**The London School of Economics and Political Science**

# The Internationalisation of Regulation:

# Food Safety Regulation in China

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# Declaration

I certify that the thesis I have presented for examination for the MPhil/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others.



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# Abstract

The aim of the thesis is to examine the implications of the internationalisation of regulation in China as a developing country. To achieve this, variations in different Chinese food regulatory regimes are compared, ranging from those for domestic consumption to export. In particular, the three control components of a regulatory regime, namely standard-setting, information-gathering and behaviour-modification are analysed.

This study finds a pattern of changes in the Chinese food regulatory regimes. At the initial stage, Chinese national food standards were less stringent than international standards, and the gap between established national standards and local enforcement was significantly high. In recent years, it is observed that Chinese national food standards have witnessed an upward movement to converge with international food standards. In the meantime, regulatory enforcement in the localities has undergone continual adjustment to strengthen enforcement force towards areas under public concern.

This thesis aims to explain this trend of changes in terms of the internationalisation of regulation. It argues that while coercive international pressure is mainly exerted on the Chinese exported food regulatory regime, the domestic food regulatory regime in China has also been increasingly influenced by global forces over the past decade, in terms of policy transfer from developed countries and policy learning from the transnational professional networks. Regarding domestic food standard-setting, normative influence from the international community has induced a generally higher level of Chinese national food standards. With respect to regulatory enforcement, while enforcement work has been constrained by the incapacity of regulators and the inextricably linked interests in the localities, these domestic factors are becoming less influential under the context of internationalisation of regulation. In particular, food safety crises prompt the Chinese government to push forward regulatory changes in spite of strong resistance in the localities. This has been attributed to the aim of the Chinese government to safeguard the reputation of products ‘Made in China’ under the context of internationalisation of regulation, and build up an international image that China is a committed and responsible trading partner and world leader.

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# Abbreviations

| | |
|---|---|
| AIC | The Administration for Industry and Commerce |
| AQSIQ | The General Administration of Quality Supervision, Inspection and Quarantine |
| CCP | The Chinese Communist Party |
| CFPQS | Centre for Farm Produce Quality and Safety |
| CGFDC | China Green Food Development Centre |
| CIQ | China Entry-Exist Inspection and Quarantine Bureau |
| Codex | FAO/WHO Joint Codex Alimentarius Commission |
| CRAAPS | Commission of Risk Assessment of Agricultural Product Safety |
| FAO | Food and Agriculture Organisation of the United Nations |
| IEC | International Electrotechnical Commission |
| IFOAM | International Foundation for Organic Agriculture |
| ISO | International Organisation for Standardisation |
| MoA | Ministry of Agriculture |
| MoC | Ministry of Commerce |
| MoF | Ministry of Food |
| MoH | Ministry of Health |
| MoLI | Ministry of Light Industry |
| NBI | Anholt Nation Brands Index |
| NGO | Non-governmental organisation |
| NPC | The National People's Congress |
| PRC | The People's Republic of China |
| SAC | The Standardisation Administration of China |
| SAIC | The State Administration of Industry and Commerce |
| SAQA | The State Administration of Quality Supervision |
| SEPA | The State Environmental Protection Administration |
| SFDA | The State Food and Drug Administration |
| SOEs | State-owned enterprises |
| TVEs | Township and village enterprises |
| WFZs | Health and Anti-epidemic Stations (*Weisheng Fangyi Zhan*) |
| WHO | World Health Organisation |
| WTO | World Trade Organisation |

# Part One: Background

# Chapter 1 : Research objectives and outline

In the context of globalisation and booming international trade, recent decades have seen a transformation away from state regulation towards more reliance on international regulation to protect society from risks induced by environmental pollution, diseases, product quality and safety and other issues. This evolution in regulation is certainly not limited to developed countries but is much the same in many developing countries such as China. This thesis is intended to examine the implications of the internationalisation of regulation for China as a developing country. To this end, variations in terms of how food risks are handled in different food sectors are compared. It seeks to explain the way and the extent to which internationalisation of regulation impacts on China's food safety regulation.

This study finds a pattern of change in the Chinese food regulatory regimes. At the initial stage, Chinese national food standards were less stringent than international standards, and the gap between established national standards and local enforcement was significantly high. In recent years, it is observed that Chinese national food standards have witnessed an upward movement to converge with international food standards. In the meantime, regulatory enforcement in the localities has undergone continual adjustment to strengthen enforcement force towards areas under public concern. To explain the pattern of change, international influence is explored in this thesis. It shows that under the context of internationalisation of regulation, local factors such as the incapacity of regulators and the organised interests of food businesses, politicians, bureaucrats and regulators are becoming less influential than they were in the past. This thesis also sets forth the theoretical contributions and empirical implication of the research findings – how existing theories need to be supplemented to account for regulatory variations and changes in the context of developing countries and authoritarian regimes; and how the analysis furthers our understanding of regulation in the less developed countries under exposure to international influence.

In this introductory chapter, it sets the scene by outlining the main research issues in regulation in developing countries such as China, and in particular the impact of internationalisation. By exploring the three control components in a risk regulatory

regime, namely standard-setting, information-gathering and behaviour-modification, food regulation in China is analysed in a comprehensive way, covering both policy-making and implementation. The chapter then provides a map of the thesis and a summary of the content of the following chapters, highlighting the contributions of each chapter to addressing the research issue of the internationalisation of regulation in China.

## 1.1 Research question, objectives and intended contributions

The research question of this study is: *'in what way and to what extent does internationalisation impact on regulation in China'*. This study explores the research inquiry by comparing different Chinese food regulatory regimes, ranging from those for domestic consumption to those for export and the three control components inside different regimes, namely, standard-setting, information-gathering and behaviour-modification (Hood, Rothstein, & Baldwin, 2001). It seeks to contribute to the current debates about how international force changes state regulation in developing countries.

### 1.1.1 The significance of examining regulation in China as a developing country in the context of internationalisation of regulation

Researching into regulation in developing countries is of great value for two main reasons. As suggested by Cook, Kirkpatrick, Minogue, and Parker (2004), the nature of information asymmetries in the specific context of developing economies brings persistent challenges to regulators in obtaining the necessary information to regulate effectively. The problem is of particular concern under the context of the controlled media in some developing countries. The other reason is the incapacity of regulators and other constraints in an institutional arrangement (Levy & Spiller, 1996). The lack of adequate regulatory resources in terms of manpower and budget and the underdeveloped judicial system impose a further challenge to regulatory enforcement in developing countries. The need for regulatory capacity building becomes an issue of concern. On the other hand, regulation in developing countries can be impeded by the lack of commitment rather of incapacity, and the incentives of regulators resulting from regulatory capture and political capture. For example, government officials might have an incentive to turn a blind eye to regulatory infringements caused by state-owned enterprises, or those that are costly or politically controversial.

Under the aforementioned conditions in developing countries, the enforcement gap is seemingly foreseeable. However, what needs to be emphasised here is that the nature of enforcement gap is never static. Instead, the enforcement gap can be widened or reduced. Some further speculation is warranted about the circumstances that widening or reducing the enforcement gap brings about, and the implications for effective regulation in developing countries. This study suggests that the movement of enforcement gap can be explained by reasons of the evolving external regulatory environment such as increasing international pressure and media attention, or changing internal values of different levels of government and frontline inspectors.

In this research, China is selected for study not only because it is an emerging economy with a relatively weak state capacity, but also because it is a post-communist country with an authoritarian government. As an industrialising country since the late 1980s and early 1990s, China has undergone reforms in terms of economic, political and bureaucratic systems and society. It is significant to look at how a distinctive form of regulatory system is developed to respond to marketisation, privatisation and state restructuring in a broad sense from a communist state to a socialist market economy.

Meanwhile, while China has an authoritarian government, it has witnessed persistent and in some areas radical changes in recent decades since the opening-up policy in the late 1970s. Although it is a contested issue as to whether the Chinese political system is a form of 'fragmented authoritarianism' (Lieberthal & Lampton, 1992; Mertha, 2009), recent decades have seen a changing policy-making process towards pluralisation. The rising pressure from non-governmental organisations and the media, for example, has prompted the Chinese state to respond to the diverse demands from society. Consequentially, these actors affect the policy making process and the implementation of policy. As argued by Mertha (2009), the Chinese policy-making process has become more pluralised because of the increasing abilities and power of policy entrepreneurs.

Regulation, as a distinctive mode of policy making or of governance, has no exemption from facing the increasingly diverse demands from society. In other words, to understand regulation in China in a comprehensive way, it is essential to examine the general public policy process in China. One of the key questions is: how does the

changing external environment such as the introduction of commercialisation and competition in the media sector in China affect its regulation, in terms of both regulatory policy making and regulatory enforcement? And is there any other external or internal force contributing to the changing context of regulation in China?

This study suggests that the framework for analysing regulation as a mode of public policy in China can be extended to include the perspective of international regulation by supranational mechanisms. Discussing state regulation in the context of international regulation is closely linked to the body of literature on 'lesson-drawing' (Rose, 1993), 'policy transfer' (Dolowitz & Marsh, 1996, 2000), 'policy diffusion' (Berry & Berry, 1999) and institutional isomorphism (DiMaggio & Powell, 1983). This angle is highly significant when analysing regulation in the specific context of developing countries. The reasons are threefold.

First, the emergence of global regulatory convergence in terms of legal, institutional and economic harmonisation has profound implications for China, as a developing country that desires to compete in the international trade market and expand its export trade. As argued by Majone (2006) in his analysis of 'spontaneous regulatory convergence', regulatory models of politically and economically powerful countries are more likely emulated through the 'push and pull' force. This entails developing countries being increasingly influenced by regulatory models of developed countries and international institutions, and it is in the interest of developing countries to actively participate in the formulation of international standards and in general as an active member of these supranational institutions. In this sense, how the Chinese government reacts to the growing influence exerted by the international community is important to the understanding of public policy process in China.

Second, recent empirical studies have shed light on the situation of 'selective adaptation' of international norms and practices in different industrialising and industrialised countries (Potter, 2003; Biukovic, 2008), although these countries are required by demands and obligations of international bilateral agreements to comply with international standards developed by global institutions. The reasons behind might be not only related to regulatory incapacity but also protectionism in order to benefit domestic producers of goods and services. But either way, such 'selective adaptation'

phenomenon signals that the discrepancy between global standards and domestic implementation remains an issue of concern for effective regulation at both national and supranational levels.

Third, policy transfer can be problematic to developing countries (Minogue, 2004). This is because developing countries are distinctively different from developed economies in terms of the complex economic, political, social and cultural spheres. Administrative incapacity arising from underdevelopment and corruption, for example, generates a considerable gap in the reality in governance reforms in developing countries. Exploring the reality gap in China can enhance our understanding of under what conditions and to what extent policies originated from developed countries are more successfully transferred to China than others.

### 1.1.2 The significance of examining food safety regulation in the context of internationalisation of regulation

In this study, food safety regulation serves as an ideal case for researching international regulation and how developing countries like China manage their global engagement. Two main reasons are identified.

First, the nature of food risk being highly globalised makes it an important case for studying international regulation. Food risks, ranging from zoonoses, to microbiological risks, chemical risks, biotechnology and foodborne diseases, cross international borders or territories under the rapid globalisation of food production and trade. As argued by Schofield and Shaoul (2000), food safety has become an increasing problem all over the world as the technology of food production and social patterns have changed. This means that countries find it impossible to regulate risks induced by trading activities without cooperation from other countries. As claimed by the World Health Organisation (WHO), "Ensuring food safety must not only be tackled at the national level but also through closer linkages among food safety authorities at the international level" (World Health Organisation, n.d.). To this end, supranational organisations are established to regulate food risks. It is thus necessary for us to look beyond the national level and move upward to the international level to study its regulation.

Second, the export boom of Chinese food products makes food safety regulation in China under high exposure to an international concern. China's food export volume has witnessed a rapid growth since its opening-up policy in the early 1980s and then its accession to the World Trade Organisation (WTO) in 2001. China becomes one of the largest food exporters in the world, and China is the world's leading seafood producer and one of the world's largest exporters of fruits, vegetables, and processed foods and ingredients (Agres, 2011). Under the context of export boom and the internationalisation of regulation, safeguarding the reputation of food 'Made in China' has become increasingly important. Being a state with growing power in the international world, leaders of the Chinese Communist Party (CCP) intend to portray the image that China is 'rising peacefully' as a responsible world leader (The State Council Information Office, 2005), that the country is internally committed to improving the welfare of its own people and externally acting as a responsible world leader. Having this official vision for the country's future declared to the world, fatal food safety scandals have become a key concern and embarrassment to the Chinese government because this gives an impression to the world that China has weak governance and low legal and ethical standards. As China is one of the major commodity exporters in the world, scandals may also ruin the reputation of Chinese goods in the eye of consumers worldwide, which consequentially hit China's profitable export trade in the competitive world market. Therefore, it is in the Chinese government's interest to safeguard the reputation of food 'Made in China' while attention is focused on whether the government has the determination to tackle the problem and protect consumers in the country and throughout the world.

In summary, given the feature of globalised food risk, the export boom of Chinese food and the key concern of the government to secure the reputation of food 'Made in China', if internationalisation of regulation has an impact on regulation in China, food safety regulation is probably one of the most important cases for studying.

### 1.1.3 The significance of examining the three control components and regulatory variations

To understand regulation from a cybernetic angle, this study addresses the research inquiry by examining the three control components in different food regulatory regimes

in China, and comparing the regulatory variations between them. Hood et al. (1999; 2001) advocates a comprehensive control theory perspective and suggests that the control system of a regulatory regime in art or nature must by definition contain a minimum of three components:

> There must be some capacity for *standard-setting* to allow a distinction to be made between more and less preferred states of the system. There must also be some capacity for *information-gathering* or monitoring to produce knowledge about current or changing states of the system. On top of that must be some capacity for *behaviour-modification* to change the state of the system (Hood et al., 2001, p. 23).

Standard is the 'director' element of the control process, which varies widely in terms of explicitness (i.e. how far they were announced in advance and formula-bounded), reflexivity (i.e. how far they were imposed uniformly from the top), and stability (i.e. how far they were revised). As a 'detector' in the control process, information has to be obtained in order to ensure the target is being controlled. Variations in the tool of information-gathering include inspection, audit, certification, authorisation, and mediation. The 'effector' component intends to influence the behaviour of the persons and institutions sought to be controlled, in order to ensure that the regulatory standard and target are accomplished. Tool kits range from naming and shaming, to prosecution, and to termination of licenses.

The control theory perspective is valuable for exploring the research question: *'in what way and to what extent does internationalisation impact on regulation in China'*. The reasons are twofold. First, this comprehensive angle can provide a broad picture of a regulatory regime as well as detailed variations inside the regime. The existing literature concerning the force of internationalisation on regulation in China mainly focuses on regulatory framework, institutional change and paradigm shift in the role of the state (e.g. Yeo & Painter, 2011). The control system inside the regulatory regime, however, is an under-researched area. For instance, it is important for us to understand how local standards are harmonised to international norms, and how these harmonised standards are enforced or partially enforced in practice. To put it another way, the significance of researching regulatory variations in the three control components is that it allows us to identify the driving force behind regime convergence

or divergence at both the policy-making and implementation levels, and assess the impacts of these factors accordingly.

Second, looking at a regulatory regime from an angle of three control components offers some hints as to why an enforcement gap persists in less developed countries. Enforcement gaps resulting from information asymmetry is certainly different from those induced by intentional behaviour of regulators, and their implications for regulatory design are also distinctive. While the former may be attributed to incapacity of information-gathering and hence ignorance to the status of the regulated industries, the latter is closely linked to perceptions and values of local governments and regulators though they obtain adequate information on violations. The control components perspective can shed light on where an enforcement gap exists – in areas of gathering information and/or changing behaviours of the regulated entities. This is of particular importance to the understanding of regulatory enforcement in developing countries like China, where the incapacity of regulators and the pro-GDP growth value are both salient. Dividing regulatory enforcement into two elements of information-gathering and behaviour-modification can allow us to better understand where and why enforcement gaps are in place.

In summary, the lens of analysing and comparing the three control components can provide a comprehensive perspective from which to assess the impact of internationalisation on regulation at both policy-making and implementation levels and distinguish the discrepancies between them (T. B. Smith, 1973). This is particularly advantageous to address the 'to what extent' question type. By narrowing down the level of analysis of regulatory regime to different elements inside it, the number of observations is increased and detailed regulatory variations are observed in a clearer way.

## 1.2 Thesis structure and overview

This thesis is organised into three parts. Part One (Chapters 1-4) introduces the background to the study, Part Two (Chapters 5-8) presents the empirical findings, then it is followed by a conclusion in Part Three (Chapter 9).

In Part One, Chapter 2 will first discuss the existing academic debates about regulation in China. Three bodies of literature are identified: China rising as a regulatory state, the impact of internationalisation of regulation on China, and the enforcement gap in practice. It will then be followed by setting the scene of the thesis, by introducing the historical, institutional and economic backgrounds of food regulation in China between 1949 and 2009[1]. Changes in the early period were induced by the evolution of the Chinese economic system transforming from a communist command economy to a market economy. On the other hand, regulatory changes in the period after 2002 were largely a response to international pressure and food scandals. The chapter will conclude by defining the scope of this research study.

Chapter 3 will introduce the analytical framework of the study and review the related literatures. It will first illustrate Hood et al.'s (2001) control theory perspective of combining three control elements in a regulatory regime. Three bodies of literatures will then be considered – the internationalisation of regulation, the opinion-responsive government and interest-based theories. Theoretical expectations and research gaps will also be identified. The chapter will conclude by discussing the theoretical and empirical contributions of this analytical framework and research study in general.

Chapter 4 will introduce the research design adopted in this study. It will first elaborate the rationales for choosing the comparative method of case study as the research methodology for the study. It will then present the landscape of the selected cases: the six food domains and their associated risks (i.e. domestic fruits/vegetables, exported fruits/vegetables, domestic meat/dairy products, exported meat/dairy products, domestic manufactured food products and exported manufactured food products), and the case study of Guangdong Province. Sources of data and methods of data collection used in this study will be discussed, including observation and interviews conducted in fieldwork. This chapter will conclude by a discussion of how data quality and availability poses challenges to empirical data collection in China.

In Part Two, the empirical findings of the study will be presented. To provide a broad picture of the six food regulatory regimes, Chapter 5 will present the key empirical findings of the content and context of the regulatory regimes based on the

[1] The reforms are continuing but the fieldwork of this study stopped in 2010.

analytical framework. These include the institutional design of regulatory bodies, international pressure in terms of export trade and export bans imposed by foreign countries on Chinese food products, public opinion and media coverage on different food types, and organised interests of the industry, pressure groups and politicians/bureaucrats/regulators. The chapter concludes by a dimensional comparison which reveals similarities and differences among the six food regulatory regimes, and a discussion as to why examining variations in the identified aspects can enhance our understanding of how the international factors shape the Chinese food regulatory regimes, and how other domestic factors become less important.

Chapters 6-8 will narrow down the empirical analysis to the three control components of standard-setting, information-gathering and behaviour-modification respectively. Chapter 6 will illustrate the element of standard-setting in various food regulatory regimes. To assess how the internationalisation of regulation impacts on standard-setting, it will illustrate types of food standards developed in different regimes, the international practice of food standard-setting and the domestic food development procedure, and the participants involved in the process. The chapter argues that the evolution of domestic food standards was largely driven by environmental protection concern, export opportunities, international obligations, food scandals, and pressures from the media and the public. While local business interest has been playing a role in developing domestic food standards, it has become less important under the context of internationalisation. As a result, there has been a gradual transformation of domestic food standards and the practice of standard-setting over the last decade, towards the convergence of international food standards.

Chapters 7-8 will turn to discuss the enforcement work of food regulation, and in Chapter 7 the control component of information-gathering will be analysed. It will first present how information about food safety/quality issues are gathered in different food sectors in Guangdong Province. This chapter argues that regulators vary in how far information is collected in different food regulatory regimes, and also in how far the operation of information-gathering is based on direct 'command and control' approaches or other reactive and interactive methods. It is found that while a 'police-patrol' oversight approach is adopted in gathering information about exported food

products, a mixed method of reactive and interactive approaches is used in the regimes for domestic food. To explain this pattern, the reasons of limited regulatory capacity and international pressure from other trading partners will be considered. In the meantime, the study suggests that under the context of internationalisation of regulation, the effects of food safety crises and the extensive international scrutiny on food 'Made in China' can bring about alterations to the pattern in information-gathering strategy.

Chapter 8 will present another element of regulatory enforcement in different regulatory regimes, that is, behaviour-modification. It will first introduce tools of behaviour-modification deployed by regulators in Guangdong Province in different regimes. Empirical data suggest that deterrence-based approaches of behaviour-modification are universally found across the three studied export regimes regardless of their export volume. In contrast, a mixed approach of enforcement action is applied on domestic food producers, depending on their size and financial conditions. This chapter argues that the variations are attributed to localised interests in domestic politics and global pressure. On the one hand, organised interests in the locality drive the regulators to consider situations of local economy, employment and tax revenue during making enforcement decisions. On the other hand, in the recent development under the context of internationalisation of regulation, food scandals and the determination of the Chinese government to maintain the image of products 'Made in China' have overcome local resistance and brought about regulatory changes.

Part Three is the conclusion of the thesis. Based on the analysis in the previous empirical chapters, Chapter 9 will set forth the empirical findings of the study. It will assess in what way and to what extent internationalisation of regulation impacts on China, and relatedly, how other local factors become less important under the context of internationalisation in the recent development of food safety regulation in China. The chapter will conclude by discussing the theoretical and empirical contributions of the study.

# Chapter 2 : Research issues in regulation in China and the development of food regulatory regime

A helicopter view is helpful for capturing the essence of a regulatory regime and its changes in the overall historical, political, economic and social context. The main purpose of this chapter is to set the scene of research issues concerning regulation in China in general and food regulation in particular, and present the historical development of China's food safety regulation since 1949. This serves the purpose of identifying research gaps, framing the analytical framework in the next chapter, and defining the period of study of the research.

This chapter is organised into two sections. First, Section 2.1 will discuss three bodies of literature related to regulation in China in general and food regulation in particular. They include China's emerging regulatory state, internationalisation of regulation in China, and regulatory enforcement in China. Research gaps of the existing literature will be identified. Section 2.2 will then discuss the historical, institutional and economic background of Chinese food regulation and its close ties with economic reforms. In exploring the development, it is shown that the instability of food regulatory regime in the 1980s and 1990s was mainly attributed to the reforms of the Chinese economic system, transforming it from a communist command economy towards an era of market transition, and further to a market economy and global economy. Internal food scandals, at the same time, began to emerge. The most recent period since the early 2000s, however, has seen a shift: domestic food safety crises and international engagements such as compliance with the WTO norms become the main triggers for further regulatory reforms. The chapter finally concludes by explaining the choice of the period of study for this research.

## 2.1 Research issues in regulation in China

### 2.1.1 China's emerging regulatory state

The last decade has seen a scholarly debate over whether China is moving towards a regulatory state as in the West (D. Yang, 2004; S. Wang, 2006; P. Liu, 2010a, 2010b;

Hsueh, 2011; Collins & Gottwald, 2012). Some scholars deem China's various economic and administrative reforms as signals indicating a paradigm shift towards a regulatory state. For example, Yang's (2004) work analyses how the Chinese Communist Party leadership 'remakes' and transforms the state apparatus to become more capable and effective, in order to cope with the demands and challenges arising from a transition economy transforming from central planning to free market. Various regulatory reforms are identified, including the reconfiguration of the regulatory systems for bank, and the restructuring of regulatory agencies in areas of environmental protection, food and drug quality, coalmine and maritime safety. Yang suggests that these reforms on the one hand provide the foundations for a modern regulatory state, and on the other hand represent major steps in strengthening the central government's fiscal prowess (D. Yang, 2004, p. 22). Yang further argues that despite regional variations, China has "made real progress toward making the Chinese state into a regulatory state suited to a functioning market economy" (D. Yang, 2004, p. 18). Three crucial factors are used to explain the pattern of growing state capacity, namely, changing economic conditions, internal politics/political leadership, and crises.

Wang (2006) also holds a similar view that a new regulatory state is rising in China to replace the 'totalistic state'. Based on a case study of coalmine regulation, Wang argues that China's political-economy transition from state socialism has not resulted in a Hayekian night-watchman state but a new regulatory state (S. Wang, 2006, p. 1). Instead of hollowing out the state, decentralisation and liberalisation are accompanied by the rise of new state institutions which exert controls over a wide range of economic and social affairs, including utilities, banking, food and drug safety, workplace safety and environmental protection. Considerable efforts were devoted by the central government to adapting its regulatory system to the transformed economy. These involve the role of state intervention, nature and applicability of legal rules, creations of regulatory agencies, and measures of regulatory enforcement.

In contrast, some scholars are sceptical of the interpretation that China has emerged as a regulatory state, as in the West, over the past decade (P. Liu, 2010b, 2010a; Collins & Gottwald, 2012). Their main argument mostly rests on the distinctive political and economic legacies of its communist past. For example, Liu (2010a, 2010b) argues

that the emerging Chinese regulatory state is very different from the U.S. or the EU model because of China's unique historical background and political system. Based on case studies on drug regulation (P. Liu, 2010a) and food regulation (P. Liu, 2010b), Liu tries to interpret the rise of the Chinese regulatory state as a consequence of the collapse of 'interest community' formed among the government, enterprises and *shiye danwei* (i.e. professional units affiliated with the government, see Section 5.1); and against this backdrop, structural obstacles such as corruption and other rent-seeking behaviours have made regulatory state-building in China difficult. To distinguish the Chinese model of regulatory state from the Western counterparts, Liu uses the term 'authoritarian regulatory state' and 'transitional regulatory state' to describe China's route to regulation.

Collins and Gottward (2012) also hold a similar view that China's regulatory reform against the backdrop of economic opening-up policy is distinct from the regulatory state in capitalist economies. By conducting a comparative study between financial regulation and food safety regulation, Collins and Gottward (2012) describe the current Chinese regulatory model as a 'regulatory autocracy', which is featured by one-party ruling, inadequate legislative oversight, state control of key sectors of the economy, co-opted new social elites, and tightly-controlled civil society.

Similarly, in a recent study on China's regulatory state, Hsueh (2011) demonstrates that China only appears to be a more liberal state in order to meet commitments made to the WTO. Although the state introduces competition and devolves economic decision-making, as a counterbalancing act it selectively imposes new regulations at the sectoral level to tighten its control over industries with strategic purpose. For strategic industries such as telecommunications, the state deliberately restricts the market entry in order to manage the competitions and the type of market players. In contrast, for non-strategic industries which are less important to national security such as textiles, the state relinquishes its control over the market by liberalising market entry to domestic players and foreign direct investment (FDI). The new regulatory state in China is featured by the bifurcated nature of China's sectoral reform strategy. This logic of strategic value explains why China's regulatory state is distinct from a liberal economic model in the West.

### 2.1.2 Internationalisation of regulation in China

Notwithstanding the ideological contestation over China's model of regulatory state, it is a less disputed issue that globalisation and internationalisation of regulation has a sweeping influence over regulation in China and its governance in general (Potter, 2003; D. Yang, 2004; Levi-Faur, 2005; Bach, Newman, & Weber, 2006; Biukovic, 2008; Hsueh, 2011; van Zwanenberg et al., 2011).

In particular, regulatory solutions that are shaped in North America and Europe are increasingly internationalised and projected globally across developed and emerging economies. Also, this trend of 'global diffusion' (Levi-Faur, 2005) is further facilitated by supranational and global institutions as mediators. In explaining this trend of globalisation of regulation, Levi-Faur (2005) analyses the relationship between capitalism and regulation from a historical approach. He argues that the new order of regulatory capitalism goes beyond the traditional notion of privatisation but includes "an increase in delegation to autonomous agencies, formalisation of relationships, proliferation of new technologies of regulation in both public and private spheres, and the creation of new layers of both national and international regulation" (Levi-Faur, 2005, p. 28). The role of 'knowledge actors' is important in the diffusion of this new order of regulatory capitalism from the North to the South, and from some monopolistic sectors to other sectors.

In the context of China, its entry into the WTO in 2001 and the impacts it has on local governance has attracted wide attention from political leaders and scholars (D. Yang, 2004; Biukovic, 2008; Hsueh, 2011; van Zwanenberg et al., 2011; Shi, Markoczy, & Stan, 2014). For example, Yang's (2004) study illustrates that under the changing economic conditions after the WTO entry and the increasing commitments of political leadership, China has strengthened its institutional framework and state capacity for economic governance over the past few decades. Reform measures include downsizing the government at all levels, strengthening the regulatory capacity, combating corruption and altering the state-business relation.

Another body of literature has focused on the dynamics of international pressure exerted on China regarding its conformity to international norms (Potter, 2003;

Biukovic, 2008; van Zwanenberg et al., 2011). In this area, international harmonisation and standard harmonisation in particular, is a subject of concern (Holzinger, Knill, & Sommerer, 2008; van Zwanenberg et al., 2011). In van Zwanenberg et al.'s (2011) comparative case study of agricultural biotechnology in Argentina and China, for example, a state-centred approach to harmonisation is distinguished from a decentred one. Both approaches suffer from their own restrictions: while the former has a limited impact on enforcement because the regulatory framework is blind to some critical political and economic processes on the ground, the latter is deficient in situations where norms are disputed among different actors in local politics that make regulatory enforcement a contested issue.

The term 'selective adaptation' was developed by some scholars to describe a process that foreign ideas are imported and conditioned into the local regulatory regimes (Potter, 2003, 2004; Biukovic, 2008). In the context of China, for example, Potter's (2003) study on economic regulation describes the dynamics of China's adoption of international norms and practices as 'selective adaptation'. The study illustrates the challenges faced by the Chinese government when it confronts conflicting imperatives of compliance with the WTO norms and preservation of local interests. In order to balance local regulatory imperatives with the required compliance of international norms derived from the regimes of liberal democratic capitalism, foreign ideas are received and assimilated into local conditions (Potter, 2003, pp. 120-121). Potter suggests that the effectiveness of selective adaptation depends on the capacity to combine local and foreign regulatory norms in ways that address globally derived challenges while remaining contextualised to local conditions and the pursuit of closely-held domestic imperatives. In particular, perception, complementarity, legitimacy (Potter, 2003) and the central-local governmental relationship (Biukovic, 2008) are critical factors in the success of selective adaptation.

Other balancing measures are also introduced by the Chinese Central Government to avoid its extensive exposure to international norms and practices. For instance, Hsueh's (2011) study examines the transformation of the Chinese economy in the decade since the country's accession to the WTO. According to Hsueh (2011), China's waves of liberalisation are followed by a countering trend of 'reregulation' –

the state deregulates at the macro level but at the same time reregulates at the micro level. The balancing act between regulatory 'decentralisation' and 'centralisation' is intended to give an impression to the international world that China complies with the WTO commitments in loosening its central state control on the economy, while at the same time selectively retaining its control over some strategic sectors related to national security.

### 2.1.3 Regulatory enforcement

Apart from 'selective adaptation' in terms of importing international norms and practices, in exploring the degree of international engagement, it is also crucial to examine regulatory enforcement at the implementation level. Prior regulatory enforcement studies recognise that law enforcement depends on a series of factors, including regulatory resources, regulatory capacity, political leadership and culture (Bardach & Kagan, 1982; Kagan, 1994), and the influence of external organisations and pressures on enforcement practice (Gunningham, Kagan, & Thornton, 2003; Hutter & O'Mahony, 2004; Hutter, 2006; Hutter & Jones, 2007). While prior literature is largely based on evidence in advanced economies with democratic governments, relatively little research effort has been spent on studying actual enforcement in authoritarian states such as China. This may be because of the fact that empirical data in China are not readily available, while investigating discrepancies between policy-making and policy-implementation is still politically sensitive in some policy areas.

Despite a limited number of empirical studies on regulatory enforcement in China, environmental protection is an area attracting the most scholarly attention (i.e. Palmer, 1998; Lo, Yip, Kwong, & Cheung, 2000; X. Ma & Ortolano, 2000; Christmann & Taylor, 2001; Van Rooij, 2010; Van Rooij & Lo, 2010; Van Rooij, Fryxell, Lo, & Wang, 2013). Alongside this, two other domains have emerged as a new focus of academic research in recent years. These include food and drug regulation (i.e. Tam & Yang, 2005; Thompson & Ying, 2007; Q. Zhou, 2007; D. Yang, 2009; Burns, Peters, Wang, & Li, 2010; P. Liu, 2010b; Li, 2011; Y. Liu, 2011; Pei et al., 2011; G. Yang, 2013), and economic regulation and competition (i.e. Taplin, Zhao, & Brown, 2013; Shi et al., 2014). Given that food safety regulation is more similar to environmental

regulation in terms of risk nature and the design of regulatory framework, the literature of these two areas is reviewed here.

Various empirical works on environmental protection regulation in China have identified an enforcement gap in the reality, and tried to explain the phenomenon by giving a detailed account of the relevant surrounding institutional and political factors (Palmer, 1998; Lo et al., 2000; X. Ma & Ortolano, 2000; Christmann & Taylor, 2001; Van Rooij, 2010; Van Rooij & Lo, 2010; Van Rooij et al., 2013). For instance, Ma and Ortolano's (2000) work is one of the pioneers of enforcement study which examines the observed divergence between China's pollution control targets and the actual deteriorating environment. Types of enforcement action taken largely depend on firm characteristics, economic conditions, form of ownership and vested stakes of the government. Ma and Ortolano (2000) use the term 'Chinese regulatory pragmatism and parochialism' to describe the practice of frontline enforcers. While some firms may make use of the flexibilities under regulatory pragmatism to improve the environmental conditions, others may simply ignore the statutory standards. The worst scenario is that regulatory pragmatism and parochialism may induce great opportunities for corruptions or other discriminatory measures.

Notwithstanding discrepancies in regulatory enforcement, recent studies have revealed that other driving forces have emerged to bring about more effective enforcement in recent years. For example, Lo, Fryxell and Wong's (2006) survey-based study suggests that stronger personal environmental values of enforcement officials, enhanced belief in the legitimacy of governmental policies, and greater support from government and society are factors that have positive effects on enforcement. With respect to societal forces, Van Rooij et al.'s (2010; 2010; 2013) series of studies on pollution regulation in China indicate that regulatory enforcement in China has been increasingly influenced by societal forces. However, contrary to earlier studies indicating that social activism has a positive effect on environmental law enforcement, the rise of civil society and increasing government support in China surprisingly have a double-edged impact on its enforcement. Van Rooij et al. (2013) explain that when government support is low, societal forces are developed to counterbalance the effect and positively influence enforcement. However, when governmental support is high, too

much societal support eventually becomes a form of pressure. As soon as public expectations are raised to the level that enforcement agencies are unable to meet, societal support starts to be an enforcement burden to regulators.

Although Chinese food safety regulation has emerged as a prominent issue in China and the international world, its enforcement in practice remains an under-researched area. Among the existing empirical studies on food safety regulation in China (i.e. Tam & Yang, 2005; Thompson & Ying, 2007; Q. Zhou, 2007; D. Yang, 2009; Burns et al., 2010; P. Liu, 2010b; Li, 2011; Y. Liu, 2011; Pei et al., 2011; G. Yang, 2013), most of them mainly focus on the design of food regulatory system in general, or the institutional setting of regulatory bodies in particular. For example, Yang's (2009) and Burns et al.'s (2010) studies have classified the Chinese food regulatory system as a fragmented one, while other places such as the U.S. and Hong Kong are having a centralised system. These studies primarily point to 'fragmentation of regulatory authorities' as the key challenge of food regulation in China, and presume that a centralised institutional design is more preferable. However, these studies may need to further consider other potential obstacles to enforcement such as the commitment and capacity of a single regulatory body in the Chinese context.

Considering China as a large exporter in international food trade, some studies examine how the importing countries respond to incidents concerning Chinese exported food (Thompson & Ying, 2007). For example, Thompson and Ying's (2007) study focuses on mutual agreements signed between China and other importing places such as the U.S. and Hong Kong, and suggests that the combined political attention from importing countries and the local Chinese communities can facilitate transnational cooperation. Drawing on a comparative case study of two cooperative mechanisms, Thompson and Ying (2007) argue that the success of Hong Kong's provincial-focused strategy and the failure of the U.S.'s central-focused strategy reveal that the Chinese Central Government fails to adequately control provincial activities. In particular, the unwillingness of local governments to enforce dictates from the central government can be explained by local protectionism.

The three bodies of literature discussed so far have reflected that China has undergone extensive regulatory reforms in different industries over the last two decades,

and these reforms are to a large extent impacted by global influence or framed by international engagements. Meanwhile, the extent to which globalised norms can influence practices in China will depend on the dynamics of selective adaptation according to conditions at the national level, and the enforcement of these international norms in practice relies on various political, economic and social features at the local levels.

Some research gaps, however, remain. First, the existing pieces of research focus mainly on the evolution of food regulatory policy and regulatory design. However, there are very limited empirical studies on how food regulation in China is enforced at the local level, this leaves the determinants of monitoring and enforcement activities less considered. For example, the argument of local protectionism needs further empirical investigation because existing evidence is far from enough to show the internal 'ecology' of protectionism and explain how factors in local politics alter regulatory enforcement. More importantly, enforcement never remains static. It is essential to examine other factors which may be able to override local interests and bring about changes in enforcement activities. International pressure and crisis, for instance, are the potential factors. Second, imitation of the West on regulation in China deserves a further exploration. In particular, the food safety issue is neither a strategic industry as utilities involving national securities, nor a completely nonstrategic industry because of its high international attention under global trade. In this marginal case, how the Chinese government manages to handle its regulatory approach to adapt to international norms deserves further examination.

The above research issues provide the essential research background of the study. In the next section, it will go further to set the scene of the research by providing the historical, institutional and economic background of food regulation in China.

## 2.2 Historical, institutional and economic background of food regulation in China

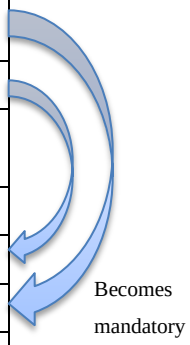
The narrative of this section will be classified into five periods. First, in the socialist command economy from 1949 to 1977, an implicit food hygiene/safety control was in place. Second, a dual-track regulatory regime was formed during the initial market

transition era from 1978 to 1992. Third, alongside the market reform from 1993 to 2002, a consistent but fragmented regulatory regime was generated. Fourth, during the period of 2003-2008, the Chinese Central Government intended to alter the fragmented regulatory system by centralising regulatory power to a single state body (i.e. the State Food and Drug Administration, SFDA), and created a formal regulatory regime for agricultural food products. Finally, in early 2009, the new *PRC Food Safety Law* was legislated as a response to the Sanlu milk scandal, which broke in 2008.

Figure 2-1 shows a timeline summarising the legislation of major laws, rules and directive relevant to food hygiene/safety regulation in China. Due to space limitations and interest of readers, the narrative here does not cover all items listed here but selectively explains some of them that have high importance.

**Figure 2-1: Major food safety law and rule legislation in China**

| Year | Law and rule legislation |
|---|---|
| 1982 | Legislation of the *PRC Food Hygiene Law (Trial Implementation)* |
| 1992 | The introduction of green food standards |
| 1993 | Legislation of the *PRC Product Quality Law* |
| 1994 | The introduction of organic food standards |
| 1995 | Legislation of the *PRC Food Hygiene Law* |
| 2000 | The introduction of the 'QS' certification for manufactured food products (not mandatory) |
| 2002 | The introduction of pollution-free food standards (not mandatory) |
| 2004 | The issue of the State Council's directive *Decision on Further Strengthening Food Safety* |
| 2006 | Legislation of the *PRC Agricultural Product Quality Safety Law* |
| | Pollution-free food standards become mandatory standards for agricultural food |
| 2008 | The 'QS' certification becomes mandatory for all manufactured food product |
| 2009 | Legislation of the *PRC Food Safety Law* |




Source: author's compilation, from previous literature

### 2.2.1 1949-1977: An implicit food hygiene/safety control in a socialist command economy

In 1949, the People's Republic of China (PRC) was established as a communist state, and immediately turned to the former Soviet Union as its primary model for its economic and political systems. After that, the country was characterised by a direct and strong government control in the political, economic and social spheres during the whole socialist period until 1977 (Naughton, 2007). What needs to be emphasised here is that not food safety but food security was the key concern during this period (Xu, 2003). For example, the 1958-1961 widespread Chinese famine was the largest in human history, causing about 30 million premature deaths during the period 1958-1962 (Ashton, Hill, Piazza, & Zeitz, 1984, p. 614).

Despite the relatively unimportance of food hygiene and safety when compared with food security, food hygiene/safety regulation was still existent. The responsibility rested on the Health and Anti-epidemic Stations (*Weisheng Fangyi Zhan*, WFZs) across the country. The WFZs were local offices of the Ministry of Health (MoH) and the first WFZ was established in the early 1950s; since then the WFZs witnessed a rapid expansion. In 1952, there were only 147 WFZs across the country, employing 20,504 officers (Wuhan Medicine College, 1981). In 1956, the WFZs basically had their offices in all prefectures and counties; in 1959, the WFZs further expanded, reaching to the township level. There were 2,499 WFZs across the country by 1965, employing 77,179 officers (P. Liu, 2010b). However, this needs to take account of the fact that food hygiene/safety regulation only constituted part of WFZs' mandates. Other major duties of WFZs covered epidemic prevention, vaccination, body check, medical test, hygiene control of public areas and health education. As defined by the MoH in 1954, the WFZs were units charged with the tasks of "preventive health care, routine health supervision and infectious disease control" (Zhang, 1991). It reflected that food hygiene/safety regulation was placed as relatively low priority among WFZs' various mandates.

A closer examination of the food production model in the socialist age, however, can offer a different understanding of the food hygiene/safety control during the period. Instead of relying on the WFZs as an external source of regulatory power, a primary food hygiene/safety control was in fact embedded in the hierarchical state bureaucracy

through its direct control of food production. This was closely related to the central command economy at the time, which merits a brief discussion here given its impact on food hygiene/safety control.

The Chinese economy in the socialist era incorporated the following three fundamental characteristics: central economic planning, collective ownership of agricultural lands, and state ownership of industries. In the countryside, a radical land reform was pushed through by the Chinese Communist Party (CCP) between 1950 and 1952, distributing lands from landlords to poor peasant households. A further radical mass campaign in the mid-1950s led to the organisation of all peasants into agricultural cooperatives. By the end of 1956, 98% of farming households were enrolled in cooperatives or collectives (Naughton, 2007, pp. 65-67). Forms of collectives varied, but typically communes, brigades and production teams were shaped as a three-level hierarchy to structure the organisation of agriculture. Alongside land reforms in countryside was the ownership shift of private properties in cities. In 1956, private factories and shops in cities were converted into cooperatives with substantial control exercised by the state. After that, private ownership was virtually extinguished, while the state had a full monopolistic control over economic decision-making. For agriculture, a compulsory procurement of grain was imposed on agricultural collectives or communes, and farmers in the production teams were forced to meet the procurement quotas set by the state. Agricultural products were sold to the state at very low fixed prices, meaning that the procurement was virtually a compulsory delivery of food to the state. For industries, the government owned all factories, while specific production decisions were made and executed by the central planning system. Planners assigned targeted output quantities to firms and directly transferred resources to them. Finished goods were purchased by the state at state-fixed prices. The pricing system ultimately lost its significance, while monetary rewards and other material incentives were discarded.

Under all the plans, commands and controls, a typical state-owned enterprise had very little autonomy – it could not adjust its labour force and did not retain any of its profit. Marketplace was also replaced in the command economy. The retail and sales sector shrank because a rationing system was imposed to limit demand and distribute

goods. From 1955 to the 1980s, ration coupons were required for the purchase of grain and some other food items. As a result, no real competition existed in the market. In the countryside, private consumption was simply abstained. Free markets were shut down, with all goods allocated by communes and staple food provided by large communal dining halls in the collectives.

There were profound implications of the command economy for food hygiene/safety control in China during the period. One of them was that the state oversaw all the activities of food production, and by extension so did the area of food hygiene/safety control. In terms of agricultural food production, brigade cadres or commune leaders, who were also state actors under the Ministry of Agriculture (MoA), assigned precise farming activities to each farming household every morning. Basically, all inputs and processes were centrally controlled. While the use of chemical fertilisers, pesticides and additives was uncommon, it was under the control of the MoA. In regard to food manufacturing, all production activities were performed under the supervision of the Ministry of Light Industry (MoLI) or the Ministry of Food (MoF), depending on food types. Having the decision-making on production centrally determined, the MoLI and MoF would then direct their enterprises at the lower levels to produce the assigned food commodities. Similar to agriculture, all input resources came from the state, while finished food products were procured by the state at state-set prices. With no exemption, manufacturing and storage of pesticides, fertilisers and other food chemicals were fully controlled by the state under the Ministry of Chemical Industry. Meanwhile, food transportation, storage, and distribution were governed by the Ministry of Commerce (MoC).

Overall, the first period of food regulation in China was characterised by three facets: first, the WFZs were created to control diseases, while they were also assigned the task of regulating food hygiene/safety. Notably the genuine control of food hygiene/safety did not reside in the WFZs due to the production model in the socialist era. Second, by virtue of all the production means being state-owned, food production including agriculture was under direct control of the state. The organisation of agricultural collectives and the subordination of food enterprises to the state bureaucracy made food hygiene/safety regulation implicit. The state itself became the

monopolistic supplier as well as regulator of food. Hence, the precise power of food regulation primarily resided in the MoA, MoLI and MoF but not the MoH. Food hygiene/safety control was entirely embedded in the state hierarchical bureaucracy by its control on all production activities. Third, food safety issue was not a key concern of the period. Instead, the state has a great desire to manage the problem of food security by increasing grain production.

### 2.2.2 1978-1992: A dual-track food regulatory regime in the market transition period

After thirty years of centrally planned economy, the Chinese economic opening-up policies in 1978 brought a departure of the state from a command economy towards a market-based economy. The economic revolution was uneasy and gradual, especially since there were no blueprints or theoretical guides for doing so before the 1990s. It was not until the mid-1990s that a market economy was basically formed in China. During the process of market transition between 1978 and 1992, the food industry in China witnessed dramatic changes in both structure and scale. Correspondingly a primitive food regulatory regime was created in 1982 as a response.

Three measures in the successive waves of economic reform from 1978 were largely relevant to the food industry in China: first, there was a policy of contracting lands to households, in the form of a household responsibility system. Under the new system, agricultural production was no longer based on the three-level hierarchy of communes, brigades and production teams but relied on family households. This meant that peasants were allowed to take over the management of the agricultural production cycle on a specific plot of land, and retain their surplus to sell in the market after meeting the procurement amount set by the state. The agricultural collectives or communes no longer possessed significant control of agricultural production; instead, they were reduced to become little more than a landlord (Naughton, 2007, p. 89). Second, the food processing sector became open to individual investments and foreign investments. Individuals were hence given opportunities to act as entrepreneurs to meet the demand at market price. As a result, small food workshops as well as large food enterprises developed rapidly in a short period of time to exploit market niches (Collins & Gottwald, 2012, p. 147). Third, the food rationing system in cities was gradually

abolished. Free markets were formed and the food retail and sales sector developed very quickly as a consequence. Food outputs were under the control of household farmers and managers of individual food enterprises, and were sold at the best prices they could obtain. This unquestionably brought increasing competition to the food market.

The direct consequences of the economic reform to food hygiene/safety control were twofold. First, the pure form of state ownership in the food sector was wiped out and replaced by a diverse ownership structure. These widespread privately-owned small food workshops, Township and Village Enterprises (TVEs) and some larger food manufacturing plants made the food processing sector highly fragmented in a short period of time. Similar situation occurred in the retail and sales sector, where street-sellers and mobile food stalls were wide-ranging in newly established marketplaces. The decision-making of these new privately-owned units was not under the control of the state, and so were the hygiene/safety conditions of their food products. Therefore, the regulatory regime in the socialist era having food hygiene/safety control embedded in the state bureaucracy of the MoA, MoLI and MoF no longer functioned in this market transition period. Another consequence was that substandard food products appeared as a negative externality of market failure. Since activities of agriculture and food production became profit-based, farmers and food manufacturers maintained a strong incentive to lower their production costs and maximise their production quantities. Scientific production skills such as the use of pesticides, fertilisers, and preservatives were applied. An extensive range of food risks emerged as a result in the forms of pesticide and veterinary drug residues and unapproved chemicals.

Against this backdrop of changing ownership structure and the incentive of maximising profit, internal food scandals started to emerge. According to Liu's (2010b) study, in Zhejiang Province, there were 132 incidents of food poisoning in 1979, 3,464 persons having been involved, and 0.49% of which died. Three years later in 1982, the reported number of incident reached 273, affecting 3,946 persons and 0.71% dying (Cong, 1990). In Guangzhou City, the capital of Guangdong Province, there were 46 incidents of food poisoning in 1979, with 302 persons involved; in 1982, the number of food incidents rose to 132, with 1,097 persons affected (Ding, 1988). In summary, the

issue of food safety and hygiene started to emerge as a concern in China rather than only food security.

Given that the regulatory regime developed in the socialist era was unable to cope with the rapid marketisation process, these internal scandals in turn triggered the formation of a food regulatory regime. One of the remedies was the legislation of the *PRC Food Hygiene Law (Trial Implementation)* in 1982 ("The PRC Food Hygiene Law (Trial Implementation)," 1982). Its nature of 'trial implementation' entailed that the law was legislated without a clear assurance if it would work. As the CCP leader *Deng Xiaoping* put it, the government managed to "cross the river by feeling the stones", representing the state wanting to move ahead with economic reforms pragmatically, alongside building up a legal infrastructure. The breakthrough of the *PRC Food Hygiene Law (Trial Implementation)* was its introduction of a food hygiene licensing system to the food manufacturing sector as well as the food retail and sales sector (Article 26). Although the mandate was loosely enforced and the gain of licence was easy in the period (P. Liu, 2010b, pp. 249-250), it was the first attempt by the state to place a barrier on market entry based on criteria of food hygiene/safety standards. While hygiene licences were issued and managed by the MoH, this empowerment implied that the scope of the MoH on food regulation was formally confirmed by a written law.

Another remark on the new law was the adoption of sanctions to modify law-violating behaviours. There were a wide range of penalties, including warnings, orders of product withdrawal, confiscation of products, fines, suspension of work, and revocation of hygiene licences. Judicial arbitration was also put into place, with violators liable to criminal offences if their illegal activities were directly linked to serious accidents of food poisoning or disease which caused death or disability (Article 41). However, along with the list of penalties, there was a clear provision that revocation of a hygiene licence or a fine exceeding RMB 5,000 (approximately USD 730[2]) were subject to the approval by local government at county level or above (Article 37).

A further attempt to establish a food regulatory regime was the institutional arrangement of regulatory agencies. The *PRC Food Hygiene Law (Trial Implementation)*

[2] In 2010, 1 Chinese Yuan Renminbi (RMB) equalled 0.146 US Dollar (USD), the same as below.

first stipulated that the authorities of the MoH at all levels shall lead the work of food hygiene supervision (Article 30). Meanwhile, the law also affirmed that the WFZs at the county level and above were the chief agencies for food hygiene supervision (Article 31); although in practice the WFZs were constrained by the absence of sufficient resources to cope with the increasing regulatory work. The State Administration of Industry and Commerce (SAIC) was in charge of regulating market activities in local wet markets and retail stores; while the MoA was responsible for the inspection of livestock and poultry in terms of disease control (Article 27). At the same time, the role of the MoLI in the socialist era remained, constantly controlling all food production activities of the state-owned enterprises (SOEs). This setting was closely related to the path of state-sector reform adopted by the Chinese government: in the market transition period, rather than privatising the SOEs, incremental managerial reforms were undertaken to the sector. While the SOEs were still given production plans to fulfil, profitability gradually became their indicator of performance. In other words, the MoLI still kept their control of the SOEs' food production, similar to the socialist era; for these SOEs, the MoH had no clear roles in monitoring their products' hygiene/safety. A dual-track system of regulation – one for the SOEs and another for privately-owned food production units – coexisted.

Overall, the food regulatory regime in China in the second period between 1978 and 1992 can be summarised by three observations. First, within a very short period of time, there was an intense reduction in state monopoly on agriculture and food manufacturing. As a consequence, there was simultaneously a rapid expansion of the food industry, a diverse form of food enterprise ownerships, and an emergence of a competitive market. Profit-maximisation replaced state command as the goal of running the food business. Internal food scandals such as food poisoning cases started to emerge as a concern instead of merely food security. However, the transformation from a planned economy to a market economy did not come with a corresponding food regulatory regime at the very early stage in late 1970s. Second, to manage the discrepancies between the control system and the fast-changing food industry structure, the Chinese government attempted to establish a regulatory regime by the legislation of the *PRC Food Hygiene Law (Trial implementation)*. Remarkably a market access system in the form of food hygiene licence was first introduced. There was also the use

of sanctions and judicial arbitrations to modify law-violating behaviours. Third, a complex of regulatory bodies was first formed to take the responsibility of regulating food hygiene. The MoH and local WFZs were legally empowered to food hygiene regulation, with the MoLI retaining their power on controlling the SOEs' production activities. A dual-track system of food hygiene/safety control remained as a result.

### 2.2.3 1993-2002: A consistent but fragmented regulatory regime in the second phase of market reform

After fifteen years of market transition, China had moved away from a command economy and adopted a market economy in the 1990s (Naughton, 2007, p. 85). Specifically, a new wave of economic reforms began in 1993, which brought two significant impacts on the food industry in China: first, a dramatic downsizing of the state-owned food sector; second, the abolishment of the MoLI in 1993 as a consequence of the reform. These two episodes together implied that food production activities of the shrinking SOE food sector were no longer under state control. This formally put an end to the dual-track control system prevailing in the transition period. The launch of the new system meant that in principle rules of the game on food hygiene/safety control were first applied apparently equally to all actors in the food industry. Meanwhile, the source of control was external, rather than embedded in the process of production.

Having the role of the state shifted from intervening in all economic activities to providing an environment for market competition, the government made several changes to improve its legal and regulatory infrastructures. In particular, the *PRC Product Quality Law* was enacted in 1993 (amended in 2000) ("The PRC Product Quality Law," 1993; "The PRC Product Quality Law," 2000), delegating the newly established State Administration of Quality Supervision (SAQS) to take the leading role in regulating product quality. In fact, this law was not exclusively applied to foodstuffs but extensively to all processed or manufactured products (Article 2). This was the very beginning of the SAQS being formally involved in food regulation in China, and specifically in manufactured food quality regulation. Further, after thirteen years of 'trial implementation', the *PRC Food Hygiene Law* was enacted in 1995 ("The PRC Food Hygiene Law," 1995). The law reaffirmed MoH's authority in food hygiene regulation (Article 32), and it moved forward to grant WFZs a legal status as official

units for food hygiene inspection, and authorise WFZs the right to issue inspection reports (Article 36). The legislations of the two laws on product quality and food hygiene, however, did not embrace any coordination. This was largely attributed to the fact that the *PRC Product Quality Law* was not intended to regulate food commodities exclusively. As a consequence, two control systems were established in food regulation, one for food hygiene by the MoH, another for food product quality by the SAQS. Whereas the SAIC retained its authority in regulating market activities in the retail and sales sector, the MoA was responsible for the inspection of livestock and poultry, specifically the aspect of disease control. The assignment of numerous authorities in regulating food hygiene/safety caused coordination challenges.

A formal regulatory regime for exported food was first put into place in the period. In 1998, a government restructuring programme was carried out, having preparation for its possible entry into the WTO as part of the drive (D. Yang, 2004, pp. 37-39). Regarding exported food safety regulation, the border management was improved to facilitate China's investment environment. The State Council reorganised and centralised the exist-entry administration by the set-up of the China Entry-Exist Inspection and Quarantine Bureau (CIQ), which merged the previous three separate institutions for health quarantines, animal and plant quarantines, and commodity inspection. Thereafter, food exporters and importers only needed to go through the CIQ for sampling, inspection or quarantine once. Similarly, alongside China's entry into the WTO in 2001, the Standardisation Administration of China (SAC) was established in 2001. The SAC represents China within the International Organisation for Standardisation (ISO), the International Electrotechnical Commission (IEC) and other international and regional standardisation organisations. It undertakes unified management, supervision and overall coordination of standardisation work in China (International Organisation for Standardisation, n.d.-a).

In summary, the food regulatory regime in the third period was characterised by four facets. First, the dual-track system of food control in the market transition period was replaced by a consistent control regime, equally covering all of the SOEs, TVEs and privately-owned enterprises. Second, the *PRC Product Quality Law* was legislated, covering the category of processed foodstuffs. The *PRC Food Hygiene Law* was further

legislated, replacing the 'trial implementation' version which had been enacted for thirteen years. The apparent problem was that no clear coordination or communication had taken place between the two laws. As a result, two control systems were developed on food regulation – one on food hygiene by the MoH, and another on food product quality by the SAQS. Third, a fragmented food regulatory regime was created as a consequence, with a number of state agencies delegated with regulatory power. Struggles in coordination, regulatory turf and blame-shifting between various regulatory bodies began to emerge in this fragmented regime (Tam & Yang, 2005; D. Yang, 2009). Finally, a formal regulatory regime for exported food was first put into place in the late 1990s and early 2000s, as a preparation for the possible entry into the WTO. These include the set-up of the CIQs and SAC.

### 2.2.4 2003-2008: An attempt to re-centralise the regulatory authority and the formation of a regulatory regime for agricultural food products

In the early 2000s, China witnessed a series of food incidents: in November 2001, 484 persons in Heyuan City of Guangdong Province suffered from food poisoning after consuming pork contaminated by toxic chemical ractopamine. In 2003, ham factories in Jinhua City of Zhejiang Province were discovered to be using a toxic chemical dichlorvos as a preservative to control pests. In 2004, fake formula milk of little nutritional value was found in Fuyang City of Anhui Province, causing at least twelve infants to die because of malnutrition.

As a regulatory response to the emerging food safety crises, the State Council issued a directive titled *Decision on Further Strengthening Food Safety* in 2004 (The State Council, 2004), bringing in a new model of food regulation. The purpose of this directive was to divide regulatory work into different points along the food production chain (i.e. production, processing, distribution and preparation), and correspondingly assign a regulatory agency to regulate each point. Following this principle, several state agencies were designated authorities of food hygiene/safety regulation. In detail, the MoA continued as the regulator of all farming activities; the newly established General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) (formerly

the SAQS) was delegated to oversee food manufacturing; the MoC to food trade and foreign investment in the food industry; the SAIC to market activities; and the MoH to food hospitality and catering. The State Food and Drug Administration (SFDA) (formerly the State Drug Administration) was established under the State Council in 2003 to coordinate overall food safety regulation among various regulatory agencies, as well as to investigate serious food incidents. This regulatory change was to remediate the overlapping and underlapping of fragmented authorities as revealed by the scandals. Notably the establishment of the SFDA was officially regarded as mimicking the U.S. Food and Drug Administration ("Premier Zhu admits," 2003). This was the first signal indicating that as a response to domestic demand, policy learning from the West appeared to be one of the directions for the Chinese Central Government.

Two key movements were found in the new model. First, the Chinese Central Government attempted to clarify the roles of the MoH and AQSIQ, with the responsibility of manufactured food regulation having entirely shifted from the MoH to the AQSIQ, whereas the MoH only retained the regulatory power on food hospitality and catering. Another movement was the establishment of the SFDA as an attempt to re-centralise food control to a state administration directly under the State Council, although the significance was in doubt because of the resistance from various regulatory bodies inside the segmented model (Burns et al., 2010). This regulatory reform was ineffective because the original regulatory authorities tended to maximise and/or safeguard their vested interests in terms of regulatory power such as fine collection. Therefore, they were conceivably reluctant to transfer the power to the new SFDA.

Regulatory changes in the form of new instruments were also introduced during this period, including the food recall procedures, the tracking system, and the use of scientific risk assessment. The market access system was also put forward by the AQSIQ in 2005, under a regulation titled the *PRC Regulation on Production Licence of Industrial Products* (2005, Article 2.1). Under this administrative rule, a production licensing system was adopted in the food manufacturing sector. Since then, market entry of food processing activities required three permits as prerequisites: a hygiene licence, a business licence and a production licence.

Another modification took place in the aspect of agricultural food regulation during this period. In 2006, the first law in China on agricultural product quality and safety, namely, the *PRC Agricultural Product Quality Safety Law*, was legislated ("The PRC Agricultural Product Quality Safety Law," 2006). Before this legislation, regulation of agricultural food was basically premised on the *PRC Law on Agriculture* legislated in 1993 (amended in 2002) ("The PRC Law on Agriculture," 1993). Instead of agricultural product quality and safety, this law was in general more concerned with rural reforms, systems of rural economy and the development of the agricultural industry. The new *PRC Agricultural Product Quality Safety Law*, in contrast, formally granted MoA an explicit legal status to regulate agricultural activities, based on the criteria of agricultural product safety. It also introduced some compulsory requirements on agribusiness, farmer cooperatives and cooperative economic organisations, including the installation of examination and quarantine facilities and the execution of a record-keeping system. Sanctions were also introduced in order to modify law-violating behaviours though they were not imposed on individual farmers and farming households. Further details will be discussed in Chapters 6-8, on standard-setting, information-gathering and behaviour-modification respectively.

In general, food regulatory regime in the period between 2003 and 2008 can be summarised by three observations. First, the role and authority of MoH were formally weakened by the shift of power over food manufacturing to the AQSIQ. Consequentially the segmented regime was consolidated. Second, while acknowledging the coordination problems in a fragmented regulatory regime, the Chinese Central Government attempted to re-centralise the regulatory authority to the State Council, by policy learning from the U.S. (D. Yang, 2009) and setting up the SFDA under it as a response to food scandals in the early 2000s. Third, agricultural food quality and safety were officially under regulation, by the legislation of the *PRC Agricultural Product Quality Safety Law*. However, the coverage of this regulatory change is incomplete. Many parts of the law were applicable only to agribusiness, farmer cooperatives and cooperative economic organisations while individual farmers and farming households were exempt.

### 2.2.5 2009-ongoing: Legislation of the *PRC Food Safety Law* after the tainted milk scandal

In recent years, food safety in China has remained a national and international issue of concern. According to the official figures of the Ministry of Health (MoH), in China, there were 2,305 cases of serious food poisoning in 2004, in which 42,876 people were involved and 255 people died (W. Chen, Li, Yang, & Deng, 2010, p. 96). In 2012, 6,685 people suffered from food poisoning, with 146 of the victims consequently dying ("China reports more deaths," 2013). The continuous reports of food scandals have caught public awareness within the country and also around the world. Restoring public trust and consumer confidence around the world towards food 'Made in China' has emerged as an important issue for the Chinese government. This has become even more prominent after the tainted milk scandal in 2008, which caught sweeping international attention and doubt about efficacy of food regulation in China ("Has there been a cover-up," 2008; G. Yang, 2013).

The incident of tainted milk merits a further elaboration given its importance and implications for food regulation in China. Melamine is an industrial chemical that is used to make plastics. It was, however, added into watered-down milk to give the appearance of higher protein levels in order to pass protein level tests. At least 22 Chinese dairy companies, including dairy giants Sanlu, Yili and Mengniu, had been widely adding melamine to their products for many years, but food safety supervision bodies at every level were simply blind to what was going on ("More Chinese officials punished," 2009). It was not until 2008 that the scandal came to light.

The Sanlu Group was the first dairy producer found to have sold products with melamine in 2008 ("Five sentences upheld," 2009). It was a state-owned company based in Shijiazhuang City of Hebei Province, with a minority New Zealand stake owned by Fonterra. Early warning signs of Sanlu milk contaminated with melamine were ignored and covered up. As early as December 2007, there had been intermittent reports of babies having a rare kidney disease, all causally traced to the Sanlu milk formula. Sixteen babies were hospitalised in the first half of 2008. Many parents of sick infants had complained to their local inspection administrations but they were told that the milk formula met national safety standards ("Food cover-up fatal," 2008).

On 2 August 2008, when Fonterra first knew about the problem, it started to press for a public recall of tainted products by approaching the Shijiazhuang City Government. However, the local authorities did not respond to the request. Six days later, the Prime Minister of New Zealand blew the whistle and alerted the Chinese Central Government directly to the tainted milk products ("Food cover-up fatal," 2008). On 11 September 2008, Sanlu recalled hundreds of tonnes of baby formula ("Tainted-milk parents warned," 2009). The incident finally caused at least six children to die from drinking the tainted products and 300,000 were made ill (Lai, 2009).

The scandal ended with the bankruptcy of the Sanlu Group, the removal of Mayor of Shijiazhuang City from his post, eight high-ranking central government officials involved in the melamine milk scandal being sacked or punished by authorities, the resignation of the Director of the AQSIQ, the death penalty for three men involved in producing and selling the tainted milk power and a life sentence for the Chairwoman of Sanlu ("Former chairwoman of Sanlu," 2009). The Shijiazhuang City Government was accused of covering up the scandal and failing to take appropriate action ("Hebei job lost," 2009). However, none of the punished officials or any tainted milk manufacturers except Sanlu were prosecuted or took any legal responsibility ("More Chinese officials punished," 2009).

The milk scandal directly triggered the legislation of the *PRC Food Safety Law* ("The PRC Food Safety Law," 2009) to replace the *PRC Food Hygiene Law* (1995). The new *PRC Food Safety Law* was enacted in February 2009 and took effect from June 2009. The new law aims to improve coordination among the authorities (central and provincial authorities in particular), increase the information-gathering capacity through certified laboratories and set up a food recall mechanism based on the European model (Pei et al., 2011). Under the new law, another Food Safety Committee was established under the State Council. The MoH is responsible for dissemination and accreditation of testing laboratories while the AQSIA, SAIC and SFDA continue to look after food production, circulation and catering services respectively ("The PRC Food Safety Law," 2009, Article 4). Similar to the EU, the principle of food producer/operator's primary responsibility is emphasised ("The PRC Food Safety Law," 2009, Article 3), and a food recall mechanism is established correspondingly.

In summary, the radical reform in food regulatory regime in 2009 – the legislation of the *PRC Food Safety Law* – was directly triggered by the tainted milk scandal, which caught extensive domestic and global attention. The Chinese Central Government has been under high pressure to restore public trust and consumer confidence around the world towards food 'Made in China'.

## 2.3 Summary

To summarise, food hygiene/safety regulation in China has witnessed several transformations in the past three decades since the economic opening-up policies in 1978. The revolution was largely a shift from a centrally-controlled regime in the communist era, to a gradual build-up of a regulatory regime in a market economy. Sources of regulation were moved from an embedded state bureaucracy involved in all food production activities to external state regulators. Regulatory changes initially responded to domestic food incidents, and then increasingly to scandals of global concern, international engagement and pressure. These changes range from the establishment of the SFDA based on the U.S. Food and Drug Administration, to the set-up of SAC, a food recall mechanism based on the EU embedded in the *PRC Food Safety Law* and the introduction of the *PRC Food Safety Law* itself.

Table 2-1 summarises key features of the five periods. The general pattern of reform mainly centred on the institutional design, particularly in the earlier period the involvement of additional state regulatory agencies, and in the most recent period the re-centralisation of the regulatory authority under the State Council. The table also indicates that in the first three periods, reforms in economic systems and the process of marketisation transformed the role of the state and hence the regulatory regime. However, the fourth and fifth period are barely explained by changes in economic systems.

**Table 2-1: The transformation of the food regulatory regime in China**

| Periods | Economic systems | Roles of the state in the food industry |
|---|---|---|
| First period: 1949-1977 | A socialist command economy | Planner of all production activities; owner of all production means |
| Second period: 1978-1992 | Transition from a command economy to a market economy | Planners of the SOEs; external regulator for privately-owned units |
| Third period: 1993-2002 | A market economy | External regulator |
| Fourth period: 2003-2008 | A market economy | External regulator |
| Fifth period: 2009-ongoing | A market economy | External regulator |

Source: author's compilation, from previous literature

During the socialist era (1949-1977), all the production means of the country were monopolistically state-owned. This placed all food production activities including agriculture under the direct control of the planner of the state. Food hygiene/safety control was in this sense, embedded in state bureaucracy. In 1978, the economic opening-up policies led to a dramatic expansion of the food industry in China. In addition to the existing SOEs, there were widespread new entries of the TVEs and privately-owned food productions units into a free consumer market. To cope with the discrepancies between the market and the regulatory model, the government attempted to build up a regulatory regime with a gradual approach. A dual-track system was in effect during the market transition period until 1992, with the system on state-owned food enterprises separated from the one on the TVEs and privately-owned food production units. In 1993, another wave of reforms wiped out the intervening role of the state on food market activities. This brought in a consistent regime which equally enclosed all actors in the market. Meanwhile, with the legislations of two laws, the *PRC Product Quality Law* and the *PRC Food Hygiene Law*, a fragmented regime came into effect. Despite its failure because of strong bureaucratic resistance, the Chinese Central Government attempted to re-centralise its control on the food regulatory system by

setting up the SFDA under the State Council. In 2009, the *PRC Food Hygiene Law* was replaced by the *PRC Food Safety Law* in response to the melamine milk scandal.

The scope of this research study covers the period between 2000 and 2010, while fieldwork was conducted between 2008 and 2010. In other words, the scope of the research coincides with the late stage of the third period, the fourth period, and the very early stage of the fifth period discussed above. The aim of this study is to facilitate the examination of how internationalisation of regulation impacts on China, and how other local factors become less important in the recent development of food safety regulation in China. The selected research period is extensive enough to cover China's entry into the WTO in 2001 and the tainted milk scandal in 2008, allowing us to assess how the international source of pressure cuts through obstacles in the localities to bring about food regulatory changes.

In summary, based on the identified research issues in regulation in China discussed above, it can be seen that regulation in China is increasingly impacted on by global influence, although regulatory enforcement in practice has been constrained by the lack of capacity and commitment of regulators. In the meantime, the evolution of China's food regulation has also shown that previous regulatory reforms were triggered by domestic food scandals. On the basis of these identified research issues and observations, the next chapter will propose an analytical framework for the study, which encompasses the key perspective of regulation as a product of the internationalisation of regulation, and is supplemented by two other perspectives whereby regulation is a response to opinions and as an outcome of utility-maximising interest group interaction.

# Chapter 3 : Theoretical considerations and analytical framework

The purpose of this chapter is to set out the analytical framework of the study. As discussed in the previous two chapters, the internationalisation of regulation has had an increasing influence over regulation in China and its governance. The existing literature has also suggested that regulatory enforcement in practice in China has been impeded by the lack of capacity and commitment of regulators (Palmer, 1998; Lo et al., 2000; X. Ma & Ortolano, 2000; Christmann & Taylor, 2001; Van Rooij, 2010; Van Rooij & Lo, 2010; Van Rooij et al., 2013), while domestic food scandals were the trigger for regulatory reform along the historical evolution of food regulation in China (Tam & Yang, 2005; D. Yang, 2009; Liu, 2010b). On the basis of these considerations and building upon Hood et al.'s (2001) established framework consisting of three essential elements of any regulatory regime, this chapter constructs an analytical approach for researching practices and variations in food regulatory regimes in China. This thesis, as noted, is about regulation as a product of the internationalisation of regulation. This approach is illustrated further below. It is further contrasted with two other dominant accounts in the literature – regulation as a response to opinions and regulation as an outcome of interest interaction. Chapter 5 in particular will highlight the different contributions of these analytical approaches. Chapters 6-8 will explore the internationalisation of regulation in more detail, using Hood et al.'s (2001) framework. What has to be clarified here is that the aim of the study is neither to test different competing theories nor to prove the validity of a theory. Instead, it intends to explore the development, practices and changes of food safety regulation in China, and find out the potential factors and their impacts on policy-making and implementation at local levels.

The chapter is organised into two parts. Section 3.1 will first introduce the analytical framework of Hood et al.'s (2001) regime perspective of a control system. The literature on internationalisation will then be discussed, followed by two other dominant accounts in the literature about opinion-responsive government and interest-based theories. Expectations for food safety regulatory regimes derived from each

perspective are mapped out. In Section 3.2, it will highlight the theoretical and empirical contributions of this analytical framework for studying regulation in China and developing countries in general.

## 3.1 Analytical framework: Theoretical considerations and expectations

This section will set out the analytical framework of the study for analysis, by using concepts from Hood et al.'s (2001) work on risk regulatory regimes. According to Hood et al. (2001), the idea of risk regulatory regimes denotes the "complex of institutional geography, rules, practice, and animating ideas that are associated with the regulation of a particular risk or hazard" (2001, p.9). They view risk regulatory regimes as systems – sets of interacting and related parts rather than as 'single-cell' phenomena. In this sense, studying what frontline people do on the ground is of identical value with studying what standard-setters and policy-makers decide at the centre of the government (and the relationship between them).

Hood et al.'s (2001) work further distinguishes between the context and content of regulatory regimes. While regime context denotes "the background of regulation" (2001, p. 28) such as type of risk, public preferences and attitudes and organised interests, regime content denotes "regulatory objectives, the way regulatory responsibilities are organised, and operating styles of regulators" (2001, p. 28). In exploring the regime context, this study will consider three elements which are most discussed in the regulation literature: (i) regulation as a product of internationalisation of regulation, (ii) regulation as a response to public opinions, and (iii) regulation as an outcome of interest interaction. These elements are built upon Hood et al.'s (2001) approach to explaining what shapes policy design, which incorporates a trio of accounts of "functional and market failure, populist or opinion-responsive, and corporatist or interest-driven answers to the question of what shapes regime content" (Hood et al., 2001, p. 61). To take forward this well-established approach by Hood et al.'s (2001), this study includes the perspective of internationalisation of regulation. These accounts of what shapes regulatory policy do not only link to the empirical evidence gathered in interviews and observation, but also to the classical explanations and literature on public

policy. In other words, the three types of explanation are closely linked to the research puzzles, providing an answer to how and why regulatory designs become similar around the world, how public opinions act as a shaper of policy choice, and how public/private interests determine regulatory enforcement.

The remaining part of this section will discuss the control theory perspective of regimes as combinations of three control components. It will then be followed by the accounts of internationalisation, opinion-responsiveness and interest-theories.

### 3.1.1 Regimes as combinations of three control components

To address the research inquiry about regulatory variations, this study applies Hood et al.'s (2001) control framework consisting of three essential elements of any regulatory regime – standard-setting, information-gathering and behaviour-modification (see Section 1.1.3 in Chapter 1). Standard-setting refers to the setting of regulatory goals through standards and targets (Hutter, 2006, p.3), with the aim of providing a 'director' of the preferred state of the system that one wants to achieve. It establishes an infrastructure that provides directions on what type of performance requires what type of measurement, as well as the underlying motivation at the heart of the 'target-setting' (Lodge, 2007). Information-gathering is the collation and provision of information about the status quo of the controlled policy area and its changes, with the aim of finding out whether the regulatory goals are reached. While in general 'more' information is required to reduce the uncertainty of the regulatory system, information 'overload' may also paralyse any system of control (Lodge, 2007). Behaviour-modification refers to ways of adjusting behaviours of individuals and organisations to ensure that the regulatory standards are reached and the overall regulatory goals are attained (Hood et al., 2001). If there are no pressures to adjust behaviours such as non-compliance, a control system will fail to achieve its objectives.

The regime perspective is valuable to address the 'in what way and to what extent' type research question raised in this study. As discussed in Section 1.1.3 in Chapter 1, the significance of this regime perspective is that it offers a comprehensive angle to look at the details of a regulatory regime, and provides a systematic way to analyse and compare different regulatory designs and practices. This cybernetic angle

also allows us to narrow down the level of analysis to identify similarities or variations within a single regime (i.e. between different components) and across different regimes. This can facilitate a structured examination of why a regulatory regime fails – at the point of setting gaols and standards, collecting information, or adjusting the behaviours of individuals or organisations. China's food safety regulation and its failure have attracted wide attention from scholars and policy-makers, this regime perspective can put the discussion forward and improve our understanding of why discrepancies between regulatory goals and outcome come about.

Chapters 6-8 will analyse the three control elements in different regulatory regimes in more detail, through the lens of the internationalisation of regulation.

### 3.1.2 Regulation as a product of internationalisation of regulation

In exploring global regulation, one of the key concerns of political scientists is: do global factors promote convergence, divergence or stability in regulatory policies, outcomes and standards (Koenig-Archibugi, 2010)? To answer this question, it is necessary to sort out what these global factors include, and the mechanism they operate such as international pressure, policy learning, policy transfer, diffusion and other related phenomena on convergence. Global factors, which play an important role in accounting for cross-national policy convergence, can be classified in many different ways. This section focuses on three related areas – globalisation and economic liberalisation of world markets, international harmonisation and transnational communication. These issues serve as the main foci of this study, that is, the effects of the desire of the Chinese government to safeguard the reputation of products 'Made in China' in the highly liberalised world markets, the effects of harmonisation of national policies through international or supranational law (i.e. compliance with the WTO norms), and the effects of transnational communication and information exchange within institutionalised networks (Holzinger et al., 2008).

Globalisation implies connectivity and institutionalisation (Axford, 2013). In a broad sense, globalisation is the process of international integration that the world is becoming increasingly interconnected as a result of the interchange of goods, ideas, worldviews and cultural exchange. Economic globalisation is defined by the

International Monetary Fund (IMF) as a historical process and a result of human innovation and technological progress:

> It refers to the increasing integration of economies around the world, particularly through the movement of goods, services, and capital across borders. The term sometimes also refers to the movement of people (labour) and knowledge (technology) across international borders (International Monetary Fund, 2008).

Certainly, globalisation is not just the liberation of markets. It also involves the diffusion of thoughts, practices and technologies. Globalisation, thus, has powerful economic, political, cultural and social dimensions. For example, Giddens (1990) describes globalisation as "the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa" (Giddens, 1990, p. 64). Globalisation also changes the way people understand geography and the experience localness. Effects of globalisation have attracted the attention of many scholars. For example, Beck (2000) argues that there is a boomerang effect in globalisation that risks have become globalised in a 'risk society':

> A universalisation of hazards accompanies industrial production, independent of the place where they are produced: food chains connect practically everyone on earth to everyone else. They dip under borders (Beck, 1992, p.39).

To cope with the increased connectivity of the world, international and intergovernmental organisations are established accordingly. Notable examples of these institutions include the United Nations (UN), the European Union (EU), the World Bank, the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the World Trade Organisation (WTO) and the World Health Organisation (WHO). These institutions take the roles of promoting foreign investment and international trade, facilitating economic development and adjustment, constructing global regulatory frameworks, and providing platforms for bargaining and conflict resolutions etc. These global institutions also provide a platform to harmonise national policies through mutual agreements between member countries, as well as transnational communication and policy transfer. Impacts of international organisations on nations will be further discussed below, on the subjects of international harmonisation and transnational communication.

In addition to the creation of global institutions, the expansion of multinational/global corporations and branding is another product of globalisation and the liberalisation of world markets. As early as three decades ago, Levitt (1983) predicted that under the trend of economic globalisation, national or regional differences in tastes and preferences in consumption patterns and business transactions would disappear. This would then bring about the homogenisation or standardisation of manufacturing, products and services around the world. Global corporations were also predicted to undertake reforms to the system of production – shifting from customising their products according to national and regional preferences, to offering standardised consumer products.

Related to the expansion of global corporations is the increased importance of branding. In a highly globalised market, brand building is essential to the success of a company. In recent decades, both companies and governments across the world have undertaken corresponding strategies to shape the perceptions of their brand or national brand (Kronick, 2002a). Together with the prediction of homogenisation of products, the marketing message given by Levitt (1983) was that careful planning, effective execution and efficient troubleshooting have to be assured in order for a brand to manage across broader in the international marketing arena. A brand is more than a simple name. From a consumer-based perspective, a brand represents identification, a promise of quality and a confirmation of self-image and image to others (Kapferer, 2012, pp. 7-8). On the other hand, for companies, brands are intangible assets, an image for their internal and external publics and a symbol that holds their core values together (Kapferer, 2012, pp. 8-9). Branding can also be in connection to the image and influence of a nation. As argued by Potter (2009), ‘nation brand’ is a form of national soft power; the support of nation brand has become a strategic exercise of public diplomacy in its home country and abroad. Similarly, according to Anholt’s (2007) concept of ‘competitive identity’, brands convey the national identity of the country of origin; it also involves the politics and economics of competitiveness of a nation. In the opposite direction, the national identity or the reputation of a country also influences one brand’s image and credibility. In this sense, planning for competitive identity, crisis communications and issues management are fundamental qualities for the coalition of

the three major forces within a country, comprising the government, business and civil society.

Globalisation has also triggered the idea of global governance, which refers to "the attempts to build institutions that order some common aspects of world affairs without state control, or, more accurately, without direct and routine control" (Axford, 2013, p. 137). This is associated with the second strand of internationalisation literature on international harmonisation. International harmonisation is a specific outcome of international cooperation whereby governments resolve common problems within international institutions. It refers to a situation where national governments sacrifice some independence and become legally binding to adopt policies that are in line with international legal requirements (Holzinger et al., 2008). Causes of cooperation can be attributable to transnational interdependencies and externalities. Two types of harmonisation effects are distinguished by Holzinger et al. (2008) – accession and membership. The former refers to the situation that members ratify a treaty and have to comply with the respective requirements. This implies that convergence effects occur only once. On the other hand, with harmonisation effects through membership, that institution has the competence and authority to produce regulatory output for its members, which leads to enduring and steadily renewed harmonisation effects over time.

The mechanism of international harmonisation, however, does not imply that the legally binding international provisions will be adopted consistently at the national level. For example, there is much room for manoeuvre in international treaties; moreover, countries can also apply a 'selective adaptation' approach (Potter, 2003, 2004; Biukovic, 2008), which is a process whereby international norms and practices are contextualised to local conditions. Hsueh's (2011) 'counterbalancing act' argument echoes with the idea of selective adaptation. He suggests that China only appears to be a more liberal state in order to meet commitments made to the WTO. The state has selectively imposed a counterbalancing act at the sectoral level in order to tighten its control over strategic industries. In contrast, the state has relinquished its control over the market of non-strategic industries.

Koenig-Archibugi (2010) classifies cooperation as one of the families of mechanisms involved in policy transfer in global regulation, referring to the commitment of governments to implement certain regulatory policies in the context of agreements with other governments and/or international organisations. International cooperation often consists of reciprocal commitments to harmonise policies across countries, but it can also consist of highly asymmetrical agreement which is dominated by one member state (Sherov-Ignatiev & Sutyrin, n.d.). Institutional theory explains delegation of regulatory authority to international institutions by collaboration and coordination problems (Martin & Simmons, 1998). First, international institutions contribute to solving coordination game problems between states by providing an environment for bargaining and constructing focal points, reducing state-to-state negotiation about the choice of a particular pattern of outcomes. Second, international institutions can help states to deal with collaboration problems by building trust and binding relationships among states, such as defining obligations, monitoring compliance and enforcement. Under these conditions, states are willing to handle common regulatory problems by creating and joining international institutions, or by delegating regulatory authority to supranational organisations.

Closely related to the international harmonisation perspective is 'coercive isomorphism' in DiMaggio and Powell's (1983) institutional model of isomorphism. To explain the homogeneity of organisational forms and practices, coercive isomorphism suggests that pressures and influence from legal mandates or external organisations are sources of powerful force. Organisational change is sometimes simply a direct consequence of mandate, legal and technical requirements derived from coercive authority. For example, direct coercion can come from international treaties which create obligations for states, and the existence of a common legal environment also affects organisational behaviour and structure.

In addition to legally binding requirements derived from coercive authority, transnational communication can also bring about cross-national policy convergence. This is in relation to the third strand of internationalisation literature on transnational communication. Transnational communication refers to a number of mechanisms, including policy transfer and policy diffusion by lesson-drawing or policy learning. For

example, Levi-Faur et al. (Levi-Faur, 2005, 2006; Jordana, Levi-Faur, & i Marin, 2011; Levi-Faur, 2011) analyse the rise of regulatory capitalism from a perspective of policy diffusion. In an increasingly interdependent world, the regulatory order that was shaped in some advanced capitalist countries and sectors is diffused to the rest of the world. In the diffusion process, international networks of experts and 'knowledge actors' in general play an important role in exporting and importing institutions and knowledge.

Meseguer and Gilardi (Meseguer, 2005, 2006; Meseguer & Gilardi, 2009) suggest that policy diffusion is the process whereby policy choices in one country affect policy choices in other countries. Policy diffusion can take two forms, namely 'policy emulation' and 'policy learning'. Policy emulation is a 'blind' action and is simply copying what seems to work with no or little enhanced reflection about the mapping of policies and evaluation of outcomes. In contrast, policy learning is learning from the experience of others, in particular in assessing the effects of a particular policy in the light of the past experience of other countries that adopted this policy. Whilst failed experience provides information about what not to do, successful experience offers an alternative or inspiration to policy makers. Learning can be rational or bounded although both involve a purposeful search for information to resolve a problem involving significant costs. Based on Meseguer's (2006) arguments, learning is rational if policy makers have full analytical capacities to scan all available information and interpret all of it in the same manner. In contrast, bonded learning entails that policy makers only look at the relevant information available and near to hand. In other words, policy makers do not put the same weight to all information. However, bounded learning and rational learning yield the same results as long as there are significant costs to gather new information.

Similar to policy learning, Rose's (1991b, 1993) concept of lesson-drawing argues that politicians and civil servants facing policy problems would look for immediate practical solutions or new ideas across time and space. A lesson is "a programme for action based on a programme or programmes undertaken in another city, state, or nation, or by the same organisation in its own past" (Rose, 1993, p. 21). The process of lesson-drawing starts with an initial stage of searching experiences of satisfactory programmes in effect elsewhere, followed by abstracting the cause-and-

effect model and creating a lesson for action, and ends with a final stage of evaluating the prospective consequences of transferring the programme locally. However, whether lesson-drawing is technically practical or politically desirable is a contested issue in decision making, especially under the situation of unstable and uncertain values and knowledge.

Koenig-Archibugi (2010) further defines three modes of communications and information transmission in terms of intensity, regularity and formalisation. At one extreme policy diffusion is merely the result of imitating the policies of others and their fads and fashions. Officials in national administrations may learn about foreign experiences by means of publicly available source and have no or little interaction with policy makers of the countries where those experiences originated. At another extreme are the more institutionalised communications through formalised transnational benchmarking and peer review exercises. At the intermediate level of transnational communication in terms of intensity, regularity and formalisation, communication flows within epistemic communities, playing an important role in policy diffusion. According to Adler and Hass (Adler & Haas, 1992; Haas, 1992), epistemic communities are networks of knowledge-based experts who share common normative beliefs in the cause-and-effect relationships of complex problems. They support states by identifying their interests, framing the issues for collective debate, proposing specific policies, and identifying salient points for negotiation (Haas, 1992). Their control over knowledge, information and new ideas is an important source of power which determines international policy coordination.

In DiMaggio and Powell's (1983) institutional theory which addresses the central question of why all organisations in a field tend to look and act similarly, 'mimetic isomorphism' and 'normative isomorphism' are two forms of process which are closely linked to transnational communication. First, mimetic isomorphism refers to the copying or mimicking behaviours as a consequence of organisational response to uncertainty. As argued by DiMaggio and Powell, "uncertainty is a powerful force that encourages imitation" (DiMaggio & Powell, 1983, p. 151), especially when causes of problem are ambiguous, solutions are unclear, and the environment is uncertain. Under these circumstances, organisations may model themselves on other organisations as a

solution because there is little expense. On the other hand, the organisations being modelled may be unaware of the copying but merely serve as a convenient source of practices that the borrowing organisation may use. Ways of modelling may vary: it can be diffused unintentionally and indirectly through employee transfer or turnover, or explicitly by other organisations such as consulting firms or industry trade associations. The pattern of modelling is interesting. Basically organisations tend to model themselves after similar organisations in their field that they perceive to be more legitimate or successful.

Normative isomorphism (DiMaggio & Powell, 1983), in contrast, rests on professionalisation and is closely related to what Adler and Hass (Adler & Haas, 1992; Haas, 1992) describe as epistemic communities. Sources of professional values can rest on formal education such as universities, and also on professional networks such as professional training institutes. These organisations serve as an important origin for the development of normative rules and professional behaviours. Alongside this setting, the filtering of personnel at both the entry level and throughout the career progression also serves as a mechanism for encouraging normative isomorphism. This is mainly because people from the same educational backgrounds tend to approach problems in similar way. For example, Galaskiewicz and Wasserman's (1989) study suggests that organisations mimic peers with whom they are directly tied. This socialisation process reinforces conformities to common norms.

Given the above discussions, the next question is: how would the global factors of globalisation and economic liberalisation of world markets, international harmonisation, and transnational communication explain China's food regulatory regimes? After China's entry into the WTO in 2001, the Chinese food market has become more integrated into the global economy; meanwhile, Chinese enterprises are growing as a strong competitor in world markets. Unavoidably, issues concerning China's food safety are subject to great scrutiny and pressure, at both the domestic and international levels. Locally, as the domestic market in China is increasingly open to foreign direct investment, Chinese companies are urged to build their brands quickly before foreign competition becomes a threat. In particular, domestic customers, who have witnessed increased connections to the international market, have a rising demand

on quality product. Domestic consumers would expect that the quality of local products is comparable to foreign products. Internationally, quality assurance of exported goods has become a vital measure for the government and the business sector to enhance the competitiveness of Chinese-made products in international trade and improve China's share of global export market. From the perspective of Kapferer (2012) and Potter (2009), safeguarding the reputation of products 'Made in China' is deemed essential, while crisis management is one of the most important strategies to build the Chinese brands for long-term viability. Anholt (2007) would further suggest that managing China's national brand is a form of public diplomacy and a matter of international relations for the Chinese government, conveying a message to the world that China is a committed trade partner and responsible world leader. In the long run, if China's quality standards rise, global markets will witness the emergence of China as an exporter of branded products rather than mere commodities (Kronick, 2002b, p. 29).

Second, from the point of view of DiMaggio and Powell's (1983) coercive isomorphism, China, as a member of the WTO, is under coercive force to comply with the international food standards, especially for its exported food products. International harmonisation is, therefore, expected. However, degrees of internationalisation remain uncertain. Based on Biukovic (2008) and Potter's (2004) idea of 'selective adaptation' and Hsueh's (2011) notion of a 'counterbalancing act', international standards, norms and practices are expected to be contextualised to local conditions, and standard-setting and enforcement are expected to be inconsistent, especially for food sectors with strategic purposes such as those having important roles in local economy and social stability. Finally, in terms of modes of transnational communication and information transmission, for Meseguer (2006) and DiMaggio and Powell (1983), 'policy emulation' or mimicking behaviours are expected when problems of regulatory failure and food incidents emerge in an uncertain environment. In Adler and Hass's (1992) view, China's participation in epistemic communities would increase the degree of policy diffusion from other countries and facilitate international policy coordination.

### 3.1.3 Regulation as a response to opinions

The approach of internationalisation of regulation is further contrasted with two other dominant accounts of regulation in the literature. This section will first focus on the literature on public opinions and risk events, and their connections with public policy.

The responsiveness of government policies to public opinions or preferences is a central concern of normative democratic theory (Dahl, 1956; Sen, 1970). Dahl (1989) suggests that democracy allows citizens to induce the government to do what they want and creates a congruence of citizen preferences and public policies. On the other hand, under representative democracy and electoral competition, elected politicians are expected to formulate policies according to public opinions; otherwise, voters will vote for other candidates in the next election (Downs, 1957; Shapiro & Jacobs, 2001; Manza & Cook, 2002).

Empirically, there is a large volume of studies investigating the connection between public opinions/preferences and public policy, and providing a variety of theoretical perspectives on how public opinions bring about policy changes (Page & Shapiro, 1983, 1992; L. R. Jacobs, 1993; Stimson, MacKuen, & Erikson, 1994, 1995; Wlezien, 1995; Geer, 1996; Sharp, 1999; M. A. Smith, 1999; Wlezien, 2004). For example, Page and Shapiro (1983) discuss effects of public opinion on policy, and find considerable congruence between changes in preferences and in policies. They argue that opinion changes are causes of policy change, rather than vice versa. This causal relationship is particularly clear when opinion changes are large and sustained, and issues are salient. Similarly, Wlezien (1995) suggests that the public acts like a thermostat – when the actual policy 'temperature' is not the same as the preferred one, the public sends out a signal to policymakers for policy adjustment. To put forward for consideration, scholars have attempted to sort out whether policymakers respond to public preferences within particular areas (Geer, 1996), or respond to a general preference across various policy areas (Stimson et al., 1994, 1995). For example, Wlezien (2004) researches into the extent to which policy behaviour represents opinion, arguing that the nature of relationship and representation varies across policy domains. According to Wood and Andersson (1998), the link between public attitude and public policy depends on many conditions, ranging from the strength of the representative's

ideology, to global and constituent preferences, to the efficiency of the constituency. As a result, effects of public opinions on public policy can be large, significant and enduring; or small, insignificant and declining.

Despite these debates, there is a consensus among researchers that measuring public opinions is challenging. Gallup (Gallup & Rae, 1940), a pioneer of survey sampling techniques and inventor of the Gallup poll, argues that only opinions of well-organised business and professional groups can be listened without a poll (Page & Shapiro, 1983). Therefore, the will of the general public may be obstructed (see Section 3.1.4 below on private interest theories). Under these circumstances, Gallup suggests that it is necessary to conduct polls to determine people's opinions in an objective manner. However, one of the key concerns is that surveys and polls cannot cover the full set of policy alternatives but focus on a small subset. Moreover, instead of reflecting opinions, surveys and polls may also influence public opinions to a certain extent (Manza & Cook, 2002). The lack of a true measure of public opinion remains an issue of concern.

Referring to literature on regulation, a large and growing body of study has developed to examine 'risk perception' by the public and by experts, and its corresponding effects on regulatory strategies (Slovic, 1987; Kasperson et al., 1988; Sjöberg, 1999, 2000; Slovic, 2000). Kasperson et al.'s (1988) framework on social amplification of risk, for example, maps out different dynamic social processes underlying risk perception and regulatory response. Risk events are portrayed through various risk signals such as the media, and then interact with a wide range of psychological, social, institutional, or cultural processes that intensify or attenuate perceptions of risk, and finally 'ripple' effects such as demands for regulatory constraints are produced. Hill (2001) further argues that the relationship between media coverage, public perception and ripples of secondary consequences are complex, depending on the interactive effect with other components of the amplification process, while Breakwell and Barnett (2003) suggest that several factors such as media coverage plus the attention of a local interest group have to take place together to generate the 'take-off' of an issue.

The ‘take-off’ of a policy issue, on the other hand, is closely linked to the policy agenda-building theory such as Kingdon’s (1995, 2002) idea of a ‘policy window’. It argues that to create a possibility for policy initiation or change, three streams, namely, problems, political and policy, are coupled and this results in an opening of a policy window. The convergence of three streams is a politically feasible moment to implement policy change, during which problems are met with policy solutions. However, while policy windows can appear predictable or unpredictable, the role of the policy entrepreneur is critical, in terms of their capability to exploit windows of opportunity and drive through changes in public policies. Howlett (1998) sets forth Kingdon’s model by identifying four types of policy window. These include “routine political windows, in which institutionalised procedural events dictate predictable window openings; discretionary political windows, in which the behaviour of individual political actors lead to less predictable window openings; spillover problem windows, in which related issues are drawn into an already open window; and random problem windows, in which random events or crises open unpredictable windows” (Howlett, 1998, p. 500).

The above discussion so far has shown the link between public opinions, risk events and public policy changes. For example, when a risk event emerges, public opinions or perceptions are formed and further interact with other social actors such as the media. A responsive government would then adjust the policy accordingly based on public preferences. Then the next key question is: how do these theories or concepts predict and explain regulatory variations in this study about food regulatory regimes in China? The perspective of regulation as a response to opinions predicts that food incidents will raise public attention on the issue of food safety. Public opinions and risk perception may then be further magnified by media coverage (Kasperson et al., 1988). In Page and Shapiro’s (1983) view, to meet public demands, the Chinese government is expected to adjust its regulatory strategies accordingly, such as strengthening enforcement measures in specific food sectors affected by food scandals. Following Kingdon’s (1995, 2002) model, if food safety crises appear as policy problems and couple with policy solutions during a politically feasible moment, this can further open a ‘policy window’ for regulatory change or reform.

### 3.1.4 Regulation as an outcome of interest interaction

Another account of regulation in the literature is the interest-based theories which explain the origin of regulation and its development. The interest-based theories are mainly classified into two groups: public interest approach and interest group approach. Public interest theories, the traditional normative theories of regulation, suggest that state regulation is developed under the rationale of 'market failure'. 'Market failure' emerges because of monopolies, imperfect competition, externalities or spillovers, information asymmetry, continuity and availability of service, public goods and moral hazard and so on (Baldwin, Cave, & Lodge, 2011). To protect the public from the negative impacts arising from market failure and to achieve certain policy desired results that the market would fail to yield, state intervention by disinterested regulators and experts is developed as a result.

A contrasting view of public interest theories is private interest theories or the economic theory of regulation (Stigler, 1971; Peltzman, 1976), suggesting that regulation is designed and operated primarily for the private benefits of the regulated industry, in the form of direct subsidy of money, control over entry by new rivals and delay in the rate of growth of new firm. In general, the economic theory of regulation assumes that all actors involved in regulation are self-interest maximising. Based on this assumption, it argues that regulation is supplied by utility-maximising regulators and politicians in response to the demand for regulation by interest groups. While regulators wish to be re-elected, interest groups offer political support to regulators in the forms of campaign contributions.

Stigler (1971) advocates the economic theory of regulation by suggesting that regulation is 'captured' by the leading industry interests that are supposed to be disciplined. Interest groups, who are on the demand side, and politicians, who are on the supply side, shape regulation in a way that is beneficial to their self-interests. Stigler's argument echoes with Olson's (1965) collective action problem, which suggests that collective action by individuals in the pursuit of a common goal is obstructed because large groups will face relatively high costs when attempting to organise collective action. This is because individuals in any group will have incentives to 'free-ride' on the efforts of others (Hardin, 1982). On the other hand, concentrated industries with smaller group

sizes bear a lower cost of collaboration and hence, are better organised. If they have large stakes in regulation, they will have an incentive to invest resources in lobbying with politicians and regulators for favourable regulation. Peltzman (1976) expands on Stigler's approach by incorporating other groups interests such as industry associations and consumer groups involved in regulation into the analysis. These groups compete with each other to shape regulatory initiatives in a way that maximise their own interests. To explain regulatory capture, Bernstein's (1955) analysis of the life cycle of independent regulatory commissions has identified a general pattern of evolution: gestation, youth, maturity, and old age, representing a regulatory trajectory of pursuing public interests at the beginning to being captured at the end.

Further elaborations of regulatory capture have been developed by scholars, one of them being 'political capture', which is a form of regulatory capture under which regulation is designed and promoted to meet the needs of the political elite and to preserve its power (Cook et al., 2004, p. 13). From this perspective, regulation and regulatory strategies are developed to further the political interests of members of the government. For example, governments may have an incentive to overlook regulatory infringement, especially if regulatory interventions have an adverse impact on local employment and tax revenue. As suggested by Beck (1992), the protection of economic growth and employment enjoys unchallenged top priority in some less developed nations, and this is the rationale for keeping the loopholes in prescribed regulations wide and their enforcement lax. Discrepancies in regulatory enforcement or enforcement gaps thus emerge as a result (Lo et al., 2000; X. Ma & Ortolano, 2000; Van Rooij, 2010; Van Rooij & Lo, 2010; Van Rooij et al., 2013). Related to the argument of political capture is the rational choice model of bureaucracy. One classic public choice approach is the budget-maximising model, which suggests that rational bureaucrats will always seek to increase their budgets and hence their own power, salary and prestige (Niskanen, 1994). In contrast, the bureau-shaping model of bureaucracy argues that instead of merely maximising their budgets, rational civil servants also seek to shape their bureau in a way which maximise their personal utilities such as job satisfaction from their work (Dunleavy, 1991).

Given the above discussions, the next question is: what are the predictions of the interest-based theories to the study? From the public interest theory perspective, regulation tends to focus on food products facing a higher degree of negative impacts arising from market failure. In contrast, private interest theories would predict that food regulation is designed and operated primarily for the private benefits of the regulated food industry (Stigler, 1971; Peltzman, 1976). Following Olson's (1965) predictions, regulatory agencies tend to be captured by concentrated large food industries which are easier to get organised and have higher stakes, rather than diffused small household food workshops and individual farmers which face higher collaboration costs in lobbying with regulators for favourable regulation. Regarding 'political capture', self-maximising political elites, bureaucrats and regulators would shape regulation in a way that promote their own needs and power. They are also expected to maximise their budget and other resources, and protect their regulatory turf, especially for regulatory areas involving profit-making such as fine collection. Meanwhile, in the political/administrative system in China, the two indicators of GDP growth and employment rate of the governing region are closely linked to the career prospect of local party leaders and bureaucracies (Cheng & Li, 2012). It is, therefore, predicted that regulatory agencies will consider the regulated industry's contributions to local employment, economic development, tax revenue and social stability during making enforcement decisions.

## 3.2 Theoretical and empirical contributions

The discussed concepts and theories in the analytical framework so far have provided a comprehensive angle to study regulatory regimes in depth as control systems, comprising three main sets of control instruments – standard-setting, information-gathering and behaviour-modification (Hood et al., 2001). They have also offered multiple explanations as to how and when regulatory changes occur, as well as why certain regulatory models or measures are selected. Overall, for Kapferer (2012) and Potter (2009), building the reputation of China's national brand overseas is crucial to China's export performance and competitiveness, especially in the food area where the world market is highly liberalised under the trend of economic globalisation. From the point of view of Anholt (2007), the built-up of Chinese national brands is also a matter

of public diplomacy and it is associated with the identity of China. Therefore, there has been high international pressure for the Chinese government to respond to food safety crises and adjust its regulatory regimes and practices. In terms of international harmonisation, for DiMaggio and Powell (1983), food regulatory regimes in China are shaped by an isomorphism process that creates convergence in organisation design, structure and culture, whether it be coercive, mimicking or normative. On the other hand, from the point of view of Gallup (1940), regulatory choice is more likely to be a response to public opinions and preferences. Kingdon (1995, 2002) may further argue that food safety crisis can create an opportunity for regulatory change or reform. Finally, Stigler (1971) and Peltzman (1976) would view food safety regulation in China from the angle of serving the interests of food business and politicians/bureaucrats/regulators.

This analytical framework contributes to the existing theories and empirical studies in three ways. First, it bridges global and local factors in a single framework for analysis and puts forward the academic debate of how different regulatory outcomes are generated by different combination of global and national/local factors. In Hood et al.'s (2001) work, for example, its approach does not explicitly consider internationalisation of regulation as a factor contributing to regulatory variations. This study intends to fill the gap by adding a value-added perspective of internationalisation in a well-established framework, and it sheds light on how the state breaks through local political obstacles and responds to domestic and international sources of pressure.

Second, it provides an integrated approach to analyse how different explanations in the literature explain different control elements in a regime. By narrowing down the level of analysis into different control components in a control system, it portrays a comprehensive picture of a regulatory regime and provides a more solid basis for assessing different theories in the context of China as a developing country.

Third, while most previous theories of regulation are developed on the basis of affluent Western democracies, this analytical framework extends the applicability of existing theories to different political, economic and social context. For example, some critical features of Western democracies may not exist in a developing country or in an authoritarian political regime. Or even if they exist, they can differ to a considerably large extent. These features include freedom of communication and expression in the

opinion-responsiveness literature, freedom of association in public and private interest theories, active state participation in international communities in the globalisation literature, as well as regulatory capacity in the enforcement literature. Under these circumstances, a refinement of 'Western' theories is necessary in order to make them applicable in a context with distinct socio-political environment, economic level and culture; moreover, omitted variables in explaining regulation can be explored.

In summary, the analytical framework of applying Hood et al.'s (2001) regime perspective and combining the accounts of internationalisation, opinion-responsiveness and interest-based theories can allow us to understand the dynamics of how national regulation is shaped under the context of globalisation.

# Chapter 4 : Research design

The main purpose of this chapter is to consider the research design of this thesis. To answer the research question about how food safety regulation works in China, and in what way and to what extent internationalisation influences it, a comparative case study analysis is selected as the research method. This chapter will provide an explanation of the rationales for the research design and present the landscape of the selected cases. These include the six food domains and Guangdong Province, the region where this study examines food safety regulatory enforcement at the level of implementation.

The plan of this chapter is as follows: first, Section 4.1 will begin with a discussion as to why a comparative case study is being used as the research method. This will then be followed by an introduction to the six selected cases of food domains in Section 4.2. Section 4.3 will portray the case study of Guangdong Province, where this study examines the situation of regulatory enforcement. Section 4.4 will depict the data collection process and discuss the limitations of data gathered, including both data availability and quality.

## 4.1 The comparative method of case study

The inquiry of this research '*in what way and to what extent does internationalisation impact on food safety regulation in China?'* is pursued through a comparative case study of different food regulatory regimes in China. What needs to be stressed here is that the purpose of this research is neither to develop an integrative framework of causal inference, nor to find out the causality of phenomenon. Given the constraints of limited available data and scholarly works, this study pursues to find out a relatively general pattern of factors that can explain regulatory changes in China and its choice of regulatory tools. Serving this purpose, the method of comparative case study is suitable for the research question of this study, with the following rationales.

First, a case study is a valid tool with which to examine the complex process of public policy changes. As suggested by Yin (2003), as an empirical inquiry the case study is a valid research method to investigate a contemporary phenomenon within its real-life context. This is particularly useful when the boundaries between phenomenon

and context are not clearly evident. In other words, a case study allows us to understand a complex issue and the process it evolves. In this study about how international force impacts regulation in China, by using a single country approach, detailed contextual analysis of food regulatory policy/regime changes, the phenomena and its relationship with the wider context can be distinguished and assessed (Yin, 2003).

Second, on the basis of J. S. Mill's logic of 'method of agreement' and 'method of difference' (Lijphart, 1971), a non-statistical comparative analysis of a small number of cases is helpful to identify underlying causal relations. Despite considerable controversy among specialists in comparative politics regarding Mill's method (Skocpol, 1979; Nichols, 1986), as Rose (1991a) argues, the main advantage of the comparative method is that it allows researchers to produce generalisations and draw conclusions about a possible cause of a phenomenon. For example, the logic of comparison is helpful in identifying how similarities and dissimilarities in the context shape the content of different regulatory regimes. On the other hand, the number of observations can also be increased when looking into different food domains within the same regulatory regime (King, Keohane, & Verba, 2001). In this way detailed similarities and variations across different observations can be identified and examined.

In this study, process-tracing is also used as a method for researching into regulatory policy-making and other regulatory changes. George and Bennett (2005) suggest that the method of 'process-tracing' is attempted to trace the links between possible causes and observed outcomes. Various sources of data are examined to see whether the causal process a theory hypothesises or implies in a case is in fact evident in the sequence and values of the intervening variables in that case (George & Bennett, 2005, p. 6). For example, process-tracing can be used to test whether the residual differences between two similar cases were causal or spurious in producing a difference in these cases' outcomes. It can be also used in analysing a single 'deviant' case study to see if any significant theoretical insights are identified. It is also helpful to figure out the combination effects of different factors.

In summary, the features of comparative methods of the case study fit the nature of the research question of 'how' food regulatory policy evolves, and 'why' the path of changes and the choice of regulatory tools diverge between different food domains.

Comparative case studies have the advantage of increasing the number of observations, while holding other factors constant within a single country, including political, administrative, economic and legal systems, culture, history, and development level. Again, what needs to be stressed here is that the comparative method of case study may not offer solid grounds for establishing reliability or generality of findings, but as discussed above, these are not the aim and scope of the study.

## 4.2 Case study of six food domains

To address the inquiry of how international force and local force identified in the analytical framework bring about variations in regulatory regimes, the case selection process aims to ensure that similarities and differences in terms of degree of internationalisation, opinions, and private interests are covered across different cases. Criteria for case selection include: food domains with different degrees or levels of international scrutiny, export volume, export ban imposed by importing countries, public opinion, media attention, food incidents, industrial concentration, organised groups including industry associations and regulatory agencies.

According to these criteria, six food domains are selected, namely:

- Domestic fruits/vegetables
- Exported fruits/vegetables
- Domestic meat/dairy products
- Exported meat/dairy products
- Domestic manufactured food products
- Exported manufactured food products

The selection of the six food domains intends to reflect a variation-oriented strategy. The distinguishing features make them suitable for researching how the factors of internationalisation of regulation and other local factors shape food regulation in China. Table 4-1 is a summary showing the key variations among the six food domains, in terms of levels of international pressure, media coverage, organised groups, industrial concentration and fragmentation of regulatory authorities. For example, there are cases having low levels of industrial concentration and less organised business groups such as

domestic vegetables/fruits and domestic meat/dairy products. There are also cases with a relatively concentrated industry dominated by a smaller number of firms such as exported vegetables/fruits, exported domestic meat/dairy products and exported manufactured food products. While details of these variations will be further elaborated upon and discussed in the empirical chapter in Chapter 5 on the regime content such as the institutional setting of regulatory bodies and the regulatory context under which the regimes operate, what needs to be emphasised here is that variations depicted in Table 4-1 are on a relative basis, that the six food domains are weighted with each other. In other words, these are the relative differences.

**Table 4-1: The six food domains and their features**

| **Food domains** | **Level of international pressure** | **Level of public opinion/ media coverage** | **Number of organised groups** | **Level of industrial concentration** | **Fragmentation of regulatory authorities** |
|---|---|---|---|---|---|
| 1. Domestic vegetables/fruits | Low | Low | Low | Low | Low |
| 2. Exported vegetables/fruits | Medium | Medium | High | High | Low |
| 3. Domestic meat/dairy products | High | High | Low | Low | Medium |
| 4. Exported meat/dairy products | High | Medium | High | High | Low |
| 5. Domestic manufactured food products | Medium | High | Medium | Medium | High |
| 6. Exported manufactured food products | High | High | High | High | Low |

Source: author's compilation, from previous literature and interviews conducted by the author

Risks associated with these food domains in China will be introduced below. And because sources of risk are not significantly different between domestic and exported food, the following description will combine domestic and exported food in the same sector.

### 4.2.1 Domestic and exported fruits/vegetables

Regarding fruits and vegetables in China, pesticide residue, fertiliser, unapproved chemical and environmental contamination are the four main sources of food risk.

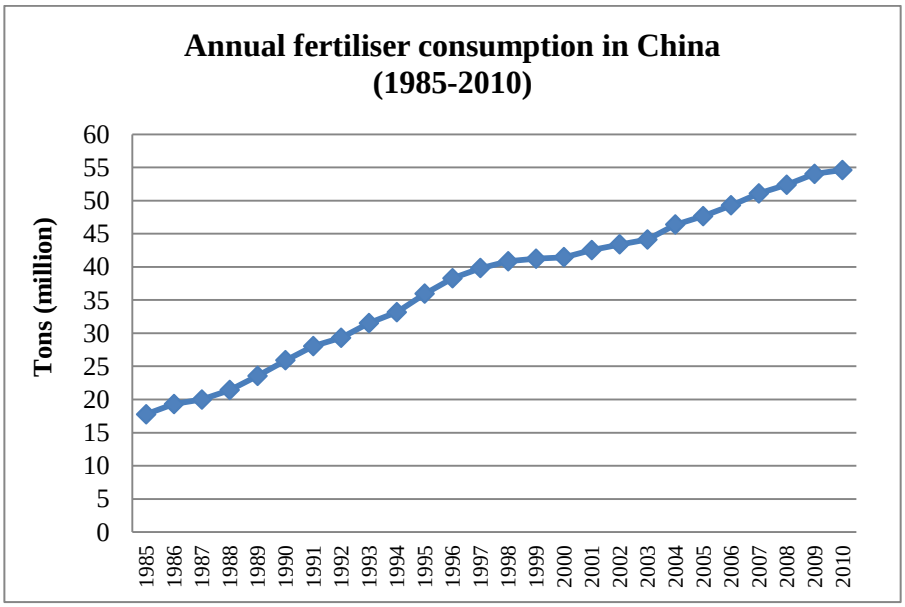
Pesticide is any substance or mixture of substances intended for preventing, destroying, repelling or mitigating pests which cause damages to crops and animals (The U.S. Environmental Protection Agency, 2012b). In China, the dose of pesticides applied ranked very high globally, at an application rate of 10.3 kg per hectare arable land in 2005-2009, while it was 3 kg per hectare in the United Kingdom, 2.2 kg per hectare in the United States, and 1 kg per hectare in Canada ("Infographic: Pesticide planet," 2013).

Excessive pesticide residues can impose an adverse impact on humans, ranging from acute fatal or non-fatal poisoning, to accumulated chronic diseases such as cancer, adverse reproductive outcome, and immunological effects (Economy and Environment Programme for Southeast Asia, 2001). Some pesticides are more hazardous than others. For example, traditional chemical pesticides are less safe than biologically-based pesticides. Training on organic farming techniques and integrated pest management which rely less on pesticides can be also provided as an alternative to modern farming practice (Economy and Environment Programme for Southeast Asia, 2001). In China, pesticides are divided into four categories based on the acute level of hazard, having Category I as the most toxic and Category IV as the least. However, scientists have argued that pesticides under Categories III and IV can also cause chronic diseases that are not visually observable; therefore, they urge that equal attention should be paid to pesticides in all categories in China (Qiao, Huang, Zhang, & Rozelle, 2012).

To increase food production and crop yield, fertiliser, an organic or inorganic material of natural or synthetic origin, is added to soil to supply plant nutrients (Soil Science Society of America, n.d.). World figures estimate that 30-50% of crop yield in

the world is attributable to the application of fertilisers (Stewart, Dibb, Johnston, & Smyth, 2005). In China, the figure is remarkably high – its fertiliser's contribution to crop yield has reached 45-50% in the past thirty to forty years (Portch & Jin, 2009). Meanwhile, fertiliser consumption in China has witnessed a remarkable increasing trend over the past few decades (see Figure 4-1) (Z. Zhu & Jin, 2013, p. 261). Hazardous effects of chemical fertilisers on human health can come out in a number of ways. However, one of the most long-lasting harms is its effects upon the environment, including contamination of soil, surface water and groundwater (see below). The chemicals in turn get into the food chain and are finally absorbed by humans.

**Figure 4-1: Fertiliser consumption in China (1985-2010)**




Source: author's compilation, from statistics released by the National Bureau of Statistics and the Ministry of Agriculture (Z. Zhu & Jin, 2013, p. 261)

In China, unapproved chemicals and substances are another key source of risk in food, which are added to food intentionally or sometimes accidentally. In the domain of fruits and vegetables, for example, bean sprouts in China were discovered to have been treated with sodium nitrite, urea, antibiotics and a plant hormone called 6-benzyladenine. These substances were added to make bean sprouts grow faster and look 'shinier' (Xin, 2011). Other cases included inferior rice being made to look normal by bleaching, polishing and adding mineral oil, a distillate of petroleum ("Five ways to identify," 2009), and cabbages sprayed with formaldehyde to keep them fresh in transit ("Cabbage with formaldehyde," 2012). The toxicity of the unapproved substances can be very high

and the potential risk from consumption tends to be severe, including poisoning, breathing and digestive problems and cancer.

Environmental contamination resulting from an accumulation of toxins from factories, mining and agriculture is another prevailing source of risk in agricultural food in China. Toxic pollutants such as cadmium in phosphate fertiliser and other heavy metals including lead and mercury are deposited onto soil or irrigation water, where they are in turn absorbed by plants or ingested by animals. As the toxins move up the food chain, they become concentrated through the process of 'biomagnification' (Gobas & Morrison, 2000, p. 195). According to a soil pollution report published by the Chinese government in 2013, nearly one-fifth of the nation's soil is polluted, including 19.4% of the nation's crop-growing farmland ("'Toxic' soil pollution," 2014). Worst-hit regions are those industrialised areas such as the Yangtze and Pearl River deltas of southern China. Potential risks of these pollutants to humans include damage to the immune system and various neurological, reproductive, developmental and respiratory health problems (The U.S. Environmental Protection Agency, 2012a). For example, in 2009-2013, tens of thousands of tons of cadmium-tainted rice was sold in southern China, although it was only fit for the production of non-food commodities. In 2013, 44% of rice tested in Guangzhou City was contaminated with cadmium (Xiao, Wang, Feng, & Huang, 2013), a carcinogen which is especially harmful to the kidneys, lungs and can cause bone disease.

### 4.2.2 Domestic and exported meat/dairy products

As with fruits and vegetables, environmental contamination is one of the main sources of risk in meat and dairy products in China. For example, milk and milk products may contain heavy metals because livestock are fed with contaminated fodder or water during the rearing process. On top of that, zoonosis, veterinary residue and unapproved chemical also impose severe adverse effects on human health.

According to the World Health Organisation (WHO), zoonosis is "any disease or infection that is naturally transmissible from vertebrate animals to humans and vice-versa" (World Health Organisation, 2014). Bacteria, parasites, fungi, viruses and other unconventional agents are some typical causative agents. Best known examples include

Salmonella, *E. coli*, bovine spongiform encephalopathy (BSE) and H5N1 bird flu. The WHO notifies that over the past decades, health threats at the human-animal-ecosystem interface have increased (Food and Agriculture Organisation of the United Nations, World Organisation for Animal Health, World Health Organisation, & United Nations System Influenza Coordination, 2012). To treat animal diseases and protect animal health, a veterinary drug is applied with animals. In China, it is also often applied for the purpose of speeding animal growth and increasing feed efficiency. However, the use of bulk drugs or unapproved drugs, and an inadequate pre-slaughter withdrawal period can leave excessive level of veterinary drug residue in meat and poultry (The U.S. Food and Drug Administration, 2005). Meanwhile, veterinary drugs can also lead to soil pollution because they are excreted by animals as waste, which is often untreated and directly applied as a supplement to fertiliser in China (Sarmah, Meyer, & Boxall, 2006). The potential human health effects of residues of veterinary range from allergic reactions, to resistance to antimicrobial drugs, to direct toxic effects.

The use of unapproved chemicals and substances and other food adulteration activities in the Chinese meat and dairy industries have raised public concern in the past decade. Multiple incidents were reported. For instance, there was a widespread use of 'lean meat powder'[3] in cattle rearing to inhibit the fat growth of cattle ("Seventy people poisoned," 2009). There were also milk adulterated with melamine to make it to appear to have a higher protein content ("Sanlu continued its sale," 2009), and cat meat and rat meat sold as beef/pork/lamb after it was soaked in borax (i.e. a detergent additive) ("Lamb skew made," 2013). Adulterated food can bring a wide range of potential effects on health such as malnutrition, illnesses and death. For example, 'lean meat powder' can induce dizziness, heart palpitations and diarrhoea, while melamine poisoning can cause some severe health damages to infants, ranging from kidney stones and kidney failure to death.

### 4.2.3 Domestic and exported manufactured food products

Compared with the agricultural food products introduced above, risks of manufactured food are relatively more complex because food processing typically embraces numerous procedures including cleaning, pasteurisation, cooking, sanitising, drying, canning and

[3] This chemical is known as steroid clenbuterol.

freezing. In China, risk of manufactured food mainly comes from the use of unapproved food additives and the deliberate adulteration of food.

Food additives and artificial ingredients serve a function in preserving, flavouring, blending and colouring food. However, excessive levels of use may impose adverse effects on human health, such as allergic reactions. In China, the illegal practice of adding unapproved food additives in food production is one of the most well-known risks in the manufactured food industry. A considerably broad range of cases have been reported in recent years. For instance, melamine was found in infant formula, candies and instant coffee (J. Zhang, 2008); Sudan Red dye, a banned chemical, was discovered in chilli sauce and oil (C. Zhu & Wang, 2011); sodium bisulfoxylate formaldehyde, a bleaching agent, was added to vermicelli, flour and bean curd sheets to make them smoother and whiter ("Ten types of food," 2009). Adverse health effects of these illegal ingredients and additives can be fatal. In less extreme cases, for example, Sudan Red is identified as cancer-causing; sodium bisulfoxylate formaldehyde can cause stomach ache, vomiting, breathing difficulties as well as long-term damages to liver, kidney and the neurological system.

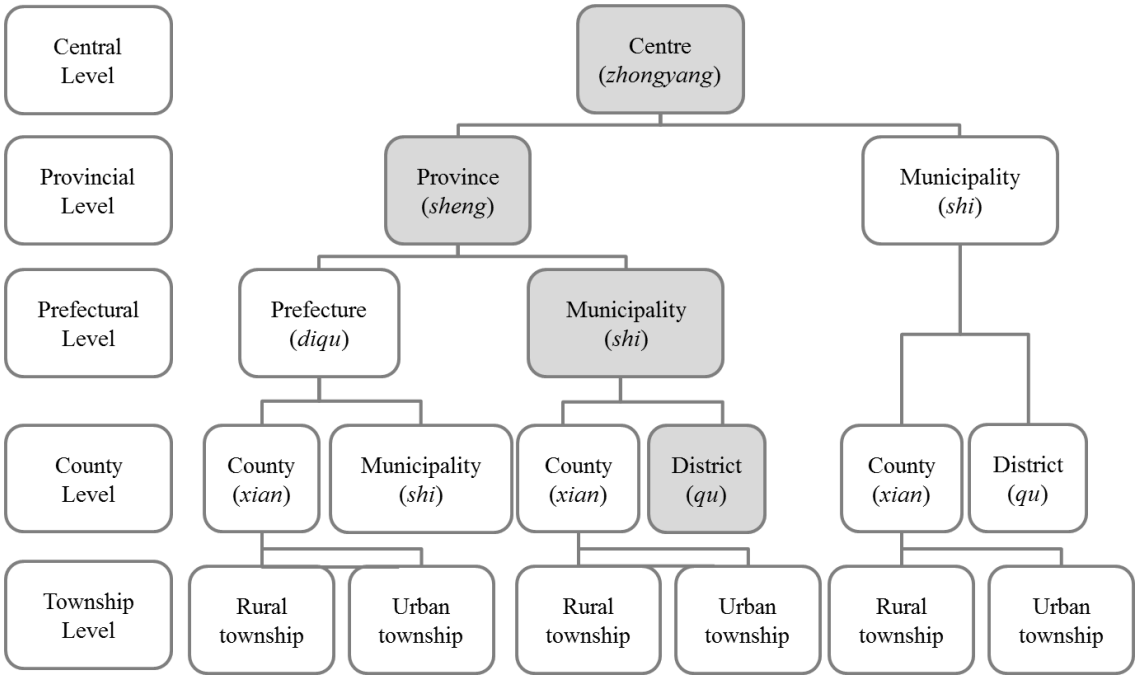
Food adulteration in the form of using inappropriate raw materials has emerged as a new source of risk in Chinese manufactured food over the past decade. For example, there was a re-sale of ‘gutter oil’ as normal cooking oil (H. Wang & Liu, 2012), by recycling used oil collected from restaurant garbage, drains, sewers and slaughterhouse waste. There was also soybean sauce made from human hairs collected from salons and hospitals ("Soy sauce made," 2008), by extracting amino acid (i.e. an essential substance in soybean sauce) from hairs by a treatment in a special container.

## 4.3 Case study of Guangdong Province

Given policy-making and policy implementation in China do not work at the same level of government, the unit of analysis of the study lies in both central and local levels of government. In the Chinese state structure, there are five levels of government: central, provincial, prefectural, county and district, and township levels (see Figure 4-2) (J. B. Jacobs, 1991, p. 172). Referring to food regulation, while the design of the food regulatory system and formulation of food standards are decided by the Chinese Central

Government, regulatory enforcement is dedicated to the local governments. Therefore, throughout the study, when researching into policy-making and standard-setting (i.e. Chapter 6), the unit of analysis is mostly based on the central government level; on the other hand, it is lowered to the level of local government when regulatory enforcement including information-gathering (i.e. Chapter 7) and behaviour-modification (i.e. Chapter 8) are studied.

**Figure 4-2: The Chinese state structure**




Source: author's compilation, in reference to Jacobs's 'Elections in China' (J. B. Jacobs, 1991, p. 172)

Specifically, Guangdong Province, a municipality and a district is selected as case study in this research. In consideration of the issue of anonymity of research participants, names of the selected municipality and district will not be disclosed. Instead, 'City A' and 'District B' will be termed to represent the two regions. City A is one of the 21 municipalities in Guangdong Province, while District B is one of the districts in City A. The hierarchical affiliation relationship between Centre, Guangdong Province, City A and District B is shown in the shaded area in Figure 4-2.

Guangdong Province presents an ideal case for learning about the dynamics of internationalisation of regulation in China, and examining how other local factors have become less important in determining regulatory enforcement. The reasons are twofold. First, Guangdong is a province neighbouring Hong Kong on the South China Sea coast

of China, the special advantage of its access to the ocean and proximity to Hong Kong makes Guangdong a suitable case for studying the impact of internationalisation on regulation in China, given that the volume of international trade of Guangdong is highest among all provinces. Second, Guangdong has topped the total GDP rankings among all provincial-level divisions in China. Being the richest province in China, if the incapacity of regulators arising from inadequate resources is pervasive in impeding regulatory enforcement in Guangdong, it is expected that the influence of this factor is more prevailing in other provinces with lower level of GDP.

The section below will explore Guangdong's geography, demographics and economy, and their significance to the food sector and implications for food safety regulation are the main focus of interest. Notably in the empirical chapter in Chapter 5, details of different regulatory regimes and the context under which these regimes operate in Guangdong Province will be further elaborated upon and discussed.

### 4.3.1 Geography

Guangdong is a province in South China on the South China Sea Coast (see Figure 4-3), with a land area of 179,800 square kilometres which accounts for 1.87% of the total land area in China[4]. Its coastal resources and location favour commercial and trading activities. Many agricultural and manufactured food products in China are shipped through the ports in Guangdong to foreign countries. Although farmlands in Guangdong are scattered because of the extensive mountainous regions, weather conditions enable Guangdong to become a main exporter of fruits and vegetables to overseas markets. Some strategies were driven by the local governments to seize opportunities to extend global trade (The Division of Foreign Affairs and Economy of the Guangdong Department of Agriculture, 2005), such as guiding farmers to specialise their production in cash crops for exportation. For instance, Maoming City specialises in growing banana, cinnamon, lychee and longan; Jieyang City in greengage and green olive; and Shaoguan City in bamboo. Species on demand overseas are also introduced, including Japanese chestnut pumpkins, Holland cucumbers and Taiwanese cherry tomatoes. Data

[4] Guangdong ranks fifteenth in terms of total land area among 33 provinces, autonomous regions, special administrative regions and municipalities in China.

about the food export volume of Guangdong will be further illustrated below when introducing the economy of the province.

**Figure 4-3: Map of China**


Source: Wikipedia, the free encyclopedia (Wikipedia, 2011)

## 4.3.2 Demographics

In terms of the population profile, Guangdong has been the province with the highest population in China since 2007. Its total population hit 104 million in 2010, equivalent to 7.8% of the population in China (see Table 4-2) (The Statistics Bureau of Guangdong Province, 2011).

The rural-urban disparity in Guangdong, however, remains severe. In 2011, the per capita disposable income of urban residents was RMB 26,897 (approximately USD 3,927), whereas it was only RMB 9,372 (approximately USD 1,368) for rural residents (The Statistics Bureau of Guangdong Province, 2012).

**Table 4-2: Demographic data of Guangdong Province**

| | | | Population (million) | Percentage |
|---|---|---|---|---|
| **Total habitual residents in 2010** | | | 104 | -- |
| **Location** | Urban area | | 69 | 66.2% |
| | Rural area | | 35 | 33.8% |
| **Sex** | Male | | 54 | 52.2% |
| | Female | | 50 | 47.9% |
| **Age** | 0-14 | | 18 | 16.9% |
| | 15-65 | | 80 | 76.4% |
| | Over 65 | | 7 | 6.8% |
| **Household registration (the *hukou* system)** | Permanent residents (origin of household registration in the same domicile) | | 73 | 70% |
| | Temporary residents (origin of household registration different from their domicile) | | 31 | 30% |
| | Origin of household registration | Guangdong | 21 | 21% |
| | | Outside Guangdong | 10 | 9% |

Source: author's compilation, from statistics released in the '2011 Guangdong Economic and Social Development Statistics Bulletin' and the '2010 Guangdong 6th National Census Statistics Bulletin' (The Statistics Bureau of Guangdong Province, 2011, 2012)

Of the 104 million total population in Guangdong, 31 million (30%) were temporary residents, and 10 million (9%) had their origin of household registration outside Guangdong (see Table 4-2). The facets of the temporary resident population deserve further exploration given their importance. In China, residents without their origin of household registration in the same domicile are regarded as the temporary population of a region. These temporary residents are mainly from rural areas going to cities for employment. Since the Chinese economic reform in the 1980s, the secondary industry in different municipalities of Guangdong has hired a large number of migrant workers from rural Guangdong and other provinces. The key characteristic of this floating population or circular population is their high mobility – they work in cities to make instant cash and normally keep their families in rural areas (Shen, 2002). They are precluded from household registration (the *hukou* system) in Guangdong and are recorded as temporary residents instead. Without household registration in the place where they are employed, these migrant workers suffer from a relatively low socio-

economic status and lack the entitlement to healthcare and other social care services in cities[5].

This unusually large temporary population in the whole population structure has two main political implications. First, the Guangdong Provincial Government and its lower level of government are under high pressure to ensure adequate job supply in order to keep their governing societies stable and 'harmonious' (*hexie*), which is a discourse that was introduced by President *Hu Jintao* as a vision for the country's future direction of socioeconomic development (Zheng & Tok, 2007; Chan, 2009). Since the floating population mainly comes from rural regions without career opportunities, these migrant workers usually stay in cities in Guangdong rather than returning home, even if they lose their jobs. High unemployment can also cause social problems such as crime and induce public dissatisfaction with government. Second, the performance of local employment rate is an indicator linked to the promotion, demotion and rotation of local party leaders and bureaucracies (Cheng & Li, 2012). This implies that local governments have a personal interest and incentive to ensure adequate job supply and keep the unemployment rate low. These considerations become a dilemma when enforcing food safety regulation has a strong negative impact on local employment.

### 4.3.3 Economy

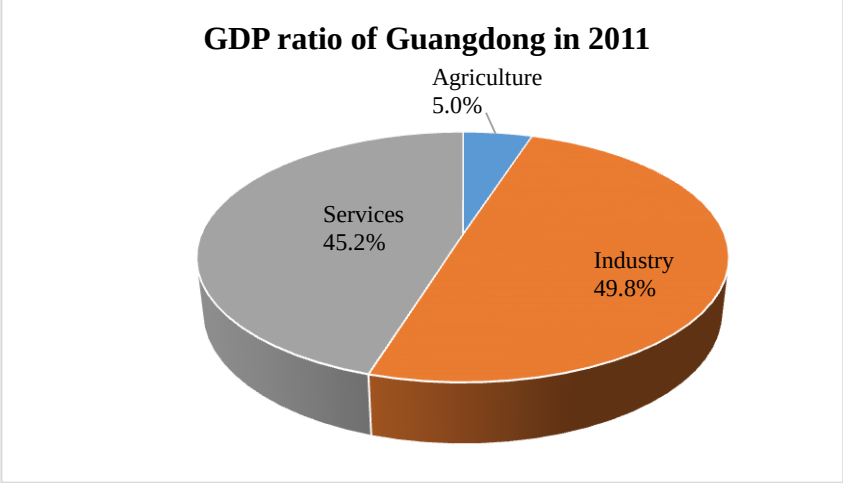
Guangdong has the highest GDP among all provincial-level areas in China since 1989. According to the *2011 Guangdong Economic and Social Development Statistics Bulletin*, Guangdong's GDP reached RMB 5.27 trillion (approximately USD 769 billion) in 2011, representing a growth rate of 10.0% (The Statistics Bureau of Guangdong Province, 2012). This thereby contributed 11.1% to the total national economic output. In terms of GDP per capita, it was RMB 47,000 (approximately USD 6,862) in 2010, entailing an annual growth rate of 14.2%.

The economic boom of Guangdong Province was largely attributed to its export-oriented strategy of economic development. In fact, Guangdong was the first province in China to open up its economy to foreign investments since 1978. The reform and

[5] In China, social welfare is linked up with the household registration system. Temporary residents can only enjoy social welfare in the original place they registered their household. Moreover, changing one's household from rural to city is, in general, very difficult.

opening-up policy mainly consisted of the following content: opening-up trade to the outside world; implementing a household responsibility system in agriculture rather than farming for the collective; allowing farmers to sell their surplus in the market; establishing the market-oriented Township and Village Enterprises (TVEs) running under the leaderships of township governments. These reform measures have consequentially shaped a direction towards a reliance on the manufacturing and service sectors to maintain economic growth. In 2011, proportions of agriculture, industry and services were 5.0%, 49.8% and 45.2% respectively in Guangdong's economic structure (see Figure 4-4) (The Statistics Bureau of Guangdong Province, 2012). This indicates that agriculture is not a key sector of the Guangdong economy.

**Figure 4-4: GDP ratio of Guangdong Province**

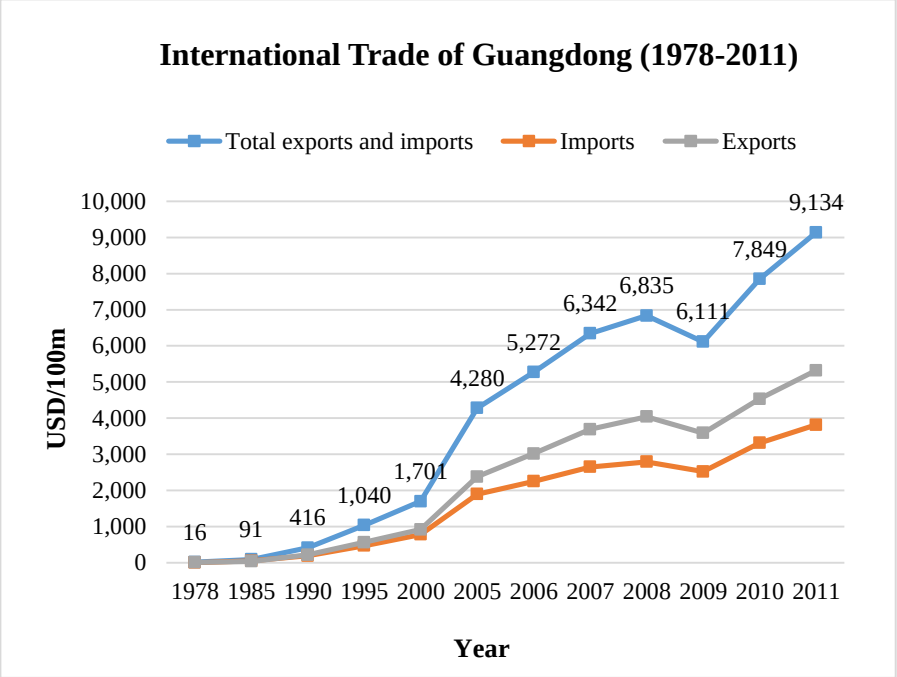



Source: author's compilation, from statistics released in the '2011 Guangdong Economic and Social Development Statistics Bulletin' (The Statistics Bureau of Guangdong Province, 2012)

As the first province to open-up its economy, Guangdong has been China's largest exporter as well as importer of commodities. In 2011, total imports and exports of Guangdong were USD 914 billion, of which, total exports were USD 532 billion and total imports were USD 382 billion, representing a trade surplus of USD 150 billion (see Figure 4-5) (The Statistics Bureau of Guangdong Province, 2012). In 2010, Guangdong accounted for 26.3% of the total national imports and 29.6% of the total national exports. Hong Kong is the largest export market of Guangdong, while other major markets include the U.S., Japan, Germany, Korea and the UK. Given that export plays a significant role in Guangdong's economy, this makes the protection of the

reputation of products 'Made in China' particularly important to the Guangdong government.

**Figure 4-5: International trade of Guangdong Province**




Source: author's compilation, from statistics released in the '2011 Guangdong Economic and Social Development Statistics Bulletin' (The Statistics Bureau of Guangdong Province, 2012)

Regarding food trade, Table 4-3 shows the growing trend of the export value of Guangdong's agricultural products. In 2000, the export value was USD 1.71 billion; but in 2012, it reached USD 7.51 billion, indicating at least a fourfold increase. Guangdong's agricultural export has a high share in the nation. In 2012, Guangdong accounted for 11.9% of the total national agricultural food exports. Similarly, there has been an upward trend for Guangdong manufactured food exports (see Table 4-4), although the trend of growth is slower than agricultural products. In 2004, the export value of manufactured food was USD 1.74 billion; in 2012, the figure reached USD 4.00 billion. Guangdong accounted for 9.7% of the total national manufactured food exports in 2012. While Asia is Guangdong's main export market, there is a growing expansion in North America (The Division of Foreign Affairs and Economy of the Guangdong Department of Agriculture, 2005, p. 20). Again, since food export of Guangdong Province accounted for a significantly high amount of the total national share, there is pressure for the Guangdong government to safeguard the reputation of food 'Made in China'.

**Table 4-3: Export value of agricultural food products of Guangdong**

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Export Value (Billion USD)** | 1.71 | 1.81 | 1.93 | 1.94 | 2.28 | 2.40 | 3.85 | 4.14 | 4.63 | 4.86 | 5.67 | 6.97 | 7.51 |
| **Percentage share in the country** | 11.5% | 11.3% | 10.7% | 9.1% | 9.9% | 8.9% | 12.4% | 11.3% | 11.5% | 12.4% | 11.6% | 11.5% | 11.9% |

Source: author's compilation, from statistics released in the 'Guangdong Statistics Yearbooks' and the 'Agricultural Statistical Yearbooks of Guangdong' (Editorial Board of Rural Statistical Yearbook of Guangdong, 2000-2012; The Statistics Bureau of Guangdong Province & The Survey Office of National Bureau of Statistics in Guangdong, 2000-2012)

**Table 4-4: Export value of manufactured food products of Guangdong**[6]

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|
| **Export Value (Billion USD)** | 1.74 | 1.92 | 2.29 | 2.50 | 2.78 | 2.50 | 2.86 | 3.67 | 4.00 |
| **Percentage share in the country** | 7.6% | 7.9% | 8.0% | 7.2% | 9.8% | 8.3% | 9.2% | 9.6% | 9.7% |

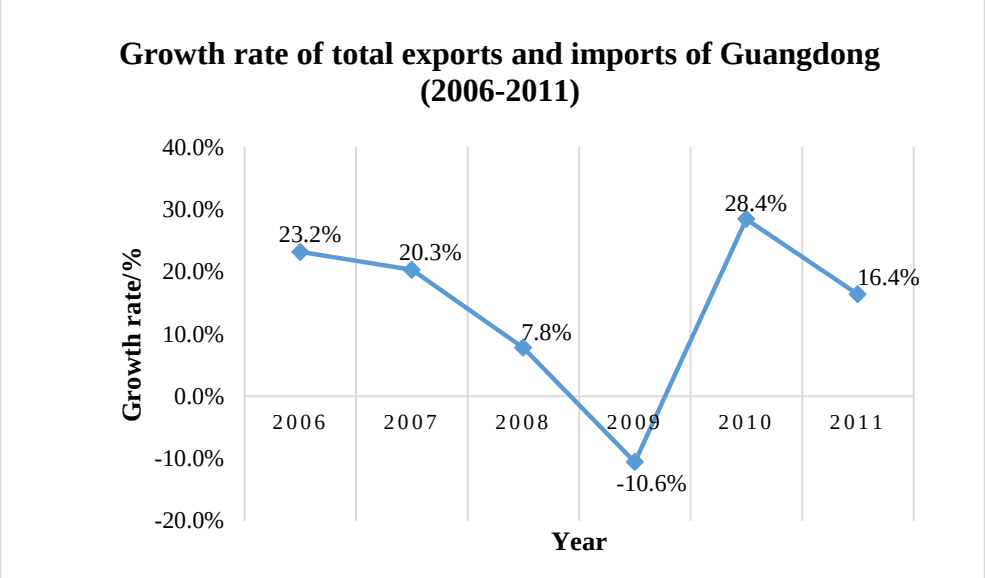
Source: author's compilation, from statistics released in the 'Guangdong Statistics Yearbooks' (The Statistics Bureau of Guangdong Province & The Survey Office of National Bureau of Statistics in Guangdong, 2000-2012)

[6] The following key manufactured food products are included: canned meat, canned mushroom, sugar, tea, cooking oil, and manufactured products with milk content.

On the other hand, Guangdong's economy has various challenges which may impact on its food safety regulation. First, competition between Guangdong Province and other regions across China is keen. For example, in some inland provinces such as Guangxi and Sichuan and emerging clusters such as the Yangtze River Delta and the Bohai-Rim Region, there are comparatively low production costs including labour, land, water, electricity and other resources. Therefore, many manufacturing businesses in Guangdong are being attracted to relocate their production firms to these areas. Under the context of regulatory competition, the Guangdong government may be prompted to adjust its regulatory policies or strategies.

Second, whereas Guangdong's previous economy growth largely relied on export, the potential adverse effect is that the economy is overwhelmingly vulnerable to the fluctuating global market. For example, during the 2008 Global Financial Crisis, the growth rate of total exports and imports of Guangdong endured a sharp decline (see Figure 4-6). In 2008, there was a 7.8% year-on-year increase in total value of exports and imports in Guangdong; however, in 2009, there was a 10.6% year-on-year decrease instead. Provided that reputation is a crucial factor in the success of international trade, this makes securing the international image of products 'Made in China' particularly important to the Guangdong government.

**Figure 4-6: Growth rate of total exports and imports of Guangdong Province**




Source: author's compilation, from statistics released in the '2011 Guangdong Economic and Social Development Statistics Bulletin' (The Statistics Bureau of Guangdong Province, 2012)

Third, developmental disparities between the Pearl River Delta and the remaining parts of Guangdong have brought some socio-economic problems to the Guangdong government (see Table 4-5), and they may consequentially influence the work of the local government. Similarly to employment, GDP growth is an indicator directly linked to the career prospects of local party leaders and bureaucracies (Cheng & Li, 2012). Under these circumstances, local leaders and bureaucrats have a strong incentive to maintain a high GDP growth in their regions, particularly for areas with a low level of development. In the meantime, widening regional disparities in Guangdong Province become a threat to the building of a 'harmonious socialist society' and social stability, the vision of President *Hu*'s administration (Zheng & Tok, 2007; Chan, 2009). The question of how these social disparities and conflicts induced by rapid economic development can be solved becomes a political issue for party leaders (Chan, 2009). These considerations may impede the enforcement of food safety regulation, especially if it is in a deep conflict with the growth of local economy.

**Table 4-5: GDP distribution across different regions in Guangdong**

| Regions in Guangdong | GDP (RMB/100m) in 2011 |
|---|---|
| Pearl River Delta – mainly coastal cities near the south | 43,966.18 |
| East | 3,828.88 |
| West | 4,262.07 |
| Mountainous area | 3,897.34 |

Source: author's compilation, from statistics released in the '2011 Guangdong Economic and Social Development Statistics Bulletin' (The Statistics Bureau of Guangdong Province, 2012)

# 4.4 Data collection

To answer the queries of this research project, fieldwork was conducted between 2008 and 2010 to collect information and data from primary and secondary sources by a range of methods, including observation, interview and archival research (see Table 4-6). All sources in Chinese used or directly quoted in this thesis were then translated into English.

**Table 4-6: Observation, interview and archival research of this study**

| **Observation** | |
|---|---|
| **Observed bodies** | **Duration** |
| • A government regulatory body in Guangdong (with two branches) | Two months (i.e. one month for each branch) |
| • A food business with around forty workers in Guangdong | Two weeks |
| • A food business with two workers in Guangdong | One week |
| **Semi-structured and unstructured interviews** | |
| **Interviewees** | **Number** |
| • Officials/regulators/inspectors at the central and local government levels | 13 |
| • Experts and scientists | 5 |
| • Food businesses:<br>o Farmers<br>o Food manufacturers<br>o Food wholesalers and retailers | 13 |
| • Journalist | 1 |
| **Archival research** | **Duration** |
| Archive repository of a regulatory body in Guangdong | One week |

Primary sources of data include statues, legal regulations, official statistics, yearbooks, reports, archival documents, and information obtained in observation and interviews. These official documents mainly come from the central, provincial and local governments and their regulatory agencies, including the Ministry of Health, the Ministry of Agriculture, the General Administration of Quality Supervision, Inspection and Quarantine, the Ministry of Commerce, the State Administration of Industry and Commerce, the State Food and Drug Administration and the Standardisation Administration of China. Official statistics are mostly released by the National Bureau of Statistics of China. Secondary sources of data used in this study include scholarly works on food regulation in China, such as Burns, Peters, Wang, and Li (2010), Li (2011), Liu (2010, 2011), Pei et al. (2011), Tam and Yang (2005), Thompson and Ying (2007), Yang (2009), Yang (2013) and Zhou (2007). To have a broader picture on regulatory development in China, studies on other regulatory areas especially environmental regulation are also reviewed, including Christmann and Taylor (2001), Lo, Yip, Kwong, and Cheung (2000), Ma and Ortolano (2000), Palmer (1998), Van

Rooij (2010), Van Rooij, Fryxell, Lo, and Wang (2013) and Van Rooij and Lo (2010). In addition, reports issued by scientific research institutes or laboratories, news articles and commentaries from the press and other form of new media are studied in order to discover new information.

Two stages of fieldwork were conducted in China between 2008 and 2010, having 2008 to 2009 as the first stage, and 2009 to 2010 as the second stage. The process of fieldwork merits further illustrations given that at both stages approaching interviewees and obtaining information from them was challenging. At the initial stage, the researcher was affiliated with a university in China as a visiting associate. When approaching targeted interviewees, official letters issued by the university were attached, explaining the aim and nature of the research study, confidentiality of information and anonymity of respondents. Being affiliated with a university in China was helpful in the sense that the interviewees had a higher degree of familiarity and trust towards a national university rather than a university located in the United Kingdom. However, given the political sensitivity of the issue of food safety in China and the nature of non-transparent Chinese government in general, government officials at different levels were not willing to be studied as a subject. As a result, many invitations to interview at the initial stage of fieldwork were rejected or ignored, and this was particularly common at the central government level in Beijing. In 2008, more than thirty invitation letters and emails were sent to the targeted ministries or administrations; however, none of these were responded. Meanwhile, all telephone calls made were answered with refusals. The researcher also visited the targeted ministries or administrations by person without making a prior appointment. However, the researcher was refused access to the buildings.

In the face of great challenges in approaching government officials, the researcher changed her strategies to orientate her fieldwork towards the provincial government level and below. The researcher successfully reached a number of government regulatory bodies at the Guangdong provincial level in early 2009. Meanwhile, at the end of every interview, the researcher invited the interviewee to recommend relevant parties for conducting further interviews. If feasible, the contact details of the recommended parties were obtained. For example, the researcher

requested the interviewed officials to contact the regulatory bodies under their supervision or guidance. In this way a wide range of officials and inspectorates in City A and District B was in touch. On one occasion an official of a provincial department assisted the researcher to successfully approach a ministry at the central government level; an interview was finally conducted with this ministry. Relatively speaking, approaching the regulated businesses was less complicated. Throughout the two phases of fieldwork, a total of thirty-two interviews were conducted between 2008 and 2010 with officials, regulators and inspectors at the central and local government levels, experts and scientists, representatives of food businesses such as farmers, owners, managers and workers of food businesses including food manufacturers, wholesalers and retailers, and journalist. A summary of interviews conducted in the study is presented in Appendix A. To ensure confidentiality in research ethics, information about interviewees is kept to a minimum.

Interviews conducted at the first stage of fieldwork were mostly unstructured, with the aim of capturing a general picture of regulatory institutions and their main responsibilities. Alongside interviews, observation was also used at the first stage as a qualitative data collection method with the aim of gaining first-hand observation of the practices of people in the regulatory bodies and food producers. Through informal interviews and conversations, direct observation, and in some cases participation in their work over a period of time, more detailed and accurate information was obtained from the individuals under study. Three institutions were observed in mid-2009, one being a regulatory body while the remaining two were food businesses. A summary of observation conducted in the study is presented in Appendix B. Again, information about the observed organisations is kept to a minimum in order to ensure confidentiality in research ethics. While two months were spent on observing and sometimes participating in the work of the regulatory body, one and two weeks were spent with the regulated businesses respectively. When staying with the regulatory body, the researcher participated in the inspection work; this included taking pictures of the hygiene environment of the regulated businesses, checking the temperature of the storage facilities, checking the log books completed by the regulatees, and filling in the inspection checklists and forms. The researcher also provided clerical support in the office, such as typing the reports of rectification and sanctions, based on the decisions

made by the inspectorates. When staying with the regulated food businesses, the main task of the researcher was to package the finished food products.

Given the scope of this project and the specific research inquiries about regulatory enforcement in the localities, two-month was a long enough period to have a sufficient range of experiences, conversations, and relatively unstructured interviews with different regulators for analysis. It was also long enough for the researcher to spend time interacting with members in the observed organisations and building rapport. Similarly, spending two weeks in a medium-sized food factory and one week in a small food workshop was long enough given that a shorter period of time was necessary for building rapport.

The focus of observation was based on Hood et al.'s (2001) control theory perspective of combining three control elements in a regulatory regime (see Section 3.1.1 in Chapter 3), and the three broad theories in the literature and their predictions (i.e. regulation as a product of internationalisation of regulation, regulation as a response to opinions, and regulation as an outcome of interest interaction; see Sections 3.1.2, 3.1.3 and 3.1.4 in Chapter 3). It centred on the following areas:

- Measures of information-gathering such as inspection and record keeping deployed by regulators
- Measures of behaviour-modification such as warning and penalty deployed by regulators
- Food production activities and compliance with standards
- Values of regulators and workers in the food industry
- Interaction between regulators and the regulated entities

Alongside observation in regulatory bodies and the regulated businesses, interviews were sometimes conducted with individuals in the observed bodies, mainly based on what had been observed by the researcher. For example, the researcher asked an inspectorate why a particular enforcement decision was made in this particular case, and in some cases why a blind eye was turned to non-compliance behaviours. This strategy was useful to consolidate the validity of the evidence gathered.

After the first stage of fieldwork, the researcher was able to form a concrete basis for further researching different regulatory tools and strategies of different food regulatory regimes in Guangdong Province, City A and Township B. At the second stage of fieldwork from late 2009 until mid-2010, semi-structured interviews were relied on to collect primary data. In many cases repeated interviews were conducted with the same respondents as at the first stage. This practice could help investigate the enforcement details and sort out the underlying motivations. In one exceptional case the same respondent was interviewed for three times. Returning to the same interviewed official at the provincial level after observation could help the researcher to enhance her understanding of where disparate views between frontline inspectors and policy officials existed and the underlying reasons. Similar to observation, questions raised at the second stage were based on Hood et al.'s (2001) control theory perspective of combining three control elements in a regulatory regime (see Section 3.1.1 in Chapter 3), and the three broad theories in the established analytical framework and their predictions (i.e. regulation as a product of internationalisation of regulation, regulation as a response to opinions, and regulation as an outcome of interest interaction; ; see Sections 3.1.2, 3.1.3 and 3.1.4 in Chapter 3). They centred on the following areas:

- The process and dynamics of food standard formulation
- Measures of information-gathering and the determinants
- Measures of behaviour-modification and the determinants
- Inspection frequency and the determinants
- Adjustment of enforcement force and the determinants
- Relationship between regulators and the regulated industries
- The role of industry associations and their relationship with regulators
- Interaction between regulators and the media
- Food incidents and regulatory response
- Vertical administration vs. dual-head leadership of regulatory bodies
- Local government's interference in regulatory enforcement
- Regulatory resources and regulatory incapacity

- Other factors for considerations when making enforcement judgement: local employment, GDP growth, tax revenue and other income, and harmonious socialist society

The dynamics between observation and interviews were beneficial to digging into the details. At the second stage of interviews, the researcher was able to ask for clarifications when contradictory or inconsistent findings were observed in observation. This allowed the researcher to consolidate the data gathered by triangulation, and discover new findings given that the interviewed inspectorates would not take the initiative to disclose any details about the 'dark side' of regulation such as the enforcement gap and the practice of bribery.

During the interview process, some interviewees raised doubts about the nature of the interview. Some compromises were made accordingly. First, since the interviewees were suspicious of being recorded, detailed notes were taken during the interviews instead. Similarly, because the interviewees seemed hesitant about filling in interview consent forms, oral consent was given instead, indicating that:

- They can review, comment and ask any questions during the interview and have these answered satisfactorily
- Their participation is voluntary and they are free to withdraw at any time, without giving any reason
- All data gathered are confidential
- Their provided information may be used in future reports, articles or presentations by the researcher
- Their names and organisations will not appear in any reports, articles or presentation

Other reflections on ethical concerns were considered when making the decision of using observation as a method for data collection. To ensure the ethical boundaries are never crossed, informed consent was gained by the individuals being observed. In the case of observation in the government regulatory body, informed consent was gained from the head, while every individual in the regulatory body was informed about the role of the researcher and the purpose of the study. Regarding the medium-sized

food factory with about forty workers, informed consent was obtained from its owner and manager only but not all workers. A serious and careful reflection was made with the owner and the manager before reaching this decision, with the main rationale behind it being the possibility of influencing the attitudes and practice of workers if they were informed. This was of particular importance provided that workers would consider the researcher as a person having a close relationship with their seniors so the researcher could not be viewed as a complete insider. As for the small food workshop, informed consent was obtained from the two shop owners.

In general, the above interactive approach of conducting interviews, observation and repeated interviews should generate enough dimensions and indicators which allow the researcher to ensure a reliable evidence gathering. The rich account of qualitative evidence also made an important contribution to this research, given that there was little information about regulatory enforcement in China in the existing literature. In terms of data analysis, information collected in interviews and observation was mainly be used in the empirical chapters of the thesis (i.e. Chapters 5-8). Data analysis and coding work undertaken in the empirical chapters was based on a 'two-man rule'. For example, in the construction of tables of comparison (i.e. Tables 5-3, 5-4, 5-5, 5-6, 7-1, 8-1, 8-2, 9-1), qualitative empirical data was distributed to a researcher not involved in this research for manual coding. Two sets of coding were made correspondingly, one by the researcher of this study while another by a researcher not involved in this study. In several occurrences that discrepancies between the two coded results were found, debates were made to reach a consensus on the coding and manual tabulation of data. This practice aimed to ensure that the evidence is strong enough to sustain the conclusions drawn, and the interpretation of the evidence is valid and reliable.

Finally, questions about the availability, quality and accuracy of Chinese data deserve some illustration. In terms of data availability, despite the *Regulations of the PRC on Open Government Information* enacted in 2008 (The State Council, 2008), access to information in China was not straightforward. On the one hand, Chinese government agencies in general have been reluctant to provide information on government operations and policies (Horsley, 2010); on the other hand, they have inadequate resources, skills and knowledge to meet the requirements for archives and

records management (Interviewee 30). As a result, official Chinese data is not always available.

Second, to a significantly large extent, released Chinese official data such as macroeconomic data have been considered unreliable, with a long-standing criticism that official statistics have overstated economic growth and understated inflation (Koch-Weser, 2013). It is questionable whether China as a developing country and authoritarian state has the institutional capacity and political will to publish accurate statistics. The reasons are twofold. First, there are serious deficiencies in the way the Chinese government gathers, measures, and presents its data. For example, survey coverage remains incomplete and a Soviet-style reporting system is still in use for many industrial enterprises who report their output directly to the government. Second, the problem of manipulation of data is deeply rooted in both the public and private sectors. For instance, party leaders and government officials tend to overstate economic output, tax revenue, corporate profits and employment in order to show improvements in local economic and social performance. Overstating economic results is motivated by the fact that local economic performance is closely associated with officials' promotion, demotion and rotation (Cheng & Li, 2012). In the business sector, both private and state-owned enterprises also have incentives to misreport income and output in order to avoid taxes or appease officials (Koch-Weser, 2013).

While data availability and quality has been recognised as a key challenge to data collection in China, in this study, a careful selection of data source was necessary in order to build a solid ground for analysis. Other efforts such as triangulations were made in order to strengthen the validity of data. For instance, to ascertain export data, national data released by the Chinese government was compared with export data based on the FAOSTAT database released by the Food and Agriculture Organisation of the United Nations (FAO) (Food and Agriculture Organisation of the United Nations, 2013). Nevertheless, these efforts may not be able to remove all doubts, especially when data availability is a larger constraint so that a compromise with data reliability may be necessary. To show the concern, throughout the thesis, special emphasis will be given if there is potential scepticism over the reliability of data. What needs to be emphasised here is that this compromise does not affect the findings and discussions of this study,

provided that the major arguments are not developed on the basis of particular set of data.

Having set the scene of this research, the next four chapters (Chapters 5-8) will now present the empirical findings of the study. In Chapter 9, there will be an overall comparison and discussion of how far the internationalisation of regulation impacts on China's food safety regulation.

# Part Two: Empirical Findings

# Chapter 5 : Comparing the six food regulatory regimes

The main purpose of this chapter and the subsequent three chapters is to present the empirical findings of the study. In particular, a comparative approach will be used to describe the landscape of the six regulatory regimes, namely regimes for domestic fruits/vegetables, exported fruits/vegetables, domestic meat/dairy products, exported meat/dairy product, domestic manufactured food products, and exported manufactured food products.

While associated risks in the six food domains and some background information about Guangdong Province have been introduced in Chapter 4, in this chapter, the discussion will centre on the empirical findings of four aspects – one on the institutional design of regulatory bodies, and the remaining three on the regulatory context derived from the analytical framework. These include international pressure with respect to export trade and export bans imposed by foreign countries on particular Chinese food products, public opinions and media coverage on different food types, and organised interests embedded in the food industry, pressure groups and local politicians or regulators. This chapter argues that the four aspects vary widely between the six food regulatory regimes (for an overall summary, see Table 4-1), and these variations in turn have profound implications for regulation and the three control components (see Chapters 6-8).

The plan of this chapter is as follows: first, Section 5.1 will present the empirical findings of the institutional design of the state regulatory bodies in different food regulatory regimes, at both the state and local levels. This will then be followed by a discussion of the context under which the regulatory regimes operate. These include international pressure and export (Section 5.2), public opinions and media coverage (Section 5.3), and organised interests inside the 'regulatory space' (Section 5.4). The chapter concludes by a dimensional comparison which reveals similarities and differences among the six food regulatory regimes, and discussing why examining variations in the identified aspects can enhance our understanding of how different international and local factors shape the Chinese food regulatory regimes.

## 5.1 Institutional design of regulatory bodies

In China, different food domains are regulated by different groups of regulatory bodies (see Table 5-1). While some food domains are regulated by a single regulatory agency, some are regulated by multiple regulatory agencies. More complicatedly, these regulatory bodies have different administrative structures at the lower level of government. At the provincial, city and county levels, there are regulatory bodies which have a vertical administration directly supervised by the central government, there are also regulatory agencies having the traditional horizontal administration supervised by the local governments; and in more extreme cases, there are regulatory agencies affiliated with the government but not embedded in the public administration. In turn these variations in terms of structural complexity and fragmentation of regulatory authority have different implications for food safety regulation in different food domains. What needs further clarification here is that the construction of an account of the regulatory institutions in China is far from straightforward, in particular for those at the local levels. For example, although the legal or government documents designate a particular government body as the regulatory agency responsible for enforcement, fieldwork findings indicate that at the local levels the tasks could be performed by another institution(s). This can be for the reason that the designated regulatory body did not have an adequate regulatory capacity to exercise the responsibility, and hence its work was taken over by other regulatory agencies. It can be also an outcome of bureaucratic reforms or government restructuring at the local levels that were not piloted through the Chinese Central Government. For example, at the county/district level in Township B, the precise divisions regulating agricultural product safety are some ‘professional units’ affiliated with the government but not the government body designated in written laws. It was only by conducting fieldwork that the researcher could gather exact information about the infrastructure of different regulatory systems.

**Table 5-1: Regulatory bodies for the six food regulatory regimes**

| Food regulatory regimes | Regulatory bodies at the central level | Regulatory bodies at the Guangdong provincial level |
|---|---|---|
| 1. Domestic vegetables/fruits | • Ministry of Agriculture | • Guangdong Department of Agriculture |
| 2. Exported vegetables/fruits | • General Administration of Quality Supervision, Inspection and Quarantine | • China Entry-Exit Inspection and Quarantine Bureaux (* Vertically under the central government) |
| 3. Domestic meat/dairy products | • Ministry of Agriculture<br>• Ministry of Health<br>• State Administration for Industry and Commerce | • Guangdong Department of Agriculture<br>• Guangdong Department of Health<br>• Guangdong Administration for Industry and Commerce |
| 4. Exported meat/dairy products | • General Administration of Quality Supervision, Inspection and Quarantine | • China Entry-Exit Inspection and Quarantine Bureaux (* Vertically under the central government) |
| 5. Domestic manufactured food products | • General Administration of Quality Supervision, Inspection and Quarantine<br>• Ministry of Commerce<br>• State Administration for Industry and Commerce<br>• Ministry of Health<br>• State Food and Drug Administration | • Guangdong Bureau of Quality and Technical Supervision<br>• Guangdong Department of Foreign Trade and Economic Cooperation<br>• Guangdong Administration for Industry and Commerce<br>• Guangdong Department of Health<br>• Guangdong Food and Drug Administration |
| 6. Exported manufactured food products | • General Administration of Quality Supervision, Inspection and Quarantine | • China Entry-Exit Inspection and Quarantine Bureaux (* Vertically under the central government) |

Source: author's compilation, from laws and regulations of the PRC

Referring to Table 5-1, at the central government level, fruits and vegetables for domestic consumption in China are regulated by the Ministry of Agriculture (MoA). Regarding meat and dairy products for domestic consumption, in addition to the MoA, the State Administration for Industry and Commerce (SAIC) and the Ministry of Health (MoH) are also involved in regulating animal slaughtering. In comparison, manufactured food products for domestic consumption have a much more complex institutional structure. Having regulatory authority divided into different points along

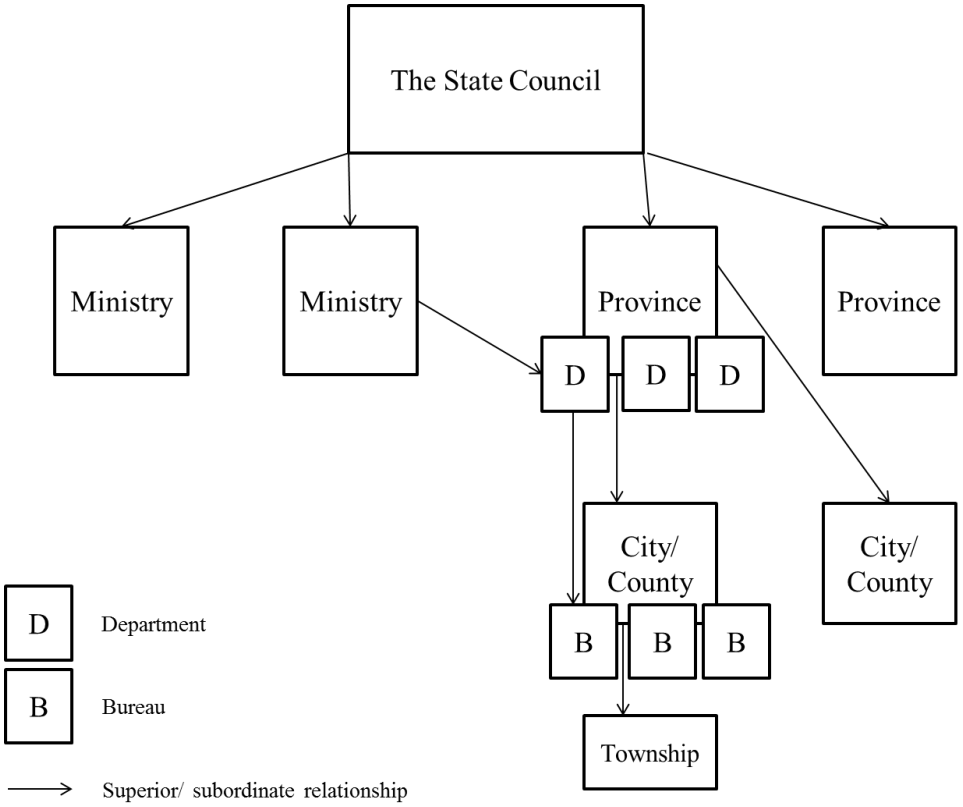
the food production chain (i.e. production, processing, distribution and preparation), a number of governmental bodies are designated authorities in regulating manufactured food. To go into more detail, the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) is delegated to oversee the food manufacturing process; the Ministry of Commerce (MoC) to food trading; the State Administration for Industry and Commerce (SAIC) to food circulation; the Ministry of Health (MoH) to food catering; the State Food and Drug Administration (SFDA) to overall food safety regulation. At the other extreme, exported food products have a simple design of regulatory structure. Instead of having multiple regulatory bodies, only a single organisation, AQSIQ, is delegated to regulate all exported food products, covering both agricultural and manufactured food.

At the provincial level and below, the MoA, MoH, AQSIQ, MoC, SAIC and SFDA have their own local authorities taking similar responsibilities. In other words, for instance, in regulating domestically consumed food products at Guangdong provincial level, a number of regulatory agencies are involved (see Table 5-1), including Guangdong Department of Agriculture, Guangdong Department of Health, Guangdong Administration for Industry and Commerce, Guangdong Bureau of Quality and Technical Supervision, Guangdong Department of Foreign Trade and Economic Cooperation, and Guangdong Food and Drug Administration. Similarly, at the City A level, correspondingly local authorities are set up, including City A Bureau of Agriculture, City A Bureau of Health, City A Administration for Industry and Commerce, City A Bureau of Quality and Technical Supervision, City A Bureau of Foreign Economic Relations and Trade Bureau. Notably the Food and Drug Administration is not established at the city level and below.

However, the institutional design of these local (i.e. non-central) regulatory bodies is getting much more complicated in terms of leadership, attributed to the Chinese political/administrative system. As explained in Chapter 4, in the Chinese administrative system, the Central Government is responsible for policy-making while policy implementation is delegated to their respective local bureaux. Referring to Figure 4-2 in Chapter 4, in the Chinese state structure, there is a five-level administrative network comprising centre, provinces, prefectures, counties and districts, and townships.

Referring to Figure 5-1, at the central level, the State Council is the highest executive organ of state power and the highest organ of state administration. It is composed of a premier (as in the chairman), vice-premiers, state councillors, ministers and chairs of ministries and commissions, the auditor-general and the secretary-general (The Central People's Government of the PRC, 2012). The State Council is formally responsible to the National People's Congress (NPC) and nominally acts by virtue of NPC's authority. Similar to the central level, governments at the local levels including provinces, cities and counties are the executive and administrative organs. The local government is responsible to both the Congress on its own level and the organs of state administration at the next higher level, and is in turn under the supervision of the State Council (Saich, 2011). As shown in Figure 5-1, the Chinese provincial governments are responsible to the State Council; in the same vein, the city governments are responsible to the provincial governments (D. Yang, 2004, p. 28).

**Figure 5-1: The executive branch of the Chinese government**




Source: author's compilation, in reference to Yang's 'Remaking the Chinese leviathan: Market transition and the politics of governance in China' (D. Yang, 2004, p. 28)

With respect to departments and bureaux of provincial and city governments, they experience a dual-head leadership as illustrated in Figure 5-1. For example, while the Provincial Department of Agriculture is a constituent part of the Provincial Government and is under its direct supervision, the Ministry of Agriculture only has a 'guidance' role towards it. In the same vein, whereas the City Bureau of Agriculture is a constituent part of the City Government and is under its direct supervision, the Provincial Department of Agriculture has a 'guidance' relationship with it only. Forms of direct supervision from the Provincial Government and City Government vary, ranging from direction of policy-making and policy implementation, to budgeting and personnel of the administration. This dual-head leadership structure is not only applicable to the Department of Agriculture but also other regulatory agencies such as the Provincial Department of Health, the Department of Foreign Trade and Economic Cooperation, and the Administration for Industry and Commerce. Notably the setting of AQSIQ and its CIQs is an exception, which will be discussed below.

This dual-head leadership of the central and the local has direct impacts on food safety regulation, and they are closely related to discrepancies between central level regulatory policy-making and local regulatory enforcement. Given the crucial differences between supervisory and 'guidance' roles, local protectionism which compromises regulatory enforcement is highly possible. While province leaders have top priority to push up the province's GDP which is taken to reflect their own performance, central policies may not be thoroughly implemented or enforced if there are conflicts with the province leaders' top priority and local interests. For example, the local government may not have strong incentives to combat fake and shoddy products in its market given that strict enforcement may negatively affect GDP growth.

Another special institutional design observed in fieldwork deserving further elaboration is several 'professional units' (*shiye danwei*) affiliated with the government. At the county/district level, the precise divisions regulating agricultural product safety are several 'professional units' (Guangdong Department of Agriculture, 2006). To use District B as an example, professional units involved in food safety regulation include the District B Health Inspection Institute[7], the District B Pollution-free Food Inspection

[7] In Chinese, *Weisheng Jiandusuo.*

Station,[8] and District B Animal Health Inspection Institute[9]. In terms of organisational status, these professional units do not belong to the internal structure of the government – they are not included in the establishment of the civil service and are partially government funded and partially self-financing (Y. Zhou, 2009). Professional units are not-for-profit government-funded organisations or institutions, and their emergence was a result of the broad reform trend towards the marketisation of nonessential service operations in the late 1990s in China. In the 1998 government restructuring programme, streamlining, downsizing and reintegration of the administration were carried out against the backdrop of market transition. One of the measures of reducing the size and scale of the civil service within a short period of time was to transfer some government functions and personnel to government-affiliated professional units (D. Yang, 2004, pp. 49-53). Such lateral transfers occurred in different aspects of the public sector. Those related to food safety regulation included three areas: institutions that carry out regulatory and law enforcement (in our case, the District B Pollution-free Food Inspection Station, and the District B Animal Health Inspection Institute), institutions that provide health care services (in our case, the District B Health Inspection Institute), food testing centres and research institutes, and industry associations (for further discussion, see Section 5.4.1 below). In District B, only a small number of professional units are partly funded by the government, many of them having to generate significant revenue to maintain existing levels of personnel and operations (Interviewee 30).

On the other hand, a marked contrast comes with exported food regulation, which has an institutional design of hierarchical control via vertical administration from the Chinese Central Government. At the provincial level, China Entry-Exit Inspection and Quarantine Bureaux (CIQs) are the regulatory bodies responsible for exported food regulation. There are 35 CIQs in China's 31 provinces (including autonomous regions and municipalities), plus several hundred local offices in shipping ports across the country (MPR GmbH, 2014). Unlike other regulatory bodies which have a dual-head leadership structure as discussed above, all CIQs across the country are under central government's direct leadership and supervision through AQSIQ. In contrast to the 'guidance' relationship between national ministries and provincial departments, the

[8] In Chinese, *Wuguanhai Nongchanpin Zhiliang Jiandu Jianyanzhan*.
[9] In Chinese, *Dungwu Weishen Jiandusuo*.

adoption of vertical administration empowers the AQSIQ to be the sole leadership directly supervising its CIQ offices in provinces and cities.

This vertical administration design for exported food regulation brings about some impacts. First, given that local governments do not play any roles in supervising or guiding CIQs, they cannot exert any form of influence on regulatory enforcement performed by CIQs. Local protectionism resulting from the divergence of interests between central and local authorities is thus less likely to happen. Second, provided that vertical command is fully adopted in every CIQ across the country, regional variations in terms of enforcement measures are unlikely to occur.

In summary, variations in terms of structural complexity and fragmentation of regulatory authority among different food domains have different implications for food safety regulation in China. For example, blame-shifting between different regulators is more prominent in the domestic manufactured food regime than the exported food regime. Moreover, these regulatory variations will have a further impact on the three control components of standard-setting, information-gathering and behaviour-modification. For instance, regulatory turf in enforcement is more likely to emerge in a fragmented institutional design than with a single agency for regulation. The self-financing professional units may also desire to collect fines and other fees as revenue to sustain its personnel and operations. These will be further discussed in the subsequent three chapters.

## 5.2 International pressure and export

The discussion so far has compared the institutional design of regulatory agencies in different regimes and suggested the implications of the variations. As derived from theories in the analytical framework introduced in Chapter 3, three types of global and local force in the regulatory context may also impact on food regulatory regimes in China. The aim of this section and the subsequent two sections is to compare the three aspects in different regulatory regimes and present the findings. These aspects include international pressure and export, public opinions and media attention, and organised interests. This section will focus on the first aspect. Here, direct measurement of

international pressure is difficult, but looking into the number of export bans imposed by importing countries and export values can offer some hints.

**Table 5-2: Major export bans imposed on meat and dairy products from China**

| Scope of import ban | Causes | Sectors affected | Importing countries | Start | End |
|---|---|---|---|---|---|
| Poultry meat, rabbit meat, farmed fish, honey, royal jelly and frozen shrimps and prawns | Excessive veterinarian drug residue level | Meat product sector | EU | 2002 | 2004* and 2008 |
| Products originating from China containing any percentage of milk | Milk with melamine | Dairy product sector | EU, U.S, Bangladesh, Brunei, Japan, Malaysia, Philippines, Singapore, Taiwan, Africa | 2008 | Until now (except Singapore) |

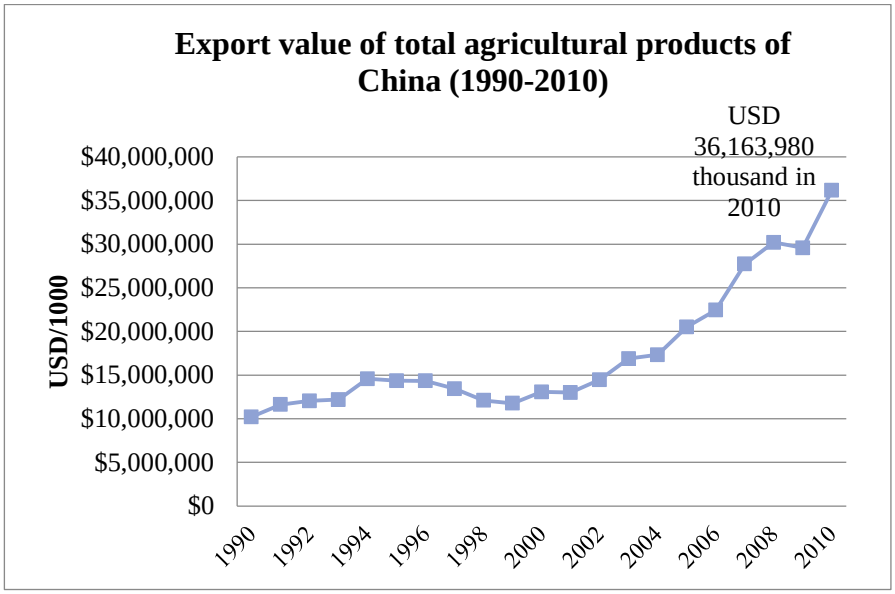
* Ended in 2004 except the ban on chicken and other poultry products, which was active due to the outbreak of bird flu until 2008
Source: author's compilation, from newspaper articles "EU lifts ban" (2004), "EU eases Chinese food" (2004), "EU ban on Chinese food" (2002), "Singapore lifts ban" (2008), and Marquez (2008)

First, different degrees of trade restrictions on Chinese food export are imposed by foreign countries such as Japan, the United States, and the European Union for health risk reasons (Dong & Jensen, 2007). Specific concerns are associated with excessive pesticides and veterinary drug residues, illegal use of chemical substances, and contaminated food with heavy metals. Export ban variations in terms of scale and duration are found between different food domains. In particular, more export bans have been imposed on meat and dairy products than on other foodstuffs (see Table 5-2). From 2008 until now, dairy products and all products containing milk content from China have encountered strict and extensive export bans around the world following the melamine milk scandal occurring in 2008 (see Section 2.2.5 in Chapter 2). Countries imposing bans on Chinese food products containing milk content cover most of the overseas markets including the EU, the U.S., Japan and other Asian countries. On the other hand, meat products including fresh meat, frozen meat and canned meat were banned by the EU for export from 2002 to 2008, because of excessive veterinarian drug residue levels. Comparatively, fruits/vegetables and other manufactured food products without meat or milk content have encountered less food export bans.

Second, partly because of the variations in terms of scale and duration of food export bans, export value and volume varies widely between different domains. To ascertain the export value of each food domain, this section applies export data based on the FAOSTAT database released by the Food and Agriculture Organisation of the United Nations (FAO) (Food and Agriculture Organisation of the United Nations, 2013) if available, it also being supplemented by national data released by the Chinese government.

As shown in Figure 5-2, in general, Chinese agricultural product export has witnessed a recurring growth trend in the past two decades (Food and Agriculture Organisation of the United Nations, 2013); in particular, the growth trend has accelerated since China's entry into the WTO in 2001. In 1990, the export value was USD 10.2 billion; however, in 2010, it reached USD 36.2 billion, indicating at least a 3.5-fold increase. A similar finding is observed in Guangdong Province. Referring to Table 4-3 in Chapter 4, at least a fourfold increase in value of Guangdong's agricultural exports was observed during the period between 2000 and 2012, rising from USD 1.71 billion in 2000 to USD 7.51 billion in 2012.

**Figure 5-2: Export value of total agricultural products of China**

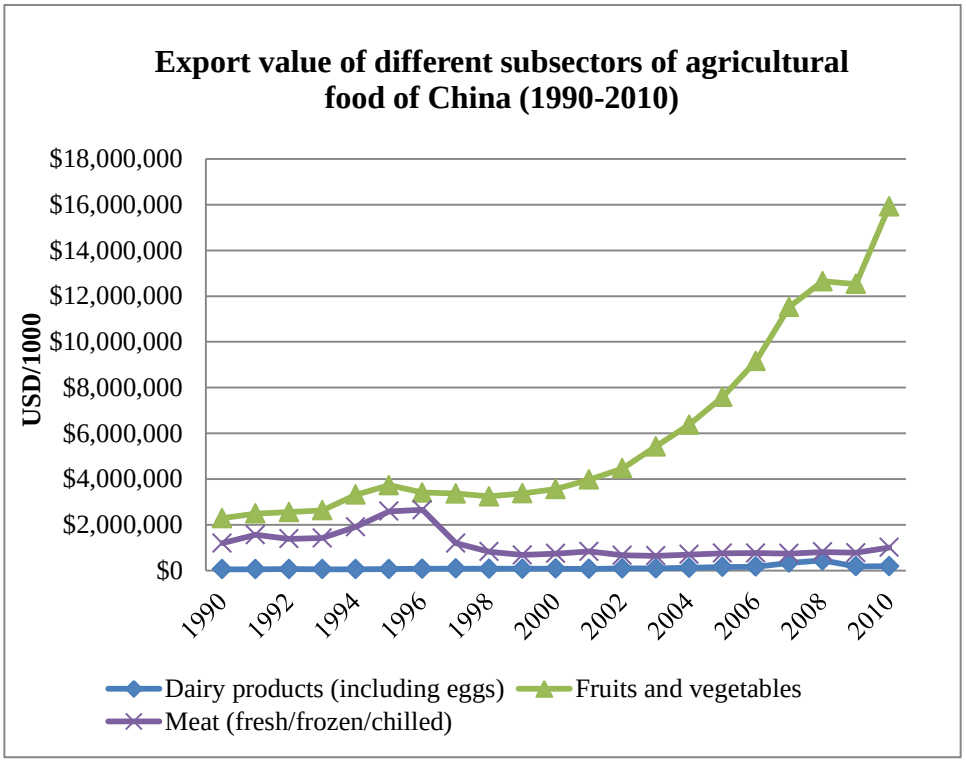



Source: author's compilation, from the FAOSTAT database (Food and Agriculture Organisation of the United Nations, 2013)

Notwithstanding the growing trend in agricultural food exports, different subsectors of agricultural food have witnessed different degrees of growth, and this is inevitably linked to the food export bans discussed above. A comparison of the export figures between fruits/vegetables, meat (fresh, frozen and chilled) and dairy products illustrates well the variations (see Figure 5-3). First, the export value of fruits and vegetables (i.e. USD 15.9 billion in 2010) was much higher than that of meat (i.e. USD 1.0 billion in 2010) and dairy products (i.e. USD 195.9 million in 2010). Second, while there has been a rapid growth in export value for fruits/vegetables over the past ten years, export values of meat (fresh, frozen and chilled) and dairy products have remained constantly low and very low respectively. After the melamine milk scandal, dairy products (including eggs) exported from China witnessed a sharp drop from USD 446.0 million in 2008 to USD 185.1 million in 2009 (Food and Agriculture Organisation of the United Nations, 2013). The 2.5-fold reduction in export value (i.e. USD 260.9 million) inevitably hit the milk industry in China severely, including both dairy products and manufactured food products with milk content such as milk powder (D. Cui, 2012). As of today, the industry has not yet recovered, and there has been persistent demand from the industry to rebuild the reputation of Chinese dairy products

(China Export and Credit Insurance Corporation, 2012), and the image of food 'Made in China' in general.

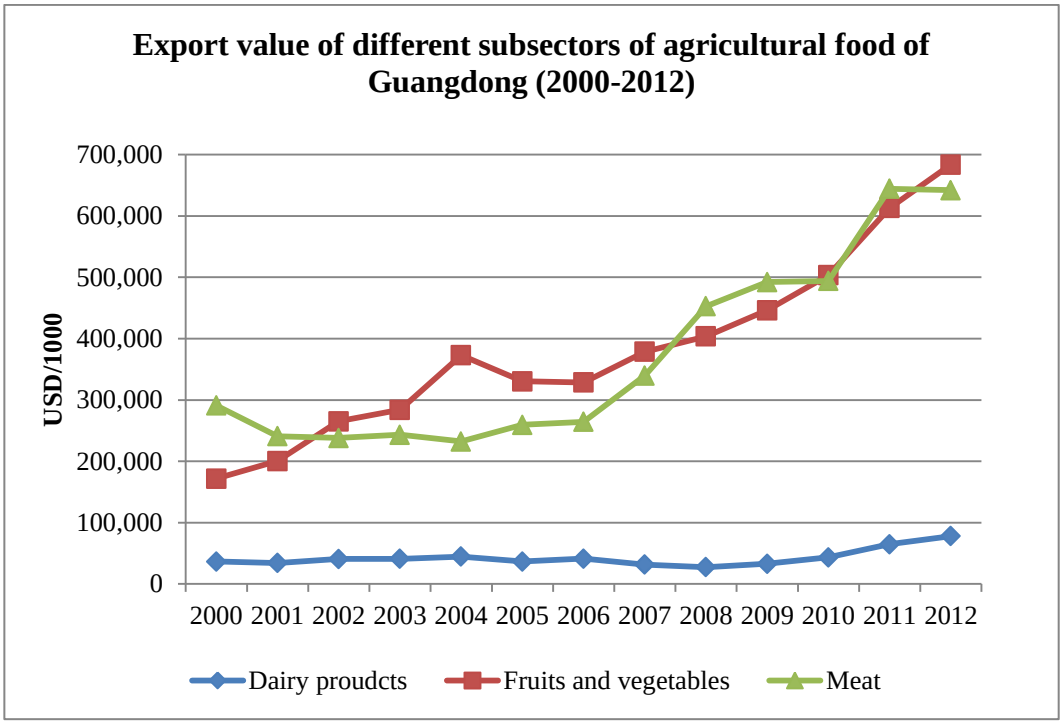
**Figure 5-3: Export value of different subsectors of agricultural food of China**




Source: author's compilation, from the FAOSTAT database (Food and Agriculture Organisation of the United Nations, 2013)

Regarding Guangdong Province, it has also seen a wide range of variations in terms of degrees of export growth across different agricultural subsectors. Figure 5-4 has shown the variations in growth trend between exported fruits and vegetables, meat and dairy products. Similar to the national pattern, fruits and vegetables have seen the most rapid growth (i.e. from USD 171.9 million in 2000 to USD 683.8 million in 2012), while dairy products have remained steadily low (i.e. from USD 36.6 million in 2000 to USD 78.1 million in 2012). Notably a slight difference is observed in the meat sector of Guangdong Province. Whereas total export value of meat has been stable over time between 2000 and 2010 at the national level, Guangdong has seen a rapid growth, rising from USD 291.1 million in 2000 to USD 641.9 million in 2012.

**Figure 5-4: Export value of different subsectors of agricultural food of Guangdong Province**

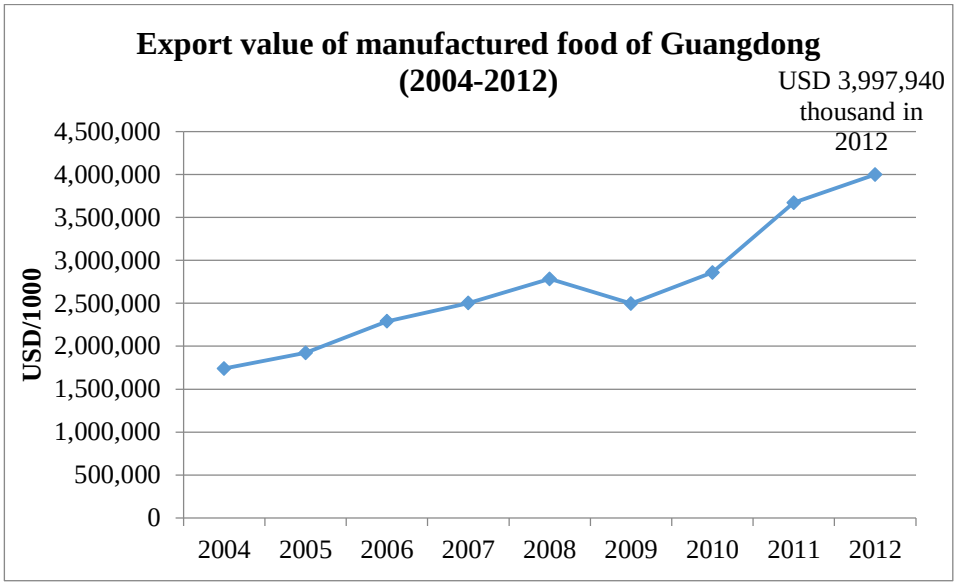



Source: author's compilation, from statistics released in the 'Guangdong Statistics Yearbooks' and the 'Agricultural Statistical Yearbooks of Guangdong' (Editorial Board of Rural Statistical Yearbook of Guangdong, 2000-2012; The Statistics Bureau of Guangdong Province & The Survey Office of National Bureau of Statistics in Guangdong, 2000-2012)

With respect to manufactured food products, as shown in Table 4-4 in Chapter 4 and in Figure 5-5, there has been an upward trend for Guangdong manufactured food exports[10]. During the period between 2004 and 2012, at least a 2.3-fold increase in value of Guangdong's manufactured food exports was observed, rising from USD 1.74 billion in 2004 to USD 4.00 billion in 2012.

[10] The following key manufactured food products are included: canned meat, canned mushroom, sugar, tea, cooking oil, and manufactured products with milk content.

**Figure 5-5: Export value of manufactured food products of Guangdong Province**




Sources: author's compilation, from the statistics released in the Guangdong Statistics Yearbooks (The Statistics Bureau of Guangdong Province & The Survey Office of the National Bureau of Statistics in Guangdong, 2004-2012)

In summary, different food domains have seen different degrees of international pressure. International pressure in terms of export bans imposed is most prominent in the dairy product sector, less on meat and the least on fruits/vegetables and manufactured food products without milk and meat content. These export bans have mainly resulted from food incidents with Chinese exported food. Notwithstanding the food export bans and overall scrutiny of Chinese food safety, China has seen an expansion in international food trade over the last two decades. In terms of export amount and value, there has been an outstanding export growth trend for fruits/vegetables; on the other hand, growth rate of meat and dairy products has stayed at a very low level. While the findings of Guangdong Province are mostly equivalent to this pattern, a slight difference is observed in Guangdong's meat export which has seen a rapid growth in recent years. In general, an expectation of varying degrees of international pressure between different food domains is that efforts of (re)building reputation of food 'Made in China' may differ. For example, adjustments on standards and enforcement force may be put into place to avoid non-compliance with international food standards, or show the commitment of the Chinese government as a responsible

international trading partner. Detailed analysis will be further discussed in the subsequent three chapters.

## 5.3 Public opinions and media coverage

As derived from the analytical framework in Chapter 3, local factors including public opinions/preferences and private interests shape a regulatory regime in various ways. In exploring public opinions and preferences in this section, looking into poll results may be helpful for providing a picture of the public view and preferences toward food safety. However, as explained in Section 4.5 in Chapter 4, data availability and data reliability are the key challenges to data collection in China; for example, results of privately commissioned polls on food safety are not made public. There were also no ongoing opinion polls on food safety between 2000 and 2010. Under the constraint, media coverage will be examined in this section to obtain some hints. A general trend observed is that the issue of regulating unsafe, contaminated and fake food has come into the public agenda over the past decade and witnessed an upward trend. Meanwhile, variations across domains are perceived (see Table 5-3), which are largely attributed to the occurrence of fatal or nonfatal food poisoning incidents. In comparison, the public has the most prominent concern towards meat/dairy products, and moderate concern towards manufactured food products; relatively speaking, the public is least concerned about fruits/vegetables.

**Table 5-3: Public opinions and media coverage on different food domains**

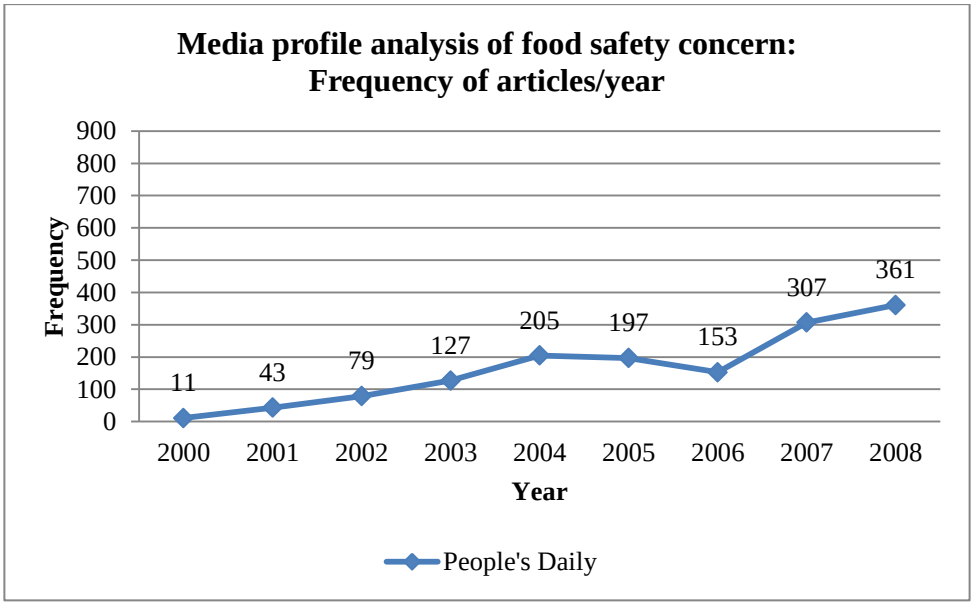
| Food domains | Media coverage |
|---|---|
| Fruits/vegetables | Low |
| Meat/dairy products | High |
| Manufactured food products | Medium |

Source: author's compilation, from the WiseSearch database

Media awareness of contaminated food or fake food has increased in recent years. In recent years, the Chinese government has loosened its grip on the reporting of food contamination issues, and the government's universal condemnation of deliberate food tampering implies its support of the media's investigative reports. There are national,

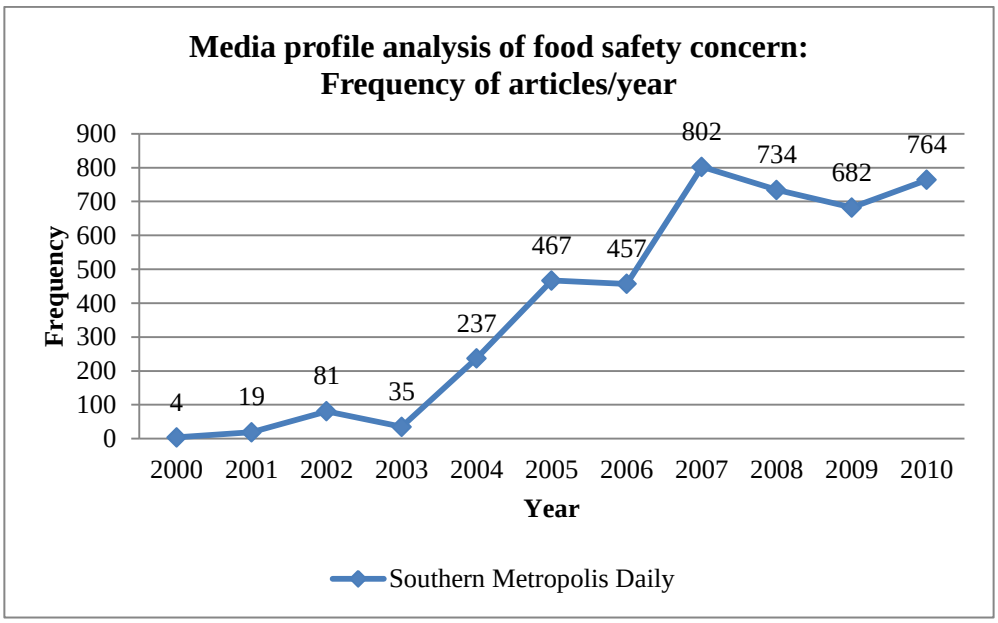
provincial and municipal/regional print media and broadcasting rendering high profile attention on food scandals. For example, in recent years, more articles and news on food safety have been published in newspapers. Figures 5-6 and 5-7 reflect the media profile analysis of food safety concern in the nation and Guangdong Province respectively, having data compiled by the author of this study by using the 'WiseSearch' database from 2000 to 2010 (Wisers, 2000-2010), with the search keywords as '*shipin anquan*' (food safety) and similar words. The *People's Daily* was chosen to represent the national press because it is an official press of China. The *Southern Metropolis Daily*, a daily tabloid newspaper published in Guangzhou City, the capital of Guangdong Province, was chosen to reflect the press in Guangdong Province because its circulation is the highest in the region. From the two figures, it can be seen that there has been a growing trend of media salience of food safety concern across the nation and in Guangdong Province over the past decade. Comparatively, the growth rate of media concern in Guangdong Province is higher than that of the nation.

**Figure 5-6: Media profile analysis of food safety concerns in the *People's Daily***




Source: author's compilation, from the WiseSearch database (Wisers, 2000-2010)

**Figure 5-7: Media profile analysis of food safety concerns in the *Southern Metropolis Daily***




Source: author's compilation, from the WiseSearch database (Wisers, 2000-2010)

Regarding media coverage of different food domains, the three domestic food domains rank in the following order in terms of frequency of media coverage (from the highest to the lowest): 1. meat/dairy products; 2. manufactured food; 3. fruits/vegetables. For example, in 2010, there were 211 pieces of news articles reported by the *Southern Metropolis Daily* which were related to meat/dairy product safety, while the numbers were 149 and 110 for manufactured food and fruits/vegetables respectively (Wisers, 2000-2010)[11].

In addition to the printed press, other forms of mass media such as television, websites and microblogging (*weibo*) in China are devoted to looking at the issue of food safety (G. Yang, 2013). For example, the national broadcaster China Central Television (CCTV) broadcasts a weekly television program named *Weekly Report on Product Quality*[12], and a yearly programme named *CCTV 3.15 TV Show on Product Credibility*

[11] Search keywords and similar words inputted in the WiserSearch database:
For fruits/vegetables: 'food safety and (fruits or vegetables)';
For meat/dairy products: 'food safety and (milk or milk products or meat or eggs)';
For manufactured food: 'food safety and (manufactured food or canned food or tea or sugar or cooking oil)'.

[12] The programme was first broadcasted in 2003; online access:
http://cctv.cntv.cn/lm/meizhouzhiliangbaogao/index.shtml (retrieved on 20 February 2014)

*(3.15 Wanhui)*[13]. These programmes uncover the production process of adulterated goods made in China including food commodities. Also, microblogging has emerged as a new platform for information sharing in China since 2007 and nowadays has become a major source of commentary on a wide range of topics including food safety[14].

Despite the trend of increasing media coverage on food incidents, the fact that the Chinese media are running under censorship cannot be ignored. In particular, criticisms against the government are basically censored although the topic of food safety is less sensitive than in the past (Interviewee 27). According to the *Word Press Freedom Index* released by *Reporters without Borders*, China ranked at 168 out of 175 countries in 2012; in 2013, it was 173 out of 179 (Reporters Without Boarders, 2013). The Chinese state control over the media encompasses a number of government bodies. The most powerful monitoring body is the Publicity Department of the Chinese Communist Party (formerly named the Propaganda Department)[15], which coordinates with the General Administration of Press and Publication and the State Administration of Radio, Film, and Television to ensure content promotes party doctrine. *Xinhua News Agency*, the state news agency subordinated to the State Council, is widely considered 'official propaganda'. The consideration of media censorship should be taken into account because it is a crucial factor in deterring media attention or altering media attitudes towards food scandals. Given the sensitive nature of information, it is difficult to determine the factors under consideration when the censorship judgments were made. This may be contingent on the victim size, the form of ownership and scale of the implicated firms, and the relevance to regulatory failure. However, an interview confirmed that criticisms against the Chinese government are principally censored (Interviewee 27).

Notwithstanding media censorship, the increasing trend of media attention on the issue of food safety is manifest. Also, the media have the highest level of concern towards domestic meat/dairy products, a relatively lower level for manufactured food

[13] The programme was first broadcasted in 1991; online access: http://315.cntv.cn/2012/index.shtml (retrieved on 20 February 2014)
[14] Examples of microblogging include Sina Weibo, Tencent Weibo, Sohu Weibo, NetEase Weibo, and Tianya Weibo.
[15] The Chinese name remains the Propaganda Department of the Chinese Communist Party (*zhonggong zhongyang xuanchuan bu*).

products and the least towards fruits/vegetables. This pattern of variation is closely related to the history of food incidents. One of the expectations of these variations is that regulators may adjust their enforcement activities towards food domains under higher levels of public concern, in order to show their commitment and reduce criticisms or pressure exerted by the media on their work. In the subsequent three chapters, there will be further discussions of how the emergence of food safety crisis raises public concern and consequentially brings about adjustments in enforcement measures under the context of internationalisation of regulation.

## 5.4 Organised interests

In the analytical framework, the last factor influencing regulatory choices and activities refers to interests and their interaction inside the regulatory space. Sources of these interests come from the industry and industry associations, pressure groups, and politicians/bureaucrats/regulators. Regarding the six food regulatory regimes, they operate in different regulatory contexts with varying levels and patterns of interest distribution and concentration (see Table 5-4). Again, what needs to be emphasised here is that variations depicted in Table 5-4 are on a relative basis that different food domains are ranked against each other. One of the general trends observed is that the overall exported food has stronger organised interests than domestic food. When comparisons are made between food sectors, the domestic manufactured food sector has seen stronger interest than domestic fruits/vegetables and meat/dairy products.

**Table 5-4: Organised interests in different food domains (in Guangdong Province)**

| Food Domains | The industry and industry associations | Pressure groups | Politicians/bureaucrats/regulators in the localities |
|---|---|---|---|
| 1. Domestic fruits/vegetables | Diffused interests | Weak | Strong |
| 2. Exported fruits/vegetables | Concentrated interests | Weak | Weak |
| 3. Domestic meat/dairy products | Diffused interests | Weak | Strong |
| 4. Exported meat/dairy products | Concentrated interests | Weak | Weak |
| 5. Domestic manufactured food products | Medium-to-low level of concentration of interests | Weak | Strong |
| 6. Exported manufactured food products | Concentrated interests | Weak | Weak |

Source: author's compilation, from previous literature and interviews conducted by the author

## 5.4.1 Business interests and industry associations

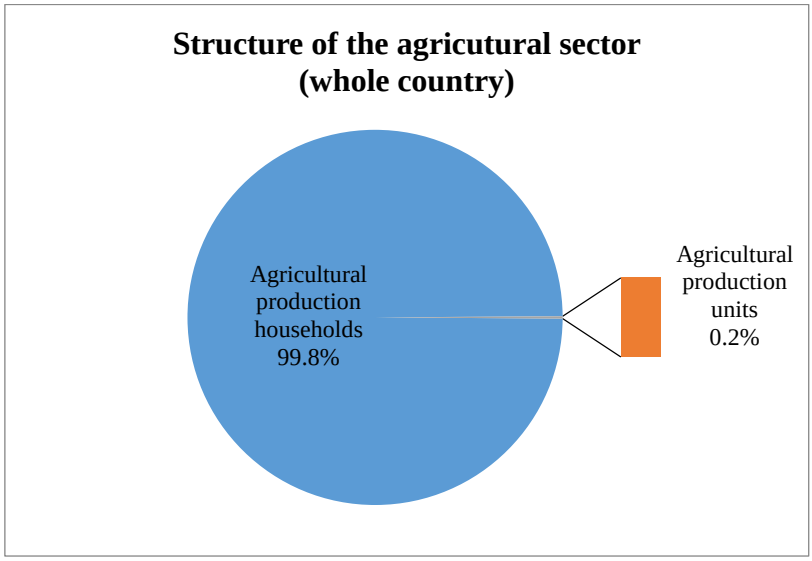
In exploring business interests, it is useful to look into concentration of the industry structure and bargaining power of industry associations. In terms of industry structure, it is found that the key stakeholder in the domestic fruits/vegetables and meat/dairy products industries – farmers – are highly diffused. In China, farmers cover a wide range of ownership and organisational forms, namely individual farmers, family farms (also known as farming households), cooperative economic organisations, rural cooperatives (also known as farmer cooperatives) (Lin, 2013), and agribusiness (also known as factory farms). These forms of farms do not only vary in terms of production size but also the form of ownership and organisation. For example, family farms are owner-managed businesses on a tiny scale; while cooperative economic organisations and rural cooperatives have a larger production scope, often led by agribusiness enterprises or the local governments. On the other hand, while individual farmers produce on their own basis, cooperative economic organisations and farmer

cooperatives are farmers working together by means of a socialised service system (X. Chen, 2013). Under different forms of ownership and organisation, mobilisation of business interest in different types of farms varies. For example, family farms are unorganised rural households scattered in extensive regions. Agribusiness enterprises, cooperative economic organisations and rural cooperatives (which often run under the leadership of the local governments), on the other hand, are more organised and have a closer relationship with the government (Interviewee 14).

In China, the structure of agriculture is dominated by family farms (see Figure 5-8). According to the *National Agricultural Census*, by the end of 2006, there were 2.1 million agricultural technicians and 348.74 million people engaging in agriculture (National Bureau of Statistics of China, 2008). Among all farms, 200.2 million were agricultural production households and 395,000 were agricultural production units[16], meaning that 99.8% of agricultural producers in the whole country were small-sized farming households.

[16] An agricultural production household or an agricultural production unit refers to a household or a unit engaging in agricultural production, forestry, animal husbandry and fishery, as well as the service industry relating to farming, forestry, animal husbandry or fishery. At least one of the following criteria has to be fulfilled: (i) managing a piece of farming land, gardening land or aquaculture land with an area at least 0.1 mu by the end of the year; (ii) managing forest land or grassland with an area at least 1 mu by the end of the year; (iii) rearing at least one medium and large-sized livestock such as cow, horse, pig or sheep/goat by the end of the year; (iv) rearing at least 20 small animals such as rabbit and poultry; (v) selling or consuming self-grown agricultural products of over RMB 500 (approximately USD 73) in 2006; (vi) earning an income of over RMB 500 (approximately USD 73) by providing services to agricultural production units.

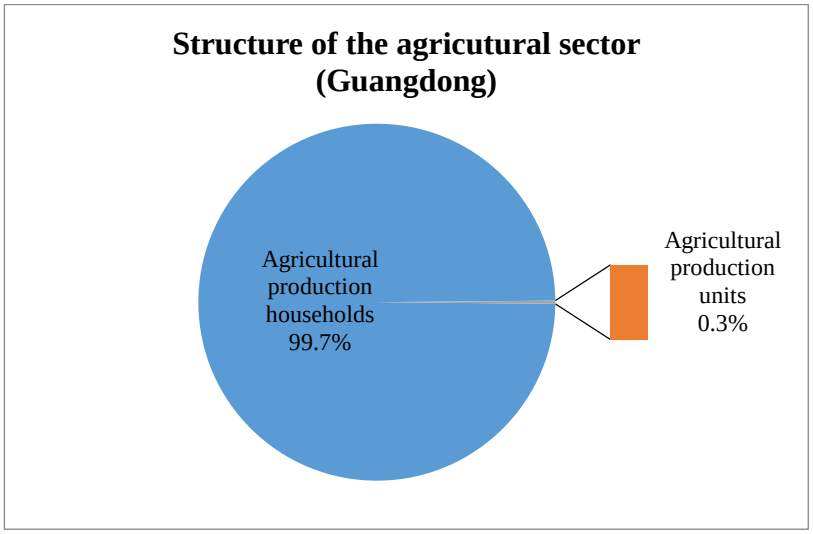
**Figure 5-8: The structure of the agricultural sector in China**




Source: author's compilation, from statistics released in the 'Bulletin on Major Data of the Second National Agricultural Census' (National Bureau of Statistics of China, 2008)

A similar finding of farming household's domination is also found in Guangdong Province (see Figure 5-9). In 2006, there were 7.86 million agricultural production households and 22,300 agricultural production units in Guangdong, which in turn represented up to 14.3 million farmers in total (The Statistics Bureau of Guangdong Province, 2008). In other words, 99.7% of agricultural producers in Guangdong Province were small-sized farming households.

**Figure 5-9: The structure of the agricultural sector in Guangdong Province**



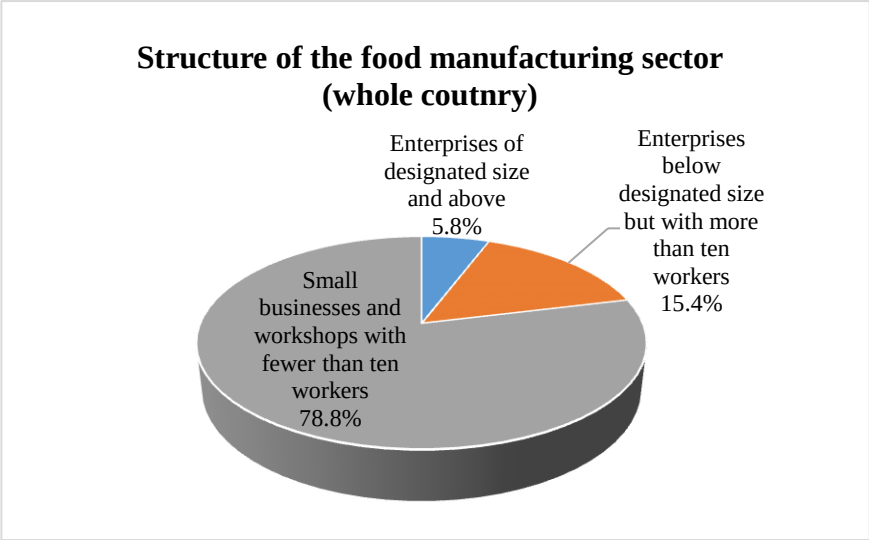

Source: author's compilation, from statistics released in the 'Guangdong Second Agricultural Census Statistics Bulletin' (The Statistics Bureau of Guangdong Province, 2008)

Comparatively, the composition of industry structure tends to be more diverse in the food manufacturing sector in China. In its market structure, there are multinational food enterprises, large-scale food factories, as well as small food workshops which are owner-managed businesses. Relevant data from Guangdong were not available, only national statistics. According to a government *White Paper* (see Figures 5-10 and 5-11), there were 448,000 food processing enterprises in China in 2007 (The State Council Information Office, 2007). Among them, 5.8% (26,000) were enterprises of designated size and above[17], which occupied 72% of the total market share in terms of number of output. 15.4% (69,000) were enterprises below designated size but with more than ten workers, representing a market share of 18.7%. The remaining 78.8% (353,000) were small businesses or workshops with fewer than ten workers[18], which occupied 9.3% of the total market share.

[17] Defined as all state-owned enterprises and non-state owned enterprises that had annual sales of RMB 5 million (about USD 730,000) or more (van Ark, Erumban, Chen, & Kumar, 2010, p. 117), the same as the following.

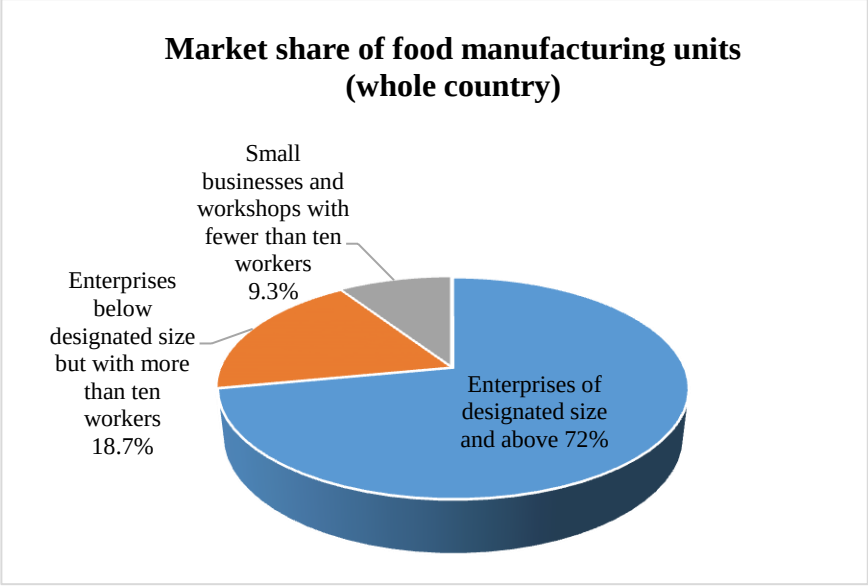
[18] AQSIQ defines food workshops as food production units having the following features: (i) with few workers; (ii) with a fixed site; (iii) with basic production facilities and equipment; (iv) that produce traditional low-risk food; (v) without a food production licence (The General Administration of Quality Supervision Inspection and Quarantine, 2007).

**Figure 5-10: The structure of the food manufacturing sector in China**




Source: author's compilation, from statistics released in the 'White Paper on Food Quality and Safety' (The State Council Information Office, 2007)

**Figure 5-11: The market share of food manufacturing units in China**




Source: author's compilation, from statistics released in the 'White Paper on Food Quality and Safety' (The State Council Information Office, 2007)

In summary, a comparison between Figures 5-8, 5-9, 5-10 and 5-11 reveals that the manufactured food industry is featured by a higher portion of large enterprises in the market structure. While food manufacturing enterprises of designated size and above produced 72% of the total market share, for agriculture there was no evidence indicating a similar domination held by the large farms.

Another distinctive finding can be seen when the domain of domestic food products is further compared with that of exportation. In China, as required by law ("The PRC Law on Import and Export Commodity Inspection," 2002), only registered businesses are allowed to produce food for export, while export registrations are approved and administrated by CIQs under specific requirements (see Section 7.4 in Chapter 7). For example, only cooperative economic organisations, rural cooperatives or agribusiness enterprises can export crops or rear animals ("The PRC Law on Import and Export Commodity Inspection," 2002). In 2013, there were about 200 agricultural exporters in Guangdong Province (Guangdong Entry-Exit Inspection and Quarantine Bureau, 2013). Agricultural food products cultivated by individual farmers and family farms, in contrast, are bounded in the Chinese domestic market only, with no regard for their qualities. Manufactured food witnesses a similar situation – products from small food workshops are not allowed to be exported. In 2013, there were about 900 food manufacturing exporters in Guangdong Province (Guangdong Entry-Exit Inspection and Quarantine Bureau, 2013). Given the constraints, the exported food industry and hence business interest tend to be more concentrated.

Another way to explore business interests is to look at the nature of industry association such as its number and organisational structure or relationship with regulatory bodies. In China, the industry association (*hangye xiehui*) or trade association typically serves the purposes of protecting the rights of their members, providing information, facilitating communication and cooperation inside the industry and with the government, and promoting the industrial growth and expansion (Guangdong Pig Rearing Industry Association, 2012). They are usually founded and partially-funded by the government as ‘professional units’ (*shiye danwei*), and their personnel and operation are to a certain extent under government’s control. As discussed in Section 5.1, these professional units are government-affiliated institutions that emerged as a result of marketisation of nonessential service operations in the late 1990s in China in order to reduce government payroll size (D. Yang, 2004, pp. 49-53). As shown in Table 5-5, across the six food domains, the number of industry associations and their organisational structure vary widely.

**Table 5-5: Industry associations of different food domains**

| Food domains | Number of industry associations at the central level | Affiliated to government regulators? | Number of industry associations at the Guangdong provincial level | Affiliated to government regulators? |
|---|---|---|---|---|
| 1. Domestic fruits/vegetables | Many | Yes | Many | Yes |
| 2. Exported fruits/vegetables | Many | Yes | Many | Yes |
| 3. Domestic meat/dairy products | Many | Yes | Many | Yes |
| 4. Exported meat/dairy products | Many | Yes | Many | Yes |
| 5. Domestic manufactured food products | A few | No | A few | No |
| 6. Exported manufactured food products | A few | No | A few | No |

Source: author's compilation, from previous literature, laws and regulations of the PRC and interviews conducted by the author

In terms of number of industry associations, manufactured food is comparatively less than agricultural food sectors, given that the latter is divided between agricultural subsectors. Regarding domestic agriculture, a full range of industry associations are created in different agricultural subsectors. At the national level, for example, there are the China Association for Plant Nutrition and Fertilisers, the China Green Food Association, the China Association for Seed Trade, the China Citrus Society, the China Animal Agriculture Association, the Dairy Association of China and the China Feed Industry Association. In terms of agricultural export, on top of the above associations, the business interest is also represented by the China Agricultural Council for the Promotion of International Cooperation, and the China Agricultural Association for International Exchange. At the Guangdong provincial level, for example, there are the Guangdong Seed Association, the Guangdong Animal Husbandry and Veterinary Association, the Guangdong Poultry Association, the Guangdong Animal Feed Association, and the Guangdong Dairy Products Association. In contrast, industry associations of the food manufacturing industry are comparatively more concentrated. At the national level, the China National Food Industry Association is the only business group representing the manufactured food sector ("China National Food Industry

Association," n.d.). Its responsibilities include regulating their members and participating in national and local food standard-setting. Similarly, the Food Industry Association of Guangdong Province at the provincial level and the Food Industry Association of City A at the city level are the only representatives in the regions.

Regarding organisational structure of industry associations, a distinctive pattern is found. As a legal mandate, all industry associations are required to register with the local Civil Affairs Department as a social organisation (*shetuan zuzhi*) (The State Council, 1998). However, while industry associations of the agricultural sector are affiliated to the government regulatory body for food safety, those for manufactured food are not. For instance, the Guangdong Pig Rearing Industry Association was established in 1992 as a sub-unit of the Guangdong Department of Agriculture, the government body responsible for regulating pork safety (Guangdong Department of Agriculture, 2008b). In contrast, industry associations of the food manufacturing industry are comparatively more organisationally detached from the regulatory bodies. Although these associations are also registered as social organisations with the civil affairs authorities and are under the supervision of a particular government body, they do not organisationally affiliate to the government regulatory bodies. For example, the supervising unit of the Food Industry Association of Guangdong is the Economic and Trade Commission of the provincial government (Guangdong Pig Rearing Industry Association, 2012). In other words, food regulatory bodies of the manufactured industry (i.e. the Guangdong Bureau of Quality and Technical Supervision, the Guangdong Department of Foreign Trade and Economic Cooperation, the Guangdong Administration for Industry and Commerce, the Guangdong Department of Health and the Guangdong Food and Drug Administration) do not have a supervisory role or funding role in the industry.

### 5.4.2 Pressure groups

As identified by the private interest theory (Stigler, 1971; Peltzman, 1976), pressure groups and all other non-governmental organisations (NGOs) are a key source of interest in the regulatory space. However, NGOs in China are rarely found by independent individuals. Instead, most of them receive financial and policy supports

from the governments at different levels. At the time of writing, the national law of China stipulates that every NGO must be supervised by a government body prior to registration with the local Civil Affairs Department (The State Council, 1998). This statutory requirement ensures all NGOs in China are censored and their movements are under tight control. Independent NGOs are reluctant to use the registration system, and meanwhile government bodies are suspicious and unfriendly towards NGOs offending them or protesting against their interests. Under this condition, the civil society in China is inevitably underdeveloped. Some NGOs in China would register as business enterprises instead of social organisations although they might be unsuccessful or prone to legal offences such as tax fraud. Regarding the food-related area, Greenpeace China exemplifies this situation. Greenpeace China, with the head office located in Beijing, is concerned about genetically-modified food. At the time of writing, it was registered under the business law in China rather than as a social organisation with the Civil Affairs Bureau. According to their spokesperson, Greenpeace did not attempt direct action protests in China but concentrates on "putting solutions in place" (Greenpeace, 2011).

In recent years, some attempts have been made by consumers and victims to form pressure groups advocating consumer rights, although their protest and activities remain highly restricted. The contaminated milk scandal in 2008 illustrates the case well (see Section 2.2.5 in Chapter 2). *Zhao Lianhai*, a father of an infant victim, who was also a former employee of China's food quality and safety authority (Lee, 2011), started a website 'Home for Kidney Stone Babies' to exchange information with other parents. The website documented cases of victims, provided networking between parents, and offered advice on legal action against the milk companies ("Founder of 'home for kidney stone babies'," 2009). Campaigns such as online petition were launched by parents to fight for restitution and treatment for their children. However, activities of the victim group were promptly strictly monitored and they were harassed by the government. At first *Zhao* was threatened by the police and later his family was also warned. The website 'Home for Kidney Stone Babies' was finally closed down. In 2009, *Zhao* was arrested and accused of organising illegal gatherings (i.e. a candlelight vigil in memory of the victims), holding a placard and chanting slogans in a protest, and giving

media interviews in a public place (J. Ma, 2010). Finally *Zhou* was jailed for 30 months for 'inciting social disorder' ("*Zhao Lianhai* found guilty," 2010).

### 5.4.3 Politicians/bureaucrats/regulators

As described in the analytical framework, the political interests of members of the government are another source of private interest identified in the regulatory space. In the Chinese regulatory context, politicians, bureaucrats and regulators in the localities are the key players in shaping regulation and regulatory strategies to further their interests. Inextricable links are also formed between local party leaders, bureaucrats, regulators, business owners and investors in the domestic Chinese politics.

Table 5-6 shows the distribution of these identified interests across different food domains, in terms of interests of officials, party leaders and bureaucrats, and turfs between regulators. Given that there are no apparent variations between different agricultural subsectors of fruits/vegetables and meat/dairy products, in this section the agricultural sector is discussed as an overall category. Relative variations across different sectors are found. One of the general observations is that while interests of official and party leaders are consistently strong across different domains, the regulatory turf is much stronger for domestic manufactured food than exported food products.

**Table 5-6: Local political interests in different food regulatory regimes**

| Food regulatory regimes | Interests of officials/party leaders/bureaucrats | Regulatory turf between regulators |
|---|---|---|
| Domestic agricultural food sector | Strong | Weak |
| Exported agricultural food sector | Medium | Nil |
| Domestic manufactured food sector | Strong | Strong |
| Exported manufactured food sector | Medium | Nil |

Source: author's compilation, form previous literature and interviews conducted by the author

First, in terms of interests of politicians/bureaucrats, the party leaders and bureaucrats in the localities are keen on maintaining a bright GDP growth and a high employment rate in areas under their governance. The main reason behind this is that in the Chinese bureaucratic system, economic achievement is directly linked to cadre

performance appraisal and hence, their career prospects (Cheng & Li, 2012). Having their interests embedded into the locality, party leaders and bureaucrats have strong incentives to intervene in regulatory work if it adversely impacts on the local economy. One of the examples is that the Bureau of Quality and Technical Supervision is required to obtain prior consent from the local government before issuing an order of confiscation or termination of licence to a medium and large-sized food manufacturing enterprise, especially if its ownership falls into state-owned enterprises or TVEs (see Chapter 8). Apart from unemployment and GDP contribution to the local economy, considerations are also made on the basis of local tax revenue, bank loans and debts of enterprises (Interviewee 11). Given that both farming and food manufacturing activities play a crucial role in local livelihoods regardless of what their production scale is or whether they are export-oriented, interests of officials and party leaders are high in all sectors. However, an important exception rests on the exported food sector: even if local party leaders and bureaucrats would like to protect export-oriented enterprises from suspension of license or closure, their influence is rather limited since the regulatory body, the CIQs, are vertically supervised by the AQSIQ at the central government level but not by the local government (see Section 5.1 above).

Finally, as well as politicians and bureaucrats, regulators also have a vested interest in shaping regulatory strategies in a way to maximise their self-interest and safeguard their turf. Turf between regulators is more rigorous in sectors which have numerous regulatory bodies involved, and this is closely related to the institutional design of regulatory bodies discussed above in Section 5.1. Since the regulation of domestic manufactured food involves many regulatory bodies, regulatory turf in this domain is the most explicit. For example, as discussed in Chapter 2, the establishment of the State Food and Drug Administration (SFDA) in 2003 to take over overall food and drug regulation encountered strong resistance because other ministries or administrations were reluctant to transfer the power to the new SFDA (Burns et al., 2010). The reason behind this is linked to the Chinese administrative system, in which fines collected from the regulated business are one of the sources of revenues for the regulatory administrations. Welfare of the regulatory officials, in the meantime, largely depends on the budgets of their administrations, including their pay and bonus, housing allowance, and catering and travelling benefits (see Chapter 8). To protect their well-

being or self-interest, regulators and bureaucrats in general have high incentives to safeguard their vested interests in terms of regulatory power and budgeting.

Comparatively, regulatory turf in agricultural food sector is less apparent, given that only one governmental agency (i.e. the Ministry of Agriculture or Provincial Department of Agriculture) is involved in agricultural food regulation. Nonetheless, the Ministry of Agriculture has to achieve potentially conflicting goals. As specified in the *PRC Law on Agriculture*, "agriculture and village economy development" is the key mandate of the agricultural authorities ("The PRC Law on Agriculture," 1993, Article 1; Ministry of Agriculture, n.d.). Similarly, at the provincial level, the responsibilities of the Guangdong Department of Agriculture include: to develop medium-and-long-term strategies which stimulate the rural economy and boost the agricultural industry, to undertake reforms on rural economics, and to engage in poverty-alleviation measures (Guangdong Department of Agriculture, 2008c). The issue of concern is how the Department of Agriculture ranks agricultural food regulation against rural economic development when conflicts between them arise (see Chapter 8). At the other extreme, regulatory turf and conflicting goals are the least apparent in exported food regulation. This is mainly because only a single regulatory body (i.e. the AQSIQ and its CIQs) is involved in exported food regulation, and it does not bear the responsibility of promoting export growth.

In summary, organised interests in terms of business interests, pressure group interests and bureaucratic interests vary widely across the six food domains. While pressure group interest is consistently low in all food sectors, in the exported food sector, there are relatively concentrated business interests but relatively weak bureaucratic interests in the localities. In comparison, business interests of the domestic manufactured food sector are relatively less diffused than that of the agricultural food sector, although competition and turf between regulatory bodies of the former is more rigorous than the latter. One of the expectations of these variations is that business interests of the exported food industry overall and the domestic manufactured food industry are more easily organised than diffused individual farmers in the domestic agricultural industry, and hence are in a better position to negotiate with regulators to shape regulation in favour of their interests. Meanwhile, since self-interest of party

leaders, bureaucrats and regulators is deeply embedded in the localities, local protectionism is a factor shaping measures of enforcement in the domestic food sectors. The exported food sector, on the other hand, is less affected by local protectionism because the regulatory body is under the vertical administration of the Chinese Central Government. Again, in the subsequent three chapters, there will be further discussions of how these interests impact on food standard-setting and regulatory enforcement; and at the same time, how they are becoming less important under the context of internationalisation of regulation.

## 5.5 Summary

Overall, the chapter has compared the institutional design of different regulatory regimes, as well as three other aspects derived from the analytical framework concerning the regulatory context under which the regimes operate. These include international pressure in terms of export bans imposed by importing countries and its impact on Chinese food export value, public opinions and media coverage on different food types, and organised interests embedded in the industry, pressure groups and politicians/bureaucrats/regulators. Examining variations of these factors and their profound implications is helpful for addressing the research question of how international factors shape food regulatory regimes in China, and relatedly whether local factors contribute in the same way as before under the new context of globalisation of regulation.

In terms of institutional complexity of regulatory bodies, regulatory regimes for domestic manufactured food products are characterised by a fragmented institutional design because regulatory authorities are divided into different points along the food production chain. If this institutional feature is considered together with interest-maximising bureaucrats and regulators, blame-shifting and regulatory turf in the domestic food regulation sector can be explained. Meanwhile, a regulatory agency having a vertical administration has different regulatory outcomes with one having a dual-head leadership. Vertical administration in exported food regulation can make local protectionism less likely to happen, which is typically a result of divergent interests between central and local authorities. On the other hand, the dual-head

leadership of supervisory and 'guidance' roles in domestic food regulation offers local party leaders and bureaucrats an opportunity to alter enforcement measures in a way that maximises their self-interests, such as promoting GDP growth.

Over the last two decades, China has seen an expansion in its overall international food trade. However, whenever a large scale or severe food safety incident occurs, a high level of international pressure is exerted on China by export ban. Among different food industries, export bans are most extensive in the dairy sector, less in the meat sector, and the least in the sectors of fruits/vegetables and manufactured food products without milk and meat content. To rebuild the reputation of food 'Made in China', regulatory reform or adjustments in regulatory strategies need to be made.

Food safety crises do not only adversely impact on international food trade but also consumer confidence. In general, the media has the highest level of concern towards domestic meat/dairy products, relatively low levels for manufactured food products and the least on fruits/vegetables. To respond to opinions, there is pressure for the government to adjust their enforcement activities towards food domains due to higher levels of public concern.

Finally, organised interests in the regulatory space including business interests, pressure group interests and bureaucratic interests may shape the regulatory regimes in different ways. In terms of business interest distribution, the exported food sector has relatively more concentrated interests than the domestic food sector because food exportation is limited to a registered list only. Producers of exported food are therefore easier to organise and negotiate with regulators to shape regulation in a way which maximises their interests. On the other hand, vested interests of party leaders and bureaucrats in the locality are relatively stronger in both the domestic agricultural and manufactured food sectors. Provided that economic growth, employment rate and tax revenue are the key concerns of local officials, it is highly possible that local protectionism in the two sectors may compromise regulatory enforcement.

To put forward the arguments and discuss how the international factors shape food safety regulation in China and correspondingly how the local factors become less important under the context of internationalisation, the following three chapters will

narrow down the analysis to the three control components of a regulatory regime, that is, standard-setting, information-gathering and behaviour-modification. A comparative approach will be adopted to reveal the differences across different regimes, while the discussion will centre on how the effects of internationalisation of regulation explain regulatory variations.

# Chapter 6 : Standard-setting in different food regulatory regimes

The three control components in different food regulatory regimes in China will be presented in this and the subsequent two chapters, and standard-setting will be the focus here. This chapter aims to address the key inquiry *'to what extent does internationalisation of regulation impact on standard-setting in different regulatory regimes?'* by applying different perspectives in the analytical framework introduced in Chapter 3. To this end, it will illustrate types of food standards developed for different food sectors, procedure and practice of setting food standards and parties involved. This chapter argues that standards of the exported food regulatory regime are initially more stringent than that of the domestic ones. However, over the last decade, standard-setting of the domestic food regulatory regimes has witnessed a gradual change. The direction of transformation is towards the convergence of the exported food regulatory regime, in terms of the standards adopted and the practice of setting standards. Consequentially, domestic food standards have become more stringent in recent years under the influence of internationalisation of regulation.

The chapter is structured as follows: in Section 6.1, it will discuss standards regulating exported food products, domestic agricultural food products and domestic manufactured food products. In Section 6.2, it will use a comparative approach to discuss the procedure of standard development of the above food domains. In this section, it shows that business interests have been playing a role in domestic food standard-setting; but alongside, in recent years, domestic food standards and their setting in China have been increasingly influenced by that of international food standards. Finally, Section 6.3 will discuss the impacts of international regulation on standard-setting in the Chinese food regulatory regimes and illustrate how other local factors are becoming less important under the context of internationalisation.

## 6.1 Food standards of different sectors

According to the concept from Hood et al.'s (2001) work, standard-setting is one of the components of a control system in order to "allow a distinction to be made between

more and less preferred state of the system" (Hood et al., 2001, p. 23). Being a 'director' of the control process, in a narrow sense standard-setting denotes the setting of standards such as specifying an acceptable level of risk in quantitative or qualitative terms, with the intention of keeping the state of the system at or below that level of risk. Examples include the maximum levels for pesticide residues and technical requirements for measuring chemical indices. In a broader sense, standards also include other goals, targets and guidelines (Hood et al., 2001, p. 25). Based on this definition, this chapter will focus on standards, goals, targets, guidelines and codes of practice when exploring standard-setting in different food regulatory regimes in China.

Food standards of different food sectors will be introduced in this section, covering exported food products, domestic agricultural food products and manufactured food products. In comparison exported food standards in China are generally more stringent than domestic food standards because international food standards are directly used in international trade. Despite this general trend, in recent years through standard harmonisation and standard revisions initiated by the Chinese government, domestic food standards have become more stringent and similar to exported food standards (see Section 6.2).

### 6.1.1 Standards of exported food products

As discussed earlier in Section 5.1 in Chapter 5, China's approach to exported food regulation is featured by the institutional design of concentrating regulatory power in the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and its directly supervised China Entry-Exist Inspection and Quarantine Bureaux (CIQs). Despite this 'monopoly power' in exported food regulation, the AQSIQ itself does not formulate food standards for exportation; instead, standards of importing countries or international standard organisations are directly applied in international trade.

The Codex Alimentarius international food standards and the ISO international standards are the two major sources of standards that China uses in its international food trade, and these standards usually serve as the basis of bilateral/multilateral trade

agreements between China and other importing countries[19]. The following sections will introduce the two categories of standards and discuss China's role in these international standard organisations. The process of standard development will be discussed in Section 6.2, where a comparison will be made with Chinese domestic food standard development.

### *The Codex Alimentarius international food standards*

To protect human health and facilitate international trade, the Codex Alimentarius international food standards have been developed by three international organisations concerned about food safety. These include the Food and Agriculture Organisation of the United Nations (FAO)[20], the World Health Organisation (WHO)[21], and the World Trade Organisation (WTO)[22]. According to the WTO, their member countries are encouraged to use the Codex standards, guidelines and recommendations where they exist. WTO members who apply stricter food safety measures than those set by the Codex may be required to justify their measures scientifically (World Trade Organisation, 2010, p. 10). Otherwise, involved members will risk being challenged in a WTO dispute.

[19] For example, in the 2007 Memorandum of Agreement (MOA) signed between China and the US (The U.S. Food and Drug Safety Administration & The PRC General Administration of Quality Supervision, 2007), and the 2010 Framework Agreement signed between China and Japan, agreed food trade standards are based on the Codex Alimentarius international standards and the ISO international standards. In other words, Chinese food exported abroad to the US and Japan has to meet the Codex/ISO standards.

[20] FAO is an international body which is concerned with agricultural product security and safety. It serves as a neutral forum for member states to negotiate agreements and debate policies associated with agriculture and fisheries. As a founding member of FAO and a member in the FAO Council, China has maintained a close cooperative relationship with other countries in food and agriculture development (FAO Representation in China, 2011)

[21] WHO is the directing and coordinating authority for health in the United Nations system, providing leadership on global health matters such as setting norms and standards on food safety and promoting implementation. China set up its office as the WHO representative in 1981; in 2004, China and WHO further signed a Memorandum of Understanding (MOU) to strengthen health cooperation and exchanges, with food safety as one of the areas of cooperation (World Health Organisation, 2013, p. 19).

[22] WTO is a rules-based and member-driven global international organisation officially established on 1 January 1995, replacing the General Agreement on Tariffs and Trade (GATT) established in 1948. WTO provides a forum for reducing obstacles to international trade, by negotiations of agreements governing the conduct of trade such as product safety. China became a member of WTO on 11 December 2001, although it attempted but failed to become a founding member in 1995. Since 1986, China had begun working towards becoming a founding member of the WTO and had gained observer status with GAT. However, its admission to the WTO was preceded by a lengthy process of negotiations, mainly because the United States, the European states and Japan requested reforms to be made to the Chinese economy, including tariff reductions, opening up of the markets and adjustment to industrial policies. One of the implications of China's late accession to WTO is that China is bound by global rules that it did not make, although they significantly affect China's vital interests (Prime, 2002, p. 6).

The FAO/WHO Joint Codex Alimentarius Commission (Codex) was jointly established by the FAO and the WHO in 1963, aimed at developing harmonised international food standards, guidelines and codes of practice to protect the health of consumers and ensure fair practices in food trade[23]. Being a science-based organisation, the Codex comprises experts and specialists from a wide range of disciplines. In 1995, the WTO's Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) also names the Codex as the food safety standard-setting organisation of the WTO (World Trade Organisation, 1995, Article 12.3 and Annex A paragraph 3(a)).

### *ISO international standards*

International standards developed by the International Organisation for Standardisation (ISO) are another category of standards used in international food trade between China and other trading partners. The ISO is a transnational standards organisation founded in 1947 and is the world's largest developer of voluntary international standards about product quality including food products (International Organisation for Standardisation, 2012, p. 3). The organisation is a network of national standards bodies, having China as one of the founding member bodies since its creation in 1947[24]. In 2001, the Standardisation Administration of China (SAC) was established, the same year in which China entered into the WTO, and since then the SAC has represented China in the ISO as a full member. The SAC is an administration under the supervision of the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), taking the main responsibilities of unifying standards of different sectors in China, and supervising and coordinating the overall standardisation work (see Section 6.2).

As a full member of the ISO, the SAC participates and votes in ISO technical and policy meetings (International Organisation for Standardisation, 2013b, pp. II/9-10). Its participation in technical committees/subcommittee (TCs/SCs) related to food products or food production measures is also active (International Organisation for

[23] Until 2013, the Codex has "developed over 200 standards covering processed, semi-processed or unprocessed foods intended for sale for the consumer or for intermediate processing; over 40 hygienic and technological codes of practice; evaluated over 1000 food additives and 54 veterinary drugs; set more than 3,000 maximum levels for pesticide residues; and specified over 30 guidelines for contaminants" (World Trade Organisation, 2014).

[24] China's membership was suspended in wartime and then withdrawn in the revolution period between 1950 and 1977 (International Organisation for Standardisation, 2013a).

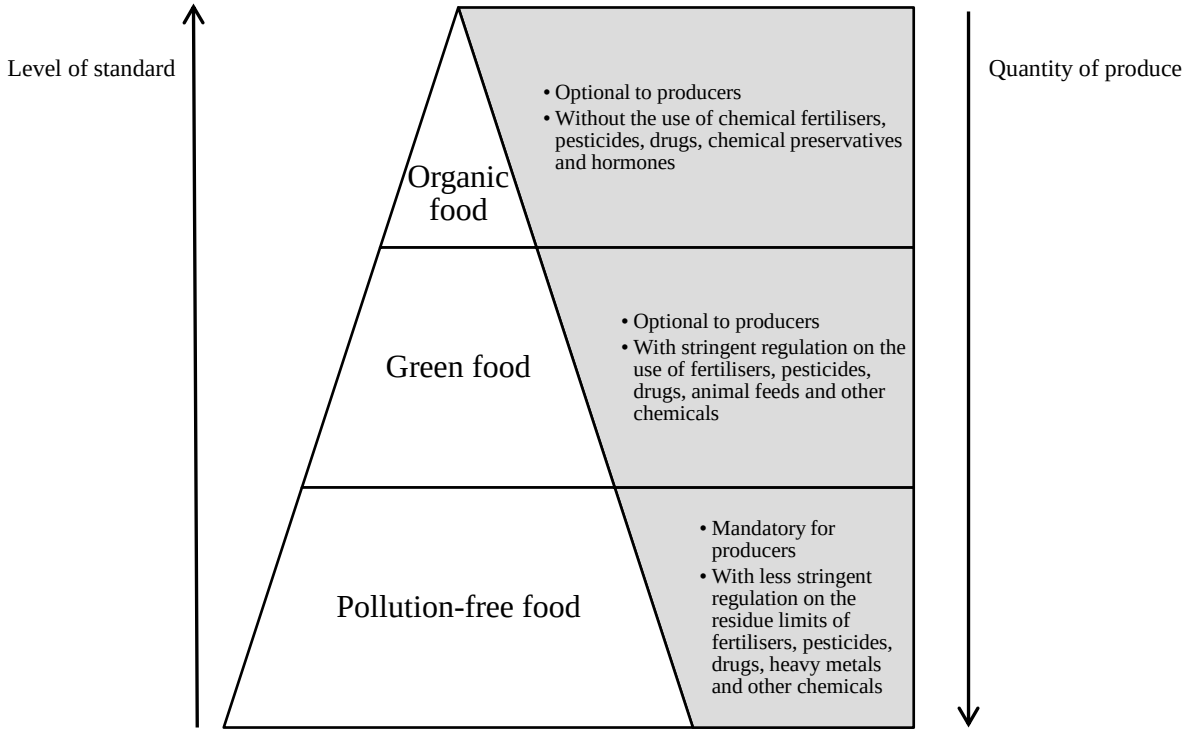
Standardisation, n.d.-c). Until 2013, the SAC has participated in 712 TCs/SCs and three policy development committees; among them, one TC and fourteen SCs are related to food production.

### 6.1.2 Standards of domestic fruits/vegetables and meat/dairy products

Compared with the exported food regime, food standards of domestic food products have a more complicated structure, involving multiple sets of standards developed by various government bodies. This section will first look into various types of standards for domestic agricultural food products covering both domestic fruits/vegetables and meat/dairy products, followed by that of domestic manufactured food products.

A three-level hierarchy of domestic agricultural food standards has been established in China since the early 1990s: 'pollution-free food', 'green food' and organic food (see Figure 6-1). In terms of level of standards, pollution-free food ranks at the bottom in that it has the lowest standard requirements, green food ranks in the middle and organic food at the top. While pollution-free food standards are mandatory market entry standards that all agricultural products are obliged to achieve, green food and organic food standards are optional for farmers.

**Figure 6-1: The three-level hierarchy of standards on agricultural food products**




Source: author's compilation, from laws and regulations of the PRC

A general comparison of the three-level standard structure of agricultural food is summarised in Table 6-1, detailing the status, legal basis, evolvement, regulatory bodies and labels of these standards. The following section will discuss these standards accordingly.

**Table 6-1: Comparisons of the three-level hierarchy of domestic agricultural food standards**

| | **Pollution-free food standards** | **Green food standards** | **Organic food standards** |
|---|---|---|---|
| **Status** | Mandatory;<br>the use of 'pollution-free food' label is optional and subject to approval | Optional | Optional |
| **Legal basis** | The *PRC Agricultural Product Quality Safety Law* | The *Regulatory Measures on Supervision and Management of Green Food Logo* | The *Organic Food Certification and Management Measures;* the *Regulatory Measure on Organic Product Certification Management,* the *Implementing Rules on Organic Certification* |
| **Year of establishment** | 2002; became mandatory in 2006 after extensive food poisoning cases and trade restrictions imposed by other countries | 1992 | 1994;<br>formal legislation in 2001 |
| **Regulator** | The Ministry of Agriculture;<br>(i) Production site certification: the Provincial Department of Agriculture;<br>(ii) Product certification: the Centre for Farm Produce Quality and Safety under the Ministry of Agriculture | The China Green Food Development Centre under the Ministry of Agriculture | The State Environmental Protection Administration;<br>(ii) Overseeing organic certification and accreditation: Certification and Accreditation Administration of the PRC<br>(ii) Conduct assessment and accreditation for certification bodies: China National Accreditation Service for Conformity Assessment<br>(iii) Approval and registration of certification and certification training bodies: China Certification and Accreditation Association |
| **Official label printed on food package** |  |  |  |

Source: author's compilation, from laws and regulations of the PRC

### *Pollution-free food standards*

'Pollution-free food standards', also known as 'quality and safety standards of agricultural products', are the mandatory standards for domestic market entry for all agricultural food products in China ("The PRC Agricultural Product Quality Safety Law," 2006, Articles 11-14). Although pollution-free food standards were first created in 2002, they only became compulsory market entry standards after the legislation of the *PRC Agricultural Product Quality Safety Law* in 2006.

The four-year gap between 2002 and 2006 merits a brief discussion given its importance (see also Figure 2-1). Before the legislation of the *PRC Agricultural Product Quality Safety Law* in 2006, regulation of agricultural food was basically premised on the *PRC Law on Agriculture* legislated in 1993 (revised in 2002) ("The PRC Law on Agriculture," 1993). Instead of agricultural product quality and safety, the key concerns of this law were about rural economic reform and development of the agricultural industry (see Section 2.2.4 in Chapter 2). According to a government document, in the early 2000s, two imperatives emerged which fostered the legislation of the *PRC Agricultural Product Quality Safety Law* in 2006 (Drafting Committee of the *PRC Agricultural Product Quality Safety Law*, 2006, pp. 2-6); these two imperatives are related to extensive food poisoning incidents since 2004, and non-tariff trade restrictions imposed by other countries.

In 2002, after the introduction and promotion of the non-mandatory 'pollution-free food standards', agricultural food safety was considerably improved in China (Drafting Committee of the *PRC Agricultural Product Quality Safety Law*, 2006). However, the progress only lasted for a short period of time. In 2004, there were 381 serious food poisoning cases reported by the Ministry of Health, among them 140 related to agricultural food (Drafting Committee of the *PRC Agricultural Product Quality Safety Law*, 2006). Some widely-reported cases included poisoning garlic in Hebei Province, toxic tea in Anhui Province and contaminated fish with malachite green across the country. Alongside food scandals, China's food export was impeded by food safety problems including the abusive use of chemical fertilisers and pesticides and farmland pollution. Based on the official data, in 2002, 90% of Chinese farms for exportation were adversely affected by barriers imposed by importing countries, which

represented a total loss of about USD 9 billion (Drafting Committee of the *PRC Agricultural Product Quality Safety Law*, 2006). Most importantly, during the early 2000s, China was criticised by other WTO members for lacking a system of compulsory national food standards developed on the basis of scientific risk assessment, while these members were concerned about their vital interests in exporting their agricultural products to the Chinese domestic market. Hence, in order to fulfil the WTO's expectations, the Chinese Central Government was prompted to develop national food standards based on scientific risk assessment and make them compulsory.

Standards of pollution-free food are developed by the Centre for Farm Produce Quality and Safety (CFPQS). CFPQS was established in 2002 as a bureau-level administration under the Ministry of Agriculture (MoA) (Ministry of Agriculture, 2013). According to the *Measures for the Administration of Pollution-free Agricultural Products* issued in 2002, pollution-free food standards are categorised into three main realms (Ministry of Agriculture & The General Administration of Quality Supervision Inspection and Quarantine, 2002, Article 2). These include final product standards, environmental standards on production sites, and technical standards on production process.

First, final product standards are to put maximum residue limits on pesticide residue, drug residue, heavy metal and mycotoxin. According to the government, these chemicals were selected to be put under control because they were the most common sources of risks in vegetables, meats and grains in the early 2000s (Drafting Committee of the *PRC Agricultural Product Quality Safety Law*, 2006, pp. 23-24).

Second, environmental standards on production sites are concerned about the tolerance for harmful materials in the water, air and soil of farmlands (Calvin, Gale, Hu, & Lohmar, 2006). Polluted areas with excessive toxic substances are prohibited from farming ("The PRC Agricultural Product Quality Safety Law," 2006, Articles 15-19). To put this restriction into practice, 'blacklists' are issued by local agricultural authorities who identify areas where farming is disallowed because of severe pollution. In parallel, local governments also compile 'whitelists', designating some privileged farmlands as the 'standardised farming sites'. Farmlands recognised by local authorities

in ‘whitelists’ are recommended areas for farming, where disposal of solid waste, emission of polluted gas and discharge of polluted water are prohibited. According to the official statistics released by the Ministry of Land and Resource in 2013, more than 3.3 million hectares of farmlands in China were severely polluted and prohibited from growing crops, representing about 2% of China’s 136 million hectares of total arable land ("8 million acres of China's farmland," 2013).

Third, technical standards on production process are provided in the forms of standardised operational instructions and guidelines for agriculture. These technical standards include the installation of examination and quarantine facilities in farmlands, and the execution of a record keeping system on invested substances. These compulsory technical requirements are applicable for agribusinesses, farmer cooperatives and cooperative economic organisations only. In contrast, individual farmers or farming households are exempted from the obligations (see Chapter 7).

While pollution-free food standards are mandatory, the use of ‘pollution-free food’ label is optional for farmers and is subject to official certification (see Table 6-1) ("The PRC Agricultural Product Quality Safety Law," 2006, Article 32; Drafting Committee of the *PRC Agricultural Product Quality Safety Law*, 2006, p. 76). Certifications of pollution-free food encompass two areas, that is, production site certification and product certification (Ministry of Agriculture & The General Administration of Quality Supervision Inspection and Quarantine, 2002). While the former is administered by the Provincial Department of Agriculture, the latter is administered by the CFPQS (Ministry of Agriculture & The General Administration of Quality Supervision Inspection and Quarantine, 2002, Articles 13 & 21). For both types of certification, they are valid for three years.

### *Green food standards*

Climbing up the standard hierarchy of domestic agricultural food products to the second level is ‘green food’, which was established in 1992, around ten years earlier than the introduction of the mandatory pollution-free food standards. Rather than being related to food safety concern, green food development was first initiated by the concern about grain security and sustainable rural development. The steer of green food development

in 1992 largely came from the personal drive of a senior official of the Land Reclamation Unit in the MoA, *Liu Lianfu* (Sanders, 2006). In response to the *Eighth Five-year Plan of the People's Republic of China (1991-1995) w*hich highlights the top concerns of the Chinese Central Government about food security, arable land protection and sustainable rural development, *Liu* proposed a series of new initiatives to promote sustainable agriculture in China.

Under this background, the China Green Food Development Centre (CGFDC) was established in 1992, under the supervision of the MoA (The China Green Food Development Centre, 2010). Apart from developing green food standards, the CGFDC is responsible for international liaison (The China Green Food Development Centre, 2012). In 1993, the CGFDC was accepted to the International Foundation for Organic Agriculture (IFOAM) as a member (Sanders, 2006, pp. 211, 216).

Green food is grown in an environment with restrictive use of fertilisers, pesticides, veterinary drugs and other additives (Giovannucci, 2005). It is divided into 'A' and 'AA' classes, with the latter having higher standards. According to the CGFDC, class 'A' green food represents a transition between conventional and organic food, allowing restricted use of chemical fertilisers and pesticides; on the other hand, class 'AA' green food represents a full organic status where the use of chemicals is banned in the farming process (Lu, 2005). As emphasised by the CGFDC, since 1995, green food standards have been developed with reference to standards of the IFOAM, the Codex and other developed countries (The China Green Food Development Centre, 2007). In particular, 'AA' green food standards are designed to conform to all major international standards for organic food, including the IFOAM standards, ISO65 and EU2092/91 (Sanders, 2006, pp. 211, 216). This can be perceived as the very first indicator signalling that the domestic agricultural food system in China has attempted to incorporate into the international system.

Regarding green food certification, samples of soil, water and final products are tested by the CGFDC on residues of pesticides and drugs and heavy metals. 'A' and 'AA' green food certifications are valid for three years and one year respectively, while

certified green food can have the ‘green food’ label printed on its package (see Table 6-1).

### *Organic food standards*

At the top of the three-level hierarchy of domestic agricultural food standards is organic food, which is produced without the use of chemical fertilisers, pesticides, drugs, chemical preservatives and hormones. Organic food in China was developed in 1994 by the State Environmental Protection Administration (SEPA), with an original rationale similar to that of green food – food security concern and arable land protection. However, during the later period, organic food development in China was mainly prompted by international trade.

As discussed above, in the late 1980s, against the backdrop of food security crisis resulting from diminishing arable lands, the MoA has developed class ‘A’ and ‘AA’ green food since 1992. In spite of the progress made by the MoA, in 1994, the SEPA took another initiative in promoting organic agriculture as a response to the Chinese Central Government’s concerns about environmental sustainability in rural areas.

In the mid-1990s, export opportunity emerged as an additional force for the development of organic agriculture in China. At the beginning, foreign markets importing Chinese organic food such as tea included the European Union, the United States and Japan only (International Trade Centre, 2011); however, the demand has witnessed a rapid growth in the later period. In 1996, the total value of exports of organic food was USD 7 million; by 1998, it had risen to USD 10 million; and in 1999 to USD 12 million, with over fifty different products involved, including potatoes, rice, maize, wheat, tea, beans, herbal medicines, vegetables, sesame, honey, eggs and peanuts (Sanders, 2006, p. 216). In 2001, the foreign market for Chinese organic food was further expanded after China’s entry into the WTO. Under the circumstances, the desire of expanding overseas organic market drove the Chinese government to formulate

various rules and regulations on organic agriculture in 2001[25], which defines principles of organic products and requirements of organic certification.

Organic food standards adopted in China are developed on the basis of the IFOAM standards and requirements. The standards, namely "national standards on organic products of China" (Wu, 2005)[26], are formulated by the Organic Food Development Centre (OFDC), a science institute established by the SEPA in 1994 (Ministry of Environmental Protection, 2004). Whilst the OFDC was originally fully funded by the SEPA, it is now partially commercialised through generating revenue itself by providing certification services[27]. Since the OFDC has achieved full IFOAM accreditation and ISO65 accreditation, OFDC-certified organic products are not only recognised by the domestic Chinese market but also enjoy international acceptance (Sanders, 2006, p. 216). In addition, the OFDC possesses mutual recognition with twenty IFOAM accredited certification agencies in the EU, U.S. and Japan, which denotes that OFDC-certified products have a privileged access to these major overseas organic food markets (Ministry of Environmental Protection, 2004).

In summary, the discussion so far has shown that domestic agricultural food standards in China were initially driven by the concerns about food security and environmental protection in the early 1990s, but later on have been driven by export opportunities, international obligations and domestic food incidents.

Conceivably, the number of produce of the three-level products has an inverse relationship with the level of standard – pollution-free food owns the largest share in the market, green food ranks second while organic food has the smallest portion (see Figure 6-1). In China only large factory farms and cooperative economic organisations have the capacity to commit to high-quality production or organic agriculture. This is because of farmers' significant risks in start-ups of organic agriculture: international organic

[25] The first national regulation on organic food certification and accreditation, the *Organic Food Certification and Management Measures*, was issued in 2001 by SEPA. Another two relevant regulations on organic food and organic certification are the *Regulatory Measure on Organic Product Certification Management*, and the *Implementing Rules on Organic Certification* (International Trade Centre, 2011, p. 7).

[26] That is, national standards on organic products (GB/T19630-2005)

[27] The OFDC charges approximately RMB 10,000 (approximately USD 1,460) for inspection and certification of farmers or food processors, depending on the size of their farms or enterprises (Sanders, 2006, p. 220).

food standards normally require that the farmland must have been chemical-free for at least three years before organic farming begins; and during this period of time, there are no premium profits to earn while yields are frequently lower. Under these circumstances, it is unlikely that the initiative to convert to organic agriculture comes from individual farmers themselves (Sanders, 2006). Instead, organic agriculture in China is more likely to be promoted and adopted by organised companies and producer associations (Xie & Xiao, 2007)[28], as well as state farms, collective villages, companies or entrepreneurs (Sanders, 2006).

### 6.1.3 Standards of domestic manufactured food products

Different from the hierarchical standard structure of domestic agricultural food, domestic manufactured food products regulation is featured by having two systems of standards working together at the same time. Corresponding to the two laws related to manufactured food products regulation (i.e. the *PRC Food Hygiene Law* and the *PRC Product Quality Law*, see Chapter 2), two types of manufactured standards are framed – 'food hygiene standards' and 'quality safety standards'. In mid-2009, after the legislation of the *PRC Food Safety Law* ("The PRC Food Safety Law," 2009), 'food safety standards' were further set up with a final goal to replace the former two standards. However, since the review process only officially started in 2013, it is beyond the scope of this study. Therefore, this section will not discuss the 'food safety standards' in detail. A summary of the three types of standards is shown in Table 6-2.

[28] Three organic production models are identified by Xie and Xiao (2007). The first model is known as 'firm leasehold management', under which an organic processor or trader leases land from farmers and this company then manages the farm production. Farmers are paid rent and become farm workers on the company's leased land. The second model is known as 'company plus base plus farmers'. The processor or trader sets up an organic production project in cooperation with a local agent or government in a village or town. Local government signs a long-term contract with farmers for organic production and purchase, while farmers in the designated project areas are requested to convert to organic production to meet the firm's demand. The third model is organic producer associations formed by the township/village-level governments or farmers themselves. The association then manages the production and provides technical support to their members. Agricultural produce is purchased by the associations and finally sold to processors or traders.

**Table 6-2: The three types of standards on manufactured food products**

| | Food hygiene standards | Quality safety standards | Food safety standards |
|---|---|---|---|
| **Status** | Mandatory | Mandatory; the 'QS' certification becomes mandatory in 2008 | Mandatory |
| **Legal basis** | The *PRC Food Hygiene Law* | The *PRC Product Quality Law* | *The PRC Food Safety Law* |
| **Year of establishment** | 1982 | 1993 | 2009 |
| **Official label printed on food package** | None |   | None |

Source: author's compilation, from laws and regulations of the PRC

### *Food hygiene standards*

Food hygiene standards are mandatory food standards developed by the Ministry of Health (MoH). They were first established in 1982 with the legal basis residing with the *PRC Food Hygiene Law (Trial Implementation)* ("The PRC Food Hygiene Law (Trial Implementation)," 1982), and is regarded as the first attempt by the Chinese government to place a barrier on market entry by criteria of hygiene/safety conditions. In 1995, food hygiene standards were further developed, during which the *PRC Food Hygiene Law* was formally legislated after thirteen years of trial ("The PRC Food Hygiene Law," 1995).

Food hygiene standards cover a wide range of areas. These include requirements on raw food materials, food additives, microorganism index, chemical index, packaging and labelling, and hygienic requirements of food processing. According to the official figures released by the MoH, there were more than 400 food hygiene standards in 2007 (T. Zhou & Zhu, 2007). With respect to food products lacking national hygiene standards, provincial governments can formulate their own local hygiene standards which are only binding to food commodities manufactured in its governing regions

("The PRC Food Hygiene Law," 1995, Article 15). Local hygiene standards have to be reported to both the MoH and the SAC for record.

### *Quality safety standards*

'Quality safety standards' are another type of mandatory food standard developed by the AQSIQ for domestic food products. Although quality safety standards were first created in 1993 in accordance with the *PRC Product Quality Law* (amended in 2000) ("The PRC Product Quality Law," 1993), they were not mandatory standards during the early period. Actually the 'Quality safety' (QS) certification only became mandatory for all domestic manufactured food products as late as in 2008.

The evolution of making the 'QS' certification compulsory is similar to the development of pollution-free food standards in the domestic agricultural sector – food incident-driven. The 'QS' certification was initially a voluntary product certification programme introduced in 2000. However, a series of poisoning and counterfeit food reports in the early 2000s drove the Chinese government to make 'QS' certification a compulsory requirement (The State Council Information Office, 2007). For instance, in 2001, 484 persons in Heyuan City suffered from food poisoning after consuming pork contaminated by ractopamine; in 2003, ham factories in Jinhua City were discovered to use dichlorvos as a preservative to control pests; in 2004, fake formula milk of little nutritional value was found in Fuyang City which caused the death of at least twelve infants ("Ten types of food," 2009). Since 2004, five types of the most consumed food in China have been placed under a mandatory requirement of 'QS' certification, including rice, cooking oil, wheat flour, soy sauce and vinegar (The General Administration of Quality Supervision Inspection and Quarantine, 2003). In 2005, ten additional products were further covered by the 'QS' certification[29]. After the melamine milk scandal in 2008 (see Section 2.2.5 in Chapter 2), the Chinese Central Government finally put forward the 'QS' certification to include an additional thirteen products[30]. Since then all domestic manufactured food products in China have been subject to the mandatory 'QS' certification for market access (The General Administration of Quality

[29] These included meat products, dairy products, instant food, frozen food, puffed food, seasoning, drinks, biscuits and canned food (MBA Library, n.d.).
[30] These included tea, sweets, wine, beer, rice wine, pickled vegetables, jam, roasted nuts, egg products, cocoa products, roasted coffee, seafood products and products of starch (MBA Library, n.d.).

Supervision Inspection and Quarantine, 2005). This incremental approach of making product quality standards compulsory shows that food incidents are a driving force directing the evolution of quality safety standards.

Quality safety standards cover a wide range of areas. These include limits on additives, banned use of some chemicals, nutritional specifications of food for vulnerable groups such as infants, technical requirements on food testing, hygiene of production units and facilities, requirements on packaging, labelling and transportation. The 'QS' certification is performed by laboratories affiliated with the AQSIQ or provincial Bureaux of Quality and Technical Supervision, while certified products should have the 'QS' label printed on packaging for market access (see Table 6-2).

### *Food safety standards*

A regulatory reform emerged in 2009 that brought about the introduction of food safety standards, which aim to replace the 'food hygiene standards' and 'quality safety standards' in the long term.

As explained in Chapter 2 (Section 2.2.5), the milk scandal in 2008 led to the legislation of the *PRC Food Safety Law*, which took effect from mid-2009. In this law, it explicitly states that various standards including food hygiene standards and quality safety standards have to be integrated into a single set of compulsory 'food safety standards' ("The PRC Food Safety Law," 2009, Articles 19 and 22). According to the MoH, there are about 5,000 various food-related standards to be reviewed. Although the review of existing standards started officially in 2013 (National Health and Family Planning Commission, 2014), 185 food safety standards and guidelines were issued in 2011 (Q. Cui, 2011); in 2013, 411 food safety standards and guidelines were further issued (National Health and Family Planning Commission, 2014). Government officials admitted that the long history and vested interests in hygiene standards and product quality standards are the main obstacles for the setting of new food safety standards (Q. Cui, 2011). As explained earlier, since this is beyond our research scope, food safety standards will not be further elaborated upon here.

In summary, the discussion so far has shown that the evolution of domestic manufactured food standards in China is to a large extent driven by food safety crises in

the past decades. Getting a broad overview of all food standards on both exported and domestic food sectors, the next section will illustrate how domestic food standard-setting in China is influenced by the exported food regulatory regime under the context of internationalisation of regulation.

## 6.2 Processes of standard-setting in different food regulatory regimes: A comparative perspective

The evolution of domestic food standards described above has so far indicated that transformations of domestic standards are driven by factors of environmental protection concerns, export opportunities, international obligations and food scandals. This section will further look into how these standards are formulated. In general, it can be seen that business interests have played a significant role in domestic food standard-setting in China. However, recent years have seen a trend of transformation indicating that standard-setting in domestic food regulatory regime is increasingly influenced by the exported food regulatory regime. And under this context, business interests are becoming less important. First, in terms of the procedure of food standard-setting, the process of domestic food standard development has become more or less similar to that of the Codex as well as the ISO. Second, in formulating domestic standards, international standards are taken as a reference. Selected domestic food standards are also directed by the SAC to be in harmony with international standards. Third, the basis of domestic food standard-setting is gradually more inclined to international practice and norms such as the use of scientific risk assessment.

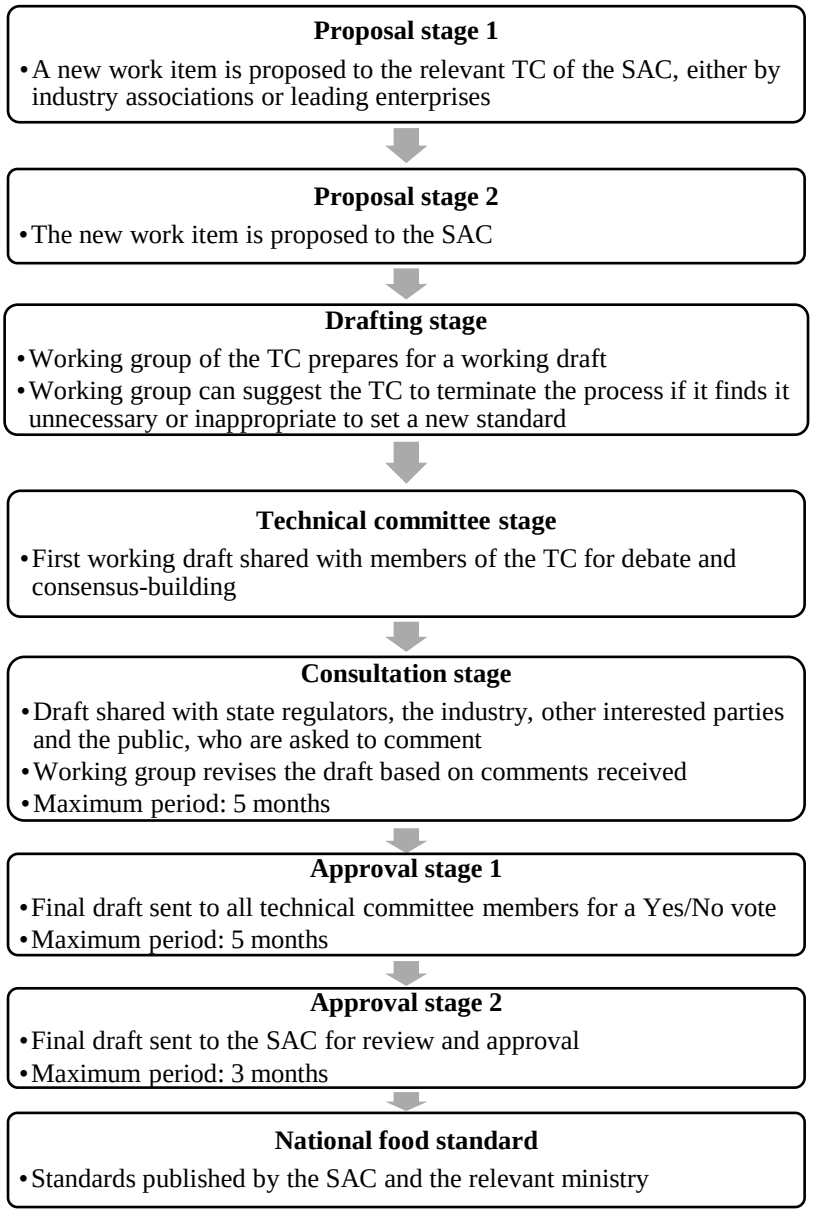
In the earlier period before 2008, the process of domestic food standard-setting has been perceived by both provincial regulators and the regulatees as non-transparent, as well as being inclined towards the business interests of large-sized producers (Interviewees 2, 7, 9, 11 and 25). For example, the compositions of committees responsible for drafting food standards predominantly represent the interests of the leading enterprises rather than medium and small-sized businesses. Examples include committees of canned fish and soft drinks (Interviewee 9). An official further illustrated the scenario in the interview using the case of Guangdong style cured meat (Interviewee 9). In 2005, a committee of eight members was formed to draft a new standard on

Guangdong style cured meat products (Guangdong Bureau of Quality and Technical Supervision, 2007). Among the eight members, two were representatives of industry associations[31], four were from leading enterprises of the cured meat products industry, one was an official from the regulatory body[32], and one was a scientific expert. Small businesses, however, were not represented on the committee. The predominance of leading enterprises in the committee was criticised by small producers as favouring the business interests of large producers. When the proposed new standard of Guangdong style cured meat products was published in 2007, it was criticised by small producers as too stringent so that their lower-priced sausages could no longer fulfil the new standards. In other words, the stringent standard has become an obstacle for small producers to survive in the market. Despite efforts made by small producers to bargain with the regulatory body, the new standard was finally promulgated. Since then, products of these small producers have to be named 'local flavour sausages (*fengwei lachang*)' instead (Huang, 2007).

However, a gradual change has been observed in about 2008 – the practice of standard-setting has become more transparent and standardised. Figure 6-2 summarises the procedures of standard-setting of domestic food standards. Notably the role of the Standardisation Administration of China (SAC) in standard-setting has become critical, although it is not delegated as the regulator of any food sectors in China[33].

[31] That is, Guangdong Food Industry Association, and Guangdong Sausage Industry Association
[32] That is, Guangdong Bureau of Quality and Technical Supervision
[33] For example, before 2003, food hygiene standards were formulated by MoH solely; however, from 2003, they are more likely to be developed and published together by the MoH and SAC.

**Figure 6-2: National food standard development in China**



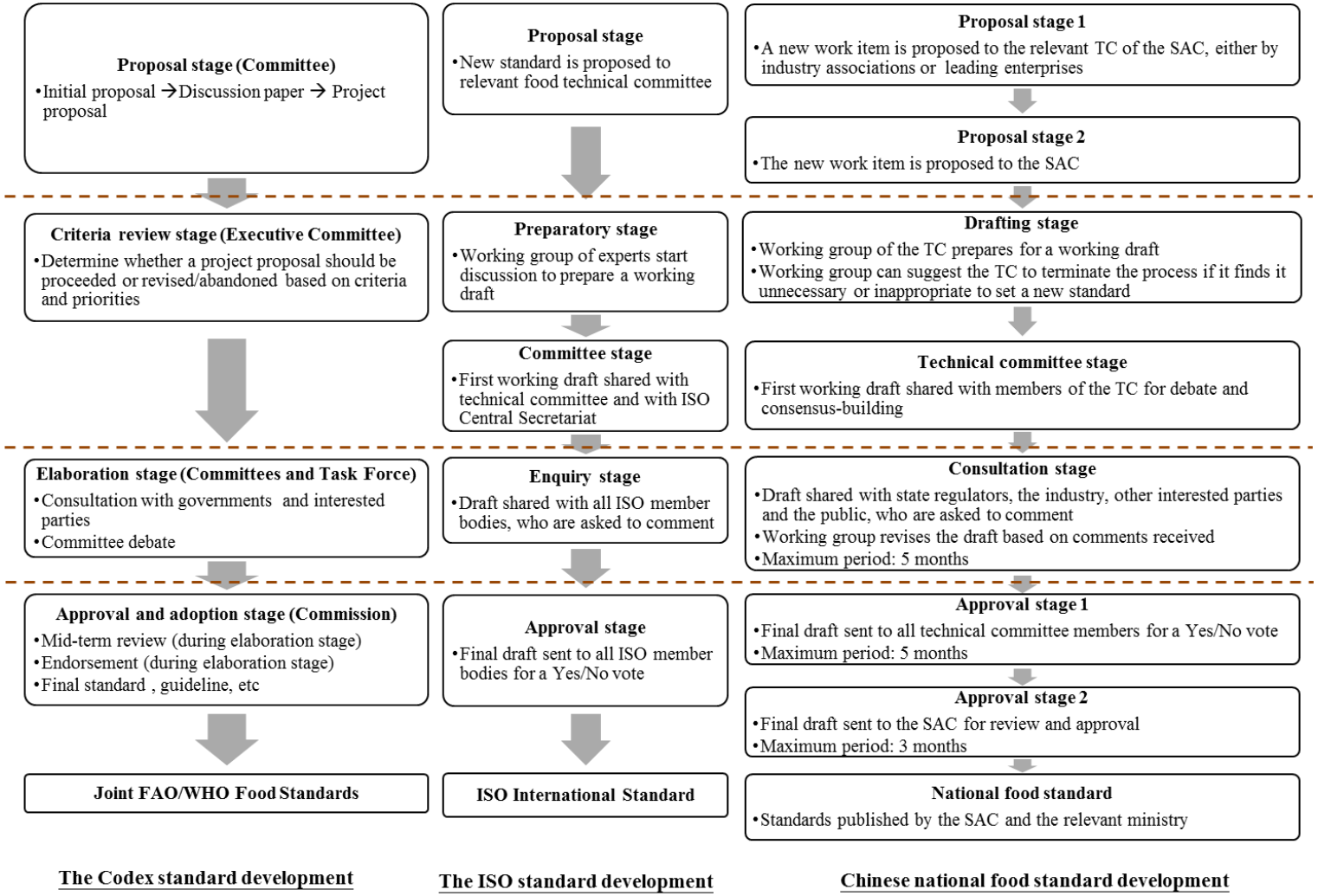

Sources: author's compilation from interviewees 2, 7, 9 and 11

The steps of domestic food standard-setting are as follows, covering the proposal, drafting, committee, consultation, approval and publication stages. First, at the first proposal stage, a new work item proposal is submitted to the relevant technical committee (TC). If an approval from the TC is obtained, the new work item proposal is then submitted to the SAC at the second proposal stage. The SAC will then determine the inclusion of the work item in its working programme. If the proposal is accepted by

the SAC, a working group of experts is formed by the TC for the preparation of a working draft. At this drafting stage, if the working group finds it unnecessary or inappropriate to develop a new standard, it can advise the TC to terminate the process. Otherwise, the working group will complete the first working draft and submit to the TC. Then at the technical committee stage, members of the TC will debate on the working draft for consensus-building. Afterwards the consultation stage begins. The draft is circulated to relevant regulatory bodies, the food industry and the public for comments for a period of five months at most. Comments received are returned to the originating working group for consideration and study; if necessary, a revised document is worked out. With a final draft completed by the working group, it is submitted again to the TC at the first approval stage for a final debate. An approval or disapproval decision should be made within a period of five months. If unanimous consensus cannot be reached inside the TC, a Yes/No vote will be held. For the final draft to pass, a three-fourths majority is required. The final draft is further submitted to the SAC at the second approval stage for review. A final approval or disapproval decisions should be made within a period of three months. Once the final draft has been approved by the SAC, it becomes the national standard and will be published by the SAC together with the relevant ministry.

When comparing this procedure of domestic food standard-setting with those of international food standards that Chinese exported food products apply, some similarities can be found. Figure 6-3 is a comparison between the Chinese national food standard development and the Codex and the ISO international standard development.

**Figure 6-3: A comparison of different food standard developments**




Source: author's compilation, from "Understanding the Codex Alimentarius" (Secretariat of the Joint FAO/WHO Food Standards Programme, 2006, p. 16), the webpage of ISO (International Organisation for Standardisation, n.d.-b) and interviews conducted by the author

From Figure 6-3, similarities in terms of technical committee formation and consultation are observed. First, the formation of technical committees (TCs) and the reliance of TCs on standard-setting in China are identical to the practice of the ISO. In the ISO, TCs, together with their subcommittees and working groups, are responsible for developing ISO standards. Similarly, inside the SAC in China, there are about 518 TCs responsible for researching and drafting national standards in different technical areas[34]. The formation of TCs can either come from the initiatives of the SAC or from the relevant ministry such as the MoA, the MoH or the AQSIQ. Industry associations and leading enterprises in the industry may also directly negotiate with the SAC or the relevant ministry about the creation of a TC. If the SAC accepts the proposal, a TC is then formed and is normally jointly-run by both the SAC and the relevant ministry. The SAC and the ministry can then nominate and appoint members to the TC. Members of TCs include experts and specialists from research institutes and academia, industries and industry associations, ministries and state regulators (Interviewees 2, 7, 9 and 11). This practice is also similar to the multi-stakeholder approach of setting standards adopted by the ISO. As explained by the ISO, this approach "consolidates contributions from industry, government, research, academia, international organisations and NGOs representing all stakeholders including consumers and small businesses" (International Organisation for Standardisation, 2012, p. 2).

Second, the consultation stage in the standard-setting process of the SAC in China is also similar to the Codex and the ISO. At the consultation stage, drafted standards are shared with relevant regulatory bodies, the industry, other interested parties and the public for comments. Consultation documents are sometimes posted online. Such consultation exercises are similar to the Codex and the ISO which request their member countries to comment on the draft. This consultation process, together with the multi-stakeholder approach introduced above, consequentially bring about a more transparent decision-making process of domestic food standard development in China.

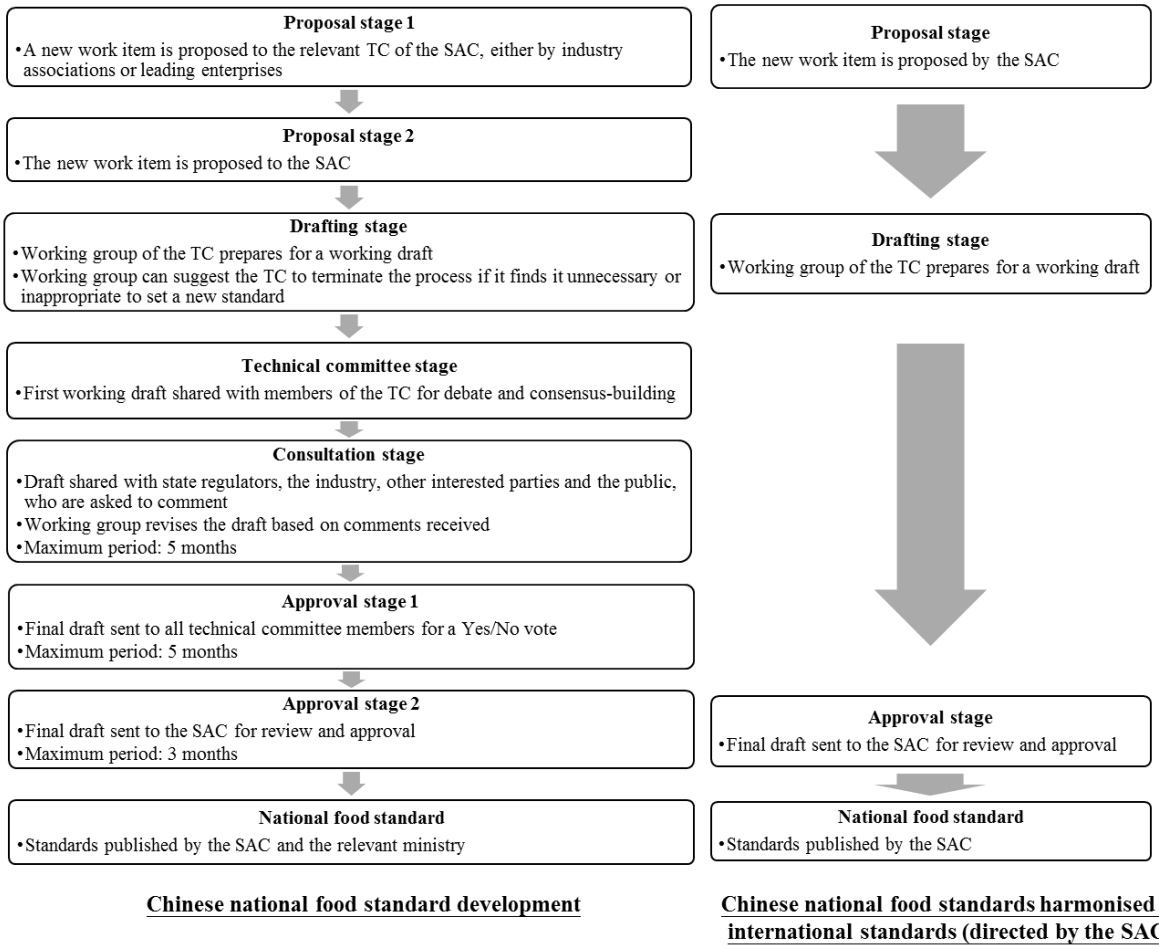
[34] For example, in terms of agricultural food products, there are TCs on vegetables (TC 467 Vegetables), dairy products (TC 433 Dairy Products), honey (TCSWG2 Honey) and slaughtering (TC 516 Slaughtering) (The Standardisation Administration of China, n.d.). Regarding manufactured food products, SAC has TCs on food additives (TC 11 Food Additives), rice and noodles (TC 361 Rice and Noodles), drinks (TC 472 Drink), meat products (TC 399 Meat Products) and flavouring (TC 398 Flavouring) (The Standardisation Administration of China, n.d.).

On top of these similarities, standard harmonisation is a strong indicator suggesting a direct influence of exported food standards on domestic food standards in China. Standard harmonisation here refers to the adoption of consistent international standards in domestic standards. In China, the initiatives of harmonising domestic food standards to international ones such as the ISO international food standards are directed by the SAC. Although there was no official data indicating exactly how many domestic food standards in China are harmonised to international standards, an inference can be made from the official figures released by the SAC on its overall national standards covering all sectors. By the end of 2006, the total number of national standards in China reached 21,410. Among them, 9,931 (46%) were adopted from international standards such as the ISO, the International Electrotechnical Commission (IEC), and the International Telecommunication Union (ITU) (The Standardisation Administration of China, 2011). In recent years, the Chinese Central Government has also publicly expressed its goal of increasing the number of standards that are based on adoptions of international standards or standards of developed countries (American National Standards Institute, n.d.).

In fact, in some documents prepared by the working groups of TCs in the SACs, they explicitly state that Chinese national food standards are drafted with reference to other international standards. For example, as laid down in the draft, the 'Hygiene Standards on Canned Fish (GB14939-2005)' correspond to the Codex Alimentarius standard 'Codex Stan 70-95 Canned Tuna and Striped Tuna' (Ministry of Agriculture & The Standardisation Administration of China, 2005, p. 2). Another example is the draft of 'Guangdong Local Standards on Drinking Natural Spring Water', which states explicitly that the proposed standards are drafted with reference to the Codex Alimentarius standard 'Codex Stan 227-2001 Bottled/Packaged Drinking Waters' (Guangdong Bottled Water Industry Association, 2011).

The process of standard harmonisation is summarised in Figure 6-4, while a comparison is made with the procedure of usual Chinese national food standard development.

**Figure 6-4: A comparison of standard harmonisation and the usual Chinese national food standard development**




Sources: author's compilation, from interviews conducted by the author

Comparing the standard harmonisation procedure with domestic food standard development procedure, the most obvious finding is that in the case of standard harmonisation, industry associations and leading enterprises are barely included in the process. In particular, the following stages are left out: proposal stage one when a work item is proposed to the TCs by industry associations or leading enterprises, the technical committee stage when the first working draft is shared with members of the TCs for debate and consensus-building, the consultation stage when drafts are shared with other parties for comments, and approval stage one when members of the TC cast their votes for the final draft. In general, the role of the TCs has been minimised to work on the working draft only, without the authorities deciding whether standards should be set or revised. Similarly, because of the lack of a consultation process, regulatory bodies, the food industry and consumers are less able to exert their influence over the proposed

standard. Instead of adopting a multi-stakeholder approach with consultation, a top-down approach is observed in standard harmonisation cases.

Finally, in terms of the basis of standard-setting, the use of scientific risk assessment can be perceived as another piece of evidence suggesting that international regulation has exerted some significant influences on the domestic food regulatory regimes. Take pollution-free food standards as an example, the requirement of applying results of scientific risk assessment in standard-setting is explicitly highlighted in the *PRC Agricultural Product Quality Safety Law* legislated in 2006 ("The PRC Agricultural Product Quality Safety Law," 2006, Articles 6 & 12). As explained above, this practice aims to respond to the WTO's expectation and critiques of other WTO members (Drafting Committee of the *PRC Agricultural Product Quality Safety Law*, 2006, p. 17). Corresponding to the requirement, the Commission of Risk Assessment of Agricultural Product Safety (CRAAPS) was established under the MoA (The Press Office of the Ministry of Agriculture, 2012). In 2012, 76 members were appointed in the CRAAPS (Ministry of Agriculture, 2012a), comprising scientific experts ranging from the disciplines of agriculture, environment, public health, to quarantine and veterinary, as well as representatives from academia and government. The mandates of the CRAAPS are to conduct a risk analysis on potential hazards in agricultural products, and evaluate their risk impacts. Assessment results and policy advice are delivered to the MoA as well as the SAC for considerations of further actions such as standard formulation or amendment (Ministry of Agriculture, 2012b).

## 6.3 Discussion: Impact of internationalisation of regulation on standard-setting

This chapter has discussed different types of standards in various food regulatory regimes in China and the way standards are developed. Overall, the evolution of domestic food standards was driven by environmental protection concerns, export opportunities, international obligations and food incidents. The observed trend is that standards for Chinese exported food are in general higher than that for domestic consumption, because the former directly adopt international food standards from the Codex and the ISO. However, in recent years a transformation has emerged that standard-setting of the domestic food regulatory regimes is increasingly influenced by

the exported one, in terms of standards adopted and the practice of setting standards. Consequentially, domestic food standards have gradually become higher.

This section aims to explore the question raised in the beginning of the chapter: *'to what extent does internationalisation of regulation impact on standard-setting in different regulatory regimes?'* To answer the inquiry, the impacts of the internationalisation of regulation can be classified into compulsory international obligation and voluntary learning as follows:

First, in terms of compulsory international obligation, the most obvious influence of the internationalisation of regulation is on the Chinese exported food sector, where the Codex and the ISO international food standards are directly applied. This is because of international obligations that China as a WTO member should comply with WTO agreements. Meanwhile, the use of scientific risk assessment as the basis of national standard-setting is also for the purpose of fulfilling WTO expectations.

Second, in terms of voluntary learning, the Chinese government has tried to develop national food standards in accordance with international standards, although no coercive force is imposed. For example, as early as in 1992 and 1994, green food standards and organic food standards were developed with reference to standards of the IFOAM, the Codex, the ISO and other developed countries, with the aim of expanding the export market throughout the world. In recent years, the Chinese Central Government has also pushed forward harmonisation work with its national food standards, towards a convergence with international Codex and ISO standards. Similarly, although it is not a compulsory international obligation, China is using a similar practice and procedure of national food standard-setting as that of the Codex as well as the ISO. For example, the formation of technical committees and working groups in the SAC, and the multi-stakeholder approach of standard-setting are both similar to the practice and principles of the Codex and the ISO.

In summary, the impact of internationalisation of regulation on standard-setting in different Chinese food regulatory regimes is becoming increasingly influential and strong. In the exported food sector, its impact is direct and coercive under international obligations and harmonisation. On the other hand, in the domestic food sector, its impact is inclined to be a kind of learning process resulting from transnational

communication, whereby China has started to gain international experience after its WTO entry, and in particular through the SAC's participation in different global standard institutions. Against this backdrop, domestic food standards are consequentially under a transformation towards a convergence with exported food standards. As a result, the local factor of business interest is becoming less important in standard-setting under the trend of harmonising national food standards with international standards, as initiated by the Chinese Central Government.

With an understanding on how food standards in China evolve and the process of setting them, the next two chapters will turn to discuss how these food standards are enforced in practice.

# Chapter 7 : Information-gathering in different food regulatory regimes

In this chapter, variations in the control component of information-gathering across the six food regulatory regimes will be presented. It aims to address the inquiry *'to what extent does internationalisation of regulation impact on information-gathering in different regulatory regimes?'* To this end, this chapter will look into the question from different perspectives in the analytical framework (see Chapter 3), comprising regulation as a product of internationalisation of regulation, as a response to public opinions, and as an outcome of interest interaction. This chapter finds out that across different domestic food sectors, reactive and interactive approaches of information-gathering are adopted towards small and large-sized producers respectively. In contrast, in the exported food sector, rather than differentiating between producers, an active and comprehensive approach of information-gathering is consistently applicable to all food businesses. This pattern can be attributed to the factors of limited regulatory capacity and international pressure from other trading partners. Nonetheless, food safety crises and hence international scrutiny such as trade bans can bring about alterations to this pattern of information-gathering strategy. In particular, to safeguard the reputation of products 'Made in China' in both domestic and international markets under the context of internationalisation, food scandals often lead to a shift of information-gathering focus towards the affected type of foodstuffs.

The chapter is organised as follows: in Section 7.1, it will first discuss various tools of information-gathering, and portray an overall picture by summarising their applicability in the six food regulatory regimes in China. On the basis of this backdrop, detailed analyses will be made of each regime. In particular, how and why adjustments to information-gathering measures occur will be elaborated upon. Section 7.2 will examine information-gathering in the regulatory regime for domestic agricultural food products (i.e. covering both fruits/vegetables and meat/dairy products), followed by that for domestic manufactured food products in Section 7.3 and exported food in Section 7.4. Finally, the chapter concludes by discussing the impact of internationalisation of regulation on information-gathering in the Chinese food regulatory regimes.

## 7.1 Tools of information-gathering and their applicability

Information-gathering or monitoring involves the collation and provision of information about policy issues and problem areas (Hutter & O'Mahony, 2004, p. 3). It serves as a crucial component of a control system because it produces knowledge about current and changing states of the system (Hood et al., 2001, p. 24). There are a wide range of methods for gathering information, including conducting analyses and experiments, imposing legal requirements for registration, monitoring, testing and reporting, or paying others to provide information. Information can also be provided voluntarily by consumers, whistle-blowers, media, non-governmental organisations, and other parties who are willing to contribute (Hood et al., 2001, p. 24). Information and knowledge are distinguished from one another (Boisot & Canals, 2004). While information is facts or data provided about something, knowledge is more than facts and involves the interpretation of information to form an understanding of a subject. Without the gathering of information, regulators are unable to produce knowledge about the regulated business and adjust their regulatory and enforcement strategies accordingly.

Different approaches of information-gathering can be identified – active, reactive and interactive. An active approach, also known as 'police-patrol' in the literature on oversight, is featured by its centralised, active, and direct measures, with the aim of detecting and remedying any violations of legislative goals (McCubbins & Schwartz, 1984, p. 166). On the other hand, a reactive approach of information-gathering, also known as 'fire-alarm', implies that regulators rely on others such as consumer complaints to come forward with information. It is less centralised and involves less active and direct intervention than police-patrol oversight (McCubbins & Schwartz, 1984, p. 166). Finally, an interactive approach comes somewhere in between 'police-patrol' and 'firm-alarm'. In this approach, regulators typically gather information by imposing periodic reporting requirements on the regulatees, and respectively they will respond to the content of the reports (Hood et al., 2001, pp. 24-25).

Across the six studied food regulatory regimes in China, tools deployed by regulators to monitor the regulated industry are indeed similar. These include licensing/registration, inspection, record keeping and food testing. Licensing or

registration allows regulators to gain some basic information about the industry such as the number of producers in the sector, their locations, production scales and production facilities. Inspection work by inspectorates, on the other hand, can allow regulators to monitor the current state of the industry such as their compliance with the established standards. Imposing legal requirements on producers to keep production and sale records enables regulators to understand activities of food production, and also to trace the origin of food incidents in case they happen. Food testing and analysis are the scientific ways to obtain information about food risks and the trend of changes in food safety. In general, information gathered by the above identified tools mainly includes food production activities such as numbers of commodities produced, raw materials and chemicals used, and conditions of equipment and tools. Other information covers sources of raw materials, sale of finished products, worker's health conditions, outbreak of animal or plant diseases, and food-testing results.

Whether the above identified tools of information-gathering are active, reactive or interactive largely depends on how regulators deploy the tools. Actually, a broad range of variations are observed across the six Chinese food regulatory regimes, centring on how far regulators go in using these tools to collect information about the regulatees, and the extent to which these tools of information-gathering are applicable to the regulated entities. To provide an overall picture for analysis, Table 7-1 compares the level of applicability of different tools of information-gathering in the six observed Chinese food regulatory regimes. What needs to be emphasised here is that variations depicted in Table 7-1 are relative differences, with the six cases ranked against each other.

**Table 7-1: Applicability and strength of information-gathering tools in different food regulatory regimes**

| Food regulatory regimes | Licensing/ registration | Inspection | | Record keeping by regulatees | | Food testing by regulators | | Food testing by regulatees | |
|---|---|---|---|---|---|---|---|---|---|
| 1. Domestic fruits/vegetables | Low | Large-sized producers | Small-sized producers | Large-sized producers | Small-sized producers | Large-sized producers | Small-sized producers | Large-sized producers | Small-sized producers |
| | | High | Low | High | Low | High | Low | High | Low |
| 2. Exported fruits/vegetables | High | High | | High | | High | | High | |
| 3. Domestic meat/dairy products | Medium | Large-sized producers | Small-sized producers | Large-sized producers | Small-sized producers | Large-sized producers | Small-sized producers | Large-sized producers | Small-sized producers |
| | | High | Low | High | Low | High | Low | High | Low |
| 4. Exported meat/dairy products | High | High | | High | | High | | High | |
| 5. Domestic manufactured food | High | Large-sized producers | Medium-sized producers | Small-sized producers | Large-sized producers | Medium-sized producers | Small-sized producers | Large-sized producers | Medium-sized producers | Small-sized producers | Large-sized producers | Medium-sized producers | Small-sized producers | Large-sized producers | Medium-sized producers | Small-sized producers |
| | | Medium | High | Low | High | High | High | Medium | High | Low | High | High | High | | | |
| 6. Exported manufactured food | High | High | | | High | | | High | | | High | | | | | |

Source: author's compilation, from previous literature, laws and regulations of the PRC and interviews conducted by the author

A pattern can be observed from Table 7-1: while a police-patrol oversight approach is consistently found across different exported food regulatory regimes, a mixed form of reactive and interactive approaches is used in the regimes for domestic food products. This pattern will be attributed to the factors of regulatory capacity and international pressure for detailed analysis in the following sections. In short, for the domestic food sectors, regulators have limited capacity in terms of information-gathering to detect non-compliance activities of all food producers. A mixed method based on reactive and interactive approaches is, therefore, selected. The scale of production is the key factor determining the tools, sizes and styles of information-gathering. In general, more regulatory effort is put on large enterprises so as to cover the maximum amount of food within limited regulatory resources. Meanwhile, to safeguard the reputation of products 'Made in China', a comprehensive and active approach of information-gathering is used to monitor non-compliance activities in the exported food sectors. Nonetheless, this study argues that the pattern can be altered by food safety crises: food scandals prompt regulators to adjust their focus towards affected foodstuffs, especially if the food incidents are associated with extensive international scrutiny such as export bans.

## 7.2 Information-gathering on domestic fruits/vegetables and meat/dairy products

Given that only minor variations are observed in terms of methods of information-gathering between different agricultural subsectors, to avoid repetition, this section will discuss the agricultural food sector as a whole category rather than separating into fruits/vegetables and meat/dairy products. Tools deployed to gather information about agricultural food safety and quality include licensing/registration, inspection, record keeping, and food testing. In terms of regulatory variation, it mainly centres on how far these tools are deployed to monitor the regulated entities, and the amount of information obtained from the regulatees. In the following analysis, it can be seen that a reactive approach is adopted for small-sized producers; on the other hand, more effort is put into producers of a large size.

### 7.2.1 Small-sized producers

At the local level, to detect whether farming activities are in compliance with the established standards and guidelines, farmlands are inspected by the Guangdong Department of Agriculture and the City A Bureau of Agriculture. Down to the level of District B, inspection work is delegated to the District B Pollution-free Food Inspection Station and the District B Animal Health Inspection Institute, which are 'professional units' (*shiye danwei*) affiliated with the City A Bureau of Agriculture (see Section 5.1 in Chapter 5).

The frequency of farmland inspection in District B is very low for small-scaled individual farms and farming households. During fieldwork, it was common to find out family farms in villages which were not inspected by regulators, although they cropped and reared animals for sale (Interviewees 15-19). A farmer claimed:

> Inspectors have never visited us in my farming life, not for more than thirty years. Since we farm in a very small scale and our products are not sold in large cities, inspectors don't have the time and incentive to visit us. To be honest, even if they visit us, we can simply tell them we are farming for our own consumption but not for sale. How can they check? Everyone can sell their products such as fresh meat and vegetables in wet markets here or any places actually (Interviewee 16).

The lack of a registration system is one of the reasons accounting for this very low inspection frequency. As farmers are not required to register for agriculture, this imposes challenges on regulators to sort out the locations of farmlands, especially for those individual farmers located in remote and rural areas. Moreover, traditional Chinese family farmers mainly farm for their own consumption while they only sell their livestock and crops in the market when there is surplus. This makes farmlands producing for private consumption and producing for sale hardly distinguishable.

Notwithstanding the lack of a registration system, inspectors have other means to gather information about farming activities. When asked if they had seen any inspectors on other occasions, farmers pointed out that there were some lectures or workshops organised by regulators that they were obliged to attend:

> Lectures or workshops on food safety with compulsory attendance are held every two years. At these events, we got chance to meet officers from the agricultural authority. They normally ask us some basic questions about

> pesticides and animal drugs that we are using at that moment. But they do not check if we are telling them the truth. In past workshops, they taught us the correct ways of using chemicals in agriculture, and repeatedly emphasised the dangers and consequence of incorrect use of chemicals in farming activities. Sometimes samples of pesticides and animal drugs were distributed free to us (Interviewee 17).

However, the efficacy of these lectures or workshops is in doubt because farmers are not monitored if they have applied what they have learnt in the real practice of farming, and regulators are also unable to assess whether their advice is implemented.

### 7.2.2 Large-sized producers

Despite the lack of a registration system, visits to large-sized cooperative economic organisations, rural cooperatives and factory farms are comparatively much more frequent. The relatively high inspection rate compared with small-sized farmers is a consequence of a limited regulatory capacity.

In District B, the District B Pollution-free Food Inspection Station and the District B Animal Health Inspection Institute are required to create yearly and monthly inspection plans for farmlands in their governing areas, as well as weekly inspection schedules of farmlands visits. The pledge made by the District B Pollution-free Food Inspection Station is to inspect all farmlands in their areas at least once per week, as shown on the public notice board outside the station (Observation 2). However, regulatory resources and the capacity of the station are inadequate in that regulators cannot meet the said publicised pledge. For example, in 2009, the District B Pollution-free Food Inspection Station only had fifteen employees and one vehicle for farmland visits (Observation 2), while the total area of District B is as large as approximately 900 square kilometres. As a result, the station could only afford to visit the three large-scaled rural cooperatives and factory farms in its area about twice a week on average, while leaving the remaining small-sized farms unvisited. An inspector emphasised in the interview that production scale of farms is their key consideration, arguing that:

> Production scale of agribusinesses is much higher than of individual farmers, and undoubtedly it is more cost-efficient for us to allocate our limited regulatory resources to monitor their performance…We allocate our limited regulatory resources to large farms because we can save time sorting out the locations of farming activities and travelling around those very tiny farmlands. Agribusiness rarely moves around and they are engaged to production throughout the year,

while their livestock and crops are undoubtedly for sale in the market (Interviewee 5).

To verify if a true picture was portrayed by the inspector, a reference can be made to some national and Guangdong statistics. As shown in Chapter 5 (Section 5.4.1), the structure of agriculture in China is characterised by the domination of family farms – in 2006, 99.8% of agricultural producers in the whole country were small-sized farming households (see Figure 5-8 in Chapter 5) (National Bureau of Statistics of China, 2008). Similarly, in Guangdong Province, 99.7% of agricultural producers were small-sized producers (see Figure 5-9 in Chapter 5) (The Statistics Bureau of Guangdong Province, 2008). Having a huge number of farming households/family farms, it is conceivable that regulatory resources are inadequate to meet the said publicised pledge of inspecting all farmlands at least once per week. The argument made by the inspector is that it is more cost-effective to focus on large-scale production units in the situation of inadequate regulatory capacity and it seems to be valid.

In addition to inspection, record keeping by farmers is another important source of information for regulators to understand and monitor farming activities, and to trace the origin when there are food incidents. In District B, record keeping typically takes the form of filling in log books, which are consistently designed by the District B Pollution-free Food Inspection Station and the District B Animal Health Inspection Institute and distributed to large-sized farms. Information gathered in log books includes the application of pesticides, animal drugs, fertilisers and other chemicals, the outbreak of animal diseases or plant diseases, and harvesting (Observations 1 and 2). Farm operators are required to complete the log books on a daily basis, while the log books have to be kept for two years. A farm operator claimed that filling in log books is their routine work and the task is not difficult, although sometimes they may forget to do it (Interviewee 20). During farm inspection, inspectorates can request farm operators to submit their log books for checking (Observations 1 and 2). When food safety incidents are reported, the check of log books on the involved products is normally more frequent and more comprehensive (Interviewees 4 and 5). This indicates that to a certain extent, information-gathering of domestic agricultural product is scandal-driven.

Notably this record-keeping requirement is only mandatory for cooperative economic organisations, rural cooperatives and factory farms but optional for individual

farmers and farming households ("The PRC Agricultural Product Quality Safety Law," 2006). It is also adopted in slaughterhouses, wholesale markets, wet markets and supermarkets, with information recorded mainly related to the sources of the agricultural products, dates of purchase, and results of food testing.

As a tool to gather information about food risks, food testing by producers themselves is mandatory for large farms ("The PRC Agricultural Product Quality Safety Law," 2006, Article 26). Before sending their produce to wholesale markets and retailers, cooperative economic organisations, rural cooperatives, and factory farms are required to carry out food tests on their produce. Food sample tests can either be conducted by laboratories established in the farm sites, or delegated to external food testing centres, laboratories and research institutes which are 'professional units' (*shiye danwei*) affiliated with the government (see Section 5.1 in Chapter 5). In a similar vein, wholesale markets and large-scaled retailers such as supermarkets are obliged to establish food testing laboratories at their sites or send samples to external laboratories for testing. Food-testing results should be kept for two years. If non-compliance of standards is detected in food tests, operators of farms, wholesale markets and retailers should report to the agricultural authorities within a stated period (i.e. normally three days). In City A, the City A Administration for Industry and Commerce further requests supermarkets to post their food-testing results on their noticeboards, allowing consumers to obtain food safety information about vegetables, fruits and meat they purchase (Interviewee 7).

In parallel, to monitor if agricultural food producers and sellers deliberately manipulate food-testing results, regulators also carry out food tests themselves. For example, both the District B Pollution-free Food Inspection Station and the District B Animal Health Inspection Institutes are equipped with analytical equipment and facilities for food tests. On the one hand, they conduct a duplicated test on the same sample that the food businesses have already tested. On the other hand, they collect their own samples for testing from cooperative economic organisations, rural cooperatives, factory farms, wholesale markets, wet markets and supermarkets. Regulatory bodies also station their staff in slaughterhouses to carry out tests, where the scope of tests covers animal disease, parasites and animal drug residue. In District B, there are four designated slaughterhouses and in each slaughterhouse, there are around fifteen

stationed officers sent by the District B Animal Health Inspection Institute (Interviewee 4). While the regulatory body aimed to conduct urine tests for every batch of pigs, again, this goal was impeded by the lack of adequate resources including manpower and equipment. As a result, only one third of pigs were tested in slaughterhouses (Observation 1). An inspector claimed:

> There are around 4,000 pigs per day sent for slaughtering in District B. It is impossible for us to carry out urine tests for every bath of pigs, although the test is rapid and useful for detecting drug residues. Despite us being stationed in slaughterhouses on a 24-hour basis, we can only check the appearance and smell of animals for slaughtering. If we recognise symptoms of animal diseases, we will conduct further tests. As you may know, making judgement depends on the experience of inspectors. But as we are suffering from a high staff turnover because of the unattractive job nature and salary, our tasks become more and more challenging (Interviewee 4).

Based on prevailing public concern and food incidents, regulators do modify the contents and methods of food testing and analysis. For example, in 2009, more than seventy food poisoning cases were reported in Guangzhou City of Guangdong Province, resulting from the intake of pork contaminated with ractopamine (i.e. 'lean meat powder') ("Seventy people poisoned," 2009). After the incident, a specific test for ractopamine was added to the content of tests of meat as a mandatory requirement (Interviewee 4). In a similar manner, the crisis of milk adulterated with melamine in 2008 has also induced a change in food testing of dairy products. In response to incidents involving food suppliers who use the loopholes of established tests and add harmful melamine to maximise their profits (see Section 2.2.5 in Chapter 2), the government has introduced new instruments which can directly determine the protein content to tests of milk, infant formula and dairy products (Interviewee 4). Other special tests on particular products are also assigned to regulatory bodies or food testing laboratories at the local levels by the Guangdong Department of Agriculture (Guangdong Department of Agriculture, 2008a). Test results of the designated products have to be submitted to the department by a given deadline. While selections of products mostly depend on food incidents or food issues under public concern in Guangdong Province, they are sometimes commanded by the Ministry of Agriculture at the central level (Interviewees 8 and 14). A list is released online detailing the origins where test samples are drawn (Guangdong Department of Agriculture, n.d.), and the statistics about the numbers of food samples that each inspection unit has collected

(Guangdong Department of Agriculture, 2014). Regarding test results, they are updated online on a regular basis (Guangdong Food Safety Commission, 2013), covering results of both agricultural food products and manufactured food products.

At the same time, consumer complaints, as an important source of information for regulators, can also lead to regulatory adjustments. Table 7-2 has summarised the number of consumer complaints on food products received by an official hotline in District B, as well as those handled by a national consumer association. As explained by an inspector,

> After receiving a consumer complaint, we will try to recognise the problem by investigation... The increasing trend of consumer complaints indeed puts some pressure on our work. To show the public we are committed to improving food safety, we are forced to make instant responses to consumer complaints, by carrying out inspection of the implicated producers and food tests. This, however, unavoidably alters our initial plan of work (Interviewee 5).

**Table 7-2: Consumer complaints on food products in District B and China**

| Year | Number of food complaints received by the official hotline of District B | Percentage change (compared with last year) | Number of food complaints in China (handled by China Consumers' Association) | Percentage change (compared with last year) |
|---|---|---|---|---|
| 2008 | 963 | - | 46,249 | - |
| 2009 | 1,095 | 13.7% | 36,698 | -20.7% |
| 2010 | 1,276 | 16.5% | 34,789 | -5.2% |
| 2011 | 1,858 | 45.6% | 39,082 | 12.3% |
| 2012 | 1,756 | -5.5% | 39,039 | -0.1% |

Source: author's compilation, from the webpage of China Consumers' Association (China Consumers' Association, 2009, 2011, 2012, 2013) and an internal document of District B Government

In summary, from the above illustration it can be seen that regulators of the agricultural food sector face real difficulties in information-gathering. This is mainly for reason of inadequate regulatory capacity, given the huge number of diffused individual farmers and family farms in China, as well as the lack of a registration system in agriculture. As discussed in Chapter 1 (Section 1.1.1), the incapacity of regulators is a key challenge to regulatory enforcement in developing countries, and the above discussion has shown its profound implications for agricultural product regulation in China. Under constraint, regulators are inclined to devote their limited resources towards large-sized producers, which are at the same time legally required to build up

their own systems of record keeping and food testing. On the other hand, produce of small-sized producers remain unmonitored to a large extent. Nevertheless, this pattern is altered by food incidents, public concern and complaints, which also serve as an important source of information-gathering for regulators. In general, regulators act in response to food incidents and complaints by increasing the frequencies of inspection and food testing of involved products, or by introducing new food tests when necessary.

## 7.3 Information-gathering on domestic manufactured food products

Compared with domestic agricultural food products, a more extensive range of information-gathering tools is legally applicable to all domestic manufactured food producers regardless of their size. However, in practice, it is observed that there are significant variations in how far these tools are implemented, and how often regulators turn a blind eye to non-compliance of these information provision requirements. Notably the variations are partly based on size of producers and partly not.

### 7.3.1 Information-gathering tools applicable to all producers regardless of their size

Regarding information-gathering tools which are consistently applicable to all domestic manufactured food producers, these include licensing/registration, record keeping and food testing.

First, a three-licence system is applicable to all producers in the food manufacturing industry. The registration/licensing system was first put into place in China as early as in the 1980s. Under the *PRC Food Hygiene Law (Trial Implementation)* enacted in 1982, a ‘food hygiene licence’ is required in the fields of food manufacturing, sale and catering ("The PRC Food Hygiene Law (Trial Implementation)," 1982, Article 26). Another permit, ‘business licence’, was introduced in 1987 by the State Administration for Industry and Commerce under the *PRC Provisions on the Registration Procedures of Individual Industrial and Commercial Households* (The State Administration for Industry and Commerce, 1987, Article 6). Despite the legal mandate to register, the two licensing requirements were loosely enforced during the early period (P. Liu, 2010b, pp. 249-250).

A turning point emerged in the early 2000s that drove the government regulatory bodies to put forward the licensing/registration system as a market access mechanism for the food processing industry, and this turning point is closely related to food incidents. In the early 2000s, China witnessed a series of extensive food incidents such as pork contaminated by ractopamine in 2001 and fake infant formula in 2004[35]. During that time, the State Council and the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) perceived small food workshops as the key source of food risk; and these small businesses mainly run without the required licences (Y. Liu, 2011). As a response to food incidents, the State Council and AQSIQ decided to put forward the market access system in the food industry by enacting the *PRC Regulation on Production Licence of Industrial Products* (The State Council, 2005, Article 2.1) and the *PRC Implementation Rule on Quality Safety Supervision of Manufactured Food Enterprises (Trial)* (The General Administration of Quality Supervision Inspection and Quarantine, 2005). Under the two rules, all food processing units, regardless of their production size, have to obtain a 'production licence' before its start-up. The production licence is valid for a period of three years (The State Council, 2005, Article 25). A licensed food product should contain the 'QS' (i.e. quality safe) label on the packaging, indicating that it meets the established standards and is allowed to circulate in the domestic market (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Articles 5, 46-51). Food retailers, on the other hand, have to ensure that all products they sell are with the 'QS' label and other required certificates ("The PRC Product Quality Law," 2000, Article 33).

Similarly, as a response to food scandals, the Ministry of Health (MoH) also further strengthened its food hygiene licensing system by enacting the *PRC Administrative Rule on Food Hygiene Licence* in 2005 (Ministry of Health, 2005). According to this rule, the issue of food hygiene licence is subject to conditions of food handling, preparing or producing procedure, raw agricultural products and food additives used, working conditions and hygiene, food processing facilities and equipment, pollution-prevention measures, food packaging and training provided to

[35] In November 2001, 484 persons in Heyuan City of Guangdong Province suffered from food poisoning after consuming pork contaminated by toxic chemical ractopamine. In 2003, ham factories in Jinhua City of Zhejiang Province were discovered to have used a toxic chemical dichlorvos as a preservative to control pests. In 2004, fake formula milk of little nutritional value was found in Fuyang City of Anhui Province. At least twelve infants died because of malnutrition.

workers (Ministry of Health, 2005, Articles 11-13). The food hygiene licence is valid for a period of four years (Ministry of Health, 2005, Article 27).

Second, in terms of record keeping, all manufactured food producers are legally required to keep records of their production and sale activities, and these records should be kept for three years (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Article 55). Different from agriculture, log books for record are not distributed by the regulatory bodies but designed by food producers themselves. Information included in a production log book usually covers sources of raw food ingredients and additives and food test results; meanwhile, a sale log book normally covers information about final products, batch and serial number, details of purchaser, quantity sold and date (Interviewee 25 and Observation 3). Based on these records, food businesses have to submit an annual report to the Provincial Bureau of Quality and Technical Supervision to give a description of their product quality and safety (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Article 56).

Third, regarding food testing, according to the *PRC Food Hygiene Law* ("The PRC Food Hygiene Law," 1995, Article 18), all manufactured food producers are required to test their food products based on the established food standards before sending them out from the production site. Food producers can either install food testing facilities and equipment in their site, or commission food tests to external laboratories (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Article 16). In either case, food producers should annually send samples of their tested products to a designated laboratory for a duplicated test (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Article 38).

What needs to be emphasised here is that notwithstanding the legal requirements of obtaining licences, record keeping and food testing, the fieldwork revealed that these measures were not consistently adopted across different producers. Compliance was particularly low for small-sized food workshops. For example, there was a large amount of food workshops running without obtaining the three licences, keeping production and sale records, or carrying out food test before selling their food products (Interviewees 22-24 and Observation 4). While all these behaviours are associated with infringement of regulation, they will be further discussed in Chapter 8 on behaviour-modification.

### 7.3.2 Information-gathering tools based on the size of producers

On top of the above tools which are legally applicable to all manufactured food producers, there are other information-gathering measures that the deployment of which is largely based on the size of producers. Production site inspection made by regulatory bodies is one of them. Similarly to the agricultural sector, the frequency of inspection varies between large-scaled food factories, medium-sized firms and small family-based or individually-run food workshops. Typically, more frequent visits are paid to food businesses with larger production scales and higher market shares. These include enterprises of designated size and above, and enterprises below designated size but with more than ten workers. Small food workshops, on the other hand, are inspected less often.

In Guangdong Province, inspections to food production sites are mainly carried out by the Guangdong Bureau of Quality and Technical Supervision and the Guangdong Department of Health, and sometimes by the Guangdong Administration for Industry and Commerce. Typical inspection areas cover premises, equipment, workers, raw food, storage facilities such as fridges and freezers, and pollution prevention measures (Interviewee 25 and Observation 3).

Similarly to the agricultural food sector, the variation in terms of inspection frequency can be attributed to the incapacity of regulators. An inspector commented in the interview that small workshops exist in a huge quantity and are geographically dispersed; therefore, regulatory resources required to inspect them are inevitably inadequate (Interviewee 11). Inspection work becomes more complicated for some small food businesses which operate seasonally, such as those festive food producers. The inspector argued:

> Given inadequate regulatory capacity, targeting two types of large and medium enterprises (i.e. enterprises of designated size and above, and enterprises below designated size but with more than ten workers) at least enables us to monitor approximately 90% of total processed food products in the market. This is a pragmatic approach to cover the maximum amount of processed food products under severe constraints on limited regulatory resources (Interviewee 11).

When asked if data could be provided to supplement the argument that the two types of enterprises produce 90% of total processed food products in Guangdong

Province, the regulator denied the request in the interview. However, an inference can be made from the national figures. As discussed in Chapter 5 (see Figure 5-11), in 2007, food enterprises of designated size and above produced 72% of the total market share in China, whereas enterprises below designated size but with more than ten workers produced 18.7% of the total. In contrast, small businesses or workshops with fewer than ten workers only produced 9.3% of the total (The State Council Information Office, 2007). The official figures appear to support the argument that monitoring the two types of enterprises can control most of the processed food products in the industry.

Seemingly this strategy is inconsistent with the view of the State Council and the AQSIQ that small food workshops are the key source of food risks. When discussing the higher probability of food incidents that small food workshop may cause, the inspector admitted the problem. Nevertheless, he justified the decision of regulatory resources allocation by the reason of restricted circulation in the market:

> In most circumstances only products of large and medium enterprises are allowed to circulate in the market across the country. On the other hand, food products produced by small food workshops can only circulate in local groceries in townships or villages. Even if food incidents come about, the negative impact is restricted to townships or villages only (Interviewee 11).

Various interviews with the regulated food businesses have further confirmed the finding that inspection force is focused on large and medium food producers. The owner of a food manufacturing factory (i.e. below designated size but with more than ten workers) claimed that his factory was inspected by the city-level Bureau of Quality and Technical Supervision four times per year, and by the district-level Health Inspection Institute twice per year (Interviewee 25). In comparison, inspection of small food workshops is far less frequent. The owner of a small food workshop (i.e. with four workers) admitted that over the past three years its workplace was only inspected once by the district-level Health Inspection Institute when he applied for the 'food hygiene licence' (Interviewee 23). Another small workshop (i.e. with two workers) running without any licences in a village has never been inspected since its start-up two years ago. Owners of the two small workshops emphasised that their cases are not exceptional: "Most of the small workshops running in our village are not inspected by inspectorate. As far as I know, there are more than ten alike small food workshops here" (Interviewee 22).

Alteration to this inspection pattern is made according to the business's history of compliance, consumer complaints and the occurrence of food incidents. First, according to the *PRC Implementation Rule on Quality Safety Supervision of Manufactured Food Enterprises (Trial)* (The General Administration of Quality Supervision Inspection and Quarantine, 2005), the regulatory body should re-visit food manufacturers with history of non-compliance (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Article 60). On the other hand, large-sized enterprises with HACCP certifications or having passed consecutive food tests can be inspected at a lower rate (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Article 39). The rule also indicates that inspection force should be reinforced in areas where quality/safety problems are reported (The General Administration of Quality Supervision Inspection and Quarantine, 2005, Article 65). A regulator explained that such measure can resume public confidence on food 'Made in China' and more importantly, avoid public anger towards the government (Interviewee 11).

The abolishment of the 'inspection-exemption' scheme after the melamine milk scandal in 2008 provides strong evidence indicating the impacts of food incidents or scandals on inspection work. In 2001, an 'inspection-exemption' scheme was introduced by the AQSIQ (The General Administration of Quality Supervision Inspection and Quarantine, 2001), allowing high-quality food commodities meeting certain criteria to be free from inspection and food testing by all regulatory bodies at central, provincial, city and township levels. To gain the recognition, the product should obtain a leading market share in its sector, meet the established national food standards, and pass three consecutive inspections and food tests carried out by the Provincial Bureaux of Quality and Technical Supervision (The General Administration of Quality Supervision Inspection and Quarantine, 2001, Article 8). Each of the 'inspection-exemption' recognitions was valid for three years (The General Administration of Quality Supervision Inspection and Quarantine, 2001, Article 12), while the designated products could have the 'inspection-exemption' label printed on the package.

However, shortly after the report of melamine milk poisoning cases in 2008 (see Section 2.2.5 in Chapter 2), the 'inspection-exemption' scheme was criticised by the public and media as a total regulatory failure, and it was finally abolished by the

Chinese Central Government. Before the incident, milk, baby milk and powdered milk of Sanlu were awarded the 'inspection-exemption' recognition. As a requirement, Sanlu had to submit annual reports to the AQSIQ, detailing food-testing results conducted by the company and other issues concerning product quality (The General Administration of Quality Supervision Inspection and Quarantine, 2001, Article 14). However, the State Council's investigation revealed that Sanlu had been receiving complaints about sick infants since December 2007, but it neither conducted any food tests until June 2008 nor reported the suspicious quality problem to the AQSIQ. The company was criticised by the public of using the loophole of the 'inspection-exemption' scheme to protect their business interests, and as a result fail to take remedy measures in due course ("Food cover-up fatal," 2008).

As a response to the incident, the AQSIQ delivered a proclamation in September 2008 to revoke all 'inspection-exemption' recognitions that were previously awarded to food commodities (The General Administration of Quality Supervision Inspection and Quarantine, 2008). On the next day, the State Council further requested the AQSIQ to abolish the whole 'inspection-exemption' scheme for all industrial products in China (The General Administration of Quality Supervision Inspection and Quarantine, 2008). The AQSIQ explicitly declared:

> In face of the current melamine milk incident of Sanlu Group in Shijiazhuang City, the AQSIQ has recognised the special nature of food production and the intricate causes of food incidents. To ensure food safety and protect the interest of consumers, the AQSIQ has decided to strengthen the regulatory force towards food production units. Henceforth, all 'inspection-exemption' recognitions on food products are revoked, while food producers can no longer claim their products as 'inspection-exempted' (The General Administration of Quality Supervision Inspection and Quarantine, 2008).

On top of the abolition of the 'inspection-exemption' scheme, the inspection pattern also underwent changes after the melamine milk scandal. During the period, all regulatory bodies at the Guangdong provincial level (i.e. the Guangdong Bureau of Quality and Technical Supervision, the Guangdong Department of Health, the Guangdong Administration for Industry and Commerce, and the Guangdong Department of Agriculture) were commanded by the Chinese Central Government to devote their full regulatory capacities to inspect and conduct food testing on the sixty powdered milk companies running in Guangdong Province. On the other hand,

regulatory bodies at the city level or below were responsible for inspection and food testing of other food products (Interviewee 11).

In summary, similar to the domestic agricultural food sector, the above illustration has indicated that information-gathering in the domestic manufactured food sector is impeded by inadequate regulatory capacity, despite the fact that more comprehensive information-gathering tools have been legally imposed on producers regardless of their size. Meanwhile, efforts of information-gathering are adjusted according to the prevailing situation of the manufactured food industry; and in particular, towards foodstuffs involved in scandals and consumer complaints. Using the words of an interviewed regulator (Interviewee 11), the adjustment aims to safeguard the reputation of food 'Made in China' and reinstate public confidence in Chinese food.

## 7.4 Information-gathering on exported food products

In this section, information-gathering on exported food products will be discussed, and it can be observed that a very different approach – an active 'police-patrol' approach, is deployed by regulators. Provided that methods of information-gathering and their applicability are largely equivalent among all exported food producers in China, this section will discuss the exported food sector as a whole category rather than separating into exported fruits/vegetables, exported meat/dairy products and exported manufactured food products.

In Guangdong Province, Guangdong Entry-Exit Inspection and Quarantine Bureau is delegated with the power of information-gathering in the exported food sector. It has set up 33 branches in twenty cities and counties across the province, 100 sub-branches and three sub-sections in the key ports of air, land or sea. In total, it employs more than 5,000 officers who wear a uniform distributed by the AQSIQ (Guangdong Entry-Exit Inspection and Quarantine Bureau, 2010). As discussed in Chapter 5 (Section 5.1), all CIQs across the country are under the central government's direct leadership and supervision through the AQSIQ. Under a vertical administration, information-gathering tools are universally applied on all types of food producers. These tools range from licensing/registration, to record keeping, to inspection and food testing.

In the exported food sector in China, a market access system is universally applied to both farming and food manufacturing. In other words, all farms and food processing enterprises are required to obtain an ‘export licence’ before exporting food abroad. For example, farms need to acquire an ‘export licence’ from the provincial CIQs before start-up; similarly, manufactured food producers have to obtain an ‘export licence’ on top of the ‘food hygiene licence’, ‘business licence’ and ‘food production licence’ as required in the domestic manufactured food regime (see Section 7.3.1 above). At ports, the CIQs inspect every batch of products to confirm they come from registered farms or enterprises with an ‘export licence’.

The ‘export licence’ issued by the CIQs imposes a wide range of controls on production conditions, including production scale, hygiene, environment, facilities and equipment, and professional training offered to workers. Specifically, family farms and small food workshops are precluded from gaining an ‘export licence’. In other words, small producers are ineligible to export food abroad despite the quality and safety of their food commodities. Meanwhile, the produce used in exported food manufacturers should be sourced from registered farms, which are usually either directly owned by the manufacturers, or directly managed and controlled by them.

All exporting farms and manufactured food enterprises are legally required to keep records on its production process and sale, while these records are regularly checked by the CIQs ("The PRC Law on Import and Export Commodity Inspection," 2002). For farmlands, information included in record keeping covers dates of planting and harvesting, chemical applications, food-testing results and details of importers. All exporting pig farms in Guangdong Province are further required to be equipped with an electronic recording device, which allows each batch of pigs to have a clear record on the use of feed and animal drugs, as well as the outbreak of animal diseases ("Understanding the properties of avian influenza," 2014).

For exporting manufactured food producers, while the produce used in food processing should be sourced from registered farms, they have to keep a record of details of the farms. Other information kept on record covers applications of food additives, food-testing results, conditions of production equipment and health conditions of workers. Sale record covers information about finished products for exportation and importing companies (Interviewee 12). The manager of a company processing food for

export claimed that their company has good intention and good practice to follow the record-keeping requirements and fill in all log books on a daily basis. Despite its satisfactory history of compliance, the company was encouraged by the regulator to install equipment which automatically measures and records temperatures of the factory, fridges and freezers (Interviewee 12). The manager claimed:

> Basically we are mindful of fulfilling every requirement and taking every piece of advice given by regulators. Our business reputation is the most important capital in the overseas market. Therefore, we, in a cooperative manner, offer all types of information requested by regulators, in order to prove that our products can meet the international food standards (Interviewee 12).

If border rejections happen, these production and sale records are comprehensively checked by the CIQs. A regulator claimed:

> We are keen on protecting the reputation of food 'Made in China'. If exported food commodities are banned at ports of importing countries, we will check the whole record of all implicated producers. Based on these records, we try to sort out the source of problem and provide recommendations to producers for rectification (Interviewee 10).

The CIQs also carry out production site inspection of exported food producers. In Guangdong Province, manufactured food enterprises for export are inspected twice per year (Interviewee 10). Areas of inspection typically cover premises, facilities, equipment, workers, raw food and records of production and sale (Interviewee 12). Apart from inspections conducted by the CIQs, in some exceptional cases inspections can also be carried out by foreign regulatory bodies, depending on the bilateral/multilateral agreement. For example, according to a food import agreement signed between Hong Kong and the mainland China (Centre for Food Safety of the HKSAR Government, 2013), food imports from China is restricted to a limited number of Chinese suppliers. As routine control measures, officers from Hong Kong can visit and inspect these farms in China throughout the year without prior consent being given by the Chinese government. Onsite samples can be collected by officers from Hong Kong for testing.

Testing of exported food is run by the CIQs at ports including air, land, or sea. Standards applied for testing are food standards of the importing countries or standards of international organisations such as the Codex and the ISO, depending on agreements with other trading partners (see Chapter 6). Instead of carrying out food tests by

sampling as what the domestic food regulatory regimes do, every batch of agricultural or manufactured food products for exportation is tested. Products passing the required food tests are accompanied by declaration forms, certificates, and/or identification tags about health quarantine, animal and plant quarantine and commodity inspection (D. Yang, 2004). The customs only permits commodities with declaration forms issued by the CIQs to leave the country ("The PRC Food Hygiene Law," 1995, Article 31)

To explain why food testing is more comprehensively carried out in exported food products, the concern of international image is a key reason. An officer claimed that:

> Food safety is an issue of high concern to the Chinese Central Government, especially since exported food is related to international trade and trade dispute. This is the reason why the AQSIQ at the central level has clear commands over local CIQs to run food tests on all batches of products for export, and to inspect their production sites on a regular basis. All these measures aim to secure the worldwide image of food 'Made in China', and show the international world that China is a responsible trading partner (Interviewee 10).

This intention of safeguarding international image is also reflected by the *PRC Law of Import and Export Commodity Inspection* ("The PRC Law on Import and Export Commodity Inspection," 2002), which explicitly explains that the legislative aim of the law is to "advance China's economic and trade relations with other countries" ("The PRC Law on Import and Export Commodity Inspection," 2002, Article 1). The law specifies the details of inspection and product testing for imported and exported commodities, while these strategies are more 'police-patrol' inclined and are in high applicability to all producers when compared with the domestic regimes.

Although the police-patrol approach of state-based regulatory strategies is highly costly (Lodge & Wegrich, 2012, p. 75), this constraint is seemingly a minor concern for regulators and the Chinese government. When discussing regulatory capacity, an interviewed officer explained that this is not a major consideration for the CIQs, provided that their budgeting and personnel are all directly administered by the AQSIQ at the central government level (Interviewee 10). As the CIQs are fully funded by the central government, they do not need to generate profits or revenue themselves or compete with other government bodies for resources.

In summary, from the above illustration it can be seen that an active approach to information-gathering is adopted in the sector of exported food. For example, there is a 'police-patrol' measure of testing every batch of food commodities at ports; there is also a stringent licensing system for export which facilitates the surveillance by the CIQs. Frequent inspections are also made by inspectors to scan the environment, seek and assemble information about the exported food industry. The institutional design of placing the CIQs directly under the supervision of the AQSIQ also reveals a centralised approach of information-gathering. Compared with the domestic food sector, regulators of the exported food sector are less affected by the limitation of regulatory incapacity when carrying out information-gathering tasks. This is not only due to the limited number of exported food producers in a registered list, but also the funding source of regulators directly allocated by the Chinese Central Government. In general, the active approach of information-gathering can be explained by international pressure and obligation. To protect or build the reputation of food 'Made in China', the Chinese government aims to keep the rejection rate low at ports of importing countries. In the meantime, this also reveals the understanding of the Chinese government that the police-patrol type of enforcement is a better solution that guarantees the detection of wrong-doings and violation of standards.

## 7.5 Discussion: Impact of internationalisation of regulation on information-gathering

In summary, the previous sections so far have discussed various tools of information-gathering deployed by regulators in different Chinese food regulatory regimes (see the summary Table 7-1). Depending on how far these tools are used, active, reactive or interactive approaches of strategy are identified. In particular, a 'police-patrol' oversight approach of information-gathering is identified in the exported food regulatory regime. In contrast, the domestic food regulatory regime witnesses a more complex scenario. In both regimes for domestic agricultural food and domestic manufactured food products, tools of information-gathering vary between regulated entities with different sizes. Typically, a reactive approach is used for collecting information about the activities of small family farms and small food workshops. For example, regulators neither impose a licensing/registration system on farming activities, nor actively inspect the small food businesses. Instead, regulators tend to intervene in response to consumer complaints and

food incidents. On the other hand, for medium and large-sized farms and food factories with high production volumes, regulators use an interactive approach to information-gathering. For example, factory farms and food manufacturing firms are required to keep production and sale records, conduct their own food testing and analysis, and submit reports of food-testing results to regulators. Meanwhile, regulators intervene according to the information they gather in these records and reports, as well as food incidents and consumer complaints.

In explaining the pattern of variations in information-gathering, factors of incapacity of regulators, public concern and food incidents, and international pressure have been examined in the chapter, while these factors are linked to the analytical framework introduced in Chapter 3. This section aims to explore the question raised in the beginning of the chapter: *'to what extent does internationalisation of regulation impact on information-gathering in different regulatory regimes?'*

First, international scrutiny and the mission to safeguard the reputation of food 'Made in China' has driven the Chinese government to invest adequate regulatory resources in monitoring its exported food products, while at the same time applying an active and centralised approach of information-gathering. On the other hand, in the domestic food sectors where international pressure is relatively lower and the capacity of regulators is comparatively limited, regulators are prompted to concentrate their efforts in monitoring large producers and applying a reactive approach of information-gathering towards small producers. In other words, the internationalisation of regulation seems to have had a much larger impact on the control component of information-gathering in the exported food sector than the domestic food sector.

Second, despite the observed pattern, information-gathering tools are not static and are modified by regulators according to the prevailing situation of public concern and food scandals. Consumer complaints, food scandals and thus the triggered scrutiny of food 'Made in China' would lead to a shift of information-gathering focus to the affected types of food. This strategy of adjustment does not only apply to the exported food sector but also the domestic sector. In other words, safeguarding the reputation of products 'Made in China' under the context of internationalisation of regulation is becoming increasingly influential in shaping information-gathering strategies, in spite

of the fact that the overall information-gathering capacity of regulators has not been significantly improved.

In general, the impact of the internationalisation of regulation on the control component of information-gathering in the Chinese food safety regulatory regimes seems to be weaker when compared with that of standard-setting. As discussed in Chapter 6, there was strong evidence signalling the harmonisation of Chinese national food standards to international standards and practices. However, considering the area of information-gathering, the influence of international factor is comparatively weaker and mixed. In most cases, tools of information-gathering in the domestic food regulatory regimes are primarily determined by the availability of regulatory resources. Only under exceptional scenarios concerning food incidents or crises, activities of information-gathering are altered, to the direction of the implicated food products. This is mainly because national brands are a 'competitive identity' of a country (Anholt, 2007), and branding is also crucial to the competitiveness of Chinese-made products in the highly liberalised world markets (Potter, 2009; Kapferer, 2012).

In the next chapter, the final control component, namely behaviour-modification, will be examined across different food regulatory regimes.

# Chapter 8 : Behaviour-modification in different food regulatory regimes

Closely linked to the previous chapter, this chapter will examine another control component on regulatory enforcement – behaviour-modification. Being the 'effector' component in a regulatory regime, the intention of behaviour-modification is to influence the behaviour of the persons and institutions sought to be controlled, in order to ensure that the regulatory standard and target are accomplished (Hood et al., 2001). This chapter aims to address the inquiry *'to what extent does internationalisation of regulation impact on behaviour-modification in different regulatory regimes?'* Different perspectives in the analytical framework introduced in Chapter 3 will be applied.

This chapter finds out that across different domestic food sectors, persuasion-based approaches of enforcement are applied to small food businesses; on the other hand, whilst regulators are inclined to use deterrence-based approaches such as fines to modify violating behaviours of large enterprises, the revocation of a licence is unlikely. In contrast, highly deterrent measures are consistently applied to all producers in the exported food sector. This chapter argues that the pattern of enforcement action taken can be attributed to localised interests and the international image of food 'Made in China'. In particular, the concerns of local economic and employment development and tax revenue largely determine the choice of behaviour-modification tools in the domestic food regulatory regimes. Meanwhile, as an impact of the internationalisation of regulation, the Chinese Central Government is under global pressure to safeguard its reputation regarding food safety and product quality in order to maintain or expand the profitable export trade. Therefore, it drives regulators to react promptly to food incidents and scandals, and use a consistently deterrent approach of behaviour-modification in regulating the exported food sector.

The chapter is structured as follows: first, Section 8.1 will briefly describe the two approaches of behaviour-modification, namely deterrence and persuasion, and is then followed by a brief summary of their application in the six food regulatory regimes in China. In Section 8.2, tools of behaviour-modification in the regulatory regime for domestic fruits/vegetables and meat/dairy products will first be discussed, followed by that of manufactured food products in Section 8.3 and exported food products in Section

8.4. Finally, in Section 8.5, the chapter concludes by discussing the impact of internationalisation of regulation on behaviour-modification in the Chinese food regulatory regimes. In particular, tensions between the local factor of organised interests and the international factor of safeguarding the reputation of products 'Made in China' will be analysed.

## 8.1 Varieties of behaviour-modification actions and their applicability

Monitoring the regulated industry by information-gathering (see Chapter 7) and influencing their non-compliance activities by behaviour-modification are both crucial to effective enforcement, which is essential to the successful implementation of regulations – regulations which are not enforced or not enforceable cannot fulfil social objectives (Gunningham, 2010). In exploring measures of behaviour-modification, a wide range of tools can be identified, and in a broad sense, they can be classified into two approaches – deterrence and persuasive. The 'deterrence' approach is penal and uses prosecutions in order to deter future non-compliance (Reiss, 1984). On the other hand, the 'persuasive' approach is an accommodating approach not focused on retribution but on repair and results (Hawkins, 1984). By persuasion and education in a patient and open-ended manner, regulators explain the rationale behind the regulations and act as a facilitator to help the regulatees achieve compliance (Hutter, 1997). Hence, the regulatees are influenced by the regulators and comply with the regulations. As one can see that neither approach fits all circumstances, the adoption of one single approach is thus not common. The key to the successful implementation of regulations is to establish a balanced, multi-pronged strategy including both deterrence and persuasion (Braithwaite, 1985; Ayres & Braithwaite, 1992, p. 25).

Across the six studied food regulatory regimes in China, tools deployed by regulators to modify behaviours of the regulated industry cover a broad range. These include persuasive measures such as education, leaflet distribution, banner display, talks for knowledge transfer, moderately deterrent measures such as fines, confiscation of produce and temporary closure, and drastic measures such as revocation of licences and closure of businesses. To provide an overall picture for analysis, Table 8-1 compares the

applicability of different tools of behaviour-modification in the six Chinese food regulatory regimes.

**Table 8-1: Major behaviour-modification tools adopted in different food regulatory regimes**

| **Food regulatory regimes** | **Persuasive:** Persuasive measures adopted, e.g. education, leaflets, banners, lectures | **Moderately-deterrent:** Moderate measures adopted, e.g. fine, confiscation of produce and temporary closure | **Highly-deterrent:** Drastic measures adopted, e.g. revocation of licence and closure of business |
|---|---|---|---|
| 1. Domestic fruits/vegetables | ✓ (Small-sized farms) | ✓ (Medium & large farms) | |
| 2. Exported fruits/vegetables | | | ✓ |
| 3. Domestic meat/dairy products | ✓ (Small-sized farms) | ✓ (Medium & large farms) | |
| 4. Exported meat/dairy products | | | ✓ |
| 5. Domestic manufactured food products | ✓ (Small-sized workshops) | ✓ (Medium & large factories) | |
| 6. Exported manufactured food products | | | ✓ |

Source: author's compilation, from interviews conducted by the author

From Table 8-1, a significant variation is observed across different food regulatory regimes, centring on the extent to which these tools of behaviour-modification are applicable to the regulated entities. A pattern can be observed: in the domestic food sectors, whilst regulators are inclined to use deterrence-based approaches such as fines to modify the wrong-doing of large-sized producers, persuasion-based approaches of enforcement are applied to small-sized producers. In both cases, orders of temporary business suspension or permanent closure are seldom used. On the other hand, a highly-deterrent approach of behaviour-modification such as the temporary or permanent revocation of export licence is universally applied to all exported food producers. This is closely related to the element of information-gathering discussed in Chapter 7 – the heterogeneity may be seen as a strategy which aims to regulate the

largest volume of domestic food given the constraint of limited regulatory capacity. However, this study suggests that in addition to inadequate resources, the heterogeneity of behaviour-modification approaches is also induced by the intentional behaviour of regulators, given that their self-interest is inextricably linked to the industry. Further, food safety crises which trigger international scrutiny and impair the international image are able to override localised interests and bring about adjustments in behaviour-modification.

## 8.2 Behaviour-modification on domestic fruits/vegetables and meat/dairy products

Given that only minor variations are observed in terms of methods of behaviour-modification between different agricultural subsectors, to avoid repetition, this section will discuss the agricultural food sector as a whole category rather than separating into domestic fruits/vegetables and domestic meat/dairy products. In this section, it can be seen that variations in the domestic agricultural food sector largely depend on the size of the regulated farms. Whilst regulators are more likely to use the deterrence-based approach to sanction medium and large-sized farms, they are inclined towards the persuasion-based approach to educate small farmers.

### 8.2.1 Medium and large-sized producers

Deterrence-based tools are taken to modify the wrong-doings of medium and large-sized farmers in China. These include warnings, rectification orders, fines and confiscation of benefits, depending on the degree of the violation ("The PRC Agricultural Product Quality Safety Law," 2006, Articles 43-54). If the breach of law constitutes a criminal offence, the offenders can be penalised pursuant to the *PRC Criminal Law* ("The PRC Criminal Law," 1997). Since licensing/registration is not necessary for farming in China (see Chapter 7), this prevents termination of licences being applicable as a tool of sanction.

Interviews and observations indicate that the above deterrence-based tools are commonly applied in regulating cooperative economic organisations, rural cooperatives and factory farms but not individual farmers. In particular, regulators are keen on imposing fines on law-violating behaviours. For example, if banned drugs or

unacceptable residue levels are detected in a test for pigs, confiscation of the whole batch of pigs will be put into place, alongside a fine of RMB 2,000-20,000 (approximately USD 292-2,920) (Observation 1). Similarly, when large-sized retailers such as supermarkets are found to have excessive residual drug levels in their meat for sale, a warning will be issued, together with a fine of RMB 2,000-20,000 (approximately USD 292-2,920). For repeated violation, regulators might order the retailer to change its food supplier.

An inspector explained in the interview:

> Fines together with the confiscation of produce should be sufficient to prevent repeated violation. If the violation brings extensive food poisoning or casualties, we will identify it as a criminal offence and transfer the case to the police for criminal prosecution. The transferred case will then be beyond our scope of control (Interviewee 4).

But when a further confirmation of this argument is sought from the manager of a large factory farm in District B, a sceptical picture is shown. He said:

> Our produce accounts for more than 30% of the total volume of vegetables in District B. Do you think they (i.e. the regulators) will bring us to prosecution even if we are detected with serious breach of law? This implies our farms will close down. Of course we are behaving well and just do the right things (Interviewee 20).

When discussing the fines imposed on them, the manager expressed his view:

> We all know that fines are the main revenue of the inspectorates. So they are keen on collecting fines for our every single wrong-doing. This is not surprising at all. There are only three large farms here in the district. If they do not fine us heavily for violations and make surcharges for food testing, who else here in the district is able to pay them these fees? (Interviewee 20)

To further explore the budgeting of the inspectorates, an interview was conducted with a government official on personnel management of civil servants (Interviewee 6). He explained that the inspectorates are professional units (*shiye danwei*) (see Section 5.1 in Chapter 5) that they are not included in the establishment of civil service and hence are not fully supported by the civil service funding. While the City A Bureau of Agriculture subsidises part of their budgeting and finance, these inspectorates have to collect a charge for food testing and other services, as well as fines to meet the budget. Anything surplus to the budget can be converted to bonuses for employees of

the inspectorates (Interviewee 6). Under the circumstances, the arrangement of allowing fines to become financial returns to regulatory employees provides a strong incentive for the regulators to impose fines on the medium and large-sized farms, given that they are able to pay.

### 8.2.2 Small-sized producers

Whilst large farms are more likely to encounter deterrence-based enforcement, small farms are more likely to be treated with persuasion when law-violating behaviours are detected by regulators. Inspectors are hesitant to fine them as a punishment because of the specific circumstances of small farmers' poor living conditions. In this sense, an enforcement gap may emerge as a result. An inspector explained:

> For example, in terms of violation of pesticide or fertiliser use, many small farmers have difficulties in paying the minimum fine of RMB 2,000 (approximately USD 292) specified in the law. This is particularly common for those living in poverty. We should have provided assistance to them earlier. Can they pay this huge amount of fines? You may think we can lower the fine but the law does not provide us with any discretion. RMB 2,000 is the minimum amount specified in the law (Interviewee 5).

The claim of being unable to pay the minimum fine is valid when a reference is made to the average income of farmers. In 2008, the average annual income of rural residents in Guangdong Province was RMB 6,400 (approximately USD 934) (The Statistics Bureau of Guangdong Province, 2010), a fine of RMB 2,000 entailing 31% of their annual income. Regulators admitted that under these circumstances they would prefer not to penalise the small-sized individual farmers and family farms at all (Interviewee 5).

When further discussing what type of assistance the regulators provide to farmers, the interviewed official pointed out that it was financial assistance (Interviewee 5). This can be explained by the fact that the agricultural authorities in China are also responsible for agricultural industry development, rural development, village economics and poverty reduction (see Section 5.4.3 in Chapter 5). While the possible conflicting roles of the authority may exist, an interviewed official clarified that all these are their mandates and they have their discretion to prioritise them (Interviewee 8). Although the officials denied that they would sacrifice food safety, the possible trade-off between village economics and agricultural food safety regulation might reduce the

aggressiveness of food safety enforcement work. Thus, an enforcement gap may emerge when the top priority of the agricultural authorities is not food safety.

Instead of deterrent tools of enforcement, regulators are inclined to modify non-compliance behaviours of small farmers by persuasion and education. In terms of persuasion, regulators explain to farmers why the non-compliance activity constitutes a breach of law by using plain language without technical terms, and urge them to avoid the same wrong-doing in the future. Persuasion is perceived by regulators as the most effective way to modify behaviour of individual farmers, given that farmers are ill-informed (Interviewee 13). Meanwhile, an interviewed regulator also clarified that there is an exception with farmers who are ill-intentioned to produce adulterated or counterfeit food products. In this case persuasion is not useful (Interviewee 13).

Apart from individual interaction, education provided to farmers can also take the form of large campaigns. Campaigns are run by the village committees (*cunmin weiyuanhui*), co-ordinated by the local authorities of the Publicity Department of the Chinese Communist Party (formerly named the Propaganda Department). Large campaigns can be either initiated by the Chinese Central Government, such as the annual *China Food Safety Publicity Week* (China Economic Net, n.d.) and the *3.15 International Consumer Rights Day* (China Central Television, 2005), or by the local governments. In these campaigns, information about food safety is shared on noticeboards in public areas, slogans are displayed on banners in streets, lectures and workshops are given in schools and workplaces (Jin & Zhu, 2008, p. 327). It is compulsory for every household to send their representatives to attend the lectures, and spread the information to other family members and colleagues. Trained volunteers are also recruited to communicate with food producers. Campaigns can last for a few days or as long as a month.

When discussing the rationale for holding the large campaigns, a regulator pointed out that small farmers are mostly ill-informed and they lack the necessary information and knowledge about food safety; therefore, education is the best way to change their behaviour. He claimed:

> Local farmers are ignorant and many of them are illiterate. They may apply a chemical in farming simply because someone told them it could increase the output. They neither think about the adverse effects on human health nor if the

> chemical is banned. Our campaigns aim at educating them. And through mutual learning, an atmosphere of assuring food safety can be cultivated in the village. We also invite the media to report on the campaigns in order to have a greater impact on raising public awareness (Interviewee 13).

With respect to the efficacy of campaigns, the regulator however admitted that it is uncertain (Interviewee 13). Despite the uncertainty, since other deterrence approaches such as penalty or confiscation are not feasible, persuasion and education becomes the only viable resort to modify the behaviour of small farmers. This shows that persuasion and education, as an alternative behaviour-modification approach, may or may not be able to bring compliance, which actually largely depends on farmers' choice.

Food scandals, however, may bring about adjustments in the above behaviour-modification actions, which will be discussed together with the domestic manufactured food section in Section 8.3. In summary, the above illustrations show that the livelihoods of farmers and the development of the agricultural industry are considered when enforcement decisions are made. In this sense, regulators may 'turn a blind eye' to violating behaviours of the regulated industry. On the other hand, since fines are a form of revenue for the regulatory bodies, there is a strong incentive for regulators to impose fines on medium and large-sized farms that are able to pay.

## 8.3 Behaviour-modification on domestic manufactured food products

A similar pattern is observed when looking further into the domestic manufactured food sector. Overall, whilst medium and large-sized enterprises are more likely to face deterrent tools of enforcement, small food workshops are more likely to be persuaded or warned to modify their misconduct. In both cases, although the revocation of a licence or closure of business is a tool that regulators can deploy, it is seldom used.

### 8.3.1 Medium and large-sized producers

Deterrence-based approaches to modify wrong-doings of food manufacturers are specified in the *PRC Food Hygiene Law* ("The PRC Food Hygiene Law," 1995, Articles 39-53) and the *PRC Product Quality Law* ("The PRC Product Quality Law," 2000, Articles 49-72). These include warnings, fines, confiscation of benefits, suspension of

operation, revocation of licences and prohibition against operation. Again, if the breach of law constitutes a criminal offence, the offenders will be penalised pursuant to the *PRC Criminal Law* ("The PRC Criminal Law," 1997).

Various interviews indicate that the above named methods are commonly found in sanctioning medium and large-sized food manufacturing enterprises, except for termination of licences and closure of business (Interviewees 9 and 11). In deciding which sanction to impose, the nature of violation is considered. For example, mild wrong-doings such as getting the floor wet or leaving food uncovered would result in warnings during inspection, often accompanied by fines (i.e. about RMB 2,000, approximately USD 292). In terms of more serious violations, the regulator will issue a rectification order to the regulated enterprise, specifying the amount of fines (i.e. about RMB 5,000, approximately USD 730), details of rectification and the deadline. Examples include laying aside raw and cooked food together, using unauthorised food additives, employing workers without physical examination reports, and falling short of the record-keeping requirement (Observation 3). The enterprise is required to submit a report informing the regulatory body that the wrong-doing has been rectified before the deadline. Regulators may re-visit the enterprise to oversee the result. If rectification is not made before the specified date, confiscation of products and revocation of licences can take place (Zhao, 2002).

In extreme cases of violations, such as running food businesses which are banned, and manipulation of food-testing results, the regulator can issue an order of rectification and impose a fine of maximum RMB 5,000 (approximately USD 730), confiscate the benefits, and in some cases suspend the operation of the food business (Jin & Zhu, 2008). According to the *PRC Food Hygiene Law*, for such extreme cases, regulators can also permanently revoke the licence of the enterprises ("The PRC Food Hygiene Law," 1995, Articles 41-42). However, various interviews indicate that this rarely happens (Interviewees 9, 11 and 12). A regulatory official pointed out:

> Revocation of licences implies shutting down the food enterprise on a permanent basis. This needs prior approval from the City Government. This is beyond our scope of control and the approval process can be very time-consuming. Most large-sized enterprises have a significant impact on local employment and the local economy, do you really think the City Government would shut them down? This is an uneasy decision (Interviewee 11).

In this sense, an enforcement gap may emerge when the government weighs local interests such as unemployment and economy against food safety.

On the other hand, the manager of a food factory pointed out that fines are unavoidable for every wrong-doing found (Interviewee 12). This is largely because fines are one of the main sources of revenue for the regulatory agencies, given that the medium and large-sized food factories are able to afford the fines. The manager expressed his view:

> Regulators impose fines for every wrong-doing including minor ones. They are keen on collecting fines because these are their revenue, salary and bonus. I can tell you an interesting story. Regulatory agencies are competing to impose fines on enterprises, especially for violations which involve a heavy fine. Because the same violation can only be penalised once, regulators thus come as a first-come-first-serve basis. In other words, the one who arrives first to inspect the factory will be able to get the fine but not the other who comes late (Interviewee 12).

According to the *PRC Administrative Penalty Law*, the same illegal act cannot be given an administrative penalty of fines more than once ("The PRC Administrative Penalty Law," 1996, Article 24). Regulators would, therefore, compete with each other to get control over areas which are profit-making in terms of fee collection. Since there are multiple regulatory bodies involved in domestic manufactured food regulation (see Sections 5.1 and 5.4.3 in Chapter 5), regulatory turfs are formed.

When talking about the attitude towards fines, the manger defined fine payments as a social norm of giving and taking bribes in the food industry. He said:

> Though we think the inspectors are sometimes too demanding, it is acceptable because anyway we need to bribe them. Instead of giving them red pockets (i.e. money) or gifts directly, paying fines seems to be a legitimate way to build up social relationships (*guangxi*) with them (Interviewee 12).

This shows how fines as a penalty are perceived by the regulatees as a form of favour or bribe to please the regulators. Similar to the case of the domestic agricultural food sector discussed above in Section 8.2, surcharges and fines are a source of revenue of the regulatory bodies, although this practice is prohibited by law in this case (The General Office of the State Council, 2001). The difference is that inspectorates of manufactured food are government departments included in the civil service system, while inspectorates of agricultural food are ‘professional units’ not included in the civil service establishment. For government departments, turning fines and fees as its own

revenue of the department is regarded by the Chinese Central Government as corrupt behaviour. In 2001, the State Council and the Ministry of Finance published a directive requiring that fees and fines must be turned over to the government exchequer but not kept by government departments themselves (The General Office of the State Council, 2001). However, at the local level, the directive is sometimes disregarded, especially in localities with cash-strapped governments (D. Yang, 2004, p. 243). In this case, if the regulatees consider fines as a kind of bribe rather than a deterrent that has a threatening effect, they may not modify their law-violating behaviour.

### 8.3.2 Small-sized producers

On the other hand, the most deterrent tools specified in laws are less likely to be used on small food workshops; instead, regulators more often persuade the law-violating small producers to modify the wrong-doings and teach them how to prevent the violation of rules from happening in the future.

With respect to moderate cases of violation, usually a formal rectification order is issued, accompanied with a small fine. Confiscation of benefits, suspension of licence and termination of licence are, however, unlikely, even though the violations are deemed serious. For example, according to the *PRC Food Hygiene Law*, for food business running without the three required licences (i.e. 'food hygiene licence', 'business licence' and 'production licence'; see Section 7.3.1 in Chapter 7), regulators should impose a fine, confiscate its benefits, and prohibit its operation ("The PRC Food Hygiene Law," 1995, Article 40). However, a regulator admitted in the interview that they rarely terminate their operations even though these food workshops are running illegally (Interviewee 11). Instead, regulators would provide advice and assistance to small workshops for obtaining the necessary licences. For example, according to the official statistics, in 2007, the Guangdong Bureau of Quality and Technical Supervision guided and assisted 743 food workshops in the province to gain the required licences ("Coordination between regulatory authorities," 2007).

While this finding is apparently similar to the situation of regulating small farmers (i.e. only persuasion is used), when further looking into the case we can find a slight difference between enforcement towards small food workshops and individual farmers. Regulators are hesitant to impose fines on individual farmers because they are

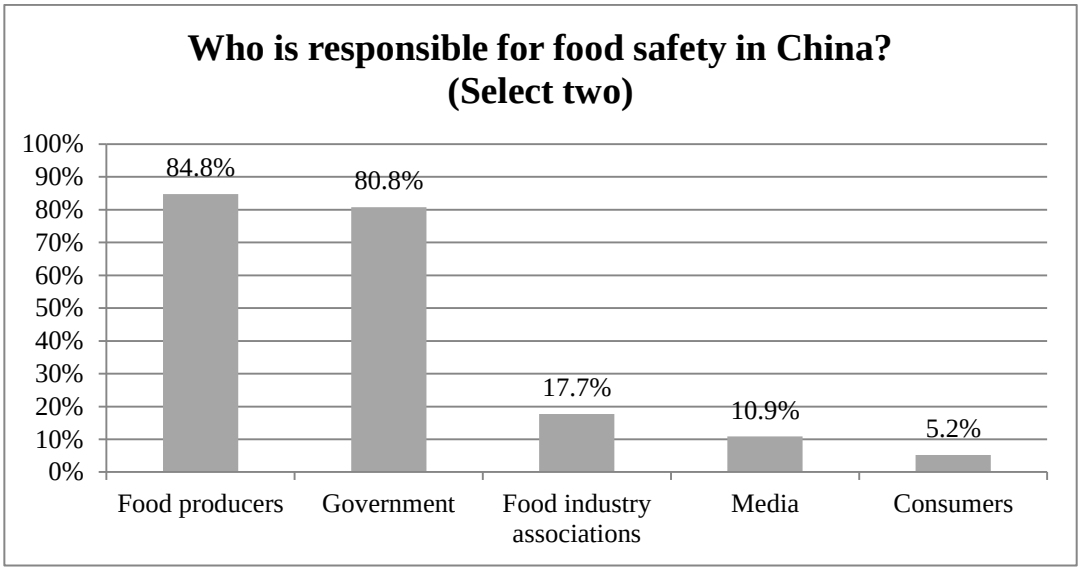
living in poverty and the minimum amount of RMB 2,000 is too high for them. Small workshop owners, however, more often face the penalty of fines, although usually in a small amount. This is largely because the *PRC Food Hygiene Law* does not specify the minimum amount for fines but the maximum only (i.e. a maximum of RMB 5,000, approximately USD 730) ("The PRC Food Hygiene Law," 1995, Article 41). Therefore, regulators are allowed to use discretion in deciding the amount for fines, considering the economic conditions of the regulated food workshops. Meanwhile, unlike the agricultural authorities, since regulators of the manufactured food sector are not responsible for food industry development, comparatively the consideration of the development of the food manufacturing industry is less obvious.

Food scandals, on the other hand, may bring about adjustments in the above dynamics of behaviour-modification actions, in both domestic agricultural and manufactured food sectors. In particular, regulators are keen on applying aggressive and deterrent measures, such as suspension of operation on some selected cases, which can cause severe damage to the reputation of food 'Made in China' (Interviewee 9). Regulators may also invite the media to join the inspection and report on the sanctioning of corporations (Zhao, 2002). Regulators are alert to the adverse effects of food incidents, not only in terms of human health but also public anger against the government and the food industry (Interviewees 7, 8, 9 and 11). One of the regulatory officials claimed in the interview:

> The rising awareness of food safety among consumers and the media drives us to manage food-safety concerns proactively. Food scandals, such as the poisoning of Sanlu infant formula in 2008 with such an extreme impact, do not only ruin the milk industry but also the whole food industry of the country. Many people criticised the slow reaction of the government in handling the disaster. They remain sceptical about Chinese-made food and the role of the state. We've learned costly lessons from the incident. To rebuild public confidence, it is necessary for us to adjust our enforcement force towards foodstuffs reported with incidents, in particular for those large enterprises having high volume and extensive circulation across the country (Interviewee 9).

Actually, popular sentiment of anger against the Chinese government has also evolved alongside food safety crises. In a recent survey conducted in 2012, it shows that respondents held food producers (84.8%) and the government (80.8%) accountable for the food safety problem (see Figure 8-1) (China Economic Net & Horizon Research Consultancy Group, 2012).

**Figure 8-1: The result of a survey on responsibility for ensuring food safety**




Source: author's compilation, from statistics released in the '2012 Research Report on Index of Consumer Confidence in Food Safety' (China Economic Net & Horizon Research Consultancy Group, 2012)

This shows that there is pressure for the Chinese government to strengthen its regulatory enforcement; and in their judgement, managing well and reacting promptly to food scandals is one of the key factors for comforting the public and rebuilding public confidence in food 'Made in China' (Interviewee 11). Overall, it can be seen that during extensive food incidents and scandals, the factor of image of food 'Made in China' overrides the factor of local interests. As a consequence, regulators are driven to apply moderate or drastic measures of behaviour-modification on domestic medium and large-sized enterprises.

In summary, a similar pattern can be observed across the two domestic food regulatory regimes: the violation of standards for large business results in fines, while for small business persuasion is more likely to be used. In both cases, the order of business suspension, termination of licences and closure of business is seldom used. Again, since fines are a form of revenue or bribe accepted by the regulatory bodies, there is a strong incentive for regulators to impose fines on food producers who are able to pay. Nevertheless, food scandals may bring an alternation to this pattern of behaviour-modification.

## 8.4 Behaviour-modification on exported food products

When further looking into the regulatory regime for exported food products, a very different picture can be seen. Rather than having variations in behaviour-modification actions for different groups of regulatees, a highly deterrent approach is consistently substantial among all exported food producers in China. To avoid repetition, this section will discuss the exported food sector as a whole category rather than separating into exported fruits/vegetables, exported meat/dairy products and exported manufactured food products, provided that actions of behaviour-modification are largely equivalent among all exported food producers.

It is found that enforcement work of the China Entry-Exist Inspection and Quarantine Bureaux (CIQs) is consistent with all regulated entities. As described in Chapter 5 (Section 5.1), the CIQs are under a vertical supervision of the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) at the central level. Their enforcement work simply adheres to the *PRC Law on the Entry and Exit Animal and Plant Quarantine* ("The PRC Law on Entry and Exit Animal and Plant Quarantine," 1992), without considering other factors such as food industry development, local livelihoods and employment (Interviewee 10). Meanwhile, highly deterrent measures of sanctioning are utilised by the CIQ officers. For example, in all types of violation, a temporary suspension of exports will be imposed on the involved exported farms or food enterprises until the wrong-doing is satisfactory corrected (China Entry-Exist Inspection and Quarantine Bureau, 2010a), accompanied by other sanctions including warnings, fines, and/or confiscation of products. Revocation of export licences will take place for serious cases of violation, or for a continuous three records of minor violation (Interviewee 10). A list of infringing enterprises is regularly announced and updated on the web by the AQSIQ (China Entry-Exist Inspection and Quarantine Bureau, 2010a). For example, in 2008, there were 47 food enterprises named on the list (China Entry-Exist Inspection and Quarantine Bureau, 2010b), and these enterprises were temporarily banned for export until satisfactory modifications were made. To explain these dramatic measures, a regulatory official suggested that the Chinese Central Government attempts to work ‘at any cost’ to ensure that its exported products do not cause any scandals and ruin the reputation of products ‘Made in China’ (Interviewee 10).

The interviewed regulatory official also commented that export-oriented enterprises treasure their reputation because they have all invested significant amounts of time and money in making their brand name successful overseas (Interviewee 10). He claimed that the CIQ officers believe that most of the export-oriented enterprises are well-intentioned, while law-violating behaviours normally result from the lack of information or knowledge. Exported farms and enterprises are also keen on communicating with regulatory officials about the latest information on international food standards and trade bans in the international food market.

In the discussion of why the persuasion-based approach is not chosen to regulate the exported food producers, the interviewed official explained:

> Our enforcement work is adherent to the stated laws, rules and guidelines. Although we are friendly with the big businesses for exportation, this does not imply we are acting in favour of them. The AQSIQ has a clear command that non-compliance will directly result in sanctions. On the other hand, personally I think persuasion is not necessary because most large enterprises are well-financed, well-resourced and are capable of compliance; and most importantly, they are willing to comply. Instead of saying we are persuading or teaching them, I would take our communications as interaction (Interviewee 10).

While deterrent tools such as revocation of licences may cause economic and unemployment problems to the localities, the official explained:

> You can perceive us as the army under the command of the Chinese Central Government. Our finance is fully funded by the central government rather than the provincial governments. We are not concerned about tax revenues or other local factors such as unemployment (Interviewee 10).

Being fully funded by the Chinese Central Government (see Sections 5.1 and 5.4.3 in Chapter 5), the AQSIQ can neglect those local factors and focus on enforcing the regulations impartially and strictly. In other words, the deterrence-based approach can be consistently applied to all regulatees in the exported food regime. This also reveals the understanding of the Chinese government that the deterrence-based approach is a better solution to ensure the modification of wrong-doing.

In summary, this finding is very different from the two regulatory regimes for domestic food products, where other factors such as economic contribution to the localities and fines as revenue are taken into account. Here in the case of the exported food sector, the interests of the localities are less able to shape behaviour-modification

actions. Instead, safeguarding the reputation of products 'Made in China' under the context of internationalisation of regulation is fundamental in determining the tools of behaviour-modification used.

## 8.5 Discussion: Impact of internationalisation of regulation on behaviour-modification

Having an understanding of the variations in terms of behaviour-modification in different food regulatory regimes (see the summary Table 8-1), this section will explain the pattern of variations by using the three perspectives outlined in the analytical framework. In particular, the question raised in the beginning of the chapter will be explored: *'to what extent does internationalisation of regulation impact on behaviour-modification in different regulatory regimes?'* Relatedly, how does the tension between localised interests and international pressure shape tools of behaviour-modification, if at all? Here, the following aspects will be assessed: organised interests in local politics including the business interests and interests of politicians/bureaucrats/regulators, as well as the international image of food 'Made in China'. It will argue that while organised interest in local politics are often the main determinant of regulatory enforcement with respect to food for local consumption, the factor of international image and reputation comes up and becomes the overriding force in the exported food sector, as well as a motivation for regulators to adjust their enforcement work towards food scandals.

The dynamic of tensions between the local factor of organised interests and the international factor of reputation is summarised in Table 8-2, while this section will go through the content of the table.

**Table 8-2: Impact of organised interests and the reputation of products 'Made in China' on behaviour-modification**

| | **Domestic farms or food enterprises (small)** | **Domestic farms or food enterprises (medium & large)** | **Exported farms or food enterprises (small, medium & large)** |
|---|---|---|---|
| **Organised interests in local politics** | Medium: Moderate impact on local economy and life if closure, i.e. unavailability of cheap food substitutes, moderate tax contribution to the local government, and involving a moderate number of local employees | High: Large impact on local economy and life if closure, i.e. significant tax contribution to the local government, and involving a large number of local employees | Medium to High: Large impact on local economy and life if closure, i.e. significant tax contribution to the local government, and involving a large number of local employees |
| **Reputation of products 'Made in China'** | Small: Localised adverse impact on reputation and sales of food made by individual suppliers | Medium: Moderately extensive adverse impact within China on reputation and sales of food made by local suppliers | Large: Worldwide/extensive, adverse impact on reputation and sales of food exported from China |
| | ↓ | ↓ | ↓ |
| **Level of deterrence** | Low: Persuasive measures for knowledge transfer (e.g. education, leaflets, banners and lectures) | Medium to High: Moderate to drastic measures to prevent repeated non-compliance (e.g. fine, confiscation of produce and temporary closure) | High: Drastic measures to safeguard the reputation of 'Made in China' (e.g. revocation of licence and closure of business) |

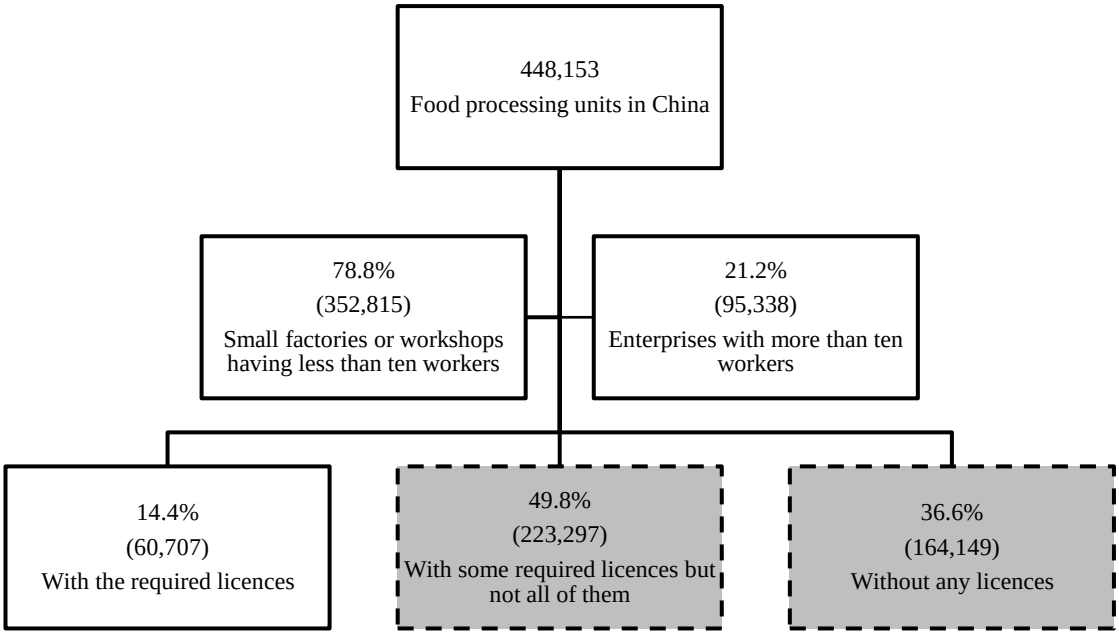
Source: author's compilation, from interviews conducted by the author

As explained in Chapter 3 (Section 3.1.4) and Chapter 5 (Section 5.4.3), in the political/administrative system in China, the two indicators of GDP growth and employment rates of the region are closely linked to the career prospects of local party leaders and bureaucracies (Cheng & Li, 2012). Regulatory agencies, therefore, tend to consider various economic and social implications when making enforcement decisions as described above. In other words, the business interests and the interests of politicians/bureaucrats/regulators are inextricably linked. This argument is valid in explaining behaviour-modification measures imposed on both large and small-sized food producers in the domestic food sector. First, for small farms and food workshops, moderately and highly-deterrent sanctioning measures are seldom used because of their

disadvantaged economic conditions and inability to pay fines. In a similar vein, regulators also hesitate to use highly deterrent measures such as revocation of licences or closure of businesses because this would endanger the livelihoods of food producers; and hence, village economics, rural employment and social stability.

The importance of small workshops in rural economy and employment can be shown by the official data (see Figure 8-2). In 2007, there were 448,153 food processing units in China (The State Council Information Office, 2007), and among them, 352,815 (78.8%) were small factories or workshops having less than ten workers. The problem of illegal operation was severe. In these 448,153 food processing units in total, only 60,707 (14.4%) were running with the required licences (i.e. 'food hygiene licence', 'business licence' and 'production licence'), 223,297 (49.8%) having some required licences but not all of them, whilst the remaining 164,149 (36.6%) were without any licences ("AQSIQ further strengthens," 2007). Figure 8-2 summarises these figures, indicating that in China small food producers constitute an important part (78.8%) of the food industry in total. Based on the *PRC Food Hygiene Law* ("The PRC Food Hygiene Law," 1995) and the *PRC Product Quality Law* ("The PRC Product Quality Law," 2000), the shaded portions in Figure 8-2, 86.4% in total, should be prohibited from operation. In other words, if regulatory enforcement adheres to the laws, the food industry would be severely hit and the livelihoods of food workers would be at stake.

**Figure 8-2: Licensing of the food manufacturing industry in China (2007)**




Source: author's compilation, from statistics released by the State Council (The State Council Information Office, 2007) and AQSIQ ("AQSIQ further strengthens," 2007)

What needs to be emphasised here is that these figures tend to understate the number of food businesses in China and especially those running illegally. The reason is twofold. First, food businesses running without licences are unlawful and they are unlikely to be on record. Second, the Chinese government tends to cover up the situation of having a huge number of illegal food producers, which entails the enforcement gap and regulatory failure. At the same time, this may signal to the public that they tolerate non-compliance to a large extent and may trigger public anger and loss of confidence towards the government and the food industry. However, despite the fact that the released statistics may understate the number of unlicensed food businesses running in China, this does not affect the validity of the argument here – an unusual huge number of illegal small food businesses have contributed a large share to the domestic Chinese food industry, and they are significant to local economy and employment.

The Chinese Central Government was not unaware of the adverse effects that enforcement might bring to the food industry and livelihoods in the localities. For example, in 2007, the AQSIQ issued a directive titled *Suggestions about Further Strengthening Regulatory Enforcement towards Food Workshops* (The General Administration of Quality Supervision Inspection and Quarantine, 2007), claiming that:

> Because of regional disparities and rural-urban disparities across the country, small food workshops will continue their operation for a long period of time in the future so as to meet consumer needs. Food workshops are one of the pillars of rural economy in most areas in China. They provide employment opportunities to rural residents which help increase their income. This unusual circumstance makes regulation towards food workshops an enduring, difficult and complex task (The General Administration of Quality Supervision Inspection and Quarantine, 2007, Section 1).

The directive also explicitly states that local governments are given authority to create their own plans and rules in handling the illegal food workshops according to the particular situation of the localities (The General Administration of Quality Supervision Inspection and Quarantine, 2007, Section 2.2). As argued by a regulatory official in the interview, regulatory enforcement in practice cannot ignore the context of the localities (Interviewee 11). Since small workshops are mostly run by families who are low-skilled labourers, prohibition against operation may give rise to unemployment problems, which means economic and social stabilities become questionable. This is a particular concern for the Guangdong local governments given that they have great difficulty in handling rural-urban disparity and an unusually massive floating population (see Section 4.3 in Chapter 4). In other words, the Guangdong Provincial Government and its lower level of governments are under high pressure to ensure adequate job supplies in order to keep their governing societies stable and 'harmonious' (*hexie*) (Zheng & Tok, 2007; Chan, 2009).

The consideration of local interests is more apparent when looking into enforcement decision-making towards medium and large-sized producers. On top of local economy and employment, tax revenue, which is again closely linked to the interests of local politicians and bureaucracies, can explain the behaviour-modification measures towards large-sized enterprises and farms. Since large enterprises are major taxpayers in local areas, temporary suspension or permanent termination of operations will imply less profit for the enterprises and hence less tax revenue received by the local government. In other words, highly-deterrent measures such as revocation of licences contradict the vested interest of the government and regulators. As a result, less aggressive tools such as penalties are imposed on medium and large producers, which can also serve as additional revenue for the government.

The milk scandal in 2008 exemplifies the close link between large enterprises and local governments (see Section 2.2.5 in Chapter 2). The Sanlu Group, one of the companies involved in producing the tainted infant formula, was formerly a state-owned cooperative established in 1956. Although various ownership reforms were carried out by the Shijiazhuang City Government on Sanlu since 2002 (X. Zhang, 2008), the close ties between Sanlu and the city government persisted because of Sanlu's large contribution to the tax revenue of the city government ("Public hearing exposes Sanlu's intention ", 2009). In fact, the city government's long delay in reporting the milk incident to the Hebei Provincial Government was perceived by the media as evidence of its intention to protect the Sanlu Group ("Sanlu continued its sale," 2009). The city government explained its delay by the reason of its support and trust towards Sanlu as a leading enterprise employing large numbers of workers and farmers ("Reasons behind the delayed reporting," 2008). In this incident, it can be seen that business interests and local economic conditions were considered by the government in regulatory enforcement.

In contrast, regulatory enforcement towards exported food is not affected by local context factors because the CIQs are directly supervised and fully-funded by the AQSIQ at the central level. Therefore, localised interests of politicians/bureaucrats/regulators are less prominent in this case.

In summary, the local governments often have vested interests in the economic health of firms or in the overall performance of the local economy. As argued by Ma and Ortolano (2000), it is the Chinese regulatory 'pragmatism and parochialism' that results in great variability in enforcing environmental laws in China. In the same vein, in the study of food regulation in China, the idea of pragmatism requires local regulatory bodies to take into account the health of the local economy, the offender's ability to pay the fines and the employment of workers. These all bring about regulator's aversion to taking severe enforcement actions against the regulated entities.

While organised interests are highly significant in the decision-making process of regulatory enforcement in the domestic food sector, in the occasions where food incidents emerge, these interests seem to be overridden by the factor of safeguarding export trade and the image of China as a committed and responsible trading partner. In this scenario, moderate to drastic approaches of enforcement will take place,

notwithstanding the adverse effects it may bring to the local economy and employment. Here, international image and international obligations can be considered. Loo and Davies' (2006) study on reputation management of China indicates that a good reputation can enhance the competitiveness of a nation and its product brands. As an emerging member of the international community, it is important for China to manage its reputation, its national brand, and shape how it is perceived in the international arena.

However, as indicated by various studies (Loo & Davies, 2006; Roth, Tsay, Pullman, & Gray, 2008), Chinese products do not rank highly in the world in terms of an international brand. According to the Anholt Nation Brands Index (NBI) in 2007, the trend for China's products was the worst of any of the 38 countries polled. It was 37$^{th}$ (the second-lowest country) for products, compared with 24$^{th}$ in the late 2005. Its score has declined by nearly 6% over an 18-month period (Anholt & Global Market Insite, 2007). As explained by Anholt, the author of the NBI report, "Faulty and dangerous products are hurting Brand China: evidence from the latest NBI scores shows that global public confidence in 'Made in China' products, previously never very strong, is declining even more steeply" (PRWeb, 2007). Paull's (2008) study on China's motivations in developing green food and organic food also suggests that Chinese-made food is significantly devalued by overseas consumers. In his study, Australian consumers commented on food from China in the survey as follows: "I do not like or trust products that come from China", "Not really happy buying food from China even if it is cheaper", "Generally I am dubious of any claims of 'organic' or 'natural' when it concerns a product from China", and "Labelling on Chinese products is not trustworthy with reports on counterfeit labelling" (Paull, 2008, p. 9). Given the importance of reputation in global trade, there has been an urgent need for the Chinese government to overcome mistrust of Chinese products in the world.

The global impact of lacking confidence towards Chinese-made food can be exemplified by the milk shortage in many countries. Following the tainted milk scandal in 2008, Chinese consumers have lost confidence in domestic milk products, especially infant formulas. Since then, they have bought foreign milk powder in bulk by any means necessary, including importing, smuggling and purchasing during visits ("Shortage of baby milk," 2011). This has finally caused a shortage of milk and a surge in price of powdered milk for infants in many overseas markets ("Global shortage of

milk supply," 2010), including the United States, Canada, New Zealand, the United Kingdom, Japan and South Korea (2013). Global restriction in the form of baby milk rationing has therefore, been introduced in some countries such as the United Kingdom and in Hong Kong[36].

**Table 8-3: China's unit pricing coefficients of food exports and imports in 2006**

| 2006 | Exports | Imports |
|---|---|---|
| Quantity (million tons) | 24.17 | 20.27 |
| Value (USD billion) | 26.66 | 13.40 |
| Unit pricing coefficient (USD billion per million tons) | 1.10 | 0.66 |

Source: author's compilation, from Paull's 'The greening of China's food - Green Food, organic food, and eco-labelling' (Paull, 2008)

Winning back trust overseas is also of critical importance to Chinese food exports. For example, Paull's (2008) study calculates the 'Unit Pricing Coefficient' (i.e. cost per million tons) of China's food exports and imports in 2006 (see Table 8-3). Having the coefficient of exports (1.10) higher than that of imports (0.66), this demonstrates China's strategy of 'Sell high, buy low' in international food trade (Paull, 2008, p. 2). Given that the figures were computed under the condition of a lack in foreign consumers' confidence in Chinese-made food; therefore, if foreign consumers' trust is improved, both the export quantity and value of China can be increased to a larger extent.

On the other hand, the mission to safeguard the reputation of Chinese-made food is also important to the international image of the Chinese government itself. As argued by Beamish and Bapuji (2008), the often-reported inadequacies of the regulatory system in China and the activities of corruption further affect people's perceptions that China has weak legal or ethical standards. To improve the public image of 'China's peaceful rise' suggested by leaders of the Chinese Communist Party (The State Council Information Office, 2005), that the country is internally committed to improving the welfare of its own people and externally acting as a responsible world leader, strengthening its food safety monitoring has emerged as an important issue for the Chinese government. For example, right after the outbreak of the milk scandal in 2008,

[36] For example, in March 2013, the government of Hong Kong amended the law to prohibit the unlicensed export of powdered formula (exceeding 1.8 kg in weight) to secure sufficient quantity supplied for local infants ("The Import and Export (General) (Amendment) Regulation 2013," 2013).

*Wen Jiabao*, Premier of the State Council, emphasised in a public speech that people's lives and health should not be sacrificed in exchange for economic growth and industry development. To resume the public confidence, *Wen* claimed that the government will strengthen its enforcement on food regulation, while government officials should be held accountable for food incidents ("Premier Wen Jiabao," 2008). The speech gave an image to the public that the Chinese Central Government endeavours to strengthen its enforcement power on food businesses, even if this may adversely impact on the country's economy. Meanwhile, food safety concerns were further pushed forwarded by the Chinese Central Government by including the topic in the *Twelfth Five-Year Plan of the People's Republic of China (2011-2015)* (The Eleventh National People's Congress, 2011), a blueprint which outlines key economic and development targets for the country for the next five-year period. This indicates that the issue of food safety has a unique status and priority in the future works of the government.

In summary, tensions between localised interests and the international image of food 'Made in China' can explain variations in behaviour-modification measures to a large extent. In most cases, organised interests in the localities tend to drive regulators to use mild behaviour-modification measures towards small domestic producers and moderate tools towards large domestic producers. However, in exceptional cases such as food incidents, the motivation of protecting the Chinese national brands within the country and across other foreign countries prompts regulators to use drastic measures on exported food producers and local producers involved in massive scandals, despite the fact these measures may compromise localised vested interests. In other words, local factors are only becoming less important when the factor of products 'Made in China' comes up as a key concern of the government under extensive exposure to international pressure, implied by the high export value and the lack of foreign consumer's confidence in Chinese exported food as well as in the Chinese government in general.

In general, compared with the other two control components of standard-setting (see Chapter 6) and information-gathering (see Chapter 7), the influence of internationalisation on the element of behaviour-modification in the domestic food regulatory regime is at its weakest. Under constraints of competition between economic growth and food safety agendas, as well as other regulatory and bureaucratic barriers such as inadequate regulatory resources, the nature of international influence on

domestic food safety enforcement in China remains minimal. Only under extraordinary circumstances such as the emergence of crisis which may catch national and international attention, enforcement strategies or measures are adjusted accordingly.

# Part Three: Conclusion

# Chapter 9 : Conclusion

Based on the analysis in Chapters 6-8, this chapter will set forth the empirical findings of the study. It will explain in what way and to what extent the internationalisation of regulation impacts on China, and, relatedly, how other local factors as described in the analytical framework are becoming less important under the context of internationalisation. This chapter will also discuss the theoretical and empirical contributions of the study.

The chapter is structured as follows: first, Section 9.1 will briefly summarise the empirical findings of the study. By using a comparative approach, patterns of variations between different food regulatory regimes are presented. It will also assess in what way and how far the internationalisation of regulation explains regulatory practices, variations and changes in China's food safety regulation. In Section 9.2, theoretical contributions and empirical implications of the study will be discussed.

## 9.1 Empirical findings

The previous three chapters have explored the three control elements, namely standard-setting, information-gathering and behaviour-modification of different food regulatory regimes in China. This section aims to place the earlier analysis within an overall picture, and examine the effects of internationalisation of regulation on China's food regulatory regimes.

### 9.1.1 Observed variations

To provide a basis for analysis, Table 9-1 outlines the key features observed in the six studied regulatory regimes. Similar to previous tables of comparison, what needs to be emphasised here is that the variations depicted in Table 9-1 are on a relative basis; the six food domains are weighted with each other. In other words, these are the relative differences.

**Table 9-1: Observed features of various food regulatory regimes**

| Regimes | Control components | Observed key features |
|---|---|---|
| 1. Domestic fruits/vegetables | *Standard-setting* | Trend of convergence towards international standards |
| | *Information-gathering* | Small farms: Little activity<br>Large farms: Medium-sized monitoring |
| | *Behaviour-modification* | Small farms: Persuasive<br>Large farms: Moderately deterrent |
| 2. Exported fruits/vegetables | *Standard-setting* | Equivalent to international standards |
| | *Information-gathering* | Extensive data-gathering |
| | *Behaviour-modification* | Highly deterrent |
| 3. Domestic meat/dairy products | *Standard-setting* | Trend of convergence towards international standards |
| | *Information-gathering* | Medium-sized monitoring |
| | *Behaviour-modification* | Small farms: Persuasive<br>Large farms: Moderately deterrent |
| 4. Exported meat/dairy products | *Standard-setting* | Equivalent to international standards |
| | *Information-gathering* | Extensive data-gathering |
| | *Behaviour-modification* | Highly deterrent |
| 5. Domestic manufactured food | *Standard-setting* | Trend of convergence towards international standards |
| | *Information-gathering* | Small workshops: Medium data-gathering<br>Medium/large enterprises: Moderately extensive monitoring |
| | *Behaviour-modification* | Small workshops: Persuasive<br>Medium/large enterprises: Moderately deterrent |
| 6. Exported manufactured food | *Standard-setting* | Equivalent to international standards |
| | *Information-gathering* | Extensive data-gathering |
| | *Behaviour-modification* | Highly deterrent |

Source: author's compilation, from previous literature, laws and rules of the PRC and interviews conducted by the author

With respect to standard-setting, the key feature is that standards for Chinese exported food are higher than that for domestic food, because the exported food sector directly adopts international food standards developed by the Codex and the ISO. But

over the last decade, the standard-setting of the domestic food regulatory regime has witnessed a gradual transformation towards a convergence with the exported food regulatory regime, in terms of both the standards adopted and the practice of formulating standards. Consequentially, domestic food standards have gradually become higher.

In terms of information-gathering, there are variations centring on how far regulators go in using different methods to collect information about the regulatees, and the extent to which these tools of information-gathering are applicable to the regulated entities. In general, an active approach, also known as 'police patrol' in the literature on oversight, is adopted in the exported food regime in China. In contrast, a combination of reactive and interactive approaches is used in the regimes for domestic food products. For individual farmers, farming households and small food workshops, a reactive approach, also known as 'fire-alarm', is used for collecting information about their production activities. On the other hand, large farms and food manufacturing factories with high production volumes are monitored based on an interactive approach of information-gathering.

Regarding behaviour-modification, whilst regulators are more likely to use a deterrence-based approach on medium and large-sized domestic farms and food enterprises, they are inclined to use a persuasion-based approach on small farms and food workshops. In contrast, rather than differentiating between different types of producers, a highly deterrent approach of behaviour-modification measures are consistently applied to all exported food producers in China.

In other words, regulatory variations are alive in food regulation in China. These variations can be categorised onto three levels: first, between food regulatory regimes across sectors; second, between components in the same regulatory regime; third, between different types of regulatees in the same control component and the same regulatory regime. Regarding the first type of variation, for example, regulatory regimes for exported food products are in general more centralised and comprehensive, with less discretion than regimes for domestic food products. With respect to the second type of variation, for instance, in the regime for domestic fruits/vegetables, although Chinese national food standards are moving upward to converge with international food standards, no similar upward trend has been found in the overall capacity for

information-gathering. Finally, in respect of the third type of variation, for example, in the regime for domestic fruits/vegetables, while medium-sized monitoring is imposed on large farms, little information-gathering and behaviour-modification activity is carried out on small farmers. Notably, the second and third types of variation are particularly prominent in various domestic food regulatory regimes but less obvious in the exported food regimes.

### 9.1.2 Internationalisation of regulation: in what way and to what extent

In exploring and explaining these observed variations, the internationalisation of regulation has been illustrated in the previous empirical chapters. This approach has also been contrasted with two other dominant accounts, including public opinions and organised interests. In particular, how the growing global influence shapes different control components has been discussed, and, relatedly in this context, how other local factors are becoming less important in the recent development of China's food safety regulation. This section will revisit these international and local factors and assess their influence on the three control components in Hood et al.'s (2001) framework. It will also explain how the effects of internationalisation of regulation being able (or unable) to overcome local resistance and shape food safety regulation in China.

As analysed in the analytical framework (see Section 3.1.2 in Chapter 3), the internationalisation of regulation can shape food safety regulation in China in a number of ways. These include coercive influence by legally binding requirements, 'mimicking' behaviours such as policy emulation under uncertainty, normative influence in the professionalisation process inside epistemic communities (DiMaggio & Powell, 1983), and international pressure imposed on the Chinese government under the trend of globalisation and trade liberalisation. Here, the way and the extent to which these different forms of international influence impact on food regulation in China will be assessed.

Coercive pressure and influence from legal mandates takes a prominent role in shaping the exported food regulatory regime in China. The extent of influence is also comprehensive, covering standards adopted, information-gathering tools deployed and behaviour-modification actions taken. In terms of exported food standards, as a WTO

member, Chinese exported food standards are obliged to follow the international food standards developed by the Codex Alimentarius, which are higher (i.e. more stringent) than the national food standards in China. Put another way, this practice is directly a result of formal mandate, or technical requirement exerted by the WTO on China. Similarly, extensive information-gathering tools and highly deterrent behaviour-modification sanctioning have been put into place in order to detect standard-violation activities and modify such behaviours. In other words, there is no clear evidence signalling that 'selective adaptation' (Potter, 2003, 2004; Biukovic, 2008) or other counterbalancing acts (Hsueh, 2011) are adopted by the Chinese government in regulating its exported food sector, which can be prevailing in other strategic industries in China such as telecommunications (Hsueh, 2011) and legal reform (Potter, 2003, 2004). In contrast, with respect to the domestic food regulatory regime, coercive pressure is more salient in shaping the control component of standard-setting but not information-gathering and behaviour-modification. For example, China has been under coercive pressure from other WTO members to use scientific risk assessment as a basis for setting national food standards, and turn these standards into compulsory standards.

'Mimicking' or modelling behaviours (DiMaggio & Powell, 1983) have shaped the domestic food regulatory framework to a large extent over the last decade. For example, China's establishment of the State Food and Drug Administration in 2003 is a direct 'importation' from the U.S. system, against the backdrop of having ambiguous goals in undertaking regulatory reform but uncertainty in viable solutions to the problem of fragmented regulatory authority (DiMaggio & Powell, 1983). In this case, modelling itself after similar organisations in the field seems to be a legitimate and viable solution at a lower cost, although this modelling at the later stage proved unsuccessful because of resistance from vested interests. This echoes with the argument in previous literature that policy transfer from developed economies can be problematic to developing countries (Minogue, 2004), because of their distinctive differences in terms of the complex economic, political, social and cultural spheres.

Normative influence from the epistemic communities seems to take an important role in shaping the procedure of national food standard-setting in China as well. In recent years, the practice of national food standard development in China has become more transparent; and in particular, the practice of standard formulation has become

increasingly similar to that of the Codex and the ISO. This similarity can be perceived as a transfer of shared professional values in professional networks which promote normative isomorphism. Communicative interaction within international organisations can hence, gradually bring about regulatory convergence (Holzinger et al., 2008). In this case, participating in international standard organisations such as the ISO and the Codex allows the Standardisation Administration of China (SAC) to interact with other policy makers as well as professionals in the transnational epistemic communities (Adler & Haas, 1992; Haas, 1992; Koenig-Archibugi, 2010). Lessons of foreign experience are learnt (Rose, 1991b, 1993) and the international practice of standard development is diffused (Meseguer, 2005, 2006; Meseguer & Gilardi, 2009); as a result, the socialisation process reinforces China's conformities to common international norms.

What has to be clarified here is that whether an influence is coercive, mimetic or normative in nature may not be easily distinguishable, given that communication and cooperation often co-exist. For example, in the case of China's national food standard harmonisation to international Codex or ISO standards, despite no formal coercive pressure imposed by other institutions or countries has been observed, the Chinese Central Government has taken the initiative in proposing standard harmonisation. This can be a result of catching up with international standards in order to enhance international trade; it can also be modelling itself after foreign experience; or it can be a consequence of socialisation in international epistemic communities.

To summarise, international harmonisation and transnational communication are the key forms of international influence on China's exported food regulatory regime, as well as food standard-setting in the domestic food regulatory regime. In particular, while coercive pressure is mainly exerted on the Chinese exported food regulatory regime only, national Chinese food standards have also witnessed a gradual transformation towards a convergence with international standards. The homogeneities in terms of the procedure of standard formulation and the standards adopted can be explained by the coercive powers of other WTO members, and 'mimicking' behaviours and professionalisation under the context of transnational communication (DiMaggio & Powell, 1983). This suggests that isomorphism originally deriving from coercive force has the potential to promote mimetic behaviours and learning from the transnational professional networks.

On the other hand, in explaining the other two control components of information-gathering and behaviour-modification in China's domestic food regulatory regime, international pressure and the protection of national image and branding can be taken into account. In particular, the desire of the Chinese government to safeguard the reputation of products 'Made in China' in the highly liberalised world markets is one of the key factors in determining regulatory enforcement. Building the reputation of China's national brand overseas is crucial to China's export performance and competitiveness, especially in the food area. More importantly, this can show the international communities that the Chinese government is committed to food safety regulation. In this way an international image that China is 'rising peacefully' as a responsible world leader is being developed. This intention, therefore, has prompted the Chinese government to respond quickly to food safety crises, which open a 'policy window' for the 'take-off' of a policy issue and lead to policy changes (Kingdon, 1995, 2002). Hood et al. (2001, pp. 140-141) explains that tragedies or upsurges of public and media interest may provide the 'policy window' of politician attention in which the professionals introduce new approaches or regulatory developments. For example, in China, numerous extensive food safety incidents in the early 2000s opened a window for the Chinese Central Government to deliver its first regulatory reform with an aim of re-centralising the regulatory authority. In 2009, the milk incident further opened a 'policy window' for the Chinese Central Government to cut through persistent resistance deriving from vested interests in domestic politics and introduce the new *PRC Food Safety Law*. These type of "random problem windows" (Howlett, 1998, p. 500) resulting from random events or crises offer policy entrepreneurs a chance to 'couple' the three streams of problems, political and policy (Kingdon, 1995), and push forward regulatory changes.

Notably under the context of internationalisation of regulation, other local factors such as organised interests in the localities are becoming less influential in shaping the domestic food regulatory regime. With respect to business interests, although large-sized food businesses have been involved in the process of national food standard development, their influence is becoming less significant under the context of internationalisation of regulation, and, in particular, when standard harmonisation work of national food standards with international standards is directly initiated by the Chinese Central Government. Similarly, regarding interests of

politicians/bureaucrats/regulators, although they have been influential in shaping regulatory enforcement in the domestic food safety regulatory regime, these interests in local politics are overridden by the aim of the Chinese government to safeguard the reputation of food 'Made in China' when food incidents emerge. The dynamics of how the two global and local factors evolve is as follows. In the decision-making process of enforcement actions, various local factors are considered by frontline inspectorates, including local economy, employment, tax revenue and other sources of revenue such as fines. These factors are linked to the vested interests of the local bureaucracies and political leaders because cadre appraisal and promotion in China is largely based on related economic performance evaluation (Cheng & Li, 2012). Frequent job rotation every four to six years also implies that local political leaders tend to look after short-term agendas such as the current state of employment and tax revenue, instead of some issues which have no visible returns in the short term. Under these circumstances, extreme enforcement measures such as closing down food businesses appear to be undesirable. This echoes with Beck's (1992) argument, that the protection of economic growth and employment drives some less developed nations to keep the loopholes in prescribed regulations wide and their enforcement lax (see Section 3.1.4 in Chapter 3). As a result, a form of 'political capture' emerges, as identified by previous literature (Cook et al., 2004, p. 13). Further, regulatory turf between various government bodies comes up, where rational bureaucrats seek to defend their power and hence their budget (Niskanen, 1994).

Despite these local interests have been one of the key considerations of regulators in the decision-making process of enforcement action, these vested interests are becoming less influential when the intention of the Chinese government to safeguard the reputation of products 'Made in China' is strong. On the occasions where food incidents emerge, protecting profitable export trade and safeguarding the international image of China as a committed trading partner are becoming crucial. This is also important to build up an image that China is 'rising peacefully' as emphasised by leaders of the CCP (The State Council Information Office, 2005), that the country is internally committed to improving the welfare of its own people and externally acting as a responsible world leader. This finally prompts the Chinese government to adjust its enforcement measures towards areas of public awareness and international concern, despite the fact that this may compromise localised vested interests. In other words,

local factors are becoming less important when the Chinese government gives priority to the concern of safeguarding the reputation of products 'Made in China' when international pressure is high.

In summary, an overall picture of how far the international influence shapes the three control components in the domestic and exported food regulatory regimes is portrayed in Table 9-2.

**Table 9-2: The influence of internationalisation on the three control components**

| Control components | Domestic food regulatory regime | Exported food regulatory regime |
|---|---|---|
| Standard-setting | Strong | Strong |
| Information-gathering | Mixed | Strong |
| Behaviour-modification | Weak | Strong |

Source: author's compilation, from previous literature, laws and rules of the PRC and interviews conducted by the author

From Table 9-2, it can be seen that the international influence on the Chinese exported food regulatory regime is integrated, covering the three control instruments in the regime. In contrast, for the domestic food regulatory regime, there is an uneven influence of internationalisation on the areas of standard-setting, information-gathering and behaviour-modification. With respect to standard-setting, as a result of harmonisation and transnational communication, the international influence appears to be strong. Regarding information-gathering, the picture is rather mixed. On the one hand, regulatory barriers such as the lack of resources in collecting and providing information are the key impediment to information-gathering activities. On the other hand, on occasions of food incidents which attract media attention and public concern, information-gathering effort is adjusted to the implicated food products as a response to domestic and international pressure. Comparatively, the influence of internationalisation seems to be at its weakest on the area of behaviour-modification. Bureaucratic and political interests such as the competing values of economic growth and food safety are considered when decisions on enforcement are made. Despite food safety incidents may alter enforcement strategies and measures, regulators are still reluctant to deploy highly-deterrent tools in sanctioning non-compliance behaviours. In this sense, enforcement gaps are inevitably in place.

## 9.2 Theoretical contributions and empirical implications

This study makes several contributions to the literature on regulation and regulatory enforcement. First, it shows the tensions between international influence and local influence, and analyses the dynamics between them. While localised interests are often regarded as a powerful force in shaping regulatory enforcement and policy implementation in general, they are never static in nature. In this study, it shows how local organised interests are overridden by international factors. This improves our current understanding of regulatory governance in developing countries, where the lack of capacity and commitment of regulators resulting from regulatory capture and political capture is often a potential obstacle to regulatory enforcement.

Second, this study helps define enforcement gap and distinguish exactly where it falls – the area of information-gathering or behaviour-modification. Correspondingly, it helps distinguish enforcement gap resulting from information asymmetry because of regulatory capacity, from the enforcement gap as an intentional behaviour of regulators. More importantly, it shows how enforcement gap resulting from the lack of incapacity and commitment in the locality is potentially overridden by other international factors. This finding makes a contribution to the literature on regulatory enforcement, and particularly to that focused on less developed countries.

In a broader sense, this study also contributes to our understanding of the current development in the Chinese political and social spheres. Although the Chinese state remains an authoritarian, this study shows that it has witnessed ongoing changes and become increasingly responsive to the diverse demands from the domestic society as well as the international world. The reason behind is that it is a key concern for the Chinese government to keep the societies stable and 'harmonious', and building an image that China's 'peaceful rise' is not a threat to the world – which are declared visions for the country's future, and are politically important to the ruling of the Chinese Communist Party.

Finally, although this study covers China's food regulation only, it also sheds light on other regulatory areas in China as well as other industrialising countries under similar levels of exposure to international force. In particular, it suggests how an industrialising country responds to international pressure and at the same time being

constrained by tensions in domestic politics. It also improves our understanding of how and why policy learning and policy transfer in developing countries succeeds or fails, given the constraints of weak state capacity and institutional endowment and the vested interests in the economy.

# Appendix A : A coded list of interviewees

| Interviewee code | Official capacity |
|---|---|
| 1. | Expert |
| 2. | Policy official |
| 3. | Official |
| 4. | Inspector |
| 5. | Inspector |
| 6. | Ex-official |
| 7. | Policy official |
| 8. | Expert |
| 9. | Scientist |
| 10. | Senior official |
| 11. | Expert |
| 12. | Manager of food business for exportation |
| 13. | Former inspector |
| 14. | Expert |
| 15. | Owner of food business |
| 16. | Owner of food business |
| 17. | Owner of food business |
| 18. | Owner of food business |
| 19. | Owner of food business |
| 20. | Owner of food business |
| 21. | Director of wholesale market |
| 22. | Owner of food business |
| 23. | Owner of food business |
| 24. | Owner of food business |
| 25. | Owner of food business |
| 26. | Owner of food business |
| 27. | Senior official |
| 28. | Inspectorate |
| 29. | Official |
| 30. | Senior official |
| 31. | Former inspector |
| 32. | Journalist |

# Appendix B : A coded list of observation

| Observation code | Observed organisation |
|---|---|
| 1. | Government regulatory body – Branch 1 |
| 2. | Government regulatory body – Branch 2 |
| 3. | Food business with around forty workers |
| 4. | Food business with two workers |

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