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REVIEW SECTION

Tracing and periodizing China's food safety regulation: A study on China's food safety regime change

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Abstract

How has China's food safety administrative system changed since it was founded in 1949? How can we periodize the process of this historical transformation in terms of regulators, regulatees, and regulatory tools? This review article offers an analytical framework that distinguishes three regimes in the history of China's food safety governance: an old regime of command and control (1949–1977), an intermediate regime of mixed instruments (1978–1992), and a new regime of regulatory governance (1993–ongoing). In the article the regimes' features, advantages, disadvantages, and development tracks are discussed, and the groundwork is laid for an analysis of China's emerging regulatory state. Finally, a new notion of "transitional regulatory state" is used to define the current Chinese regulatory state based on its food safety regulation.

Keywords: China, food safety, regime change, transitional regulatory state.

Introduction

Since early 2007, a crisis of confidence has developed around the world regarding products made in China. A series of product quality scandals involving items such as toys, toothpaste, pet food, and milk powder has resulted in a dramatic decline of confidence in Chinese products among global consumers. Of the concerns, food safety is the most serious. From the domestic Sanlu milk powder scandal to contaminated dumplings found in Japan and poisoned ginger found in the US, problems with China's food safety have become an international issue. Drew Thompson, the Director of China Studies and Starr Senior Fellow at The Nixon Center in Washington, DC, argues that China's food safety crisis poses serious challenges to global health governance (Thompson 2007).

An effective food safety regulatory regime may not alone be sufficient to ensure safe and high quality food production, but it has proven to be effective in preventing frequent food safety scandals. Although Chinese officials, scholars, and commentators maintain that the deterioration in food quality in China has been exaggerated in the West, they admit there is a problem with China's domestic food safety regulation system. For

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example, an executive meeting of the State Council, held on 6 October 2008 after news of the Sanlu milk powder scandal broke, stated "this milk powder scandal reveals that there are serious problems with the regulation of quality for milk products" (General Office of the State Council 2008). From 1 June 2009, a newly amended Food Safety Act came into effect in an attempt to reform the inefficient and fragmented regulatory regime. Maintaining the reputation of "Made in China" has thus become a serious policy issue for Chinese leaders.

The issue is currently more one for public opinion than one for academic research. There are few examples of high quality research that provides deep insight into the topic. Some of the existing literature, both in Chinese and in English, focuses on only general issues such as regulatory agency reform (Tam & Yang 2005; Zheng 2005), legislation of the Food Safety Act (Ye 2006; Du 2008), increasing local regulatory capacity (Liu 2007; Deng 2008), harmonizing regulatory standards (Chen 2003a), and food safety crisis management (Li 2008). Few scholars have offered broad accounts of China's food sector law and its development (Lin & Xu 2008). A number of basic research questions remain unanswered, such as: How has China's food safety management system changed since its foundation in 1949? How can we distinguish the phases of this transformation in terms of the different roles of regulators and regulates in the regulatory process? What kinds of reform can be adopted to improve regulatory performance and quality? These are the questions that this article seeks to answer.

A review of the literature

In the article "Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems," co-published by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO), food safety regulation, also known as "food control," is defined as "a mandatory regulatory activity of enforcement by national or local authorities to provide consumer protection and ensure that all foods during production, handling, storage, processing, and distribution are safe, wholesome and fit for human consumption; conform to safety and quality requirements; and are honestly and accurately labeled as prescribed by law" (FAO & WHO 2003, p. 3).

Food safety regulation has become a multidisciplinary issue that is worthy of exploration. In the Chinese context, the first group of scholars to focus on this issue included doctors, food hygienists, and nutritionists. Most of them examined the problem of China's food safety from the perspectives of setting food safety standards, of inspection and quarantine techniques. As this group argues that technological under-development has resulted in a weakened regulatory capacity (Chen 2003b; Shao 2007), we can call it the "science and technology school."

A second body of research literature has been produced by industrial economists, who believe that industrial factors such as the food supply chain and concentration ratios can shed light on China's food safety problem (Ren 2005; Zhang *et al.* 2007). For example, Ren argues that the expansion of the food market and the food industry has resulted in greater regulatory costs for the state.

A third team of scholars in this field of study consists of experts in administrative law. Ye compares China's food safety laws with their foreign counterparts and put forward a series of legislative recommendations (Ye 2006), while Du points out the limitations of

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the previous Food Hygiene Law and Product Quality Law and offers advice on the enactment and promulgation of a new Chinese Food Safety Law (Du 2008). Most of these authorities advocate strengthening legislation and implementing related food safety laws to promote the effectiveness of regulation.

In recent years, more and more political scientists and students of public administration have undertaken empirical studies into China's food safety from the perspective of regulatory politics and public policy. Neo-institutionalism, rational choice theory, policy networks, and organizational culture theory are frequently employed to study this issue. Using the 2004 milk powder scandal in Anhui Province as a case study, Tam and Yang highlight some specific deficiencies in the regulatory regime and address some salient issues concerning the building of a regulatory state, including the regulatory chasm between urban and rural areas, the appropriate role of the state in socio-economic regulation, the uncertainties created by government reforms, and the conflict between food safety and employment (Tam & Yang 2005). Zhan summarizes five contradictions confronted by China's current food safety regulatory regime, based on his survey: regulatory institutions, inspection equipment, industrial structure, enforcement capacity, and financial provision (Zhan 2007).

The present article can be included in a fourth group with Zhan. However, unlike the literature that focuses merely on policy issues, this article will explore China's food safety regulation from a historical–comparative perspective. By examining the transformation of regulatory institutions with reference to regulators, regulatees, and regulatory style, this article attempts to use a historical approach to periodizing the process of transformation, evaluating regulatory performance in terms of reliable measures. Three regimes can be identified that reflect China's socio-economic evolution: the old regime of command and control, the intermediate regime of mixed instruments, and the new regime of regulatory governance.

What is the purpose and theoretical rationale of this trichotomous periodization? First, by using regulatory style as the criterion for classification, the periodization can display the basic developmental track and logic of Beijing's socio-economic governance modes during its 60-year history; this can help us to understand the development of China's political economy. Second, most of the literature to date has periodized China's food safety regime simply by reference to the level of concentration of related regulators, but this fails to disclose the essence of socio-economic governance. In contrast, although the periodization presented in this article may be disputed, it generates a new and deeper perspective from which to explore China's food safety regime; that is, in terms of the fundamental administrative styles of different periods. Finally, the trichotomous periodization enables me to formulate a unique explanation of the rise of the Chinese regulatory state, and enables us to understand the structural constraints that are threatening the newly established regulatory regime because most of these constraints had prototypes in the past.

This descriptive study's methodology was document collection and secondary data analysis. I collected historical documents including health administration yearbooks, local health gazettes, local industrial gazettes, local health archives, articles from *Health Newspaper*, and proceedings from annual conferences. Secondary data analysis was adopted for conducting a comparative analysis of time-series or cross-sectional statistical data from statistical yearbooks, mainly concentrating on frequency and trend analysis.

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1949–1978: The old command regime

Like other socio-economic institutions, during the initial stage of Communist China's development in the 1950s, the food safety control system was modeled on systems of the former Soviet Union, establishing *Weisheng Fangyi Zhan* (WFZs; sanitation and anti-epidemic stations). From the early 1950s, WFZs were set up nationwide and included food hygiene sections. By the end of 1952, a total of 147 WFZs with 20,504 employees provided a primitive administrative network (Wuhan Medicine College 1981). In 1954, a special regulation was enacted by the Ministry of Health defining WFZs as agencies of "preventive, routine health supervision and infectious disease control." Their 14 tasks included environmental hygiene, labor hygiene, food hygiene, school hygiene and infectious disease prevention (Zhang 1991, p. 67). Two years later, WFZs had been established in all prefectures and counties of China's 29 provincial regions. In 1959, WFZs were expanded to the township-level unit, the People's Communes (*People's Daily* 1954), marking the establishment of a rough regulatory framework.

During the recovery after the Great Leap Forward of 1958–1962, the total number of WFZs increased: by 1965 they had reached 2,499, 17 times the total in 1952; and their staff had increased to 77,179, three times the number in 1952 (Wuhan Medicine College 1981, pp. 1–2). However, the outbreak of the Great Cultural Revolution in 1966 again delayed the growth of WFZs. While the WFZ regime has been strengthened over the past three decades, WFZs put more emphasis on disease control than on health inspection and supervision. Food hygiene is just one of their health inspection and supervisory functions, and a minor one in comparison with their others.

In 1956, another Soviet-style ministry was established to control China's different economic sectors after the nationalization campaign. This ministry set up a typical command economy model combining state and enterprise. Because the food industry embraced a wide range of economic sectors, many ministries shared control over it, including the Ministry of Light Industry, the Ministry of Food, the Ministry of Agriculture, the Ministry of Chemical Industry, and the Ministry of Commerce.

The division of labor among these ministries was quite complicated. Generally, state-owned factories that produced wine or other beverages, zymolytic foods (foods relating to, causing or caused by fermentation), canned foods, milk and milk products, sugar, and food additives came under the Ministry of Light Industry, which was charged with maintaining the quality of these products. A similar segmental management structure was created for quality control of plants and animals during cultivation and breeding, respectively, which came under the Ministry of Agriculture, whereas quality control during the processing and distribution of the products of these plants and animals was transferred to the Ministry of Food. Meanwhile, the Ministry of Chemical Industry was in charge of managing the quality of fertilizers, pesticides, and related raw materials for agriculture. Finally, general food quality control in urban areas during allocation, distribution, transportation, and storage came under the control of the Ministry of Commerce, while in rural areas this job was allocated to the All China Federation of Supply and Marketing Cooperatives (ACFSMC). A confusing exception to this arrangement was aquatic foods, for which quality control and inspection and food hygiene standards were assigned to different agencies at different times (Table 1).

The Soviet model of linking the state with enterprise brought many associated managerial modes. Under this model, all related manufacturing and sales were directed by

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Table 1 The development of China's food hygiene regime (1949–1978)

Function	Agency and period
Quality control of grain, salt, sugar and wine brewing	Ministry of Light Industry (1949.10–1952.9), Ministry of Food Industry (1949.10–1950.12), Ministry of Finance (1949.10–1952.7), local industrial agencies (1954.9–1956.5), Ministry of Food Industry (1956.5–1958.2), Ministry of Light Industry (1954.10–1965.2), Ministry of First Light Industry (1965.10–1970.6), First Group of Ministry of Light Industry (1970.6–1978)
Quality control of cooking oil and fodder production	Ministry of Food (1954.10–1970.6), Ministry of Commerce (1970.7–1978)
Quality control of grain production and stock breeding	Ministry of Agriculture (1949.10–1970.6), Ministry of Agriculture and Forestry (1970.7–1979.2)
Quality control of aquatic products	Ministry of Aquatic Industry (1956.5–1970.6), State General Administration of Aquatic Industry (1978.3–1982.5)
Food hygiene standards management	State Administration of Standards and Metrology (1972.11–1978.8)
Food production and distribution management	Ministry of Trade (1949.10–1952.8), Ministry of Commerce (1952.8–1970.6)
Food purchase and sale quality management	Ministry of Agricultural Products Purchase (1955.7–1956.11), Ministry of Urban Services (1956.5–1958.2), All China Federation of Supply and Marketing Cooperatives (ACFSMC) (1955.1–1958.2), Ministry of Second Commerce (1958.2–1962.7), ACFSMC (1962.7–1970.6), Ministry of Commerce (1970.6–1975), ACFSMC (1975–1978)
Food hygiene inspection	State General Administration of Metrology (1954.11–1958.3), State Commission of Technology (1958.4–1972.11), State Administration of Standards and Metrology (1972.11–1978)
Food hygiene inspection and supervision	Epidemic Prevention Bureau, Ministry of Health (1953–1957), Health Supervision Bureau, Ministry of Health (1957–1958), Health and Epidemic Prevention Bureau, Ministry of Health (1958–1978)
Food trading market regulation	State Administration of Industry and Commerce (1954.11–1970.6), Ministry of Commerce (1970.6–1978), State Administration of Industry and Commerce (1978–1982)
Control of imported and exported food	Ministry of Trade (1949.10–1952.8), Ministry of Foreign Trade (1952.11–1973.10), Import and Export Products Test Bureau (1973.10–1982.2)

the relevant state agencies rather than the manufacturers or sellers themselves; and sale prices for food products were set by the state, not the manufacturer. The directors of many state-owned enterprises had a dual role, one as state cadres and the other as corporate managers with interests that were promotion-based rather than profit-based. It

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is unnecessary for state-owned businessmen to seek commercial profts at the cost of regulation violation. Thus, the regulatee needn't distort related safety information for the government.

Strong evidence in support of the abovementioned observation lies in the fact that the main reasons for food-related accidents were poor consumption habits and not intentional adulteration. For example, in Jiangsu Province between 1974 and 1976 there was a total of 406 incidents of food poisoning, in which the main cause of death was consumption of unintentionally contaminated meat or vegetables (*Domestic Medicine Digest: Disease Prevention* 1979, p. 178). Data from Guangzhou show that of a total of 610 reported instances of food poisoning in the home from the 1970s to the 1990s, the most common cause was the consumption of contaminated foods due to insufficient knowledge on food safety (Li *et al*. 2001, pp. 73–75). Food poisoning resulting from deliberate adulteration by the producer was not very common during this period.

The power structure of food quality control during this period (1949–1978) was neither process-based nor type-based, but rather was based on the "subordination relationship" of state enterprises. The relationship between the state and enterprises was a hierarchical system within the government rather than one of regulatory supervision. The abovementioned characteristics are obvious in the Provisional Food Hygiene Control Ordinance, which was co-drafted by several ministries in 1965 and became the first comprehensive legal document on food safety since 1949. It stressed a dual-control regime controlled "primarily by industrial ministries and secondarily by health agencies and WFZs." Related policy tools such as ideological education, quality competitions, and mass campaigns against food adulteration were explicitly listed (Tianjin Government 1965).

In summary, the three key characteristics of the food safety regime in China before 1978 were as follows. First, primary regulatory power was held by industrial ministries rather than by health ministries. The food quality control regime during this period was neither process-based nor type-based, but was determined by the "subordination relationship" of state enterprises. Furthermore, even within the WFZ regime, food hygiene control was only a minor function and was given little emphasis. Second, the linking of the state with enterprise resulted in soft financial constraints. However, the structure of the command economy decreased commercial drive through deliberate cheating, which meant that food safety information asymmetry between state and market was not so serious. Third, the policy tools included ideological education, quality competitions, mass campaigns, and administrative sanctions that were frequently used to maintain control. However, modern regulatory tools such as economic penalties and judicial review were seldom used. Because this control regime was based on China's model of a command economy, the food safety control regime with the above characteristics has been termed a "command regime."

1979–1992: The intermediate regime of mixed instruments

With the adjustment and reform of economic policy since 1977, China's food industry has experienced rapid growth, along with other sectors. China's agricultural gross product was only 32.6 billion yuan in 1949. It increased to 156.7 billion yuan in 1978 and again to 312.2 billion yuan in 1983 (Communication Agency & Ministry of Agriculture, Farming and Fishing 1984, p. 57). Between 1979 and 1984 the gross product of China's food industry saw an average annual increase of 9.3%, which was clearly higher than the

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6.8% from 1953 to 1978 (Lü 1987, p. 37), and the food industry was ranked third of all national industries (Yang & Xu 1988, p. 1). The amount of food production and distribution and the number of restaurants increased dramatically. Another typical example is the dairy industry: in 1949, China had fewer than 10 dairy factories, but this number had increased to more than 700 by 1980 (Zhang 2005, pp. 14, 23). China's pork processing industry is also a good example. Just after 1949, there were only five large slaughterhouses and 23 cold storage centers. Three decades later these numbers had risen to 1,145 and 1,312, respectively (Lü 1987, p. 37). At the end of 1985 there were 1.4 million restaurants of all types (state-owned and collective as well as small and private) in rural China employing 2.26 million individuals, 15.6 and 3.98 times the corresponding numbers in 1977 (Du 1989, p. 30).

Economic reform also fostered a diverse ownership structure in China's food industry, replacing the previously purely state-owned structure. In 1983 there were a total of 297 state-owned food processing plants in Beijing, but between 1984 and 1985 more than 560 collectively and 520 privately owned food factories were created. The total number of employees during this time increased from 50,000 to more than 70,000 (Beijing Statistics Bureau, Beijing Food Industry Association, Food Industry Office of Beijing 1986, pp. 66–67). The growth of the food industry broke through the boundaries between regions, sectors, and ownership models, completely changing the previously state-dominated structure. This phenomenon made the command regime less effective and eventually obsolete in controlling food quality because many collectively and privately owned firms did not come directly under related industrial ministries. The role and function of administrative regulations based on the command regime became steadily weaker. At the same time, insufficient human resources could be allocated to health agencies to supervise newly established food manufacturers and traders.

Another point that shows the dysfunction of the command regime is the revision of the Provisional Food Hygiene Control Ordinance of 1965. In 1979, the Food Hygiene Control Ordinance of 1979 was enacted and promulgated by the Ministry of Health, but was ultimately deemed unsatisfactory because of its ambiguous description of the role of judicial and regulatory agencies and its weak sanctions. Local governments hindered implementation of the law and inspection by local health agencies in an attempt to protect their local food industries.

The state of food hygiene deteriorated quickly during this period. In Guangzhou in 1979, there were 46 incidents of food poisoning, affecting 302 persons; in 1982, these numbers increased to 132 and 1,097, respectively (Ding 1988). In 1979 in Zhejiang Province, there was a total of 132 incidents of food poisoning, affecting 3,464 persons, with 0.49% of these resulting in death. Three years later, the number of incidents reached 273, affecting 3,946 persons, with a death rate of 0.71% (Cong 1990).

Initiated by the Ministry of Health, which negotiated with a wide range of stakeholders, the Food Hygiene Act of the People's Republic of China (Provisional) was passed in November 1982 and promulgated in July 1983. Although only a provisional legal document, it resulted in several practical breakthroughs. For example, it called for the creation of a national food hygiene regulation system, stating that "health administrations at all levels shall take a leadership role in food hygiene supervision. WFZs or food hygiene inspection offices should act as food hygiene supervision agencies" (Gazette of the State Council of PRC 1982, p. 19). The Act also recommended food hygiene licensing as a precondition to food manufacturers and traders obtaining a

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business license, empowering health administrations to control food hygiene licensing, and in turn strengthening the Ministry of Health's authority and power in food hygiene regulation compared with the traditional regime. In addition, regulations relating to food additives, food packaging materials, and new food sources were added, and it was made a punishable offence to add poisonous or pathogenic materials into foods.

This provisional Act had several shortcomings and limitations, however, in terms of both contextual analysis and empirical study. It did not provide health administrations with all of the necessary regulatory powers. Several agencies reserved specific areas of control for themselves. Food hygiene issues in both rural and urban markets were to be managed by industrial and commercial administrations. Meanwhile, exported foods were monitored by the newly established Import and Export Products Testing Administration. In 1988 the State Technical Supervision Administration was established to develop food quality standards. In addition, food hygiene issues within certain organizations, such as the railway administration and state-owned factories, were managed by their own internal agencies. The partial retention of the state enterprise model also allowed industrial regulators to maintain control over some areas of food quality, thus further fragmenting the health administration's regulatory power.

The Act contained some ambiguities in its attempt to manage the relationship between the health administration and the WFZs. Despite explicit regulations that made local WFZs state law enforcement agencies in food hygiene, the Act also stressed that "leadership power in food hygiene supervision should be allocated to local health administrations," which made administrative conflicts unavoidable. In addition, the official legal status of the WFZs in this Act was that of a *shiye* unit (a public organization to manage public affairs, subordinate to related administrative agencies and partially funded by the government; such units are not as stable nor as powerful as related governmental bodies). This led to a series of problems with enforcement. For example, while any WFZ was given the power to inspect the state of food hygiene at a restaurant, it could not revoke the restaurant's food hygiene license because it was not an administrative agency. This executive action could be taken only indirectly through local health administrations, weakening the WFZ's authority in carrying out its duties.

In summary, on both legal and empirical levels the food hygiene regulatory regime during this period was strongly transitional and mixed. First, from the perspective of the regulator, while its lawful power to act as the main regulator of food hygiene had been changed from its ambiguous counterpart under the command regime, the health administration's administrative power had been fragmented by the legacy of the traditional command regime. Serious conflicts also arose between economic development and food hygiene due to China's decentralized developmental model. Second, with the implementation of economic reform, the targets of food hygiene supervision not only increased in number but also became more complicated in terms of manufacturing patterns, ownership structures, manufacture techniques, distribution models, and so on. Both newly established collective and private businesses on the one hand and old state-owned enterprises on the other were given strong incentives to concentrate on commercial interests, often circumventing and violating food hygiene regulations and dramatically increasing information asymmetry between the state and the market. Finally, policy tools of the command regime, such as administrative orders, ideological education, and mass campaigns against food adulteration, were still used, but their effectiveness had been clearly weakened. To deal with the myriad problems caused by rapid growth in agriculture and

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the food industry, Chinese authorities began to use legislation, executive enforcement, economic penalties, and judicial decisions to update the food hygiene regime, but these new tools were unable to take the place of their traditional counterparts. This administrative regime was a transitional institutional solution to the problem of moving from the command economy to a market economy, marked by a combination of state–enterprise linkage and a certain degree of separation. I have termed the regime prior to 1993 described here a "mixed regime."

1993–ongoing: The new regime of regulatory governance

As Mok points out in his research paper on varieties of higher education regulatory regimes in Hong Kong, Singapore, and Malaysia, the introduction and the enforcement of competition by modern states to transform public policy and public management does not necessarily reduce state capacity if the state can acclimatize itself to the new competitive market conditions (Mok 2008). From the 1980s, the Chinese government carried out a series of reforms to sever state-owned enterprises from related governmental bodies in the mechanical, petroleum, information, industrial, and commercial sectors, but this round of reform did not include the food industry until 1993. In 1993 a new round of administrative reforms by the State Council called for the elimination of several industrial ministries, including the Ministry of Light Industry and the Ministry of Textiles. The official reason was that "the production and supply of most of light industry and textile products are now decided by market mechanisms and no large-scale state-owned enterprises remain; therefore industrial ministries can be replaced by industrial associations" (Luo 1993, p. 414). This reform was highly significant for food safety regulation, because food and beverage companies producing meat products, milk products, wine, and vegetable oil had previously been separated, each controlled by its own industrial ministries and associations. Most food manufacturers and distributors had been decentralized and become private businesses regulated by local administrations. The role of government was not to interfere with the business activities of companies, but simply to supervise and regulate the quality and safety of food, marking the transformation of China's food safety regime into an external, third-party regulatory regime.

The establishment of the new regime triggered rapid growth in China's food industry sector in the decade from 1980 to 1990. The total amount of its gross domestic production increased from 61.2 billion yuan in 1980 to 144.7 billion yuan in 1990, with an average annual growth rate of 14%, and the sector became the third-largest industrial sector in China. The total number of food producers nationwide increased from 51,734 in 1980 to 75,362 in 1990, employing a total workforce that increased from 2.13 million to 4.85 million. A range of new food products, new nutritional foods, and new-source foods made the previous version of the Food Hygiene Law obsolete. Accordingly, a plenary session of the Standing Committee of the National People's Congress decided to amend this law and turn the provisional Act into an official regulation. Several amendments included the granting of legal authority to the WFZs, the specification of administrative penalties, and the strengthening of management of the hygiene of imported food and street stalls. The most significant amendments confirmed the legal and supervisory status of health administrations and abolished the powers of the remaining industrial ministries, resulting in a relatively concentrated regime at the horizontal level and bringing about positive effects on food hygiene supervision. Empirical research reveals that the

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number of instances of food poisoning fell from 1,861 in 1991 to 522 in 1997, echoed by a drop in the number of people who suffered food poisoning from 47,367 to 13,567, and a drop in the number of deaths from 338 to 132 (China Health Statistical Yearbook 1991–2006).

However, with the rapid development of China's food industry, its scope has extended to agriculture, agricultural product processing, food manufacturing, food distribution, and the catering industry. The traditional concept of food hygiene, which had mainly focused on catering and consumption, has become increasingly outdated and has been replaced by a universal notion "food safety." This change resulted in a new round of regime reform in 1998. In this reform episode, the setting of food safety standards and other related duties were transferred from the Ministry of Health to the newly established State Administration of Quality Supervision (SAQA). The traditional responsibility of SAQA's predecessor to regulate the food distribution market was transferred to the State Administration for Industry and Commerce (SAIC), which laid out a framework for a "segmental regime." Five years later, Beijing renamed the former State Drug Administration as the State Food and Drug Administration (SFDA), modeling itself on the FDA, the equivalent US agency, to coordinate various regulatory agencies.

The milk powder scandal in Fuyang, Anhui in 2003 and 2004 showed that major problems remained in China's food safety regime. Accordingly, a document titled "State Council Decision on Strengthening Food Safety Control" was drafted and issued to confirm a new regulatory model that was mainly divided into phases and food types. The Decision included stipulations that "raw agricultural products shall be regulated by the MoA [Ministry of Agriculture]; the food processing industry shall be regulated by the newly-established General Administration of Quality Supervision, Inspection and Quarantine (GAQSIQ); food distribution shall be regulated by the SAIC; the catering industry and public restaurants shall be regulated by the MoH [Ministry of Health]; agency coordination and investigation of incidents shall be conducted by the SFDA." This official document strengthened the role and authority of GAQSIQ (formerly SAQA) and weakened the status of the Ministry of Health by transferring regulatory powers over the food processing industry from the Ministry to GAQSIQ. Thus, a uniquely Chinese, segmented food safety regime with "five dragons" officially came into force.

The establishment of this segmented regime made the Food Hygiene Law of 1995 somewhat outdated – it had to be supplemented by other acts such as the Product Quality Law drafted by the SAQA and the Agricultural Product Quality Law drafted by the Ministry of Agriculture. A range of modern food regulatory tools, such as food safety analysis and evaluation, food recall procedures, and food additive controls, were still missing. This caused a second amendment proposal to be considered from September 2004. Differing slightly from previous amendments, this proposed amendment was actually initiated by the Legal Office of the State Council and not by ministries in order to avoid agency interference. After a series of debates and revisions over the course of four deliberations within two years, the new Food Safety Law of 2009 was passed on 28 February 2009 at the Seventh Plenary Session of the Standing Committee of the National People's Congress. This law has generated a range of new mechanisms to update the regulatory regime. For example, the National Food Safety Commission, a new State Council-level coordination agency, will be established. The role and responsibilities of the Ministry of Health have also been strongly reinforced. The regulation of nutritional supplements and the rational use of food additives will also be effectively strengthened. A

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system for keeping records of agricultural products will be set up to ensure safety and quality. Unfortunately, this law carries out only a partial reform of the previous segmented regime and does not completely deal with the controversial segmented model. The final section of the Food Safety Law of 2009 stipulates that "the State Council may make adjustments to the food safety regulatory system based on practical need," which leaves sufficient room for future changes or reform.

While China's food safety control mechanisms remain in transition, a new regime has emerged that is completely different from the previous command regime and mixed regime. First, from the perspective of the regulator, in both the Ministry of Health-dominated regime and the segmented regime, institutions are relatively independent from the firms being regulated. An external third-party regulatory body, different from the previous internal regulators, has been effectively established. Second, with the progress in market reform and industrialization, the extent and complexity of food safety controls have improved tremendously. The traditional concept of "food hygiene," which focused mainly on food consumption, has been replaced by a new notion of "food safety," encompassing the entire food industry. Finally, to be consistent with the transformation of the regime, legal and economic policy tools such as legislation, administrative law enforcement, economic sanctions, and judicial arbitration have been continually enhanced. Other policy tools in the modern risk regulation process, such as technical standards, authoritative authentication, information disclosure, and risk evaluation and monitoring, are increasingly important. On the other hand, traditional policy implementation instruments such as ideological education, quality competition, and mass campaigns against food adulteration have become less important in the regulatory process. In contrast to the former command and mixed regimes, this new model can be defined as a "regulatory regime" according to the aforementioned characteristics. These three regimes are analyzed from three perspectives in Table 2.

Conclusion: Food politics and the transitional regulatory state

Like the US during its progressive era (1880–1920), China is experiencing a great transformation, which combines many dichotomies such as tradition and modernity, domestic and international, agriculture and industry, and so on. Its unique transformation process has fostered a series of serious socio-economic crises, among which food safety is one important case worthy of study. As scholars, we should not restrict ourselves to examining only news reports; rather, we should create an overall framework for studying this central issue. We should also refrain from seeing China's food safety as only a recent issue, forgetting its historical roots.

For these reasons, this article attempted to shed light on two fundamental questions: How did China's food safety administrative system change after it was founded in 1949? How can we periodize this historical transformation in terms of regulators, regulatees, and regulatory tools? Using a wide range of historical documents and data, this study has divided the development of China's food safety regime into three periods based on the different characteristics of regulators, regulatees, and regulatory tools: the old regime of command and control, the intermediate regime of mixed instruments, and the new regime of regulatory governance. A solid comparative framework has been advanced to interpret the transformation of China's food safety regime so as to shed light on socio-economic features in different periods of China's development.

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Table 2 A periodic analysis of changes in China's food safety control regime from 1949

	Command regime (1949–1977)	Mixed regime (1978–1992)	Regulatory regime (1993–ongoing)
Attitude to market economy	Restriction	Expansion	Supervision
Regulator	Mainly industrial ministries, then health agencies and WFZs, a combination of ministries and enterprises	Partial dominance by health agencies in a segmental setting; partial combination of ministries and enterprises	From a Ministry of Health-dominant model to a segmental model; complete separation of ministries and enterprises
Regulatee	Dual identities of state and enterprise; soft financial constraints	Denationalization; partial separation of state and enterprise; hard financial constraints	Diverse ownership; complete separation of state and enterprise; hard financial constraint; from food hygiene to food safety
Major policy tools	Ideological education, quality competition, mass campaigns against food adulteration, direct administrative intervention	Legal prohibition, judicial litigation, economic punishment	Product and technical standards, information provision, authoritative confirmation, state licenses

Nowadays, a few scholars still have different opinions on whether China has become a regulatory state, which is a major topic of debate for students of Chinese political economy. From my own perspective, I basically agree with both Dali Yang's and Shaoguang Wang's arguments (Yang 2004; Wang 2006) that a Chinese regulatory state has been emerging in recent years. However, I do not believe the emerging Chinese regulatory state is simply a variant of the US or the EU models, because it has a different historical background and political system. Also, I prefer to regard Chinese regulatory state-building as a long process, not the work of a brief period. Indeed, in contrast to the general regulatory state under the conditions of a complete market economy and democratized politics, the current Chinese version can be classified as an "authoritarian regulatory state." Decentralized developmentalism results in problematic regulatory independence from economic growth and quality regulation; the long-standing command economy tradition fostering an administrative-dependent regulatory style; and a lack of the necessary supervision and participation inherent in an authoritarian political structure leading to regulatory corruption. In their comparative study of financial sector and food safety regulation, Gottwald and Collins also identified these structural challenges to building a regulatory regime under a Leninist state. They therefore prefer to label it a "regulatory autocracy" by way of defining the current situation of China's regulatory reform process (Gottwald & Collins forthcoming in 2011). I previously used the Chinese drug safety issue as a case study to clarify the concept of "authoritarian regulatory state" (Liu 2010, p. 135), but here I would like to change this name to "transitional regulatory state," which is more neutral and objective (see Fig. 1). Also, I believe those general

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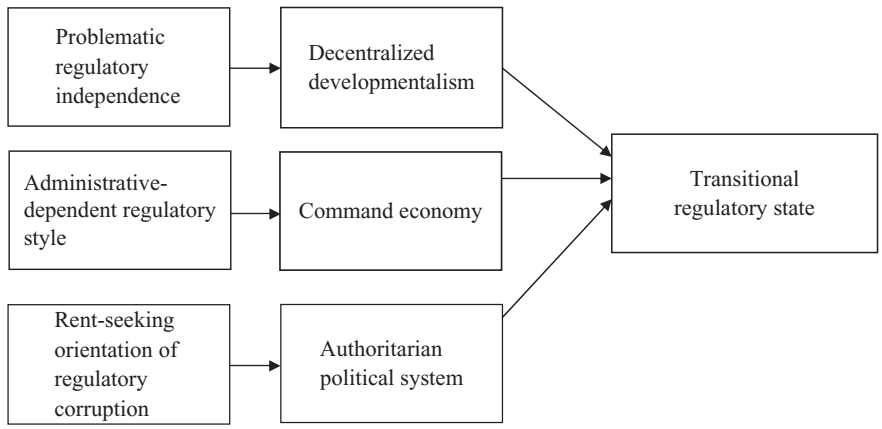


Figure 1 The framework of the transitional regulatory state.

arguments on problematic regulatory independence, administrative-dependent regulatory style and insufficient regulatory accountability system are perfectly suitable for casting light on the regulation of food safety regulation and other sectors.

How to interpret those constraints such as decentralized developmentalism, command economy and authoritarian political system with Chinese characteristics resulting from China's special socio-economic conditions? Problematic regulatory independence means that the regulatory authority's power faces three challenges. First is the political challenge: regulatory bodies in such a large developing country have to consider many other values such as maintaining local economic growth, promoting the employment rate, protecting the domestic food industry, and so on. Second is the administrative challenge: any single regulatory body will face all kinds of challenge from related regulatory bodies and local governments. Third is the industrial challenge: because the current public budget system cannot ensure sufficient funding for local regulatory bodies, a few local regulatory authorities have to extract additional financial resources from food industry corporations by means of unlawful charges such as excessive penalties, training fees, certification charges and so on, which do great harm to their regulatory actions.

Unlike the US in the progressive era whose regulatory regime was established based on a laissez-faire economy, China's current regulatory regime was born from its old command regime, which fostered its administration-dependent regulatory style. For example, GAQSIQ once implemented a series of policies such as national inspection exemption and local excellent products selection. Here the regulatory plays the role of active player to involve itself in market competition rather than the role of a referee to regulate market competition. These misplaced policies were eventually abolished as a result of the Sanlu scandal since Sanlu was actually among the list of national inspection exemption products. More evidence of this regulatory style comes from various regulators mobilizing frequent top-down regulatory campaigns to implement regulatory policies in certain fields, which reflects Beijing's institutional weakness in stabilizing its regulatory capacity.

In any state, no matter whether democratic, authoritarian, or dictatorial, the regulatory power tends to be relatively independent, strong, and flexible, and thus requires effective supervision. In an authoritarian state such as China, when the regulatory power

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is centralized there is no effective supervisory power to check and balance it, which often leads to rent-seeking or regulatory corruption. An example is the case of Chief Regulator Zheng Xiaoyu's bribery; after his exposure, the SFDA required all of its staff to divest their shareholdings in pharmaceutical companies and after the Commissioner's scandal, shares with a total value of 3.5 million yuan were sold (*Beijing Youth Newspaper* 2007). Most people were shocked by this news and were concerned about how regulators could be effectively supervised in the future. Although the theory of responsive regulation has proved to be too naïve to promote regulatory policy implementation in developed countries (Mascini & Wijk 2009), a new governance model of responsive regulation is still urgently needed to improve regulatory quality and accountability.

As shown in Figure 1, the notion of the "transitional regulatory state" includes its special content in the dimensions of regulatory independence, regulatory style, and regulatory accountability, in which it differs greatly from its counterpart in Western and other capitalist countries. The collision of regulation and the socialist state can produce many fresh insights into and observations about the study of comparative political economy. David Levi-Faur has conducted a series of pioneering studies of interactions between regulation and traditional capitalism. He summarizes five characteristics that qualitatively distinguish the new order of regulatory capitalism from old governance forms, and demonstrates its diffusion in the modern world (Levi-Faur 2005). In another informative study he goes on to examine the varieties of regulatory capitalism based on a series of interesting variables combining sectors and nations, and thus takes a big step forward in the study of variations of regulatory capitalism in the modern world (Levi-Faur 2006). I hope that the notion of "transitional regulatory state" based on China's food safety regime helps us to better understand the interactions between regulation and the Leninist state: I believe similar studies may emerge before long that examine these interactions. China's history can provide valuable empirical evidence for this theoretical discussion.

Beijing is expected to continue carrying out reform to build an effective and efficient food safety regulatory regime, which will become an integral part of regulatory state-building in China in the coming years. The problem of taming its market economy through a range of policy innovations instead of using a traditional command policy has become a serious barrier to the development of the market economy and to modern state building in China. As John S. F. Wright argues in his research article on the UK Labour Government's re-regulation of the English National Health Service, key themes of the regulatory state-building process include "the division of labor between state and society, the division of labor within the state, the formalization of previously informal controls, and the development of meta-regulatory techniques of enforced self-regulation" (Wright 2009, p. 334). The emerging Chinese regulatory state requires profound changes in those key areas so that it can manage the challenges triggered by its fledgling market economy. Studies of food safety regulation provide a relevant perspective from which to observe the process of China's reform and transformation. This article offers only an outline of the state of food safety regulation in China. More in-depth studies should be conducted in the future to develop a series of research hypotheses that can be tested using empirical data, thus identifying some explanatory variables. In-depth studies can also be undertaken on safety variations in specific provinces or food types to discover more about the essential mechanisms connected with this issue and to gain useful knowledge of contemporary China's socio-economic development.

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