Abstract

The convergence of telecom, broadcast TV and internet has turned into a national strategy

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when China’s State Council announced the ambitious, but ambiguous, plan on January 13, 2010. The Chinese government aims to achieve a reasonably competitive information industry and an accompanying clear, scientific and efficient regulatory regime by 2015. Technological convergence has challenged the wisdom of regulators around the world for not a short time, particularly since the commercialization of the Internet in the early 1990s. Different approaches have been proposed to replace the legacy “silo” regulatory model. However, unlike the technological advancement that is often progressing in a revolutionary manner, regulatory regime seems to react conservatively and passively, leaving most of the pioneering ideas confined within academia. Unsurprisingly, the layer model, which triggered a drastic debate in the policy circle in early 2000s, has not tested its validity in the real world. This paper argues that, given the special Chinese characteristics of China’s telecommunications industry, the layered approach provides an adequate guideline and an analytical framework for the designing of the future of China’s telecommunications regulatory regime.

China’s telecommunications features two characteristics: namely the strong national will to advance this industry in order to lead the domestic economy and compete with global players and the intense confliction of bureaucratic interest among government agencies resulting in an asymmetric market structure with phone companies control the conduit and broadcasters dominate the content. That being said, the convergence of telecom, broadcast TV and internet might not change the arena radically. It is very likely that the Chinese government will continue taking tight control over the content while leaving the conduit to the market due to the concern of ideological control. The separation of content and conduit logically requires a layered perspective in the design of the regulatory regime.

This study conducts a case study in China. Data is collected through literature review, government documents and market research. The paper is tentatively planned to include four parts. Part one presents a brief history of the evolution of China’s telecom, broadcast TV the Internet and a background discussion of the government-proposed convergence plan. Through this part, the primary objective and the so-called Chinese characteristics will be elicited. Part two provides a literature review of regulatory models proposed and their applicability to China. Based on the analysis in the previous two parts, a regulatory regime with the Chinese characteristics and a step-by-step roadmap will be presented in the part three. Part four summarizes the paper with limitations and recommendations for further research.

The study preliminarily finds that the layered approach provides an appropriate guideline to the design of China’s future telecommunications regime. Different regulatory policies are to be implemented at different levels. At the conduit level, priority will be given to create a conducive environment to promote facility-based cross-modal competition. Policies, such as mandated unbundling of network elements, asymmetric entrance and etc. are expected. At the content level, the market is likely to be opened to the limit that no ideological turbulence occurs. Government agencies will have to be reorganized to reflect the redistribution of the powers and resources. An independent regulator is needed to be instituted to ensure proper function of the expected competitive market. This regulatory arrangement might not satisfy the western style textbook requirements for regulation. However, it is not only pragmatically doable, but also matchable to the primary objective of the Chinese government for convergence.

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1 The major phone companies and broadcasters are state-owned.
Mapping the future of China’s converging telecommunications regulatory regime: a layered prospective?

1. Introduction

Technological convergence has challenged the wisdom of regulators around the world for a long time, particularly since the boom of the Internet in the early 1990s. Different approaches have been proposed to replace the legacy “silo” regulatory model. However, unlike the technological advancement that progresses in a revolutionary manner, regulatory regime seems to react evolutionarily, if not passively, leaving most of the pioneering ideas confined within the academia.

The issue is now compelling in China. The historical separation between telecommunications and television and the strict “silo” type of regulation have resulted in an extremely asymmetric market where phone companies control the conduit and broadcasters dominate the content. However, the Chinese government has turned the convergence of telecommunication, television and internet into a national strategy. According to the State Council’s ambitious plan, the Chinese government aims to achieve a competitive converged information industry and an accompanying clear, scientific and efficient regulatory regime by 2015 (Xinhua News Agency, 2010).

As the largest developing country with its unique economic and political system, China’s effort to promote convergence raises many interesting questions. For instance, what regulatory model is suitable to China where all the major players are controlled by the government? Will the convergence, which promises to bring more diversity and variety into content production, threaten the Party’s propaganda control? China has made significant progress in leapfrogging its telecommunications industry in the last two decades, could China’s government-driven top-town approach succeed in the converging era? By drawing on the institutional approach, this paper aims to answer those questions, propose a conducive regulatory regime for China’s converging information industry and predict how the market will evolve under such regulatory framework.

The remainder of the paper is arranged as follows. In Section two, we survey the existing literatures on regulatory models for converging information industry. The rational to use the institutional approach is discussed in Section three. Section four and five presents a comprehensive historical review of the evolution of China’s telecommunications, broadcast and the Internet and China’s persistent but staggering endeavor to converge the three networks, In Section six, the likely shape of the future to come and policy recommendations will be provided.

2. Literature Review

The section is divided into two parts. The first part discusses the existing and proposed regulatory models for converging information industry. The second part surveys existing literatures on China’s telecommunications, TV and the Internet regulation.
2.1. Convergence and Information Regulation

The technological convergence has profound impacts on the information policy and regulation. The European Commission’s Green Book (1997, pp. 18-20) identified five challenges that convergence brought to the existing regulatory regime, namely the consistency of regulation, globalization, abundance to regulation based on scarcity, distinctions between public and private activities and regulatory structures.

2.1.1. The Definition of Convergence

It was believed that Farber and Baran were the first to touch the convergence issue in their 1977 Science article “The Convergence of Computing and Telecommunications Systems” (Lind, 2004; Mueller, 1999). Nearly concurrently, Nicholas Negroponte, who was the founder of MIT’s Media Lab, also illustrated his vision of convergence by three overlapping circles, representing computing, printing and broadcasting moving together (Brand, 1987). Since then, scholars and analysts have invented various neologisms such as “compunications” and “telematique” to reflect the convergence of telecommunication, information and computing (Mueller, 1999). However, Lind argued that most academic articles had taken this term as given and applied it to different phenomena without defining and relating it to a theoretical framework (2004). A comprehensive definition can be found in the European Commission’s (1997) green paper titled “On the convergence of the Telecommunications, Media and Information Technology sectors, and the implication for regulation” in which four levels of convergence, namely technology, industry (alliances and mergers), services/markets and regulation/policy, were defined.

2.1.2. The Traditional “Silo” Model in Telecommunications Regulation

Traditionally, telecommunications, television and the Internet are regulated separately based on different principles and with different objectives (Blackman, 1998). Thus, regulators must consider different levels of and objectives for regulating those sectors (Garcia-Murillo & MacInnes, 2003). Numerous of studies have pointed out the inadequacy of such a model in regulating the converged services (Frieden, 2002; Sicker, 2002; Werbach, 2002). For example, Werbach (2002) argued that there were four fundamental problems with the current silo approach: it assumed distinctions between individual services were clear (in a converged network, traffic could actually ride on any type of network); it applied most rules in an all-or-nothing fashion (many IP-enabled services beared indicia of more than one regulatory category, such as IPTV provided by telephone carriers); it looked at each service category in isolation (interconnections became essential and indispensable); it concentrated on the services ultimately provided to end-users (behind-the-scenes network architecture became the driving force of competition). Sicker (2002) outlined nine problems: interconnection distortions, universal service concerns, bundling discrimination, content discrimination, accessibility concerns, security concerns, safety concerns, market distortion and investment and deployment distortion.
2.1.3. Layered Model and Other Alternatives

Various alternatives have been proposed to replace the silo model, among which, the most prominent one is the so-called layered model.

2.1.3.1. Layered Model

The layered model is inspired by the prosperity of the Internet and concerned about the potential intrusion of heavy-handed government regulation and profit-seeking commercial interest in this supposedly free and innovative communications medium. The Internet was regarded by many early theorists as uncontrollable and resistant to regulation imposed by the state (Johnson & Post, 1995; Wisebrad, 1995). Lessig (1999) refuted the notion of “anarchy” and argued that the Internet’s shape and function were determined and regulated by those in control of its architecture. Lessig (2001) developed this theory further in his book Future of Ideas and proposed the end-to-end principle, which he believed to be the key feature of the Internet architecture that allowed the Internet to become an engine of innovation, of internet regulation. Built on Lessig’s theory, Solum and Chung (2003) developed the end-to-end principle to the layered principle, namely respecting the integrity of the layers model of internet architecture, and two corollaries, layer separation and minimizing layer crossing.

Based on those principles, different types of layered model have been proposed. Wu (1999) proposed a succinct double-layered model that asserted that internet regulation should focus on the application layer. Benkler (2000) suggested a tripartite model comprising a "content layer", a "logical layer", and a "physical layer". Werbach (2002) recommended a four-layered model: physical, logical, applications (services) and content. McTaggart (2003) proposed a similar model with different names and sub-layers were added to each layer. Other scholars argued that the interconnection between layers should be the primary concern of policy makers (Sicker, 2002; Werbach, 2005). However, the layered model itself is not a revolutionary concept. It was found to be an extension of the Federal Communications Commission’s Computer Inquiry in which information services was separated from telecommunications services for different regulatory treatments (Cannon, 2003; Sicker & Mindel, 2002).

The layered model has its share of critics, particularly when it is applied to the regulation of traditional telecommunications. Interestingly enough, the paper by Whitt (2004), that probably presented the most complete policy proposal based on the layered model, attracted strongest criticism because its position strongly aligned with the policy desire of competitive local exchange carriers (CLECs) (Sicker & Blumensaadt, 2005). Despite of the political attacks, theoretically, there seems to be two valid arguments made by those critics. First, the layered model seems to assume the architecture of the Internet is superior to others. For example, Werbach (2002, 2005) insisted that communications policy would eventually be a subset of Internet policy. However, policy makers should not be tempted by existing network architecture, rather, they should encourage the development of entirely new network architectures, platforms, and providers (Thierer, 2005). The layered model also suffers from its ambiguity. Sicker and Mindel (2002) acknowledged that many of the details of the model and the concepts used to describe the model needed to be clearly defined. Similarly, Marcus (2006) argued that the layered model provided surprisingly little useful guidance to the regulator. Nevertheless, even the opponents of the layered
model agreed that the current “silo” regulatory regime was inadequate and the concept of layering was an important analytical tool (New Millennium Research Council, 2004). As Sicker (2005; 2002) reiterated, the layered approach itself was originally intended to be an analytical framework and did not intend to create new telecommunications policy.

2.1.3.2. Anti-Trust and Competition Law Model

An antitrust model for telecommunications regulation would eliminate sector-specific regulation, leaving only the background rules of antitrust to police instances of market abuse. New Zealand once was the first, if not the only, country to adopt such a model. In the late 1980s, New Zealand decided to liberalize and privatize its telecommunications industry. Unlike most other countries that generally took gradualist approaches, New Zealand decided not to create a regulatory agency to oversee telecommunications markets and, instead, to rely solely on competition policy to protect consumers. The New Zealand government believed that their competition law itself was robust enough to pose the threat of competitive entry to the dominant carrier (Lojkine, 1992). Indeed, New Zealand’s model was described by Dordick as “testing the limits of deregulation” (Dordick, 1989, p. 29).

New Zealand seemed to make significant progress initially. The antitrust model appeared to be particularly effective in attracting new entrants (Hoewing, 1999). As Saunders (1994) wrote, “competition regulates activity, interconnection is working and government policy for competition is a success” (p.46).

However, New Zealand’s experiment did have problems. Particularly, the removal of ex ante regulations did not remove the issues of access to limited resources and interconnection. Dissatisfaction of the public and the government with the lengthy litigation on access and interconnection issues impelled the reversion (Haucap & Marcus, 2005). The passage of the 2001 New Zealand Telecommunications Act, in which the Commerce Commission was mandated to regulate ex ante certain services, indicates that New Zealand had, to some extent, come back to a traditional, although comparatively light-handed, regulatory regime.

Some U.S. scholars also advocate for a similar anti-trust model. May (2006) suggested that a market-oriented model that employed antitrust law or antitrust-like principles, which focused on the structure of the marketplace, should form the basis of a new regulatory regime. The Progress & Freedom Foundation (2005) proposed a model largely drawn on anti-trust principles, emphasizing that protection of consumer welfare was the paramount goal of communications policy.

2.2. Research on China’s Regulatory Policy

China also takes a “silo” approach to regulate the information industry, where the type of regulation is closely associated with the type of infrastructure regulated. In this section, existing researches on three telecommunications, television and internet are summarized.

2.2.1. Research on China’s Telecommunications Regulation

There is a growing body of literature on China’s telecommunications policy and regulation,
which can be broadly divided into two strands. First are exploratory studies tracing the major developments of the industry and specific policy issues. Topics addressed include the early liberalization process (Harwit, 1998; Pitt, Levine, & Yan, 1996; Tan, 1994; Ure, 1994), the impact of the membership status in the World Trade Organization (WTO) (DeWoskin, 2001; Mattoo, 2003; Mueller & Lovelock, 2000; B. Zhang, 2001), the question whether a series of regulatory reform had met the policy objectives (Yu, Berg, & Guo, 2004), the evolution of mobile service (Qiu, 2007; Y. Yuan, et al., 2006), the comparison of the Chinese model with other countries (Fink, Mattoo, & Rathindran, 2001; Singh, 2000; X. Yan, 2001), interconnection policy (X. Yan, 2001) and universal service policy (Harwit, 2004; Xia & Lu, 2008).

The other strand of literatures has strived to understand the factors underpinning the evolution of the industry and government policy. It was argued that the pursuit of economic growth promised by information technologies was the main reason that the Communist Party gave the telecommunications sector the preferential treatments in the 1990s where liberalization was largely an unintended byproduct (Mueller & Tan, 1997). Loo (2004) added the call from foreign institutions to open China’s telecommunications industry and the overwhelming demand of the Chinese residential and business customers as two other driving forces. In terms of policy making, Gao and Lyytinen (2000) found that macro level political rearrangement had profound impact on China’s telecommunications transformation. Zhang (2002) argued that China’s telecommunications policy making was identified with deep-rooted political involvement, frequent bureaucratic bargaining, and a weak legal institution.

2.2.2. Research on China’s Television Regulation

Scholars have observed two distinct and seemingly contradictory characteristics of China’s television regulation. On the one hand, it is under heavy-handed government control because of the ideological concern. On the other hand, regulatory policies are often poorly implemented, particularly at the local level. By reviewing the development of television regulation in the reform era, Guo (2003) argued the Chinese television industry was governed by laws in appearance but by old-fashioned administration in practice, featuring a one-sided top-down regulatory regime, ambiguous policy-making procedures and poor implementation. Keane (2001) also found that, unlike that in liberal civil societies in which interest group politics usually excise their power in the policy formation stage, creative compliance were often found in China’s television regulatory regime. In the cable regulation specifically, the commercial imperatives driving cable development at the local and provincial levels were found to be in direct conflict with the political objectives of the central government (Y. Liu, 1994). The local-central disparity was also found in the Digital TV transition (Xing, Hanhui, & Chong, 2009) and the IPTV evolution (C. Liu & Lin, 2006).

The other feature of China’s television regulation is the so-called market-state tension. Chan (2003). found that the Chinese government had the strong desire in the absolute control of the media industry for ideological concerns while, at the same time, tried to marketize this industry. Other factors, such as the increasing ‘deideologization’ of the Chinese society, the functional shift of the local party cadres and bureaucratic authorities from ideological supervision to economic development and entrepreneurship environment caused by commercialization were also identified
to contribute to the market-state tension (Akhavan-Majid, 2004). As the most protected sector, unsurprisingly, foreign institutions were found to have little impact on China’s television industry, such as the WTO membership and foreign entrants, for example, Star TV and MTV (Curtin, 2005; Fung, 2006; Lin, 2004).

2.2.3. Research on China’s Internet Regulation

Academic research regarding China’s Internet had three broad areas: politics, economics and industry and culture, and two general research questions: could China build an Internet and could China control it (Kluver & Yang, 2005)? For the first question, among others, the government’s decision to make the Internet a priority, the Chinese ability to execute by decree rather than consensus building followed by legislative and regulatory reform and the Chinese way to introduce internal competition were indentified as the key factors to help China jump-start the Internet (Press, Foster, & Goodman, 1999; Press, Foster, Wolcott, & McHenry, 2003).

For the issue of control, technically speaking, China’s Internet was a product of carefully government planning, by which the connecting points to the global network were securely controlled by the government while some competition was allowed between the Internet Service Providers domestically (Tan, Foster, & Goodman, 1999). Politically, the Chinese Communist Party wanted to reap the economic benefit of this new communication technology while minimizing, if not eliminating, its devastating political effects (Deibert, 2002; Taylor III, 1996). At debate was whether if the Chinese model was sustainable in the long term (Endeshaw, 2004; Hachigian, 2001; Harwit & Clark, 2001; Liang, 2001; Taubman, 1998).

3. Theoretical Framework

The field of communications policy research is multidisciplinary in its nature. Traditionally, there were three methodological approaches: the interest-group approach, the ideological approach, and the technology-centered approach (Galperin, 2004). This paper draws on the institutional approach, which spans across the interest-group approach and ideological approach.

The institutional approach finds it theoretical root in the new institutionalism. The new institutionalism emphasized the non-market economic performance and human interaction (North, 1990). According to North, institutions referred to, the “composite of rules, informal constraints (norms of behavior and conventions) and their enforcement characteristics” (1990, p. 364). North continued “together they define the humanly devised constraints that shape human interaction. They are the rules of the game and therefore define the way the game is played” (1990, p. 364). Focusing on law, policies, bureaucracies and other non-market structures, new institutionalism aimed to understand how organizations and governance played a role in either facilitating or prohibiting certain economic activities (Bates, 1995). The institutional approach included both ideology (informal institution) and interest groups (formal institution) as determinant factors of communications policy (Galperin, 2004).

The utilizing of institutional approach was not uncommon in communications policy research and was found to be particularly useful for international comparisons and the study of
long-term policy patterns because it takes a collective and holistic view of policy making process and internalizes the path dependency theory (Galperin, 2004). This approach has also been applied to study the Chinese telecommunications policy making process (Gao & Lyytinen, 2000; B. Zhang, 2002). Thus, previous researches have laid down a solid theoretical and methodological foundation for this study. However, most existing researches limited their inquiries in specific segments of the industry without considering other institutions brought into the policy discourse by convergence. Few studies have touched the issue of China’s regulatory reaction in response to converging communication technologies. This paper aims to fill this gap.

This paper uses multiple sources of evidence to ensure the validity. The data primarily comes from three sources: scholarly research (in English and Chinese), trade magazines (in English and Chinese) and government documents (mainly in Chinese). In addition, speeches of top executives and officials, as well as other influential persons, regarding the subject matter will be included.

4. The Evolution and Regulatory Arrangement of China’s Information Industry

Although it is called three network convergence by the Chinese government, there are essentially two networks in China, telecommunications and cable, because the public Internet is owned by telecommunications carriers and the programming part of television system is separated from the transmission part. In this section, we review the historical development of China’s networked industry and then turn to a survey of major institutions in China’s regulatory regime.

4.1. The Brief History of the Three Networks

China’s telecommunications, cable and internet networks have some key commonalities and share a similar pattern in their evolution. The major players in each section are all owned by the government. The three sections have experienced explosive growth in the past 20 years and efforts have been made to introduce market competition into each section. While telecommunications industry are considered fairly competitive, cable remains to be a closed quasi-government system.

4.1.1. Telecommunications

Facing the pressures from the Nationalist Party that fled to Taiwan and international capitalist forces, the young Chinese government chose to focus its limited resources in agriculture, heavy industry and the military. For the first 30 years, telecommunications had been the slowest sector in the national economy (Lu & Wong, 2003). From the 1950s to the 1970s, the management of China’s telecommunications was semi-military and highly centralized. Telecommunication was mainly considered as a tool for administrative and military needs. Home telephone service was a political privilege and a symbol of social status (Lu, 1994).

The 1980s saw a rapid take-off. After being ignored for nearly three decades,
telecommunications and its potential contribution to economic growth became a focus of the Chinese government officials and scholars. Preferential policies and huge investment were made to help jump-start this industry (Wan, 2001).

The rapid growth in 1980s did not resolve the institutional pitfalls of the old Posts and Telecommunications system. The then monopolistic Ministry of Posts and Telecommunications was criticized for its low productivity and poor management performance. Since 1990, a series of industrial and regulatory restructuring were carried out in order to achieve a competitive market. Figure 1 depicts the evolution of China’s telecommunications industry.

![Figure 1. The Evolution of the Chinese Telecommunications Industry. Source: Compiled by Author.](http://www.miit.gov.cn/n11293472/n11293832/n11294132/n12858447/13225911.html)

As of April 2010, according to the monthly subscriber statistics of the Ministry of Industry and Information Industry, retrieved from:

4 Data was retrieved from the World Telecommunication Indicators database of the International Telecommunication Union.

5 The mobile phone penetration was even higher at 47.95 by the end of 2008.

4.1.2. Cable System

The earliest cable system in China was called ICT (Industrial Community Television) or “factory zone TV” within a factory zone (or Dan Wei in Chinese), which was the basic unit of local community during the period of planned economy (Shoesmith & Wang, 2002). On January 17, 1991, the State Council issued a decree that stated: “cable television is an important part of China’s television industry, and as an extension, supplement, and development of broadcasting television, cable television should be treated equally as broadcasting television” (Hong, 1998, p. 3).
The legitimization of the cable television stimulated local governments and state-owned enterprises to invest in the building of cable networks, which were primarily used to relay broadcasting signals. Those cable networks were regulated by the local Ministry of Broadcasting, Radio and Film branches, which also started to build their own citywide cable networks. However, no private companies were allowed to invest in China’s cable infrastructure, and no cable operators could own cable systems outside of their locations (Goro & Sylvia, 2005).

Several attempts have been tried to marketize the cable industry since 2000. In late 1999, the State Administration Radio, Film and Television (SARFT) adopted a policy called “separation of network and station”6, according to which, cable operators should only transmit signals, while stations took care of programming7. It was expected that, by making the cable system a commercial one and leaving the sensitive programming section controlled by the Party, the cable industry would attract more investments so that the network could be upgraded and consolidated in order to compete with telecommunications operators (Nian, 2001). The pace of the restructuring was far from satisfactory. By the end of 2005, China still had some 1200 cable operators (Goro & Sylvia, 2005). The SARFT also initiated a digital TV campaign in 2002. The SARFT ambitiously planned to hook up 30 million digital TV subscribers by 2005 and finished the digital conversion nationwide by 20108. However, after nearly 10 years, less than 35 percent of cable subscribers were digital by the end of 20099. So far, the household cable penetration had reached 44 percent nationwide by the end of 200910.

4.1.3. Internet

The history of China’s Internet can be traced back to 1987 when the first email titled “Across the Great Wall we can reach every corner in the world” was sent11 (CNNIC, 2008). The full-functional connection to the global Internet was achieved after 7 years when a 64k dedicated line was connected to the United States (CNNIC, 2008). Since then, the Chinese Internet has experienced phenomenal growth, changing from a precious tool of the scientists to a popular mass media. By the end of 2009, China had approximately 384 million Internet users12 (CNNIC, 2010). Figure.2 shows the growth of the number of Internet users since 2002.

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6 In other words, separation of transmission from programming.
10 See footnote 9
11 China Internet Network Information Center (CNNIC) is the administrative agency of the Ministry of Industry and Information Industry responsible for China’s Internet affairs.
12 Internet users are defined as the Chinese citizens aged 6 or above that had accessed the Internet in the past 6 months when the survey was conducted.
The dominant proportion of China’s Internet backbone is controlled by telecommunications carriers. By the end of 2009, China had a total of 866,367 Mbps international outlet bandwidth, of which China Telecom’s share was 516,650 Mbps. Its closest competitor was China Unicom, which had 298,834 Mbps (CNNIC, 2010). The last mile, particularly the broadband access line, is also controlled by telecommunications carriers. In an interview, Fengchun Wu, who was the chief engineer for Shenzhen Broadcasting group, told the reporter that telecommunications carriers’ market share in broadband was approximately 97.6 percent (China Times, 2010). In terms of specific service providers, in 2009, China’s three operators China Telecom, China Unicom and China Mobile took 53 percent, 37 percent, and 10 percent of broadband subscribers respectively according to Light Reading, a unit of Techweb (Peng, 2010). By the end of 2009, the broadband lines controlled by telecommunications carriers had exceeded 100 million\(^\text{13}\).

The brief historical analysis of the three networks reveals that there are essentially two networks in China since the Internet is controlled by telecommunications carriers. Thus, in the Chinese context, the essential issue for convergence is the cross-entry of telecommunications and cable, which will be discussed in depth in the next sections.

4.2. The Institutional Structure of China’s Information Regulation

Socialist market economy with the Chinese characteristics is the official term to describe China’s economic systems. Under this branding, the Chinese government often takes a pragmatic and flexible position in dealing with economic affairs, which results in a highly dynamic but arguably unpredictable policy and regulatory environment. In information industry regulation, since the major players are all state-owned enterprises, the formal institutions, particularly

\(^{13}\) According to the MIIT’s statistics, see http://www.miit.gov.cn/n11293472/n11293832/n11294132/n12858447/13011909.html, accessed on May 25, 2010.
government ministries, have played a key role in the policy making process\textsuperscript{14,15}.

4.2.1. The Chinese Communist Party: the Super Power

At the top is the Communist Party, which sets out national fundamental policies, guidelines, procedures, and directions. The Chinese government must formulate policies in accordance with the Party’s overall framework. The Party also has the authority to appoint and remove the most important personnel of ministerial departments as well as state-owned enterprises. Therefore, the Party has been, and will be, playing the directive role in telecommunications policy making and other industrial reform in China.

4.2.2. The National People’s Congress and the People’s Court: the Legislative and Judicial System

China lacks formal and independent legislative and judicial systems. The National People’s Congress and its Standing Committee exercise the legislative power. However, the unique position of the Party in the People’s Congress makes the legislative process in China inherently different from that of the West. Furthermore, being regarded as the enforcement branch of the Party, China’s judicial system is far from independent. Although the Chinese government has launched the so-called ‘legalization’ campaign, the effect is limited. Thus, the legislative and judicial systems have little impact on China’s telecommunications policy making.

4.2.3. The State Council: the Executive Body

The State Council, the head of the executive branch, is playing an increasingly important role in policy-making. The State Council handles general issues and different ministries set up administrative orders respectively for their own sector. However, it is not rare that the State Council coordinates with several ministries and enacts regulations directly. The Party also has direct influence on the State Council. Although, supposedly, the Party is now gradually retreating from routine government affairs, the separation is far from complete\textsuperscript{16}. Nearly all the top and middle government officials are members of the Party.

\textsuperscript{14} It must be highlighted that the function of the Communist Party often intertwines with that of the government. In addition, the authority of different ministries might overlap with each other and some administrative powers are shared by central and local governments.

\textsuperscript{15} Since the convergence is primarily a domestic issue, the impact of foreign institutions is not included in the discussion.

\textsuperscript{16} All ministers are the members of the Political Bureau or Central Committee of the Party. In fact, the Political Bureau, the Party’s highest policy making body, is functionally organized to parallel the government ministries, with members specializing in the various governmental activities (Wang, 2002).
4.2. Ministries and Commissions

The MIIT and the SARFT regulate telecommunications and television respectively. Two other ministries, namely the State-owned Assets Supervision and Administration Commission (SASAC) and the National Development and Reform Commission (NDRC), are also playing important roles in China’s information industry.

The SASAC takes the role of the State investor. Since all the Chinese telecommunications operators are state-owned enterprises, they are directly under the supervision of the SASAC. The SASAC does not manage and operate state-owned enterprises directly. Rather, it exercises its influence in two ways. First, the SASAC can directly “dispatch supervisory panels to some large enterprises on behalf of the state and take charge of daily management of the supervisory panels”; second, it can also “appoint and remove top executives of enterprises, and evaluate their performances through legal procedure”\(^\text{17}\). One of the most important missions of the SASAC is to “supervise and administer the preservation and increment of the value of state-owned assets”. Thus, should market competition cause the SOEs to lose “the value of state-owned assets”, the SASAC would intervene in order to “preserve” and “increase” the “value of state-owned assets”.

The NDRC is responsible to “formulate pricing policies, regulate the general price level and the prices of major state-controlled commodities and standardize fees”. The price for basic telecommunications and cable television services are regulated by the NDRC. In the old PTT model where telecommunications and cable system were owned by its parent ministries, it was unnecessary for the NDRC to involve in pricing regulation. However, particularly in telecommunications where the MIIT is supposed to be independent of any telecommunications carriers, the MIIT has to coordinate with the NDRC in pricing regulation.

4.2.5. Formal Legislation on Telecommunications

China did not have a formal set of telecommunications regulations or laws until the late 1990s. One significant step that the MII took after its establishment was to draft several formal regulatory policies for telecommunications industry. In September 1999, the MII issued the first government telecommunications rule titled “Temporary Regulation on Telecommunications Network Interconnection.” One year later, a formal telecommunications regulation, the “People’s Republic of China Telecommunications Decree” was issued by the State Council and became effective in September 2000. The Decree consists of 6 chapters and 79 articles, which cover most of the important issues regarding telecommunications resources allocation, network interconnection, licensing, safety, arbitration and so on. Though it is far from complete, this Telecommunications Decree has reduced regulatory uncertainty and improved transparency to some extent. In addition, shortly after China’s accession to the WTO, the State Council issued “Provisions on the Administration of Foreign-Invested Telecommunications Enterprises” (Decree No.333), which became effective on January 1, 2002. Consisting of 21 articles, the Decree No.333 is formulated in accordance with other relevant laws and administrative regulations governing

foreign investment in order to meet the obligations of opening up the telecommunications industry. Figure 3 presents the current regulatory regime of China’s information industry.

![Diagram of the Regulatory Structure of China’s Information Industry]

Fig.3 The Regulatory Structure of China’s Information Industry

5. The Uneven Path to the Convergence

Convergence is not only a technological evolution, but also a political discourse. Political factors, such as institutional arrangement, often disrupt the natural evolution of technology. In the last decade, China had made several attempts to converge its telecommunication and cable industries, which were accompanied by institutional rearrangements.

5.1. The 1998 Governmental Reform and the Failure of the First Convergence

Consisting with the global reinventing government movement, the Chinese government initiated a bold revamping of its governmental system as part of the national efforts to reposition economies in the face of increased global competition in 1998 (Worthley & King, 1999). The 1998 reform highlighted a streamlining of government, a removal of direct governmental control over profit-making enterprises, and an effort to move China in the direction of the “rule of law” (Lan, 1999). As Li Peng (1998), the then Chairman of the Ninth National People's Congress, addressed, the reform was to:

*Adjust and abolish those governmental departments which had a direct hand in the management of profit-related industries and enterprises, increase government’s macro-management capacity, and strengthen the legal and supervisory functions of the government.*

The reform downsized 40 ministries to 29, abolished 15 commissions and departments, which previously operated the state-owned enterprises directly, and degraded some government agencies from commission and ministry status to departmental status. In telecommunications and television, the goal of this round of reform was to completely separate government and enterprise functions, eliminate monopoly, and increase competition (Gao & Lyytinen, 2000). Specifically, the Ministry of Posts and Telecommunications (MPT) was dismissed and the
Ministry of Information Industry was established by merging the MPT and the Ministry of Electric Industry (MEI). The Ministry of Broadcasting, Television and Film was renamed to the State Administration of Radio, Film and Television (SARFT). Accordingly, the responsibilities of the MII and the SARFT were adjusted, among which the most significant one was the transfer of the planning, management and regulation (including standards setting) of broadcasting (including cable) transmission network from the SARFT to the MII. Both the newly established ministries were required to disconnect themselves to the once-affiliated state-owned enterprises.

The 1998 government reform has been regarded as the Chinese government’s attempt to initiate an institutional convergence to create a single regulator for its information industry (Gao & Lyytinen, 2000; Tan, 1999). However, it is often neglected that, even in the original plan which mandated the SARFT to transfer to “transmission” network to the MII, the SARFT reserved the right to regulate the broadcasting “private” network (General Office of the State Council, 1998). The lack of clear definition on “transmission” and “private” left a blurry boundary between the MII and the SARFT and resulted in a yearlong debate between the two ministries. One year later, the State Council issued the Decree 82, which defined the transmission network as the intercity optical backbone whereas the private network referred to the distribution medium (primarily coaxial cable networks) that connected the television station to the end users (General Office of the State Council, 1999). In this decree, the State Council also bought the ideological argument of the SARFT. It declared that, since the broadcasting was the essential platform for propaganda, any cable operators that planned to offer programming services must get the SARFT’s approval. More importantly, it clearly articulated that telecommunication carriers were not allowed to provide television services whereas the cable operators were prohibited from entering telecommunications market. Thus, the first convergence officially failed.

5.2. The Rise and Fall of the Market-driven Convergence: IPTV vs. Digital TV

The peace resulted from the ban on convergence did not last long. The 2002 division of China Telecom into two companies led to an oligopolistic market structure in wireline sector, in which both the China Telecom and China Netcom, puzzled by decreasing profit margin and increasing competition, aggressively rushed into the video market via the IPTV technology. At the first glance, IPTV seemed to have made some breakthroughs in the obsolete national ban. In 2003, the SARFT issued an administrative order titled “The Management Measures for Dissemination of Audio-Visual Programs on Internet” that established a licensing regime for audio and video content transmitted over the Internet (SARFT, 2003a). Subsequently, by the end of 2004, over 80 organizations obtained a 2-year permit to transmit audio-visual programs over the Internet. However, the SARFT quickly withdrew from the relatively open position by exercising rigorous control over the IPTV in the middle of 2004. The SARFT issued the Decree 39 with the same title as 2003’s but with a totally different regulation. In the 2004’s decree, the SARFT specifically

18 An exception was that the SARFT was granted the direct control to the three national media outlets: China Central Television Station, The Central People’s Broadcasting Station and China International Broadcasting Station).
articulated that only television stations and other media companies under the SARFT’s umbrella were eligible to deliver the IPTV service to the regular television set. Telecommunications operators were allowed to relay audio-visual content over their networks, but were prohibited from integrating content with conduit (SARFT, 2004).

The quick turn around of the SARFT’s attitude toward the IPTV attributed to the increasingly strengthened position of telecommunications carriers and the slow progress made in the marketization of its own cable business. Externally, telecommunications industry had become a giant business with annual revenue of 572 billion RMB, comparing to television, radio and film’s 76 billion in the year of 200419. The revenue from cable subscription was merely 12 billion RMB. More importantly, the establishment of the SASAC further strengthened the bargaining power of telecommunications carriers. With the set-up of the SASAC, the ownership of the major telecommunications carriers was transferred from the MII to the SASAC. As noted before, one of the most important missions of the SASAC was to “supervise and administer the preservation and increment of the value of state-owned assets”. Thus, inherently, the SASAC has the imperative to stand on the side of telecommunication carriers should “vicious competition” happen between cable operators and them in order to prevent the loss of state-owned assets. It was argued that foundation of the SASAC signifies that the primary objective of government regulation changed from creating a competitive market to strengthening the dominant carriers (Yeo, 2009a). In the most notable case of the Personal Handy-Phone Service (PHS), although the MII initially took a strong antagonistic attitude to block this service, it later had to approve its legitimacy due to the strong pressure from the SASAC-backed telecommunications carriers partly because of the huge amount of money already invested (C. Liu, 2003; Tan, Chen, & Liu, 2006). To the SARFT, the corollary of the fate of the PHS is apparent that, if telecommunications carriers were allowed to freely invest in the IPTV market, once they had reached the critical mass, similar to the fate of PHS, the SARFT would have to face great pressure from the SASAC to legitimize this service. Thus, the best strategy for the SARFT to keep the exclusive control on the television is to take protective measures at the very beginning.

Despite of the external competition, internally, the SARFT’s own effort to modernize its cable business had faced a lot of problems.

In the 1999’s Decree 82, while the State Council closed the door for convergence, it also directed the SARFT to speed up the marketization of its cable sector. The State Council ordered that the cable operators must be consolidated and incorporated at the provincial level in order to reach the size that was comparative to telecommunications carriers. Later the SARFT adopted the policy called “separation of transmission and programming” which further divested the programming function from cable operators. The SARFT’s ambitious plan involved 3,000 cable operators being regrouped into 32 province-based companies and creating a national cable backbone network to connect them (Redl & Simons, 2002). It was expected that the regrouped cable system, which did not have any programming function and thus avoided the propaganda regulation, could get license from the MII and become a major competitor to telecommunication

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carriers.

One of the technical preconditions for the cable network to offer telecommunications service is the upgrading from a mono-directional medium to a bidirectional one, usually referred to digital conversion. In 2003, the SARFT announced an ambitious digital conversion timetable in which it declared that television network should be digitalized in most of China by 2010 and analog televisions would be phased out completely by 2015 (SARFT, 2003b). The digital conversion had made little progress initially. By the end of 2005, the number of digital TV subscribers was merely 5.35 million, much less than the 10 million expected by the SARFT (“Digital TV Meets Cold Reception in China,” 2005). A lot of problems, such as high monthly and installment fee, fragmented market structure and ambiguity in standards setting, hindered the development of digital TV. In order to protect its digital transition from competition, the SARFT raised the issue of propaganda control as an important rational for blocking IPTV. Wang, a senior officer of the SARFT, told the reporter that although the SARFT admitted that IPTV was a very promising technology, it was not appropriate for telecommunications carriers to get involved because IPTV network was interconnected with the public Internet which made it difficult for the SARFT to control the content being transmitted and brought potential threats to national security and culture integrity (Shun, 2005).

To date, the SARFT has granted only seven IPTV licenses to state broadcasters such as CCTV and the Shanghai Media Group while China’s 4 million IPTV users, mostly with China Telecom, were still on the “trial” basis for several years (Clark, 2010). On the other hand, according to the “China Cultural Industry Development Report 2010”, an annual report by the Chinese Social Science Research Institute (CSSRI), by the end of 2009, China was expected to have 62 million digital TV subscribers, approximately 30 percent of all cable subscribers and of which only 7 million were paid users (X. Zhang, Hu, & Zhang, 2010). By now, both IPTV and digital TV have made less than expected growth in its confined market.

5.3. The Super Ministry Reform: the Regulatory Atavism in Convergence

In 2008, the People’s Congress approved another round of governmental reform called “super-ministry restructuring”. The idea was to transform the government function from economic planning and controlling to public service (F. Yuan, 2010). The target for this round of government

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20 Usually, monthly subscription fee for digital TV service is higher than that of regular cable service.
21 Initially, the users needed to purchase set-up boxes by their own. Later, with the subsidy of the government, operators usually give up the set-up boxes for free and are allowed to charge higher monthly fee to recover the cost (Z. Yan, 2010).
22 For example, China Development Bank, which had an agreement with the SARFT to finance the digital TV transition project, told the press that it had tremendous difficulty evaluating applications from numerous operators and urged the SARFT to make a coherent national plan (“CDB Falls Into Trouble in Making Loans to Cable TV Industry,” 2005).
23 By the end of 2004, European’s DVB-T had gained 9 contracts in China, while the domestic Tsinghua University’s DMB-T had signed 7. Shanghai also began to test trial Shanghai Jiaotong University’s ADTB-T standard.
24 CSSRI is a government think tank.
reshuffle was to streamline government department functions, to strengthen macro-economic regulation, to maintain national security of energy supply and to integrate information development and industrialization.²⁵

In telecommunications, arguably, the MII was downgraded to the sub-ministerial level (Ma, 2009). The new Ministry of Industry and Information Technologies absorbed all the functions of the MII and become a super regulator for China’s industrial sector. The long-rumored merging of the MII and the SARFT into a single FCC-alike regulator was proved to be bogus.

The 2008 institutional rearrangement has several immediate impacts on the information industry. The position of the SARFT was seemingly strengthened. The State Council issued a Decree titled “Several Policies on Encouraging the Development of Digital TV” in which it reiterated the SARFT’s digital TV transition timetable and gave several preferential policies to accelerate the deployment (General Office and the State Council, 2008). On the other hand, the MII finished its final show in telecommunications by consolidating China’s operators into the so-called big three, namely China Telecom, China Unicom and China Mobile.

The governmental reshuffle laid down the institutional foundation for the restarting of the stagnant convergence process. On January 13, it was reported the Premier Wen held the general meeting of the State council deciding to accelerate the advancement of convergence of the telecommunications, television and internet (Xinhua News Agency, 2010). On April 14, the State Council announced the Decree 5 titled “The Overall Plan for Convergence” (State Council, 2010).

In the plan, the government articulated technological, economical and political rationales for convergence. Technically speaking, the government admitted that convergence was a natural result of the advancement in information technologies. Economically, it was expected that convergence would satisfy consumers’ diverse production, living and service demands, promote domestic consumption, form new economic growth areas and become one of China’s strategic policies in response to the global financial crisis. Politically, convergence was beneficial to create new ways of and expand the scope of propaganda in order to firmly control the mainstream public opinion and protect the national culture (State Council, 2010). The plan also set the timetable for the convergence. From year 2010 to 2012, selective trials would be conducted. From year 2013 to 2015, convergence would be extended to nationwide market. Later on, following the rejection of five draft plans, the sixth version of the pilot program for the convergence was approved by the State Council on July 1 2010 in which 12 cities were selected.²⁶

In terms of regulation, the government has announced to establish a regulatory regime that is logical, efficient and scientific. However, surprisingly, in the “Overall Plan”, the government reiterated that China would continue to take the “silhouette” approach, in which the MIIT and the SARFT would regulate telecommunications and television respectively (State Council, 2010). However, citing the slow progress made in the marketization and upgrading of China’s cable business, the State Council gave some preferential polices to the SARFT. First, the SARFT was granted another three years to marketize and consolidate its thousands of local cable operators into competitive ones and finish the technical upgrading. Second, the SARFT was granted the

²⁵ One study has pointed out that the reform of the NDRC, which was to the key to remaking the Chinese state into a macroeconomic regulator, was lacking in the 2008 reform (Yeo, 2009b).
authority to regulate the IPTV platform, which essentially did not change the status quo of this sector. While the effect of this newly government-driven convergence remains to be seen, there has been little change in the regulatory regime. The incompatibility between the old regulatory model and the expected new converged industry regulated has not yet been solved.

6. Lessons Learned from the History and the Future to Come

The institutional approach argues that history matters. In this section, we summarize the lessons learned from China’s uneven path to convergence and propose a likely future to come based on the institutional constraints posed by the Chinese economic and political system.

6.1. The Chinese Style of Convergence

There are two consistent themes that can be observed from the review of the evolution of China’s convergence policy. First, the policy change is often resulted from the macro institutional change. Second, although the emphasis and preference might shift at different stages, key policy objectives seem to be consistent overtime.

6.1.1. The Consistent Pattern in the Institutional and Policy Change

Gao and Lyytinen (2000) found that China’s telecommunications reform progress could only be understood by reviewing the simultaneous changes at the macro level. Instead of being simultaneous, our review on the long-term policy change in convergence reveals that the link between the institutional and policy change is linear and causal.

As shown in Figure 4, at every point of the institutional change, policy change always follows. The 1998 governmental reform, which abolished the MPT and delinked the telecommunications carriers from government ministries, was followed by the attempt to establish a single regulator for the entire information industry. Sequentially, the establishment of the SASAC, which became the new supervisory body of telecommunications carriers and supposedly strengthened their negotiating positions, to some extent forced the SARFT to block the market-driven growth of IPTV in 2003. The 2008 super-ministry reform, which strove to streamline government functions and strengthen macro-economic regulation, restarted the nearly stagnant convergence process from the top leadership. Institutional and policy change does not occur simultaneously. On the other hand, there is a consistent pattern that policy change often lags behind institutional change.

Early researches has found that China’s telecommunications policy making featured deep-rooted political involvement and frequent bureaucratic bargaining (B. Zhang, 2002). Indeed, the macro institutional change has been the major driving force for the policy change followed. Since all the major players in China’s information industry are all state-owned enterprises and their inherent close connections to government ministries, the real regulatory power of both the
MIIT and the SARFT are rather limited contrary to what is generally expected\textsuperscript{27}. Given the fragmented institutional arrangement, it is not surprising and, as a matter of fact, politically feasible to settle down institutional arrangement before starting any major policy changes and often, the change is initiated and guided directly by the top leadership.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig4.png}
\caption{The Evolution of China’s Convergence Policy.}
\end{figure}

\subsection*{6.1.2. The Consistent Policy Objectives}

It is generally agreed that there are two basic policy objectives of telecommunications regulation, one economic and one social. Narrowly speaking, the economic objective was to provide the telecommunications services to satisfy the full range of consumer demand and such services should be supplied under conditions of optimal efficiency. The social objective stressed on the universal access of telecommunications services which meant that the telecommunications network should be “extended not just to the limit of economic efficiency, but to the limit of social need” (Melody, 1997, p. 13). More broadly, Blackman (1998) argued that regulation could only be justified under two sets of criteria, namely in the presence of market failure and in pursuit of legitimate public interest goals.

In China, telecommunications were expected to play as a leading strategic economic sector and to deliver economic benefits to the Chinese people in order to legitimize the Communist Party’s leadership (Roseman, 2005). Thus, the major economic objective of telecommunications regulation was network development and maintaining the industry as an important tax resource for the government (B. Zhang, 2002). Socially speaking, network security and sovereignty were the most important objectives because communications served the propaganda needs of the Party and the government (B. Zhang, 2002). In addition, Zhang (2002) aptly elaborated that there were three accountabilities for telecommunication regulation, namely accountability for the Party, State Council and public interest (poorly defined and often manipulative by the government), in China’s telecommunications policy making. We also found similar patterns in China’s convergence policy discourse.

Creating a conducive environment for network building up and, thus, growing the economy is the top priority. The Chinese government has taken two major measures to expedite the network development. Economically, it has pushed the process of corporatization in both telephone and

\textsuperscript{27} For those who are not familiar with the Chinese political system, state-owned enterprises are often given a comparative political status. For example, major Chinese telecommunications carriers are regarded as “Vice-Ministry” level enterprises.
cable industry constantly. In telecommunications, a highly competitive market has been created and the industry has experienced astonishing growth in the past 20 years. In cable, although little progress has been made in the digital conversion due to complex reasons, the objective of modernize the cable industry has not changed. The newest convergence plan reiterated the goal of consolidating China’s fragmented cable networks into a few big ones which were expected to compete face-to-face with telecommunications operators after the three year trial period. Politically, every institutional change appears to be one effort to disconnect business from the government and thus to remove the bureaucratic obstacle for convergence. As early as 1998, in the first governmental reform, the Chinese leadership had tried to put both telephone and cable networks under the same regulatory umbrella. The establishment of the SASAC further disconnected the telecommunications carriers from the regulator. Should the progress of the corporatization of cable industry be faster, it would be unsurprising that cable would have also been disconnected from the SARFT. Indeed, as stated by the State Council, the objective of the new convergence plan was to create new economic growth area and convergence was regarded as one of China’s strategic policies in response to the global financial crisis (State Council, 2010).

While the main driving force for convergence stays the same, so do the disturbing factors. National security and ideological control are the most powerful arguments often made particularly by the SARFT side. Since cable industry is traditionally affiliated with television station, it is essentially an integrated part of China’s propaganda system. Although the policy of separating cable network from television station was formulated as early as 1998 in order to bypass the sensitive propaganda issue, little headway has been made. Being regarded as one of the most important propaganda outlets, cable industry could not generate sufficient revenue to make it self-sustainable from the low subscription fee, which is set by the government in order to ensure that cable service is affordable to most Chinese families so that the Party’s voice could be effectively delivered to the mass audience. The business expectation of upgrading cable industry to compete with telecommunications carriers, which requires huge amount of investment and a somewhat more light-handed regulation, often gives way to the political and ideological significance of this industry. In telecommunications, national security is also a strong position the government hold. Telecommunications is declared to be one of the key industry sectors that should be under absolute control of the state ownership. Thus, privatization has never been on the menu of reform.

6.2. The Future to Come: a Layered Model?

Government decisions and activities were shaped collectively by organizations that bear tracks of their own history and political process that was structured by constitutions, political institutions, state structure, state-interest group relations, and policy networks (North, 1990). Simply put, the institutional approach argues that history matters. Building on the review of China’s uneven path to convergence, a potential framework of China’s future convergence policy, its main objectives and obstacles, will be presented in this section.

6.2.1. A New Around of Institutional Change is Necessary to Furthering Convergence

Comparing to the previous two, although the 2008 convergence plan followed the
super-ministry reform, the institutional structure that had hindered the convergence was not streamlined. While the Chinese government has acknowledged the problems of the traditional “silo” model in regulating converging services, it continues to leave telecommunications and cable to different regulators.

A likely institutional rearrangement is to establish a new independent regulator to supervise both the telecommunications and cable. Essentially, the idea is not a new one, but a reconfirmation of the objective of 1998 government reform. China has been very resistant to the phrase “independent regulator”. Apparently, there is a common misunderstanding in China an “independent regulator” is some renegade agency outside the control of the state and the Party, which is inconsistent with their culture and their guiding governmental policies (Taylor & Zhang, 2005). Ironically, one of the primary objectives of the formation of the former MII was to separate the government from the telecommunications carriers, which, to some extent, was the effort made by the Chinese government to meet its WTO commitment. Since the MIIT does not share any interest with any specific carrier, at least on the surface, the MII meets the WTO’s definition of independent regulator in telecommunications. On the cable side, as a matter of fact, the SARFT does not own any cable operators either. At issue is the inherent close connection between cable and television stations. Similar to the idea of “independent” regulator, separation of cable and television is an old idea and has been on the SARFT’s policy agenda for a long time. Since all the cable operators are also state-owned, it is politically feasible to officially transfer the ownership to the SASAC. With both telecommunications carriers and cable operations totally delinked from their respective mother ministries, it is then possible to establish an independent regulator to cover the information industry.

There are some issues needed to be carefully addressed for the proposed independent regulator to function properly. First, the Chinese government needs to position the cable industry as a profit-seeking commercial business instead of the Party’s propaganda outlet. Certainly, the government could impose regulations such as “must-carry” or “must-state-owned” rules to maintain the strict control on what cable could carry. However, there should be a metaphorically change from viewing cable as the Party’s private property to a public enterprise. Second, the Chinese government has to properly fit the proposed independent regulator in the Chinese existing administrative system particularly with the presence of the SASAC. Traditionally, the Party often sets up a super-ministry working group to deal with complex inter-ministry issues. For example, the 2008 convergence plan is led by Convergence Leading Group chaired by Premier Wen. However, those leading groups are temporary. A possible solution is to place the independent regulator under the direct leadership of the State Council.

6.2.2. A Manageable Competitive Market Structure

As reviewed in the section 4, economic growth has been the top priority in China’s convergence policy. The theme is expected to remain in the future to come. In addition, since the Chinese government considers information networks ideologically sensitive, this industry will continue to be tightly controlled by the government through the state ownership. Thus, in terms of competition policy, it is likely the Chinese government will continue its effort to encourage facility-based and manageable competition in the convergence era.

In order to have a facility-based competitive market structure, the Chinese government is
likely to initiate a new wave of merger particularly in the cable market. Although the loose relationship between cable operators and the SARFT brings dynamics into this sector, it also leads to ineffective regulation particularly at the local level. In addition, the fragmented cable operators could not compete with the already consolidated and centrally managed telecommunications carriers. As a matter of fact, consolidating the fragmented cable network to compete with telecommunications carriers has been clearly stated in the “Overall Convergence Plan”. Certainly, there are other policy alternatives to introduce competition such as unbundling network element, which lowers barrier to entry and might lead to competition more quickly. However, forming a competitive market structure itself is not the primary concern of the Chinese government and unbundling is often criticized for discouraging facility-based investment. Thus, unbundling is unlikely to be a policy choice in China. In addition, if competition takes place among a handful of big state-owned companies, it makes itself more manageable and, thus, desirable to the Chinese government. To this end, privatization is also unlikely to occur and private investment will be discouraged. The government is likely to continue to remain absolute ownership on essential information infrastructures. As expressed in a famous Chinese slogan, the principle is “competing internally (domestically) and being united externally (in the international competition”).

In order to avoid wastefully repetitive construction and assure network integrity, the focus of the Chinese government’s competition policy should turn to the issue of interconnection. First, cross-entry of cable and telecommunications should be allowed. As evidenced in the U.S., the cable industry has grown into the biggest competitor of the telephone industry in the broadband access market. While content is likely to be controlled by the government, it is feasible to open the conduit for competition. Second, the interface between the conduit and the content provider should not be infringed and the vertical integration between the two layers should be prohibited. Politically, structural separation is in line with the Party’s pursuit of absolute propaganda control and thus it is viable. Economically, it ensures a fair playground for both telecommunications and cable carriers. Based on the above mentioned principles, a double-asymmetric competition policy shall be taken in order to facilitate the convergence plan. At the conduit level, preferential measures should be given to the cable operators to strengthen their capability to compete with telecommunications carriers. At the content level, on the other hand, the openness of the interface should be emphasized and cable operators shall be further delinked from the television stations. Figure 5 illustrates the regulatory regime discussed in this section.
7. Concluding Remarks

By drawing on the institutional theory, this paper examines China’s uneven path to convergence and presents an analytical model to understand China’s information making process. Theoretically, the institutional approach has proved itself useful particularly in analyzing the historical evolution of complex policy issues and this article complements the existing research on China’s information policy, which mostly are one-shot and sector-specific, with a complete treatment of convergence policy evolution that involves both telecommunications and television. Practically, this paper finds that there are two remarkable characteristics in China’s convergence policy making, namely the causal relationship between institutional and policy change and the consistent policy objectives, which will continue to shape to future to come. Based on the above findings, a sketchy of the future regulatory regime and relevant policy recommendations are provided.

Regulatory models vary from country to country. There is no simple “best practice”. However, facing the convergence of technologies, regulators around the world have reached the consensus that the traditional “silh model” is no longer adequate. While the Chinese policy makers should be openminded and learn from foreign experiences, it is important to bear in mind that all regulatory measures should be made in accordance with China’s social, economic and political conditions, particularly the objectives of the Chinese government. Particularly, given state-ownership and strict propaganda control as two prerequisites for convergence, China will provide a unique case for the rest of the world in the design of the convergence regulatory regime.

This paper opens at least two lines of inquiry for future research. Information policy making in China involves many institutional players, the direction of convergence policy will largely depend on the changing relative strengths of those institutions. This paper has not tried to provide an exhaustive list of players in this arena, some of which such as consumer demand and technological innovation might play increasingly important roles in the future. Thus, it is believed...
that the analytical model presented in this paper needs to be continuously refined. Second, given China’s unique economic and political system, it is interesting to conduct comparative studies, particularly between China and other emerging economies, for example India. China has undoubtedly led other developing countries in telecommunications, at least in terms of network development, in the past 20 years, whether if the Chinese model will continue to succeed in convergence arena is remained to be seen.

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