'RASFF Annual Report 2007'.
European Commission (2008d) *The Common Agricultural Policy: sorting the facts from the fiction,* 20 June (Brussels).
European Commission (2008e) *High-level Consumer Product Safety Trilateral Summit: Joint Press Statement,* 17 November (Brussels).
European Commission (2009) *Commissioner Mariann Fischer Boel visits China to promote 'Tasty Europe'*. IP/09/790, 15 May (Brussels).
European Commission (2010) *EU best practice guidelines for voluntary certification schemes for agricultural products and foodstuffs*. Available at: «http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:52010XC1216%2802%29».
European Commission (2011) *Commissioner Dacian Cioloş visits China to promote European quality foods*. IP/11/328, 18 March (Brussels).
European Commission (2012a) 'Joint Declaration on the First Round of the "EU-China High Level People-to-People Dialogue"'. Available at: «http://ec.europa.eu/dgs/education_culture/repository/education/international-cooperation/documents/china/joint12_en.pdf». Accessed 12/22/2016.
European Commission (2012b) *European Union and China step up cooperation in agriculture and rural development*. IP/12/592, 11 June (Brussels).

European Commission (2013a) 'EU-China 2020 Strategic Agenda for Cooperation'.
European Commission (2013b) *Towards a EU-China Food, Agriculture, Biotechnology Flagship*. Available at: «http://ec.europa.eu/programmes/horizon2020/en/news/towards-eu-china-food-agriculture-biotechnology-flagship». Accessed 12/16/2016.
European Commission (2013c) 'Towards a EU-China Tood Agriculture and Biotechnology Flagship: EU-China experts' seminar on developing a joint initiative for cooperation in research and innovation on food, agriculture and biotechnology (FAB)'. Available at: «http://eeas.europa.eu/archives/delegations/china/documents/eu_china/science_tech_environment/20131108_1_final_report.pdf». Accessed 12/18/2016.
European Commission (2013d) *EU and China step up cooperation in fighting counterfeiting in trade in alcoholic beverages,* 23 July (Brussels).
European Commission (2014) *Questions and Answers: Rapid Alert System for Food and Feed @ 35: MEMO/14/422,* 13 June (Brussels).
European Commission (2016a) *African Swine Fever*. Available at: «http://ec.europa.eu/food/animals/animal-diseases/control-measures/asf_en». Accessed 12/1/2016.
European Commission (2016b) *Sanitary and Phytosanitary Agreements*. Accessed 12/12/2016.
European Commission (2017) *Approval of pre-export checks*. Available at: «http://ec.europa.eu/food/safety/official_controls/legislation/imports/approval_en». Accessed 2/4/2017.
European Council (2002) *Fifth EU-China Summit: Joint Press Statement,* 22 September (Copenhagen).
European Council (2004) *7th EU-China Summit: Joint Statement,* 08 December (The Hague).
European Council (2006) *Ninth EU-China Summit: Joint Statement,* 11 September (Brussels).
European Council (2007) *Tenth EU-China Summit: Joint Statement,* 28 November (Brussels).
European Council (2009) *12th EU-China Summit: Joint Statement,* 30 November (Brussels).
European External Action Service (2012) *An overview of the sectoral dialogues between China and the EU*. Available at: «https://web.archive.org/web/20120730103431/http://eeas.europa.eu/china/sectoraldialogue_en.htm». Accessed 12/29/2015.
European External Action Service (2015) *EU Relations with China*. Available at: «http://eeas.europa.eu/china/index_en.htm». Accessed 12/29/2015.
European Union (2002) *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 SafetyAuthorityand laying down procedures in matters of food safety: GFL*.
European Union (2004a) *Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs: (EC) No 852/2004*.
European Union (2004b) *Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules: OFFC*.
Eurostat (2011) *Food: from farm to fork statistics* (Luxembourg: Publications Office of the European Union).
Eurostat (2015) *Extra-EU trade in agricultural goods*. Available at: «http://ec.europa.eu/eurostat/statistics-explained/index.php/Extra-EU_trade_in_agricultural_goods». Accessed 12/4/2016.
FAO (2002) 'FAO/WHO Global Forum of Food Safety Regulators: Improving Efficiency and Transparency in Food Safety Systems Sharing Experiences'. Proceedings of the Forum.

Available at: «http://www.fao.org/docrep/meeting/004/y3680e/Y3680E00.htm#toc». Accessed 12/20/2016.

FAO (2004) 'Enhance the monitoring system and capability construction, to ensure the food safety: Second FAO/WHO Global Forum of Food Safety Regulators'. Available at: «ftp://ftp.fao.org/docrep/fao/meeting/008/y5871e/y5871e00.pdf». Accessed 12/20/2016.

FAO (2011) 'China and FAO: Achievements and success stories'.

FAO (2012a) 'Country Programming Framework 2012-2015 for People's Republic of China'. Available at: «http://www.fao.org/publications/card/en/c/6b2d2839-7e5d-403a-b482-5a80706aef00/». Accessed 11/10/2015.

FAO (2012b) *Improving Food Safety and Quality Along the Chain*. Available at: «http://www.fao.org/fileadmin/user_upload/agns/pdf/factsheets/FoodSafetyQuality.pdf». Accessed 11/11/2016.

FAO (2012c) 'One Health in Action: First Joint-event on Epidemiology Capacity Building between Animal Health and Public Health Sectors in China'. Speech at China HPAI Highlights, No. 47. Available at: «http://www.fao.org/docrep/017/ap395e/ap395e.pdf». Accessed 12/22/2016.

FAO (2013) 'China and FAO: The Past, Present and Future of a Fruitful Partnership'. Available at: «http://www.fao.org/documents/card/en/c/3564bd4a-9bc3-5da0-880c-df33eb7a0f66/». Accessed 12/22/2016.

FAO (2016a) *China: FAO Success Stories*. Available at: «http://www.fao.org/china/programmes-and-projects/success-stories/en/». Accessed 6/22/2016.

FAO (2016b) 'China and FAO: Partnering for sustainable domestic and global food security'. Available at: «http://www.fao.org/3/a-au075e.pdf». Accessed 12/22/2016.

FAO (2017) *Our Partners*. Available at: «http://www.fao.org/china/our-partners/en/». Accessed 2/20/2017.

Fischer, C., Cheng, G., Evans, D. and Pierrot, P. (2008) 'Trade Sustainability Impact Assessment for the Negotiations of a Partnership and Cooperation Agreement between the EU and China: Sectoral Study 5 of 5: Agriculture'. Available at: «http://trade.ec.europa.eu/doclib/docs/2008/september/tradoc_140584.pdf». Accessed 12/12/2016.

Fischer, C., Schiefer, J. and Schornberg, S. (2007) 'Study into the Future Opportunities and Challenges in EU-China Trade and Investment Relations 2006-2010: Study 6: Agriculture'.

FoodDrinkEurope (2009) 'Data & Trends of the European Food and Drink Industry 2008'. Available at: «http://www.fooddrinkeurope.eu/uploads/publications_documents/DataTrends2008.pdf». Accessed 11/27/2016.

FoodDrinkEurope (2010) 'Data & Trends of the European Food and Drink Industry 2009'. Available at: «http://www.fooddrinkeurope.eu/uploads/publications_documents/ciaa-data_trend-updated_2009.pdf». Accessed 11/27/2016.

FoodDrinkEurope (2011) 'Data & Trends of the European Food and Drink Industry 2010'. Available at: «http://www.fooddrinkeurope.eu/uploads/publications_documents/Data_Trends_2011.pdf». Accessed 11/27/2016.

FoodDrinkEurope (2012) 'Data & Trends of the European Food and Drink Industry 2011'. Available at: «http://www.fooddrinkeurope.eu/uploads/publications_documents/Final_DT_2012_04.06.pdf». Accessed 11/27/2016.

FoodDrinkEurope (2013) 'Data & Trends of the European Food and Drink Industry 2012'. Available at:

«http://www.fooddrinkeurope.eu/uploads/publications_documents/Data__Trends_(interactive).pdf». Accessed 11/27/2016.

FoodDrinkEurope (2014) 'Data & Trends of the European Food and Drink Industry 2013-2014'. Available at: «http://www.fooddrinkeurope.eu/uploads/publications_documents/Data__Trends_of_the_European_Food_and_Drink_Industry_2013-20141.pdf». Accessed 11/27/2016.

FVO (2009) 'Final Report of a Mission Carried out in China from 05 May to 15 May 2009', 2009-8108 - MR. Available at: «http://ec.europa.eu/food/fvo/act_getPDF.cfm?PDF_ID=7717». Accessed 1/6/2017.

FVO (2011) 'Final Report of a Mission Carried out in China from 20 September to 19 September 2011', 2011-6038 - MR.

Ge, Z. (2014) *Opening Session*. Speech at China International Food Safety and Quality Conference, 05 November (Shanghai).

Geoghegan-Quinn, M. (2011) *Speech by Commissioner Geoghegan-Quinn at a graduating ceremony at the China-Europe International Business School, Shanghai on the need for the EU in China to co-operate in the fields of research, innovation and science*. Available at: «http://eeas.europa.eu/delegations/china/documents/eu_china/science_tech_environment/02_speech_graduation_ceremony_final_may_21_en.pdf».

GFSI (n.d.a) *Benefits*. Available at: «http://www.mygfsi.com/about-us/about-gfsi/benefits.html». Accessed 12/13/2016.

GFSI (n.d.b) *Recognised Schemes*. Available at: «http://www.mygfsi.com/schemes-certification/recognised-schemes.html». Accessed 12/14/2015.

GFSI (n.d.c) *Structure and Governance*. Available at: «http://www.mygfsi.com/about-us/about-gfsi/structure-and-governance.html». Accessed 11/17/2015.

GFSI (2003a) 'Global Food Safety Initiative: January 2003'.

GFSI (2003b) 'Global Food Safety Initiative Task Force'.

GFSI (2003c) *Welcome to the Global Food Safety Inititive*. Available at: «https://web.archive.org/web/20030202003101/http://www.globalfoodsafety.com/». Accessed 12/6/2016.

GFSI (2008a) *Newsletter December 2008*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2008b) *Newsletter June 2008*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2008c) *Retailers, manufacturers and food service join forces globally to ensure safe food for consumers,* 30 October (Paris).

GFSI (2009) *Newsletter December 2009*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2010a) *Newsletter April 2010*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2010b) *Newsletter Summer 2010*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2010c) *FSSC 22000 gains full approval from GFSI,* 23 February (Paris).

GFSI (2011a) 'Global Food Safety Conference 2011: Conference Report'. Available at: «http://www.mygfsi.com/events/global-food-safety-conference.html». Accessed 1/5/2017.

GFSI (2011b) *Newsletter July 2011*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2012a) *Newsletter July 2012*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2012b) *Newsletter November 2012*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2012c) *Newsletter Spring 2012*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2012d) 'GFSI Focus Day China 2012: Post Event Report'.

GFSI (2013a) *GFSI Focus Day: June 26, 2013 - Beijing, China*. Available at: «http://www.infoexevents.com.cn/gfsichina/». Accessed 7/5/2015.

GFSI (2013b) 'Guidance Document: Sixth Edition Version 6.3'.

GFSI (2013c) *Newsletter August 2013*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2013d) *Newsletter February 2013*. Available at: «http://www.mygfsi.com/news-resources/news/newsletter.html». Accessed 2/3/2015.

GFSI (2014) 'What is GFSI?' Available at: «http://www.mygfsi.com/gfsifiles/information-kit/GFSI_One-pager.pdf». Accessed 12/8/2016.

GFSI (2015a) *GFSI and CNHFA Join Forces in a New Public-Private Partnership to Take Food Safety to the Next Level in China*. Available at: «http://www.mygfsi.com/news-resources/news/press-releases/436-gfsi-and-cnhfa-join-forces-in-a-new-public-private-partnership-to-take-food-safety-to-the-next-level-in-china.html». Accessed 12/8/2016.

GFSI (2015b) *GFSI Embarks on Public-Private Partnership with China's CNCA to Accelerate Food Safety Development*. Available at: «http://www.mygfsi.com/news-resources/news/press-releases/438-gfsi-embarks-on-public-private-partnership-with-china-s-cnca-to-accelerate-food-safety-development.html». Accessed 12/8/2016.

GFSI (2015c) 'GFSI Global Markets Programme: Roadmap to safer food and market access'. Available at: «http://www.mygfsi.com/files/Information_Kit/GlobalMarketsProgramme_onepager.pdf». Accessed 2/7/2016.

GFSI (2015d) 'Global Food Safety Conference 2015: Executive Summary'. Available at: «http://www.mygfsi.com/files/Executive_Summary/GFSC_2015_Executive_Summary.pdf». Accessed 1/5/2017.

GFSI (2015e) *Leveraging the Global Food Safety Initiative to Meet China Food Safety Challenges*. Available at: «http://www.mygfsi.com/news-resources/news/press-releases/435-leveraging-the-global-food-safety-initiative-to-meet-china-food-safety-challenges.html». Accessed 12/8/2016.

Godefroy, S. (2014) *Excellent opportunity to discuss food risk management initiatives with China's and international food safety experts*. Available at: «https://samgodefroy.com/2014/03/». Accessed 12/22/2016.

Groenveld, C. (2013) *LRQA'S food safety expert Cor Groenveld reports live from GFSI focus day China*. Available at: «http://www.lrqamea.com/news/2013/LRQA-food-safety-expert-Cor-Groenveld-reports-live-from-GFSI-focus-day-China.aspx». Accessed 3/7/2014.

Gu, S. (2013) *Panel Session "Future of GFSI in China - Advancing Food Safety through building Effective Social Governance Structure*. Speech at China International Food Safety & Quality Conference, 07 November (Beijing).

Hakobyan, A. and Eliste, P. (2015) *Food Safety in China: Addressing Common Problems Requires Unusual Approaches*. Available at: «http://blogs.worldbank.org/voices/food-safety-china-addressing-common-problems-requires-unusual-approaches». Accessed 12/22/2016.

Henson, S. and Humphrey, J. (2009a) 'The Impacts of Private Food Safety Standards on the Food Chain and on Public Standard-Setting Processes: Paper Prepared for FAO/WHO'. Available at: «http:\\ec.europa.eu/food/international/organisations/sps/docs/private_standards_codex_en.pdf ». Accessed 9/12/2014.

IAF (2011) *Why use an accredited certification body?* Available at: «http://www.iaf.nu/upFiles/IAF_Why_use_accredited_CB_0112.pdf?pdf=PD-Why-use-ac-cert-body».

INFOSAN (2009) *Implementation of the WHO Global Strategy for Food Safety*. Available at: «http://www.who.int/foodsafety/fs_management/No_03_strategy_may09_en.pdf?ua=1». Accessed 11/10/2016.

Jiang, H. (2013) *Panel Session "Future of GFSI in China - Advancing Food Safety through building Effective Social Governance Structure"*. Speech at China International Food Safety & Quality Conference, 07 November (Beijing).

Jiang, T. (2016) *Confusion over Implementation of New Food Safety Law at Provincial Level in China*. Available at: «https://foodindustry.asia/confusion-over-implementation-of-new-food-safety-law-at-provincial-level-in-china». Accessed 11/22/2016.

Kranghand, J. (2013) *China Update and GFSI China Local Group GFSI*. Speech at China International Food Safety and Quality Conference, 26 June (Beijing).

Le Goslès, J. (2015) *Training is key for food safety: Better training for Safer Food programme,* 03 November (Beijing).

Lee, G.C.-H. (2006) *Private Food Standards and their Impacts on Developing Countries* (Brussels: DG Trade Unit G2).

Liu, W. (2014) *Latest Update from CNCA*. Speech at GFSI Focus Day, 27 August (Beijing).

Liu, X. (2002) *Microbiology Risk Assessment in China: Current Situation & Challenges*. Speech at The 1st International Conference on Microbiological Risk Assessment: Foodborne Hazards, 25 July (Adelphi).

Mandelson, P. (2006) *A World of Opportunity: China and the future of international trade,* 08 June (Beijing).

Meador, M.M. and Ma, J. (2013) 'The Food Safety Management System in China'. Speech at GAIN Report, CH13020. Available at: «http://gain.fas.usda.gov/Recent%20GAIN%20Publications/The%20Food%20Safety%20Management%20System%20in%20_Beijing_China%20-%20Peoples%20Republic%20of_4-26-2013.pdf». Accessed 9/23/2013.

Ministry of Commerce (2008) *The 20th Meeting of China-EU Mixed Committee on Trade and Economic Cooperation Held in Brussels,* 08 November (Beijing).

Ministry of Foreign Affairs of Denmark (2012) *Food, Agriculture and Fisheries: News from the food team TC China*. Available at: «http://kina.um.dk/en/the-trade-council/our-industry-teams-in-china/food/news-letters//~/media/Kina/Trade%20Council/Newsletter%203-2012.pdf». Accessed 6/6/2017.

National Audit Office (2013) *Food safety and authenticity in the processed meat supply chain* (London: The Stationary Office).

National Bureau of Statistics of China (2014) *China Statistical Yearbook 2013*. Available at: «http://www.stats.gov.cn/tjsj/ndsj/2013/indexeh.htm». Accessed 12/3/2014.

Naville, X. and Gibson, F. (2014) *Food Safety A Long Correction,* April 2014 (Shanghai).

OIE (2017) *Reference Laboraties*. Available at: «http://www.oie.int/our-scientific-expertise/reference-laboratories/introduction/». Accessed 3/6/2017.

Organisation for Economic Co-operation and Development (2002) *Social Regulation*. Available at: «http://stats.oecd.org/glossary/detail.asp?ID=4640». Accessed 1/11/2017.

Organisation for Economic Co-operation and Development (2005) *Review of Agricultural Policies: China 2005* (OECD Publishing).

Organisation for Economic Co-operation and Development (2006) 'Interaction of public and private standards in the food chain'. Available at:

«http://ec.europa.eu/food/international/organisations/sps/docs/agr-cd-apm200621.pdf». Accessed 9/12/2014.

Rey, Y. (2012) *GFSI's role in improving Food Safety In a Global Economy,* 08 November (Shanghai).

SGS (2013) 'Comparing Global Food Safety Initiative (GFSI) recognized standards: A discussion about the similarities and differences between the requirements of the GFSI benchmarked food safety standards'.

SQF (2011) *International Update*. Available at: «http://www.sqfi.com/2011/05/25/international-update/». Accessed 12/11/2016.

SSAFE (2014) *About SSAFE*. Available at: «http://www.ssafe-food.org/about-ssafe/». Accessed 12/12/2016.

Teng, J. (2014) *Latest Food Safety Governance Trend in China*. Speech at GFSI Focus Day, 27 August (Beijing).

The Consumer Goods Forum (2015) *Our Members*. Available at: «http://www.theconsumergoodsforum.com/about-the-forum/our-members». Accessed 12/5/2016.

United Nations (2008) 'Advancing Food Safety in China'. Speech at Occasional Paper. Available at: «http://www.un.org.cn/public/resource/2aebcd033e334d961fefb1588b70f2ab.pdf».

United Nations (2011) *International Trade Statistics Yearbook*. Available at: «http://comtrade.un.org/pb/».

United Nations Environment Programme (2016) *About UNEP*. Available at: «http://www.unep.org/about/». Accessed 11/11/2016.

United Nations Statistics Division (2017) *Detailed structure and explanatory notes: SITC Rev.3*. Available at: «https://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=14». Accessed 2/26/2017.

Wan, Z. (2013) *Panel Session "Future of GFSI in China - Advancing Food Safety through building Effective Social Governance Structure"*. Speech at China International Food Safety & Quality Conference, 07 November (Beijing).

Washington, S. and Ababouch, L. (2011) *Private standards and certification in fisheries and aquaculture: Current practice and emerging issues* (Rome: Food and Agriculture Organization of the United Nations).

World Bank *World Bank Open Data: Urbanisation*. Available at: «http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=CN». Accessed 11/11/2016.

World Bank (n.d.) *World Bank Open Data*. Available at: «http://data.worldbank.org/». Accessed 11/4/2016.

World Bank (2005) *Food Safety and Agricultural Health Standards: Challenges and Opportunities for Developing Country Exports* (Washington, D.C.).

World Bank (2014a) *Global Events on Food Safety (2014)*. Available at: «http://www.worldbank.org/en/events/2014/01/01/global-events-on-food-safety-2014». Accessed 12/22/2016.

World Bank (2014b) *Global Food Safety Partnership*. Available at: «http://www.worldbank.org/en/topic/agriculture/brief/global-food-safety-partnership». Accessed 11/11/2016.

World Bank (2014c) *The Global Food Safety Partnership (GFSP) 3rd Annual Conference*. Available at: «http://www.worldbank.org/en/events/2014/12/08/3rd-annual-global-food-safety-partnership-gfsp-conference». Accessed 12/22/2016.

World Bank (2015) 'GFSP Extended Leadership Group Meeting'. Available at: «http://documents.worldbank.org/curated/en/227011468185351011/GFSP-extended-

leadership-group-meeting-World-Bank-Washington-DC-20-21-October-2015». Accessed 12/22/2016.
World Bank (2016) *What We Do*. Available at: «http://www.worldbank.org/en/about/what-we-do». Accessed 11/11/2016.
World Health Organization *China - Food Safety*. Available at: «http://www.wpro.who.int/china/mediacentre/factsheets/food_safety/en/». Accessed 11/17/2015.
World Health Organization (1948 (2014)) *Constitution of the World Health Organisation*. Available at: «http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1». Accessed 11/10/2016.
World Health Organization (2003) *Food safety: Western Pacific Regional Strategy*.
World Health Organization (2010) *World Bank to Help Improve Food Safety in China,* 13 May (Geneva).
World Health Organization (2011) *Global Foodborne Infections Network: Strategic Plan 2011-2015*. Available at: «http://www.who.int/gfn/publications/strategic_plan_2011/en/». Accessed 11/10/2016.
World Health Organization (2012) *Western Pacific Regional Food Safety Strategy 2011-2015*.
World Health Organization (2013) 'China-WHO Country Cooperation Strategy: Bridging the past, towards a new era of collaboration'. Available at: «http://www.wpro.who.int/china/en_chinaccs13.pdf». Accessed 12/20/2016.
World Health Organization (2014a) *Advancing food safety initiatives: strategic plan for food safety including foodborne zoonoses 2013-2022* (Geneva: World Health Organisation).
World Health Organization (2014b) *Progress Report on Implementing: Western Pacific Regional Food Safety Strategy 2011-2015*.
World Health Organization (2016a) *About the WHO department Food Safety and Zoonoses*. Available at: «http://www.who.int/foodsafety/about/en/». Accessed 11/10/2016.
World Health Organization (2016b) *Managing zoonotic public health risks at the human–animal–ecosystem interface*. Available at: «http://www.who.int/entity/foodsafety/about/flyer_zoonoses.pdf?ua=1». Accessed 11/10/2016.
World Health Organization (2017) *Avian influenza in China*. Available at: «http://www.wpro.who.int/china/mediacentre/factsheets/avian_influenza/en/». Accessed 3/15/2017.
World Trade Organization *SPS Information Management System: Specific trade concerns database*. Available at: «http://spsims.wto.org/web/pages/search/stc/Search.aspx». Accessed 12/15/2016.
World Trade Organization (2001) 'Report of the Working Party on the accession of China'. Available at: «https://www.wto.org/english/thewto_e/acc_e/wp_acc_china_e.doc». Accessed 5/23/2013.
World Trade Organization (2010) *Restructuring and further trade liberalization are keys to sustaining growth: The third WTO Review of China's trade policies and practices and their impact on the functioning of the multilateral trading system took place in Geneva on 31 May and 2 June 2010.,* 02 June (Geneva).
World Trade Organization (2011) *International Trade Statistics 2011* (Genf).
World Trade Organization (2012) *International Trade Statistics 2012* (Geneva: World Trade Organization).
World Trade Organization (2016) 'World Trade Statistical Review 2016'. Available at: «https://www.wto.org/english/res_e/statis_e/wts2016_e/wts2016_e.pdf».
Yao, H. (2013) *Capacity Building Working Group,* 26 June (Beijing).

Bibliography

Abbott, K.W. and Snidal, D. (2001) 'International 'standards' and international governance'. *Journal of European Public Policy*, Vol. 8, No. 3, pp. 345–370.

Abbott, K.W. and Snidal, D. (2009) 'Strengthening International Regulation through Transnational New Governance: Overcoming the Orchestration Deficit'. *Vanderbilt Journal of Transnational Law*, Vol. 42, No. 2, pp. 501–578.

Abels, G. and Behrens, M. (2002) 'ExpertInnen-Interviews in der Politikwissenschaft'. In Bogner, A., Littig, B. and Menz, W. (eds) *Das Experteninterview*. (Wiesbaden: VS Verlag für Sozialwissenschaften).

Abels, G. and Kobusch, A. (2010) *Regulation of food safety in the EU: Changing patterns of multi-level governance: Paper presented at the Conference of the ECPR Standing Group on Regulatory Governance, June 17-19, 2010, University College Dublin*. Available at: «http://regulation.upf.edu/dublin-10-papers/2F3.pdf». Accessed 7/22/2012.

Abels, G. and Kobusch, A. (2015) 'Regulation of food safety in the EU: Explaining organizational diversity in the member states'. In Havinga, T., van Waarden, F. and Casey, D. (eds) *The changing landscape of food governance: Public and private encounters*. (Cheltenham: Edward Elgar).

Abels, G., Kobusch, A. and Träsch, J. (2014) 'Scientific Regulatory Cooperation within the EU: On the Relationship between EFSA and National Food Authorities'. In Alemanno, A. and Gabbi, S. (eds) *Foundations of EU food law and policy: Ten years of the European food safety authority*. (Ashgate).

Albright, M.B. (2015) *Some Like it Raw: The State of Unpasteurized Cheese in the U.S.* Available at: «http://theplate.nationalgeographic.com/2015/09/30/some-like-it-raw-the-state-of-unpasteurized-cheese-in-the-u-s/». Accessed 10/20/2016.

Alemanno, A. (2004) 'Recent Development, Judicial Enforcement of the WTO "Hormones" Ruling Within the European Community: Toward EC Liability for the Non-Implementation of WTO Dispute Settlement Decisions?' *Harvard International Law Journal*, Vol. 45, No. 2, pp. 547–561.

Alemanno, A. (2008) *Trade in food: Regulatory and judicial approaches in the EC and the WTO* (London: Cameron May).

Alemanno, A. (2009) 'Solving the Problem of Scale: The European Approach to Import Safety and Security Concerns'. In Coglianese, C., Finkel, A.M. and Zaring, D.T. (eds) *Import safety: Regulatory governance in the global economy*. (Philadelphia: University of Pennsylvania Press).

Alemanno, A. (2015) 'The Multilateral Governance Framework for Food Safety: A Critical and Normative Overview'. In Hammoudi, A., Grazia, C., Surry, Y. and Traversac, J.-B. (eds) *Food safety, market organization, trade and development*.

Alemanno, A. and Gabbi, S. (eds) (2014) *Foundations of EU food law and policy: Ten years of the European food safety authority* (Ashgate).

Ansell, C.K. and Vogel, D. (eds) (2006) *What's the beef?: The contested governance of European food safety* (Cambridge, Mass: MIT Press).

Ash, R. (2012) 'China's Food Security'. Speech at ECRAN Short Term Policy Brief, No. 65.

Ayres, I. and Braithwaite, J. (1992) *Responsive regulation: Transcending the deregulation debate* (New York: Oxford University Press).

Bach, D. and Newman, A.L. (2007) 'The European regulatory state and global public policy: micro-institutions, macro-influence'. *Journal of European Public Policy*, Vol. 14, No. 6, pp. 827–846.

Bai, L., Ma, C., Gong, S. and Yang, Y. (2007a) 'Food safety assurance systems in China'. *Food Control*, Vol. 18, No. 5, pp. 480–484.

Bai, L., Ma, C., Yang, Y., Zhao, S.-k. and Gong, S. (2007b) 'Implementation of HACCP system in China: A survey of food enterprises involved'. *Food Control*, Vol. 18, No. 9, pp. 1108–1112.

Baldwin, R., Martin, C. and Lodge, M. (2012) *Understanding Regulation*, 2nd edn (Oxford: Oxford University Press).

Bamberger, K.A. and Guzman, A.T. (2009) 'Importers as Regulators: Product Safety in a Globalized World'. In Coglianese, C., Finkel, A.M. and Zaring, D.T. (eds) *Import safety: Regulatory governance in the global economy*. (Philadelphia: University of Pennsylvania Press).

Bartley, T. (2011) 'Transnational Governance as the Layering of Rules: Intersections of Public and Private Standards'. *Theoretical Inquiries in Law*, Vol. 12, No. 2.

Beach, D. and Pedersen, R.B. (2013) *Process-tracing methods: Foundations and guidelines* (Ann Arbor: University of Michigan Press).

Beck, U. (1986) *Risikogesellschaft: Auf dem Weg in eine andere Moderne*, 1st edn (Frankfurt am Main: Suhrkamp).

Becker, G.S. (2008) 'Food and Agricultural Imports from China'. Speech at CRS Report for Congress. Available at: «http://www.fas.org/sgp/crs/row/RL34080.pdf». Accessed 11/29/2011.

Bennett, A. and George, A.L. (1997) *Process Tracing in Case Study Research: Paper presented at the MacArthur Foundation Workshop on Case Study Methods October 17-19, 1997*. Available at: «https://www.uzh.ch/cmsssl/suz/dam/jcr:00000000-5103-bee3-0000-000059b16b9d/05.19.bennett_george.pdf». Accessed 5/20/2013.

Benz, A., Lütz, S., Schimank, U. and Simonis, G. (eds) (2007) *Handbuch Governance: Theoretische Grundlagen und empirische Anwendungsfelder*, 1st edn (Wiesbaden: VS Verlag für Sozialwissenschaften).

Bernauer, T. and Caduff, L. (2006) 'Food Safety and the Structure of the European Food Industry'. In Ansell, C.K. and Vogel, D. (eds) *What's the beef?: The contested governance of European food safety*. (Cambridge, Mass: MIT Press).

Bian, Y. (2004) *The Challenges for Food Safety in China: Current legislation is unable to protect consumers from the consequences of unscrupulous food production*. Available at: «http://chinaperspectives.revues.org/819».

Black, J. (2002) *Critical Reflections on Regulation*. Available at: «http://eprints.lse.ac.uk/35985/1/Disspaper4-1.pdf». Accessed 10/16/2013.

Black, J. (2008) 'Constructing and contesting legitimacy and accountability in polycentric regulatory regimes'. *Regulation & Governance*, Vol. 2, No. 2, pp. 137–164.

Blatter, J. (2012) *Taking Terminology and Timing Seriously: On Ontological and Epistemological Foundations of Causal-Process Tracing: Slightly modified version of the paper that was presented at the ECPR Joint Sessions, Antwerp, 10.-14. April 2012*. Available at: «https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCsQFjAAahUKEwii38zchPbHAhUCOBQKHd7zAw4&url=https%3A%2F%2Fwww.unilu.ch%2Ffileadmin%2Fshared%2FPublikationen%2Fblatter_taking-terminology-and-timing-seriously-ecpr-antwerp.pdf&usg=AFQjCNEGsnyg3ZRzIKtYArcHoH9Tt-1CzQ». Accessed 9/14/2015.

Blatter, J., Janning, F. and Wagemann, C. (2007) *Qualitative Politikanalyse: Eine Einführung in Forschungsansätze und Methoden*, 1st edn (Wiesbaden: VS Verlag für Sozialwissenschaften).

Blum, S. and Schubert, K. (2009) *Politikfeldanalyse*, 1st edn (Wiesbaden: VS Verlag für Sozialwissenschaften).

Bomhoff, J. and Meuwese, A. (2011) 'The Meta-regulation of Transnational Private Regulation'. *Journal of Law and Society*, Vol. 38, No. 1, pp. 138–162.

Borraz, O., Besancon, J. and Clergau, C. (2006) 'Is It Just about Trust? The Partial Reform of French Food Safety Regulation'. In Ansell, C.K. and Vogel, D. (eds) *What's the beef?: The contested governance of European food safety*. (Cambridge, Mass: MIT Press).

Börzel, T.A. (2008) 'Der „Schatten der Hierarchie" – Ein Governance-Paradox?' In Schuppert, G.F. and Zürn, M. (eds) *Governance in einer sich wandelnden Welt*. (Wiesbaden: VS Verlag für Sozialwissenschaften).

Böschen, S., Dressel, K., Schneider, M. and Viehöver, W. (2004) 'Die BSE-Krise: Lernen und Nichtwissensbedingungen'. In Böschen, S., Schneider, M. and Lerf, A. (eds) *Handeln trotz Nichtwissen: Vom Umgang mit Chaos und Risiko in Politik, Industrie und Wissenschaft*. (Frankfurt/Main, New York: Campus Verlag).

Boutrif, E. (2003) 'The new role of Codex Alimentarius in the context of WTO/SPS agreement'. *Food Control*, Vol. 14, No. 2, pp. 81–88.

Brady, H.E. and Collier, D. (2004) *Rethinking social inquiry: Diverse tools, shared standards* (Lanham, Md.: Rowman & Littlefield).

Braithwaite, J. (2000) 'The New Regulatory State and the Transformation of Criminology'. *British Journal of Criminology*, Vol. 40, No. 2, pp. 222–238.

Braithwaite, J. and Drahos, P. (2000) *Global Business Regulation* (Cambridge, Mass.: Cambridge University Press).

Braun, D. (1999) *Theorien rationalen Handelns in der Politikwissenschaft: Eine kritische Einführung* (Opladen: Leske + Budrich).

Breitmeier, H., Young, O.R. and Zürn, M. (2007) 'The International Regime Database: Architecture, Key Findings, and Implications for the Study of Environmental Regimes'. In Jacob, K. (ed) *Politik und Umwelt*. (Wiesbaden: VS Verlag für Sozialwissenschaften).

Broughton, E.I. and Walker, D.G. (2010) 'Policies and practices for aquaculture food safety in China'. *Food Policy*, Vol. 35, No. 5, pp. 471–478.

Bundesinstitut für Risikobewertung (2011) *EU Food Safety Almanac*, 2nd edn (Berlin: Bundesinstitut für Risikobewertung).

Burger, K. and Warner, J. (2012) 'Case Study: Risk governance of food supply chains'.

Burnham, P. (2008) 'Elite Interviewing'. In Burnham, P., Gilland Lutz, K., Grant, W. and Layton-Henry, Z. (eds) *Research methods in politics*. (Basingstoke: Palgrave Macmillan).

Burns, J.P., Peters, B.G., Wang, X. and Jing, L. (2010) *Food Safety Policy Coordination in three Chineses Cities*. Paper prepared for the Conference on 'Regulation in the Age of Crisis'. Available at: «http://regulation.upf.edu/dublin-10-papers/2F2.pdf».

Büthe, T. (2002) 'Taking Temporality Seriously: Modeling History and the Use of Narratives as Evidence'. *American Political Science Review*, Vol. 96, No. 3.

Büthe, T. (2004) 'Governance through Private Authority? Non-State Actors in World Politics'. *Journal of International Affairs*, Vol. 58, No. 1, pp. 281–290.

Büthe, T. (2009) 'The Politics of Food Safety in the Age of Global Trade: The Codex Alimentarius Commission in the SPS Agreement of the WTO'. In Coglianese, C., Finkel, A.M. and Zaring, D.T. (eds) *Import safety: Regulatory governance in the global economy*. (Philadelphia: University of Pennsylvania Press).

Büthe, T. (2010a) 'Global Private Politics: A Research Agenda'. *Business and Politics*, Vol. 12, No. 3.

Büthe, T. (2010b) 'Private Regulation in the Global Economy: A (P)Review'. *Business and Politics*, Vol. 12, No. 3.

Büthe, T. and Mattli, W. (2013) *New global rulers: The privatization of regulation in the world economy* (Princeton: Princeton University Press).

Buzby, J.C. (ed) (2003) *International Trade and Food Safety: Economic Theory and Case Studies*. Speech at Agricultural Economic Report, Vol. 828 (Washington, D.C).

Cafaggi, F. (2011) 'New Foundations of Transnational Private Regulation'. *Journal of Law and Society*, Vol. 38, No. 1, pp. 20–49.

Cafaggi, F. (2012) 'Transnational Private Regulation and the Production of Global Public Goods and Private 'Bads''. *European Journal of International Law*, Vol. 23, No. 3, pp. 695–718.

Calvin, L., Gale, F., Hu, D. and Lohmar, B. (2006) 'Food Safety Improvements Underway in China'. *Ambers Waves*, Vol. 4, No. 5, pp. 16–21.

Campbell, H. (2005) 'The Rise and Rise of Eurep-GAP: European Re(Invention) of Colonial Food Relations?' *International Journal of Sociology of Agriculture and Food*, Vol. 13, No. 2, pp. 1–19.

Carruth, R.A. (2006) 'Socio-economic foundations of food safety regulation and the governance of global agri-food industries'. In Carruth, R.A. (ed) *Global governance of food and agriculture industries: Transatlantic regulatory harmonization and multilateral policy cooperation for food safety*. (Cheltenham: Edward Elgar).

Caswell, J.A., Bredahl, M.E. and Hooker, N.H. (1998) 'How Quality Management Metasystems Are Affecting the Food Industry'. *Review of Agricultural Economics*, Vol. 20, No. 2, pp. 547–557.

Caswell, J.A. and Henson, S. (1997) 'Interaction of Private and Public Food Quality Control Systems in Global Markets'. In Loader, R.J., Henson, S. and Traill, W.B. (eds) *Globalisation of the food industry: Policy implications*. (University of Reading).

Cavanagh, J., Arruda, M. and Wysham, D. (1994) *Kein Grund zum Feiern: 50 Jahre Weltbank und IWF Kritik und Alternativen* (Hamburg: Konkret Literatur Verlag).

Cerny, P.G. (1995) 'Globalization and the changing logic of collective action'. *International Organization*, Vol. 49, No. 04, p. 595.

Chemnitz, C. (2012) 'The Impact of Food Safety and Quality Standards on Developing Countries Agricultural Producers and Exports'. Ph.D. Dissertation (Humboldt-University Berlin: Berlin).

Chen, C., Yang, J. and Findlay, C. (2008) 'Measuring the Effect of Food Safety Standards on China's Agricultural Exports'. *Review of World Economics*, Vol. 144, No. 1, pp. 83–106.

Chen, C.C., Chen, X.-P. and Huang, S. (2013) 'Chinese Guanxi: An Integrative Review and New Directions for Future Research'. *Management and Organization Review*, Vol. 9, No. 01, pp. 167–207.

Chen, K., Wang, X.-X. and Song, H.-Y. (2015) 'Food safety regulatory systems in Europe and China: A study of how co-regulation can improve regulatory effectiveness'. *Journal of Integrative Agriculture*, Vol. 14, No. 11, pp. 2203–2217.

Chen, X. (2004) *Study on China's national food safety strategy [中国食品安全战略研究]* (Beijing).

Chung, S. and Wong, C.K.C. (2013) 'Regulatory and policy control on food safety in China'. *Journal of Epidemiology & Community Health*, Vol. 67, No. 6, pp. 476–477.

Clapp, J. and Fuchs, D.A. (2009) 'Agrifood Corporations, Global Goverance, and Sustainability: A Framework for Analysis'. In Clapp, J. and Fuchs, D.A. (eds) *Corporate power in global agrifood governance*. (Cambridge, Mass: MIT Press).

Clavier, S.M. (2008) *Food Fight at the WTO: Can the Precautionary Principle Reconcile Liberalization and Public Fear?* Available at: «http://works.bepress.com/sophie_clavier/1». Accessed 1/5/2013.

Cody, S. (2016) 'Exemplary Agriculture: Organic Farming and Urban/Rural Space in China'. Unpublished Ph.D. dissertation (Australian National University: Canberra).

Coglianese, C., Finkel, A.M. and Zaring, D.T. (2009a) 'Consumer Protection in an Era of Globalization'. In Coglianese, C., Finkel, A.M. and Zaring, D.T. (eds) *Import safety: Regulatory governance in the global economy*. (Philadelphia: University of Pennsylvania Press).

Coglianese, C., Finkel, A.M. and Zaring, D.T. (eds) (2009b) *Import safety: Regulatory governance in the global economy* (Philadelphia: University of Pennsylvania Press).

Collins, N. and Gottwald, J.-C. (2011) 'The Chinese model of the regulatory state'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Cutler, A.C., Haufler, V. and Porter, T. (1999) *Private authority and international affairs* (Albany: State University of New York Press).

Damro, C. (2012) 'Market power Europe'. *Journal of European Public Policy*, Vol. 19, No. 5, pp. 682–699.

Dankers, C. (2007) *Private Standards in the United States and the European Union Markets for Fruit and Vegetables: Implications for developing countries* (Rome: Food and Agriculture Organization of the United Nations).

Dawson, R.J. (1995) 'The role of the Codex Alimentarius Commission in setting food standards and the SPS agreement implementation'. *Food Control*, Vol. 6, No. 5, pp. 261–265.

Dendler, L., Dewick, P. and Chen, S. (n.d.) 'Focal organisations and sustainable consumption and production systems: Institutional entrepreneurship in China's dairy industry'. Unpublished paper.

Disdier, A.-C., Fontagné, L. and Mimouni, M. (2008) 'The Impact of Regulations on Agricultural Trade: Evidence from the Sps and Tbt Agreements'. *American Journal of Agricultural Economics*, Vol. 90, No. 2, pp. 336–350.

Dolowitz, D.P. and Marsh, D. (2000) 'Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making'. *Governance*, Vol. 13, No. 1, pp. 5–23.

Dreyer, M. and Renn, O. (eds) (2009) *Food safety governance* (Berlin, London: Springer).

Drezner, D.W. (2005) 'Globalization, harmonization, and competition: the different pathways to policy convergence'. *Journal of European Public Policy*, Vol. 12, No. 5, pp. 841–859.

Drezner, D.W. (2008) *All politics is global: Explaining international regulatory regimes* (Princeton, N.J., Woodstock: Princeton University Press).

Durant, R.F. and Legge, J.S. (2003) *Public Opinion, the Precautionary Principle, and GM Food Regulation: Accessing the Calculus of Dissent in the European Union: Paper presented at the annual meeting of the American Political Science Association, Philadelphia Marriott Hotel, Philadelphia, PA, Aug 27, 2003*. Available at: «http://citation.allacademic.com/meta/p_mla_apa_research_citation/0/6/2/5/4/p62543_index.html?type=info&PHPSESSID=0710ca165ede9628e8fc4ad9b7d95d7b». Accessed 5/22/2012.

Eberlein, B., Abbott, K.W., Black, J., Meidinger, E. and Wood, S. (2014) 'Transnational business governance interactions: Conceptualization and framework for analysis'. *Regulation & Governance*, Vol. 8, No. 1, pp. 1–21.

Eberlein, B. and Grande, E. (2005) 'Beyond delegation: transnational regulatory regimes and the eu [sic!] regulatory state'. *Journal of European Public Policy*, Vol. 12, No. 1, pp. 89–112.

Eckstein, H. (1975) 'Case Study and Theory in Political Science'. In Greenstein, F.I. and Polsby, N.W. (eds) *Handbook of political science*. (Reading, Mass.: Addison-Wesley).

Eggers, B. (2001) 'The precautionary principle in WTO law'. Ph.D. dissertation (University of Hamburg). Available at: «http://www.sub.uni-hamburg.de/opus/volltexte/2001/451».

Eisner, M.A. (1993) *Regulatory politics in transition*, 1st edn (Baltimore: Johns Hopkins University Press).

Ellefson, W., Zach, L. and Sullivan, D.M. (eds) (2013) *Improving import food safety*. Speech at IFT Press series (Ames, Iowa: Wiley-Blackwell).

Ellis, L.J. and Turner, J.L. (2008) *Sowing the seeds: Opportunities for U.S.-China cooperation on food safety* (Washington, D.C.: Woodrow Wilson International Center for Scholars).

Epps, T. (2008) *International trade and health protection: A critical assessment of the WTO's SPS agreement* (Cheltenham, UK, Northampton, MA: Edward Elgar).

Epps, T. (2010) 'Demanding Perfection: Private Food Standards and the SPS Agreement'. In Lewis, M.K. and Frankel, S. (eds) *International economic law and national autonomy*. (New York: Cambridge University Press).

Epps, T. and Trebilcock, M.J. (2009) 'Import Safety Regulation and International Trade'. In Coglianese, C., Finkel, A.M. and Zaring, D.T. (eds) *Import safety: Regulatory governance in the global economy*. (Philadelphia: University of Pennsylvania Press).

Evans, M. (2009a) 'New directions in the study of policy transfer'. *Policy Studies*, Vol. 30, No. 3, pp. 237–241.

Evans, M. (2009b) 'Policy transfer in critical perspective'. *Policy Studies*, Vol. 30, No. 3, pp. 243–268.

FAO (2003) *Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems* (Rome: Food and Agriculture Organization of the United Nations).

Ferraro, G. *International regimes in China: Domestic implementation of the international fisheries agreements*.

FORHEAD (2014) *Food Safety in China: A Mapping of Problems, Governance and Research*. Available at: «www.forhead.org/uploads/soft/140306/1-140306103309.pdf». Accessed 5/27/2014.

Friedrich-Loeffler-Institut (2014) *Schmallenberg-Virus*. Available at: «https://www.fli.de/de/aktuelles/tierseuchengeschehen/schmallenberg-virus/». Accessed 12/1/2016.

Frohberg, K., Grote, U. and Winter, E. (2006) *EU Food Safety Standards, Traceability and Other Regulations: A Growing Trade Barrier to Developing Countries' Exports?: Invited paper prepared for presentation at the International Association of Agricultural Economists Conference*. Available at: «http://ageconsearch.umn.edu/bitstream/25668/1/ip06fr01.pdf». Accessed 1/22/2013.

Fuchs, D.A. and Kalfagianni, A. (2010) 'The Causes and Consequences of Private Food Governance'. *Business and Politics*, Vol. 12, No. 3.

Fulponi, L. (2006) 'Private voluntary standards in the food system: The perspective of major food retailers in OECD countries'. *Food Policy*, Vol. 31, No. 1, pp. 1–13.

Gale, F. and Buzby, J.C. (2009) 'Imports From China and Food Safety Issues'. Speech at Economic Information Bulletin. Available at: «http://www.ers.usda.gov/publications/eib52/eib52.pdf». Accessed 11/10/2011.

Garcia Martinez, M., Fearne, A., Caswell, J.A. and Henson, S. (2007) 'Co-regulation as a possible model for food safety governance: Opportunities for public–private partnerships'. *Food Policy*, Vol. 32, No. 3, pp. 299–314.

Gehring, T. (1994) *Dynamic international regimes: Institutions for international environmental governance* (Frankfurt a.M., Bern, New York: Peter Lang).

Gehring, T. (2004) 'Schutzstandards in der Welthandelsordnung: Die Kopplung der WTO an standardsetzende internationale Institutionen'. In Brüggemeier, G. (ed) *Transnationalisierung des Rechts: Eine Fachtagung aus Anlass des 20-jährigen Bestehens des ZERP*. (Baden-Baden: Nomos).

Gehring, T. and Oberthür, S. (1997) *Internationale Umweltregime: Umweltschutz durch Verhandlungen und Verträge* (Opladen: Leske + Budrich).

George, A.L. and Bennett, A. (2005) *Case studies and theory development in the social sciences* (Cambridge, Mass.: MIT Press).

Gereffi, G. and Lee, J. (2012) 'Why the World Suddenly Cares About Global Supply Chains'. *Journal of Supply Chain Management*, Vol. 48, No. 3, pp. 24–32.

Gerring, J. (2004) 'What Is a Case Study and What Is It Good for?' *The American Political Science Review*, Vol. 98, No. 2, pp. p 341-354.

Gerring, J. (2007) *Case study research: Principles and practices* (New York: Cambridge University Press).

Ghose, B. (2014) 'Food security and food self-sufficiency in China: from past to 2050'. *Food and Energy Security*, Vol. 3, No. 2, pp. 86–95.

Gilardi (2014) 'Methods for the analysis of policy interdependence'. In Engeli, I. and Allison, C.R. (eds) *Comparative Policy Studies*. (London: Palgrave Macmillan).

Gold, T., Guthrie, D. and Wank, D.L. (2002a) 'An Introduction to the Study of Guanxi'. In Gold, T., Guthrie, D. and Wank, D.L. (eds) *Social connections in China: Institutions, culture, and the changing nature of guanxi*. (Cambridge, U.K, New York: Cambridge University Press).

Gold, T., Guthrie, D. and Wank, D.L. (eds) (2002b) *Social connections in China: Institutions, culture, and the changing nature of guanxi*. Speech at Structural analysis in the social sciences, Vol. 21 (Cambridge, U.K, New York: Cambridge University Press).

Goldstein, B.D. and Carruth, R.S. (2004) 'The Precautionary Principle and/or Risk Assessment in World Trade Organization Decisions: A Possible Role for Risk Perception'. *Risk Analysis*, Vol. 24, No. 2, pp. 491–499.

Gourevitch, P. (1978) 'The Second Image Reversed: The International Sources of Domestic Politics'. *International Organization*, Vol. 32, No. 4, pp. p 881-912.

Gustafson, D.J. (2011) *The Importance of Convergence of Sustainability, Food Safety and Defense for Food Security*. Available at: «http://nabc.cals.cornell.edu/pubs/nabc_23/NABC23_3_Plenary1_Gustafson.pdf». Accessed 6/4/2012.

Haas, P.M. (1992) 'Knowledge, Power, and International Policy Coordination: Special Issue'. *International Organization*, Vol. 46, No. 01.

Hall, R.B. and Biersteker, T.J. (eds) (2002) *The emergence of private authority in global governance* (Cambridge, UK, New York: Cambridge University Press).

Hasenclever, A., Mayer, P. and Rittberger, V. (1997) *Theories of International Regimes* (Cambridge).

Hatanaka, M., Bain, C. and Busch, L. (2005) 'Third-party certification in the global agrifood system'. *Food Policy*, Vol. 30, No. 3, pp. 354–369.

Havinga, T. (2006) 'Private Regulation of Food Safety by Supermarkets'. *Law <html_ent glyph="@amp;" ascii="&"/> Policy*, Vol. 28, No. 4, pp. 515–533.

Havinga, T. (2008) *Actors in Private Food Regulation. Taking Responsibility or Passing the Buck to Someone Else?* Available at: «http://repository.ubn.ru.nl/handle/2066/91343». Accessed 2/26/2014.

Havinga, T. (2012) *Transitions in Food Governance in Europe*. Available at: «http://hdl.handle.net/2066/100881». Accessed 7.10.213.

Havinga, T. (2015) 'Retail Driven Food Safety Regulation'. In Hammoudi, A., Grazia, C., Surry, Y. and Traversac, J.-B. (eds) *Food safety, market organization, trade and development*.

Havinga, T., Casey, D. and van Waarden, F. (2015a) 'Changing regulatory arrangements in food governance'. In Havinga, T., van Waarden, F. and Casey, D. (eds) *The changing landscape of food governance: Public and private encounters*. (Cheltenham: Edward Elgar).

Havinga, T., van Waarden, F. and Casey, D. (eds) (2015b) *The changing landscape of food governance: Public and private encounters* (Cheltenham: Edward Elgar).

Havinga, T. and Verbruggen, P. (2017) 'The Global Food Safety Initiative and state actors: Paving the way for hybrid food safety governance'. In Verbruggen, P. and Havinga, T. (eds) *Hybridization of Food Governance: Trends, Types and Results*. (Cheltenham, Northampton: Edward Elgar).

Hedström, P. and Swedberg, R. (eds) (1998) *Social mechanisms: An analytical approach to social theory*. Speech at Studies in rationality and social change (Cambridge, New York: Cambridge University Press).

Henson, S. (2008a) *Public and Private Incentives to Adopt Enhanced Food Safety Controls: Paper presented at the IAMO conference 2008*. Available at: «http://www.iamo.de/uploads/media/henson.pdf». Accessed 10/8/2013.

Henson, S. (2008b) 'The Role of Public and Private Standards in Regulating International Food Markets'. *Journal of International Agricultural Trade and Development*, Vol. 4, No. 1, pp. 63–82.

Henson, S. and Humphrey, J. (2008) 'Understanding the complexities of private standards in global agri-food chains: Paper presented at 'International Workshop on Globalization, Global Governance and Private Standards''. Available at: «http://www.ids.ac.uk/files/dmfile/HensonHumphreyLeuvenOct08.pdf».

Henson, S. and Humphrey, J. (2009b) *The Impacts of Private Food Safety Standards on the Food Chain and on Public Standard-Setting Processes: Paper prepared for FAO/WHO* (Geneva).

Henson, S. and Humphrey, J. (2012) 'Private standards in global agri-food chains'. In Marx, A., Maertens, M., Swinnen, J.F.M. and Wouters, J. (eds) *Private Standards and Global Governance: Legal and Economic Perspectives*. (London: Edward Elgar).

Henson, S. and Jaffee, S. (2008) 'Understanding Developing Country Strategic Responses to the Enhancement of Food Safety Standards'. *The World Economy*, Vol. 31, No. 4, pp. 548–568.

Henson, S. and Reardon, T. (2005) 'Private agri-food standards: Implications for food policy and the agri-food system'. *Food Policy*, Vol. 30, No. 3, pp. 241–253.

Hernes, G. (1998) 'Real Virtuality'. In Hedström, P. and Swedberg, R. (eds) *Social mechanisms: An analytical approach to social theory*. (Cambridge, New York: Cambridge University Press).

Herzfeld, T., Drescher, L.S. and Grebitus, C. (2008) *Spread of retailer food quality standards: An international perspective: Paper presented at the 12th Congress of the European Association of Agricultur al Economists*. Available at: «http://ageconsearch.umn.edu/bitstream/44005/2/386.pdf». Accessed 10/7/2013.

Hoffmann, S. and Harder, W. (2010) *Food Safety and Risk Governance in Globalized Markets*. Available at: «http://www.rff.org/RFF/Documents/RFF-DP-09-44.pdf». Accessed 7/14/2011.

Holzinger, K., Knill, C. and Jörgens, H. (2007) 'Transfer, Diffusion und Konvergenz: Konzepte und Kausalmechanismen'. In Holzinger, K., Jörgens, H. and Knill, C. (eds) *Transfer, Diffusion und Konvergenz von Politiken*. PVS Sonderheft. (Wiesbaden: VS Verlag für Sozialwissenschaften).

Hood, C., Rothstein, H. and Baldwin, R. (2001) *The Government of risk: Understanding risk regulation regimes* (Oxford: Oxford University Press).

Hüller, T. and Maier, M.L. (2006) 'Fixing the Codex? Global Food-Safety Governance Under Review'. In Joerges, C. and Petersmann, E.-U. (eds) *Constitutionalism, multilevel trade governance and social regulation*. (Oxford, Portland, OR: Hart).

Janning, F. (2008) 'Regime in der regulativen Politik. Chancen und Probleme eines Theorietransfers'. In Janning, F. and Toens, K. (eds) *Die Zukunft der Policy-Forschung: Theorien, Methoden, Anwendungen*. (Wiesbaden: VS Verlag für Sozialwissenschaften).

Jasanoff, S. (1997) 'Civilization and madness: the great BSE scare of 1996'. *Public Understanding of Science*, Vol. 6, No. 3, pp. 221–232.

Jasanoff, S. (2005) *Designs on nature: Science and democracy in Europe and the United States* (Princeton, N.J: Princeton University Press).

Jensen, H.H. and Zhou, J. (2015) 'Food Safety Regulation and Private Standards in China'. In Hammoudi, A., Grazia, C., Surry, Y. and Traversac, J.-B. (eds) *Food safety, market organization, trade and development*.

Jia, C. and Jukes, D. (2013) 'The national food safety control system of China – A systematic review'. *Food Control*, Vol. 32, No. 1, pp. 236–245.

Joerges, C. and Petersmann, E.-U. (eds) (2006) *Constitutionalism, multilevel trade governance and social regulation* (Oxford, Portland, OR: Hart).

Jonge, J. de, van Trijp, H., Jan Renes, R. and Frewer, L.J. (2007) 'Understanding Consumer Confidence in the Safety of Food: Its Two-Dimensional Structure and Determinants'. *Risk Analysis*, Vol. 27, No. 3, pp. 729–740.

Jordana, J. and Levi-Faur, D. (2004) 'The politics of regulation in the age of governance'. In Jordana, J. and Levi-Faur, D. (eds) *The politics of regulation: Institutions and regulatory reforms for the age of governance*. (Cheltenham, UK, Northampton, MA, USA: Edward Elgar).

Josling, T. (2008) 'The Institutional Framework for Food Regulation and Trade'. *Journal of International Agricultural Trade and Development*, Vol. 4, No. 1, pp. 1–16.

Josling, T.E., Roberts, D. and Orden, D. (2004) *Food regulation and trade: Towards a safe and open global food system* (Washington, D.C, London: Institute for International Economics; Eurospan).

Käferstein, F. (2003) 'Actions to reverse the upward curve of foodborne illness'. *Food Control*, Vol. 14, No. 2, pp. 101–109.

Kasperson, R.E., Renn, O., Slovic, P., Brown, H.S., Emel, J., Goble, R., Kasperson, J.X. and Ratick, S. (1988) 'The Social Amplification of Risk: A Conceptual Framework'. *Risk Analysis*, Vol. 8, No. 2, pp. 177–187.

Kennedy, S. (2013) 'Emerging Global Food System Risks and Potential Solutions'. In Ellefson, W., Zach, L. and Sullivan, D.M. (eds) *Improving import food safety*. (Ames, Iowa: Wiley-Blackwell).

Keohane, R.O. (1984) *After hegemony: Cooperation and discord in the world political economy*, 1st edn (Princeton, N.J: Princeton University Press).

Keohane, R.O. (1989) 'Neoliberal Institutionalism: A Perspective on World Politics'. In Keohane, R.O. (ed) *International institutions and state power: Essays in international relations theory*. (Boulder, Col: Westview Press).

Keohane, R.O. and Nye, J.S. (1971) 'Transnational Relations and World Politics: An Introduction'. *International Organization*, Vol. 25, No. 3, pp. 329–349.

Keohane, R.O. and Nye, J.S. (1977) *Power and Interdependence: World Politics in Transition* (Boston, Toronto: Little, Brown and Company).

Kessler, M.B. (2008) *Trade barriers and China* (New York: Nova Science Publishers).

Keukeleire, S. and MacNaughtan, J. (2008) *The foreign policy of the European Union* (Basingstoke: Palgrave Macmillan).

King, G., Keohane, R.O. and Verba, S. (1994) *Designing social inquiry: Scientific inference in qualitative research* (Princeton, N.J.: Princeton University Press).

Kobusch, A. (2010) *Linking the levels: independence and influence in the European two-tiered network of food safety agencies: Paper presented at the Third Biennial Conference "Regulation in the Age of Crises" of the ECPR Standing Group on Regulatory Governance, University College Dublin, June 17-19, 2010.* Available at: «http://regulation.upf.edu/dublin-10-papers/3D2.pdf». Accessed 5/15/2012.

Kottenstede, K. (2017) 'Transnational private food standards in the People's Republic: Hybridization with Chinese characteristics'. In Verbruggen, P. and Havinga, T. (eds) *Hybridization of Food Governance: Trends, Types and Results*. (Cheltenham, Northampton: Edward Elgar).

Krasner, S.D. (ed) (1983a) *International regimes* (Ithaca: Cornell University Press).

Krasner, S.D. (1983b) 'Structural causes and regime consequences: regimes as intervening variables'. In Krasner, S.D. (ed) *International regimes*. (Ithaca: Cornell University Press).

Krohn, W. and Krücken, G. (1993) 'Risiko als Konstruktion und Wirklichkeit: Eine Einführung in die sozialwissenschaftliche Risikoforschung'. In Krohn, W. and Krücken, G. (eds) *Riskante Technologien: Reflexion und Regulation Einführung in die sozialwissenschaftliche Risikoforschung*. (Frankfurt am Main: Suhrkamp).

Laforce, V.C. (2010) *Between the requirements of "regulations" and "standards" in food safety: challenges and opportunities for developing countries' exports of tropical fruits to the European Union.: Paper prepared for the Conference on "Regulation in the Age of Crisis", Third Biennal Conference of the European Consortium of Political Research's Standing Group on Regulatory Governance, June 17-19 2010, UCD Dublin*.

Lam, H.-M., Remais, J., Fung, M.-C., Xu, L. and Sun, S.S.-M. (2013) 'Food supply and food safety issues in China'. *The Lancet*, Vol. 381, No. 9882, pp. 2044–2053.

Lauth, H.-J., Pickel, S. and Pickel, G. (2009) *Methoden der Vergleichenden Politikwissenschaft: Eine Einführung* (Wiesbaden: VS Verlag für Sozialwissenschaften).

Lazer, D. (2001) 'Regulatory interdependence and international governance'. *Journal of European Public Policy*, Vol. 8, No. 3, pp. 474–492.

Lazer, D. (2006) 'Global and Domestic Governance: Modes of Interdependence in Regulatory Policymaking'. *European Law Journal*, Vol. 12, No. 4, pp. 455–468.

Levi-Faur, D. (2010) *Regulation and Regulatory Governance*. Available at: «http://regulation.huji.ac.il/papers/jp1.pdf». Accessed 10/8/2013.

Levi-Faur, D. (2011a) 'Regulation and regulatory governance'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Levi-Faur, D. (2011b) 'The regulatory state and regulatory capitalism: an institutional perspective'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Levi-Faur, D. and Starobin, S.M. (2014) 'Transnational Politicy and Policy: From Two-Way to Three-Way Interactions'. Speech at Jerusalem Papers in Regulation & Governance Working, No. 62.

Li, P.J. (2009) 'Exponential Growth, Animal Welfare, Environmental and Food Safety Impact: The Case of China's Livestock Production'. *Journal of Agricultural and Environmental Ethics*, Vol. 22, No. 3, pp. 217–240.

Lin, C.-F. (2014) 'Public-Private Regime Interactions in Global Food Safety Governance: Analyzing the Laws, Regulations, and Politics Affecting FDA-Regulated Products'. *Food and Drug Law Journal*, Vol. 60, No. 2.

Littig, B. (2008) 'Interviews mit Eliten – Interviews mit ExpertInnen: Gibt es Unterschiede?' *Forum Qualitative Sozialforschung*, Vol. 9, No. 3.

Liu, C. (2010a) 'The Obstacles of Outsourcing Imported Food Safety to China'. *Cornell International Law Journal*, Vol. 43, No. 2, pp. 249–305.

Liu, P. (2010b) 'Tracing and periodizing China's food safety regulation: A study on China's food safety regime change'. *Regulation & Governance*, Vol. 4, No. 2, pp. 244–260.

Lofstedt, R.E. (2010) 'Risk communication guidelines for Europe: a modest proposition'. *Journal of Risk Research*, Vol. 13, No. 1, pp. 87–109.

Lofstedt, R.E. and Vogel, D. (2001) 'The Changing Character of Regulation: A Comparison of Europe and the United States'. *Risk Analysis*, Vol. 21, No. 3, pp. 399–416.

Löhr, S. and Trappel, R. (2011) *Task Force: Nahrungsmittel in China – Food security- und Food safety-Problematik in China*. Available at: «http://duepublico.uni-duisburg-essen.de/servlets/DocumentServlet?id=27218». Accessed 6/20/2016.

Lowi, T.J. (1972) 'Four Systems of Policy, Politics, and Choice'. *Public Administration Review*, Vol. 32, No. 4, pp. 298–310.

Lu, W. and Kjeldsen-Kragh, S. (2008) 'International Food Safety Standards: Catalysts for Increased Chinese Food Quality?' *The Copenhagen Journal of Asian Studies, No.* 26, pp. 70–90.

Mahoney, J. (2003) *Tentative Answers to Questions about Causal Mechanisms: Paper presented at the annual meeting of the American Political Science Association, Philadelphia Marriott*

Hotel, Philadelphia, PA, Aug 27, 2003. Available at: «http://www.allacademic.com/meta/p62766_index.html». Accessed 4/9/2015.

Majone, G. (1997) 'From the Positive to the Regulatory State: Causes and Consequences of Changes in the Mode of Governance'. *Journal of Public Policy*, Vol. 17, No. 02, p. 139.

Mangelsdorf, A., Portugal-Perez, A. and Wilson, J.S. (2012) 'Food standards and exports: evidence for China'. *World Trade Review*, Vol. 11, No. 03, pp. 507–526.

March, J.G. and Olsen, J.P. (1989) *Rediscovering institutions: The organizational basis of politics* (New York: Free Press).

March, J.G. and Olsen, J.P. (1998) 'The Institutional Dynamics of International Political Orders'. *International Organization*, Vol. 52, No. 4, pp. 943–969.

Marsden, T., Flynn, A. and Harrison, M. (2000) *Consuming interests: The social provision of foods* (London, New York: UCL Press; Routledge).

Marsden, T., Lee, R., Flynn, A. and Thankappan, S. (2010) *The new regulation and governance of food: Beyond the food crisis?* (New York: Routledge).

Marx, A. (2011) 'Global governance and the certification revolution: types, trends and challenges'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Marx, A., Maertens, M., Swinnen, J.F.M. and Wouters, J. (eds) (2012) *Private Standards and Global Governance: Legal and Economic Perspectives*. Speech at Leuven global governance (London: Edward Elgar).

Mattli, W. and Woods, N. (2009a) 'In Whose Benefit? Explaining Regulatory Change in Global Politics'. In Mattli, W. and Woods, N. (eds) *The Politics of Global Regulation*. (Princeton: Princeton University Press).

Mattli, W. and Woods, N. (2009b) 'Introduction'. In Mattli, W. and Woods, N. (eds) *The Politics of Global Regulation*. (Princeton: Princeton University Press).

Mattli, W. and Woods, N. (eds) (2009c) *The Politics of Global Regulation* (Princeton: Princeton University Press).

Mayntz, R. (ed) (2002a) *Akteure - Mechanismen - Modelle: Zur Theoriefähigkeit makro-sozialer Analysen*. Speech at Schriften des Max-Planck-Instituts für Gesellschaftsforschung, Köln, Vol. 42 (Frankfurt am Main: Campus Verlag).

Mayntz, R. (2002b) 'Zur Theoriefähigkeit makro-sozialer Analysen'. In Mayntz, R. (ed) *Akteure - Mechanismen - Modelle: Zur Theoriefähigkeit makro-sozialer Analysen*. (Frankfurt am Main: Campus Verlag).

McBeath, J.H. and McBeath, J. (2010a) *Environmental change and food security in China* (New York: Springer).

McBeath, J.H. and McBeath, J. (2010b) *Plant Diseases, Pests and Food Security* (Heidelberg: Springer).

McGregor, R. (2010) *The Party: The secret world of China's communist rulers* (New York: HarperCollins).

Meidinger, E. (2009) 'Private Import Safety Regulation and Transnational New Governance'. In Coglianese, C., Finkel, A.M. and Zaring, D.T. (eds) *Import safety: Regulatory governance in the global economy*. (Philadelphia: University of Pennsylvania Press).

Meulen, B. M. J. van der (ed) (2011a) *Private food law: Governing food chains through contracts law, self-regulation, private standards, audits and certification schemes*. Speech at European Institute for food law series, no. 6 (Wageningen, The Netherlands: Wageningen Academic Publishers).

Meulen, B. M. J. van der (2011b) 'The anatomy of private food law'. In Meulen, B. M. J. van der (ed) *Private food law: Governing food chains through contracts law, self-regulation, private*

standards, audits and certification schemes. (Wageningen, The Netherlands: Wageningen Academic Publishers).

Meuser, M. and Nagel, U. (2009) 'Das Experteninterview - konzeptionelle Grundlagen und methodische Anlage'. In Pickel, S., Pickel, G., Lauth, H.-J. and Jahn, D. (eds) *Methoden der vergleichenden Politik- und Sozialwissenschaft: Neue Entwicklungen und Anwendungen*. (Wiesbaden: VS Verlag für Sozialwissenschaften).

Millstone, E. and van Zwanenberg, P. (2002) 'The Evolution of Food Safety Policy-making Institutions in the UK, EU and Codex Alimentarius'. *Social Policy and Administration*, Vol. 36, No. 6, pp. 593–609.

Milner, H.V. and Moravcsik, A. (eds) (2009) *Power, interdependence, and nonstate actors in world politics* (Princeton, N.J: Princeton University Press).

Mitnick, B.M. (2011) 'Capturing "capture": definition and mechanisms'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Norse, D., Lu, Y. and Huang, J. (2013) 'China's Food Security: Challenges and Responses in a Global Context'. Available at: «http://eeas.europa.eu/china/docs/division_ecran/ecran_chinas_food_security_en.pdf». Accessed 12/29/2015.

Olson, M. (1971) *The logic of collective action: Public goods and the theory of groups* (Cambridge, Mass: Harvard University Press).

Otsuki, T., Wilson, J.S. and Sewadeh, M. (2001) 'What price precaution? European harmonisation of aflatoxin regulations and African groundnut exports'. *European Review of Agricultural Economics*, Vol. 28, No. 2, pp. 263–283.

Patzelt, W.J. (2007) *Einführung in die Politikwissenschaft: Grundriss des Faches und studiumbegleitende Orientierung*, 6th edn (Passau: Wiss.-Verl. Rothe).

Peel, J. (2004) *Risk Regulation Under the WTO SPS Agreement: Science as an International Normative Yardstick?* Available at: «http://centers.law.nyu.edu/jeanmonnet/archive/papers/04/040201.pdf». Accessed 5/16/2012.

Pei, X., Tandon, A., Alldrick, A., Giorgi, L., Huang, W. and Yang, R. (2011) 'The China melamine milk scandal and its implications for food safety regulation'. *Food Policy*, Vol. 36, No. 3, pp. 412–420.

Poms, R., Pei, X. and Spichtinger, D. (2011) 'Food Safety in the European Union and China: the Melamine Case'. *EU-China Observer, No.* 4, pp. 9–15.

Popper, K. (2005 (1934)) *Gesammelte Werke in deutscher Sprache. 3. Logik der Forschung* (Tübingen: Mohr Siebeck).

Post, D.L. (2005) 'Food fights: Who shapes international food safety standards and who uses them?' Dissertation (University of California: Berkeley). Available at: «http://proquest.umi.com/pqdlink?Ver=1&Exp=11-09-2016&FMT=7&DID=1027491581&RQT=309&attempt=1&cfc=1».

Prévost, D. (2012) 'Food Safety in China: Implications of Accession to the WTO'. *China Perspectives, No.* 1, pp. 39–47.

Renn, O. (1998) 'Three decades of risk research: accomplishments and new challenges'. *Journal of Risk Research*, Vol. 1, No. 1, pp. 49–71.

Renn, O. (2009) 'Risk Communication: Insights and Requirements for Designing Successful Communication Programs on Health and Environmental Hazards'. In Heath, R.L. and O'Hair, D. (eds) *Handbook of risk and crisis communication*. (New York: Routledge).

Renn, O. (2015) 'Stakeholder and Public Involvement in Risk Governance'. *International Journal of Disaster Risk Science*, Vol. 6, No. 1, pp. 8–20.

Renn, O. and Dreyer, M. (2009) 'Introduction'. In Dreyer, M. and Renn, O. (eds) *Food safety governance*. (Berlin, London: Springer).

Risse, T. (2003) *Konstruktivismus, Rationalismus und Theorien Internationaler Beziehungen: Warum empirisch nichts so heiß gegessen wird, wie es theoretisch gekocht wurde*. Available at: «http://userpage.fu-berlin.de/~atasp/texte/030209_risse_forschungsstand.pdf». Accessed 1/2/2014.

Risse-Kappen, T. (1995) *Bringing transnational relations back in: Non-state actors, domestic structures, and international institutions* (Cambridge, New York, NY, USA: Cambridge University Press).

Roberts, D. and Unnevehr, L.J. (2003) 'Resolving Trade Disputes Arising from Trends in Food Safety Regulation: The Role of the Multilateral Governance Framework'. In Buzby, J.C. (ed) *International Trade and Food Safety: Economic Theory and Case Studies*. (Washington, D.C).

Rose, R. (1991) 'What is Lesson-Drawing?' *Journal of Public Policy*, Vol. 11, No. 1, pp. 3–30.

Rosenau, J.N. and Czempiel, E.-O. (eds) (1992) *Governance without Government: Order and Change in World Politics* (Cambridge, UK).

Roth, A.V., Tsay, A.A., Pullmann, M.E. and Gray, J. (2008) 'Unraveling the food supply chain: strategic insights from China and the 2007 recalls'. *The Journal of Supply Chain Management*, Vol. 44, No. 1, pp. 22–39.

Salles-Djelic, M.-L. and Sahlin-Andersson, K. (2007a) 'Introduction: A world of governance: The rise of transnational regulation'. In Salles-Djelic, M.-L. and Sahlin-Andersson, K. (eds) *Transnational governance: Institutional dynamics of regulation*. (Cambridge: Cambridge University Press).

Salles-Djelic, M.-L. and Sahlin-Andersson, K. (eds) (2007b) *Transnational governance: Institutional dynamics of regulation* (Cambridge: Cambridge University Press).

Scherzberg, A. (2006) 'EU-US Trade Disputes about Risk Regulation: the Case of Genetically Modified Organisms'. *Cambridge Review of International Affairs*, Vol. 19, No. 1, pp. 121–137.

Schuppert, G.F. and Zürn, M. (eds) (2008) *Governance in einer sich wandelnden Welt*. Speech at Politische Vierteljahresschrift (Wiesbaden: VS Verlag für Sozialwissenschaften).

Scott, C. (2004) 'Regulation in the Age of Governance: The Rise of the Post-Regulatory State'. In Jordana, J. and Levi-Faur, D. (eds) *The politics of regulation: Institutions and regulatory reforms for the age of governance*. (Cheltenham, UK, Northampton, MA, USA: Edward Elgar).

Scott, C. (2011) 'Regulating in global regimes'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Scott, C., Cafaggi, F. and Senden, L. (2011) 'The Conceptual and Constitutional Challenge of Transnational Private Regulation'. *Journal of Law and Society*, Vol. 38, No. 1, pp. 1–19.

Scott, S., Si, Z., Schumilas, T. and Chen, A. (2014) 'Contradictions in state- and civil society-driven developments in China's ecological agriculture sector'. *Food Policy*, Vol. 45, pp. 158–166.

Selznick, P. (1985) 'Focusing organizational research on regulation'. In Noll, R.G. (ed) *Regulatory policy and the social sciences*. (Berkeley, Calif. [etc.]: University of California Press).

Senauer, B. and Venturini, L. (2005) *The Globalization of Food Systems: A Conceptual Framework and Empirical Patterns*. Available at: «http://ageconsearch.umn.edu/bitstream/14304/1/tr05-01.pdf». Accessed 1/23/2013.

Shen, Y. (2013) 'The Development of and Challenges Facing Food Safety Law in the People's Republic of China'. In Ellefson, W., Zach, L. and Sullivan, D.M. (eds) *Improving import food safety*. (Ames, Iowa: Wiley-Blackwell).

Sheng, J., Shen, L., Qiao, Y., Yu, M. and Fan, B. (2009) 'Market trends and accreditation systems for organic food in China'. *Trends in Food Science & Technology*, Vol. 20, No. 9, pp. 396–401.

Silzer, M. (2014) *Europäisierung der finnischen Außen- und Sicherheitspolitik: Eine interessenbasierte Analyse* (Baden-Baden: Nomos).

Simmons, B.A. (2001) 'The International Politics of Harmonization: The Case of Capital Market Regulation'. *International Organization*, Vol. 55, No. 3, pp. 589–620.

Slovic, P. (1993) 'Perceived Risk, Trust, and Democracy'. *Risk Analysis*, Vol. 13, No. 6, pp. 675–682.

Snyder, F.G. (2009) *The European Union and China, 1949-2008: Basic documents and commentary* (Oxford, Portland, Or.: Hart).

Snyder, F.G. (2015) *Food Safety Law in China: Making Transnational Law* (Brill).

Spruyt, H. (2001) 'The supply and demand of governance in standard-setting: insights from the past'. *Journal of European Public Policy*, Vol. 8, No. 3, pp. 371–391.

Stanton, G. (2012) 'Food Safety-related Private Standards: The WTO Perspective'. In Marx, A., Maertens, M., Swinnen, J.F.M. and Wouters, J. (eds) *Private Standards and Global Governance: Legal and Economic Perspectives*. (London: Edward Elgar).

Steinhilber, J. (2006) 'Liberaler Intergouvernementalismus'. In Bieling, H.-J. (ed) *Theorien der europäischen Integration*. (Wiesbaden: VS Verlag für Sozialwissenschaften).

Stigler, G.J. (1971) 'The Theory of Economic Regulation'. *The Bell Journal of Economics and Management Science*, Vol. 2, No. 1, pp. 3–21.

Stone, D. (2012) 'Transfer and translation of policy'. *Policy Studies*, Vol. 33, No. 6, pp. 483–499.

Sun, B., Zhang, L., Yang, L., Zhang, F., Norse, D. and Zhu, Z. (2012) 'Agricultural Non-Point Source Pollution in China: Causes and Mitigation Measures'. *AMBIO*, Vol. 41, No. 4, pp. 370–379.

Sun, J. (2012) 'The Evolving Appreciation of Food Safety'. *EFFL, No.* 2, pp. 84–90.

Suttmeier, R.P. (2008) 'The "Sixth Modernization"? China, Safety, and the Management of Risks'. *Asia Policy, No.* 6, pp. 129–146.

Tam, W. and Yang, D.L. (2005) 'Food Safety and the Development of Regulatory Institutions in China'. *Asian Perspective*, Vol. 29, No. 4, pp. 5–36.

The Lancet (2014) 'China's food safety: a continuing global problem'. *The Lancet*, Vol. 384, No. 9941, p. 377.

Thiers, P. (2003) 'Risk Society Comes to China: SARS, Transparency and Public Accountability'. *Asian Perspective*, Vol. 27, No. 2, pp. 241–251.

Thompson, D. (2007) *China's Food Safety Crisis: A Challenge to Global Health Governance*. Available at: «https://jamestown.org/program/chinas-food-safety-crisis-a-challenge-to-global-health-governance-2/». Accessed 1/11/2017.

Thompson, D. and Hu, Y. (2007) 'Food Safety in China: New Strategies'. *Global Health Governance*, Vol. 1, No. 2, pp. 1–19.

Tondl, G. (2006) 'Die Beziehungen der Europäischen Union zu China'. In Kadelbach, S. (ed) *Die Außenbeziehungen der Europäischen Union*. (Baden-Baden: Nomos).

Tracy, M. (2016) 'Multimodality, Transparency, and Food Safety in China'. *PoLAR: Political and Legal Anthropology Review*, Vol. 39, S1, pp. 34–53.

Trienekens, J. and Zuurbier, P. (2008) 'Quality and safety standards in the food industry, developments and challenges'. *International Journal of Production Economics*, Vol. 113, No. 1, pp. 107–122.

Unnevehr, L.J. (2007) 'Food safety as a global public good'. *Agricultural Economics*, Vol. 37, pp. 149–158.

Unnevehr, L.J. and Hoffmann, V. (2015) 'Food safety management and regulation: International experiences and lessons for China'. *Journal of Integrative Agriculture*, Vol. 14, No. 11, pp. 2218–2230.

Unnevehr, L.J. and Roberts, D. (2003) 'Food Safety and Quality: Regulations, Trade, and the WTO: Invited paper presented at the international conference "Agricultural policy reform and the WTO: where are we heading?"'. Available at: «http://www.ecostat.unical.it/2003agtradeconf/Invited%20papers/Unnevehr%20and%20Roberts.pdf». Accessed 7/2/2014.

van der Meer, Cornelius (2005) *China's Compliance with Food Safety Requirements for Fruits and Vegetables: Promoting Food Safety, Competitiveness, and Poverty Reduction* (Washington, D.C.: World Bank).

van Evera, S. (1997) *Guide to methods for students of political science* (Ithaca, N.Y.: Cornell University Press).

van Waarden, F. (2006) 'Taste, Traditions, and Transactions: The Public and Private Regulation of Food'. In Ansell, C.K. and Vogel, D. (eds) *What's the beef?: The contested governance of European food safety*. (Cambridge, Mass: MIT Press).

van Waarden, F. (2011) 'Varieties of private market regulation: problems and prospects'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Verbruggen, P. (2013) 'Gorillas in the closet? Public and private actors in the enforcement of transnational private regulation'. *Regulation & Governance*, Vol. 7, No. 4, pp. 512–532.

Verbruggen, P. and Havinga, T. (eds) (2017) *Hybridization of Food Governance: Trends, Types and Results* (Cheltenham, Northampton: Edward Elgar).

Vogel, D. (1995) *Trading up: Consumer and environmental regulation in a global economy* (Cambridge (Mass.): Harvard University Press).

Vogel, D. and Ansell, C.K. (2006) 'The Contested Governance of European Food Safety Regulation'. In Ansell, C.K. and Vogel, D. (eds) *What's the beef?: The contested governance of European food safety*. (Cambridge, Mass: MIT Press).

Vogel, D. and Kagan, R.A. (2004) 'Introduction'. In Vogel, D. and Kagan, R.A. (eds) *Dynamics of regulatory change: How globalization affects national regulatory policies*. (Berkeley: University of California Press).

Vogel, D. and Lynch, D. (2001) *The Regulation of GMOs in Europe and the United States: A Case-Study of Contemporary European Regulatory Politics*. Available at: «http://www.cfr.org/genetically-modified-organisms/regulation-gmos-europe-united-states-case-study-contemporary-european-regulatory-politics/p8688». Accessed 5/22/2012.

Vogler, J. (1995) *The global commons: A regime analysis* (New York, N.Y: J. Wiley & Sons).

Vos, E. (1999) *Institutional frameworks of community health and safety legislation: Committees, agencies, and private bodies* (Oxford, Portland, Or: Hart).

Vos, E. and Wendler, F. (eds) (2006) *Food safety regulation in Europe: A comparative institutional analysis*, Vol. 62 (Antwerpen, Oxford: Intersentia).

Waltz, K.N. (1979) *Theory of international politics*, 1st edn (Boston, Mass: McGraw-Hill).

Wang, H., Zhang, R.W. and Ortega, D.L. (2013) 'Chinese Food Safety Situation in a Globalized World Market'. *Journal of Chinese Economics*, Vol. 1, No. 1, pp. 114–124.

WBGU (1999) *Strategien zur Bewältigung globaler Umweltrisiken: Jahresgutachten 1998* (Berlin, Heidelberg, New York, Barcelona, Hongkong, London: Springer).

Weimer, M. and Vos, E. (2015) 'The role of the EU in transnational regulation of food safety'. In Zeitlin, J. (ed) *Extending Experimentalist Governance?* (Oxford University Press).

Wendler, F. (2008) 'The Public-Private Regulation of Food Safety through HACCP: What does it mean for the Governance Capacity of Public and Private Actors?' In Vos, E. (ed) *European Risk Governance: its Science, its Inclusiveness and its Effectiveness*. (Mannheim: CONNEX - Network of Excellence).

Wendler, F. and Vos, E. (2006) 'Food Safety Regulation at EU Level'. In Vos, E. and Wendler, F. (eds) *Food safety regulation in Europe: A comparative institutional analysis*. (Antwerpen, Oxford: Intersentia).

Wilhelm, A. (ed) (2008) *Handbuch der Internationalen Politik* (Wiesbaden: VS Verlag für Sozialwissenschaften).

Wilson, J.S. and Otsuki, T. (2004) 'To spray or not to spray: pesticides, banana exports, and food safety'. *Food Policy*, Vol. 29, No. 2, pp. 131–146.

Wu, L. and Zhu, D. (2014) *Food safety in China: A comprehensive review*.

Wu, Y. and Chen, Y. (2013) 'Food safety in China'. *Journal of Epidemiology & Community Health*, Vol. 67, No. 6, pp. 478–479.

Xiu, C. and Klein, K.K. (2010) 'Melamine in milk products in China: Examining the factors that led to deliberate use of the contaminant'. *Food Policy*, Vol. 35, No. 5, pp. 463–470.

Yan, H. (2014) 'Why Chinese Farmers Obey the Law: Pesticide Compliance in Hunan Province, China'. Dissertation (University of Amsterdam: Amsterdam).

Yan, Y. (2012) 'Food Safety and Social Risk in Contemporary China'. *The Journal of Asian Studies*, Vol. 71, No. 03, pp. 705–729.

Yandle, B. (2011) 'Bootleggers and Bapitsts in the theory of regulation'. In Levi-Faur, D. (ed) *Handbook on the politics of regulation*. (Cheltenham, UK, Northampton, MA: Edward Elgar).

Yang, R., Huang, W., Zhang, L., Thomas, M. and Pei, X. (2009) 'Milk adulteration with melamine in China: crisis and response'. *Quality Assurance and Safety of Crops & Foods*, Vol. 1, No. 2, pp. 111–116.

Yang, Y. (2007) *Pesticides and Environmental Health Trends in China - a China environmental health project factsheet*. Available at: «http://www.wilsoncenter.org/sites/default/files/pesticides_feb28.pdf». Accessed 5/25/2014.

Yasuda, J.K. (2013) 'The Scale Problem: Food Safety, Scale Politics, and Coherence Deficits in China'. Unpublished Ph.D. dissertation (University of California: Berkeley).

Young, A.R. (2006) 'The politics of regulation and the internal market'. In Jørgensen, K.E., Pollack, M.A. and Rosamond, B. (eds) *Handbook of European Union politics*. (London, Thousand Oaks, Calif.: Sage).

Yue, N., Kuang, H., Sun, L., Wu, L. and Xu, C. (2010) 'An empirical analysis of the impact of EU's new food safety standards on china's tea export'. *International Journal of Food Science & Technology*, Vol. 45, No. 4, pp. 745–750.

Zach, L., Doyle, M.E., Bier, V. and Czuprynski, C. (2012) 'Systems and governance in food import safety: A U.S. perspective'. *Food Control*, Vol. 27, No. 1, pp. 153–162.

Zhang, C., Hu, R., Shi, G., Jin, Y., Robson, M.G. and Huang, X. (2015a) 'Overuse or underuse? An observation of pesticide use in China'. *Science of The Total Environment*, Vol. 538, pp. 1–6.

Zhang, M., Qiao, H., Wang, X., Pu, M.-z., Yu, Z. and Zheng, F.-t. (2015b) 'The third-party regulation on food safety in China: A review'. *Journal of Integrative Agriculture*, Vol. 14, No. 11, pp. 2176–2188.

Zhang, Q.-Q., Ying, G.-G., Pan, C.-G., Liu, Y.-S. and Zhao, J.-L. (2015c) 'Comprehensive Evaluation of Antibiotics Emission and Fate in the River Basins of China: Source Analysis, Multimedia Modeling, and Linkage to Bacterial Resistance'. *Environmental Science & Technology*, Vol. 49, No. 11, pp. 6772–6782.

Zhang, W., Jiang, F.B. and Ou, J.F. (2011) 'Global pesticide consumption and pollution: with China as a focus'. *Proceedings of the International Academy of Ecology and Environmental Sciences*, Vol. 1, No. 2, pp. 125–144.

Zhou, G. (2017) *The regulatory regime of food safety in China: Governance and segmentation* (London: Palgrave Macmillan).