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**Regulatory Reforms in China's Telecommunication Sector:  
A Case of Policy Transfer Failure or of Policy Divergence?**

Dr. Marc Laperrouza

Ecole Polytechnique Fédérale de Lausanne

EPFL-CDM-MIR, Château de Bassenges, Station 5  
CH-1015 Lausanne, Switzerland

*Abstract*

In the past decade most countries have had to face the wave of telecommunication liberalizations that swept across the world. By-and-large, the “pro forma” liberalization program consisted of three elements: deregulation, introduction of competition and privatisation of national operators. Despite claims of developing a telecommunication market with Chinese characteristics, it appeared that some of the early elements of the regulatory reforms process bore strong resemblance with those found in other countries.

However after several rounds of restructuring over more than 15 years the Chinese government has failed by-and-large both to create an independent regulator and to introduce significant competition. Has the government deliberately refrained from adopting the liberalization programme usually prescribed by multilateral lending agencies or has it simply failed to do so? In other words, are we witnessing a case of policy transfer failure or of policy divergence? By answering this question, the paper seeks to shed light on China's telecommunication sector reform process. It argues that the regulatory reforms that have taken place in China's telecommunication market offer an interesting case study to test historical institutionalism's capacity to accommodate and explain policy change and inertia. It aims to add to the debate of whether and why countries develop similar telecommunication policies over time.

*Introduction*

On the surface, China is no exception to the worldwide transformation of telecommunication markets. Between 1990 and 2008, nationwide teledensity<sup>1</sup> grew from 1.11% to close to 70%. The country ranks today as the largest telecommunication market in the world in terms of mobile and fixed-line subscribers<sup>2</sup>. This phenomenal growth has been accompanied by a number of remarkable structural changes, which seemed to share the characteristics of the market-oriented reforms carried out worldwide (see Table 1). China's postal sector was separated from the telecommunication sector, operators were detached from government agencies and new entrants started to challenge the incumbent both in the fixed line and

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<sup>1</sup> Teledensity is defined here as fixed line and mobile phone subscribers per 100 people (respectively 27.51% and 41.19%).

<sup>2</sup> As of June 2008, fixed-line subscribers amounted to 356 million and mobile users to 601 million.

monile segments. Further institutional changes were carried out through the merger of archival Ministries and the establishment of a regulatory body to supervise the sector (the Ministry of Information Industry or MII<sup>3</sup>).

**Table 1: Components of market-oriented reforms**

	Elements	Options	China
Liberalisation	Deregulation	Separation of Public Telecom Operator (PTO) from Ministry	Separation in 1998
		Separation of regulator from Ministry	MIIT acts as Ministry and regulator
		Regulator's autonomy level	Weak
	Competition	Competition in long distance	Partial competition (China Telecom and China Netcom)
		Competition in local telephony	Partial competition (China Telecom and China Netcom)
		Competition in mobile telephony	Partial competition (China Mobile and China Unicom <sup>4</sup> )
	Privatisation	Type of privatisation (minority shares, majority share or complete privatisation)	Minority share privatisation

Source: Adapted from Henisz, Zelner et al. (2004) and ITU (2005).

In reality, growth took place in spite of the failure to successfully implement the “orthodox” liberalisation trinity. The Chinese government failed by-and-large both to create an independent regulator and to introduce significant competition. Moreover it maintained majority ownership in the operators while restricting market access to private and international operators<sup>5</sup>. The government has not been able to establish an independent regulatory authority capable of credibly enforcing the regulatory package adopted in 2000. In addition, competition, both in fixed-line and mobile markets, remains weak and dominated by the incumbent operators. When it comes to privatisation the government has managed to squeeze important financial resources from the listing of China Mobile and China Telecom on the Hong Kong and New York stock exchanges but it maintains the overall control over the listed companies. The liberalization process of China’s telecommunication sector presents us with an interesting case study of continued growth outside of the “prescribed” deregulation path.

By studying China’s regulatory reforms in the telecommunication sector, the paper hopes to improve our understanding of the phenomenon of policy convergence, of our understanding of telecommunication policy-making in China, and of the limits of policy convergence in the telecommunication sector, thus highlighting the importance of domestic institutions.

The paper is organised as follows: the first section provides the theoretical framework – historical institutionalism. The next section presents the history of China’s telecommunication reforms and illustrates the difference between policy goals and outcome. To do so, it examines one of the most critical aspects of the reforms – the introduction of competition – and seeks to explain through a comparison with the electricity sector the stalled reform process of China’s telecommunication. The next section discusses the particularities of China’s telecommunication liberalisation model. The final section asks whether we are witnessing the emergence of a regulatory State in China’s telecommunication sector.

<sup>3</sup> The Ministry was re-organized in July 2008 and is now called Ministry of Industry and Information Technology (MIIT).

<sup>4</sup> Until the 2008 reforms China Unicom was the only operator allowed to offer both mobile and fixed-line services.

<sup>5</sup> In spite of China’s accession to the WTO in 2001 foreign competition is non-existent in the fixed and mobile segments in contrast to the value-added services.

## *I – Theoretical framework*

Our purpose in adopting a historical institutional approach is to question just how (and how much) institutional factors have affected China's telecommunications regulatory policy-making and led to a stall of the reform process. Historical institutionalists emphasise the role of institutional choices made early in the development of policy areas, or even of political systems. Some of these choices (structural as well as normative) then have a pervasive effect on subsequent policy.

The institutional approach rests on a number of concepts. First, institutions divide power and responsibilities between the organisations of the state. Thus, contrary to Statist theory, which posits the State as a black box, institutionalism seeks to identify the various agencies in the state and understand their inter-relationship. Second, the approach emphasises the uniqueness of institutions both in time and in place<sup>6</sup>. Third institutionalist arguments emphasise structure at the expense of agency<sup>7</sup>. In other words, institutional analysis focuses attention on state actors and structures to explain public policies, underscoring how both formal and informal arrangements shape political interactions and influence the outcome of government action. Institutions are thought to affect the power of groups, shape the way ideas circulate to influence policy and influence coordination of public decisions<sup>8</sup>. Because of stability, institutions are an independent factor affecting political behaviour<sup>9</sup>. Thus, institutional analyses share the proposition that institutions are neither a mere reflection of other forces (e.g. technological or social), nor neutral arenas within which political behaviour, driven by more fundamental factors, occurs. Institutions thus shape policy by affecting the context of debate and the power of actors wishing to reform policy-making.

At the heart of the institutionalist analysis lies the claim that a country's institutions do not adjust rapidly to societal or other contextual and environmental changes, but represent a set of independent variables that influence policy<sup>10</sup>. Institutional analyses link the characteristics of institutions to the features of policy-making that they are seeking to explain (continuities and differences)<sup>11</sup>. Policies are conceived as the result of incentives operating on political officials and these incentives are the result of interactions between political activities of constituents and political institutions through which these activities must be channelled<sup>12</sup>. The domestic political system is thus seen as a central element in explaining variations in telecommunication policy outcomes. For example, a closed policy process with a high concentration of power is more likely to succeed in introducing reforms in the telecommunication sector than open, decentralised ones. It is also argued that the structure of political incentives and political institutions in each country powerfully shape how the country will reallocate the property rights and reorganise the regulation of communications system<sup>13</sup>. But while national institutionalists explanations place a country's institutions at the centre of their explanations, they do not claim institutional determinism. Rather institutions structure decisions<sup>14</sup>.

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<sup>6</sup> See (Schneider & Tenbücken, 2003; Thatcher, 1999). This has important implications when it comes to comparing country-specific experiences and generalising lessons-learned.

<sup>7</sup> See Finnemore (1996).

<sup>8</sup> John (1998).

<sup>9</sup> See (Galperin, 2004; Hall, 1986; Steinmo, Thelen, & Longstreth, 1992). The neo-institutional theory is based on the assumption that the likelihood of institutional change increases when the current institutional arrangement is misaligned with the interests of the major groups involved.

<sup>10</sup> March and Olsen (1989, 1996).

<sup>11</sup> Thatcher (1999).

<sup>12</sup> Noll (1986).

<sup>13</sup> Cowhey (1990) and Petrazzini (1995).

<sup>14</sup> Thatcher (1999).

In the historical-institutionalist tradition, factors such as policy learning, institutional isomorphism, state traditions and structures, political leadership, and the broader institutional context are at the centre of the analysis. In addition, historical institutionalism scholars stress the role of former or previous institutional arrangements or choices. These institutional arrangements may include, among other things, electoral rules, the relationship amongst the various departments in the government, and the relationship of the government and private actors<sup>15</sup>. A central goal of most historical institutional analysis is to estimate the impact of variations in institutional forms and configurations on a particular outcome or set of outcomes. It is historical because analysts argue that once constructed at a moment in history, institutions typically endure for significant periods of time, influencing political dynamics and associated outcomes in subsequent periods<sup>16</sup>.

Institutionalism is clearly differentiated from contextual approaches, which emphasise the way order is imposed on political institutions by an external environment. Institutionalism, by contrast, posits a greater independence for political institutions, which can provide order and influence change over and above exogenous imperatives<sup>17</sup>. One of the key criticisms to institutional approaches is that actors and groups often circumvent institutions in pursuit of their interests. Moreover, social context shapes and mediates formal arrangements. Another limitation of the approach is that it tends not to emphasise the distinctiveness of each policy sector: single-sector studies are limited in their ability to assess the relative influence of sector-specific technical and economic forces in the policy process. In his study of telecommunication reform in three European countries, Bartle finds that national institutions have significantly influenced the pace and timing of reform but that they can not clearly account either for the shift from monopoly to competition, nor for the decisions to liberalise, privatise, nor for the rise of competition-orientated regulation. At the same time, techno-economic forces have provided impetus for reform but they cannot sufficiently fill the explanatory gap left by institutions<sup>18</sup>. Bartle notes that even in sectors where there are powerful trans-national economic and technological pressures, the only way to properly understand the process of reform is to analyse national institutional structures, norms and decision-making procedures<sup>19</sup>. The second criticism is that the institutional approach works best when comparing policy-making and implementation between nation-states, but is less able to explain policy-making differences between policy sectors and policy change.

A number of scholars have applied the historical institutional approach to studying telecommunication policy-making and reforms. In Thatcher's view, three types of change can be envisaged: policies can be altered within a given set of national institutions, national institutions themselves can be modified, or institutions themselves may influence non-institutional pressure for change. In the first case, exogenous factors can cause existing but previously latent institutions to become active and/or new actors to pursue new goals through existing institutions<sup>20</sup>. He identifies four key institutional features for national patterns of policy-making in telecommunications: the organisational position of the network operator, the powers of elected politicians, financial instruments and rules applicable to public policy in the sector, and the existence and powers of an independent regulator<sup>21</sup>.

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<sup>15</sup> Thelen and Steinmo (1992).

<sup>16</sup> Liebermann (2001).

<sup>17</sup> At the same time, a stress on national institutions should not underestimate the importance of the nature of the relationship between institutions and exogenous forces.

<sup>18</sup> Bartle (2002).

<sup>19</sup> Bartle (2001). Institutional theory does not repudiate the context *per se*, but the primacy attached to it. In the new institutionalism, exogenous forces can provide the stimuli for policy and/or institutional change but the actual response is shaped by institutional factors.

<sup>20</sup> Thatcher (1999). See also Braathen (2004).

<sup>21</sup> Thatcher (1999). Institutions are an exogenous factor in national policy-making: they influence public policy but policy-makers are not able to alter them rapidly.

## *II – History of China’s telecommunication reforms – the introduction of competition*

In the past decade, most national telecommunication systems, regardless of regional, socio-economic and political differences, have undergone profound structural and institutional changes<sup>22</sup>. Operators became legally separated from the Ministry in charge of telecommunication. A majority of previously state-owned and state-run telecommunication operators were privatised and markets, both in developed and developing countries, were liberalised. In order to deal with the set of issues brought by these changes, many countries established regulatory agencies independent from operators and, in certain cases, separate from the Ministry – a process often described as deregulation<sup>23</sup>.

The diffusion of reforms and deregulation to most telecommunication markets across the globe has led some scholars to label this broad trend as “regulatory convergence”<sup>24</sup>. However an in-depth look at individual case studies reveals wide disparities in the nature, scope and extent of the regulatory reforms undertaken<sup>25</sup>. Whereas in certain countries ownership of operators rests entirely in private hands, many governments still consider majority control as a guarantee of sovereignty and national security. The degree of autonomy and functions of regulators also vary greatly across countries. And so does the degree of competition across market segments. Likewise, China’s telecommunication sector has undergone several rounds of restructuring (see Table 2).

Among the major milestones that marked the liberalisation process of China’s telecommunication sector, two stand out: the introduction of competition (first half of the 1990s) and the partial privatisation of China Mobile and China Telecom (Laperrouza, 2005). Like in many parts of the world, the Chinese telecommunication services sector operated for a long time under a monopoly regime and, as can be expected, politically powerful operators sought to slow down the ability of new entrants to reach customers on competitive terms, thus standing in the way of necessary regulatory reform<sup>26</sup>. The monopolistic structure was nonetheless significantly knocked down by factions within the government pushing for the break-up of China Telecom, by the actual break-up that ensued and by the fragmentation of the telecommunications market in which new kinds of services and products became available to consumers. Since 2000 the determination to foster more domestic competition has been apparent and numerous steps have been taken in that direction. But while the monopoly of China Telecom and of China Mobile are over there is still a long way to go until one sees significant competition in the respective markets. Despite strong support from the government for many years, the attacker (China Unicom) has failed to capture a large market share (see Table 3).

The introduction of competition in basic services dates back to the creation of Jitong and Liantong (China Unicom) in 1994. Organized under the Ministry of Electronic Industries (MEI), Jitong’s shareholders came from a multitude of state-owned enterprises and research institutes. Several ministries were involved along with the State Council’s investment arm, China International Trust and Investment Corporation (CITIC). Jitong’s approved business scope included communications research and product development, the building of local trunked radio, paging, cellular networks, and the provision of public data and value-added network services throughout China<sup>27</sup>.

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<sup>22</sup> Cho (1998).

<sup>23</sup> In 1990 only 12 countries had regulatory agencies that functioned separately from telecommunication operators against 123 by mid-2003, and another 28 countries intend to establish a separate regulator in the next few years (Briceno, Estache, & Shafik, 2005).

<sup>24</sup> See (Braithwaite & Drahos, 2000; Garcia-Murillo & MacInnes, 2000).

<sup>25</sup> Pisciotta (1997), Bartle (2001) and Li et al. (2000; 2002).

<sup>26</sup> Esserman (2000).

<sup>27</sup> Ure (1994).

**Table 2: Overview of reform period and reform components (1978-2008)**

	Pre-reform era	First round of reforms		Second round of reforms	Third round of reforms	Fourth round of reforms
	1978-1993	1993-1995	1995-1998	1998-2001	2001-2008	2008-
<b>Policy-makers</b>	MEI, MPT	MEI, MPT, SPC, SETC		MII, SDPC, SETC	MII, NDRC, SASAC	MIIT, NDRC, SASAC
<b>Regulator</b>	MPT			MII		MIIT
<b>Regulations</b>	Ad hoc administrative measures			Telecommunication Regulation	FITE	
<b>Ownership</b>	State-owned, controlled by MPT	Corporatisation		IPOs (majority state-owned)	State-owned but control grouped under SASAC	
<b>Competition</b>	None	Creation of China Unicom		Spin off of China Mobile and creation of China Netcom	Breaking up of China Telecom into Northern and Southern units; creation of China Tietong	
<b>Pricing</b>	Set by government			Flexibility for VAS	Limited flexibility for operators	
<b>Source of external funding</b>	Government and foreign loans	Domestic loans and international financing		IPOs and bonds		
<b>Adoption rates</b>	Minimal	Exponential	Steady	Steady	Steady	Declining in fixed line
<b>Market access and FDI</b>	Explicit ban		Circumventing the ban	Renewed ban	Limited investment (WTO agreement)	

Source: Compiled by author.

**Table 3: Herfindahl-Hirschman Index (HHI) for Chinese mobile operators, 1994-2008e<sup>28</sup>**

Operators	Market Share (%)														
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008e
China Mobile	100	94.50	92.70	92.45	93.70	87.95	77.84	71.70	67.00	65.70	64.80	66	67	69	71.9
China Unicom	0	5.50	7.30	7.55	6.30	12.15	22.16	28.30	33.00	34.30	35.20	34	33	31	20.8
China Telecom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3
China Netcom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHI	10000	8961	8647	8604	8819	7883	6550	5942	5578	5493	5440	5512	5578	5722	5602

Source: Deutsche Bank (2003), various analysts reports (2008)

Note: in 2003 and 2004, China Unicom struggled with its dual-network problems, thus allowing China Mobile to consolidate its market share

Compared to Jitong, China Unicom was bigger in size and licensed to provide two key basic services: mobile and fixed line telephone services. Integrating several domestic non-public networks, the company was initially seen as a serious competitor to the incumbent China Telecom<sup>29</sup>.

Strong factions within the government, and especially within the then Ministry of Post and Telecommunication (MPT) nevertheless resisted the attempt to break the monopoly through various means. For example, China Unicom had to obtain approval from MPT before it could formally launch service in a specific city even though its licence entitled provision of all kinds of telecommunications services nationwide<sup>30</sup>. It was also required to support the full financial burden of constructing gateways with the incumbent to achieve interconnection. By the end of 1997, competition had been created but it had come into being mainly by administrative fiat from the senior political leadership in Beijing. Leading groups and super-coordinating structures, long-seen as levers to push the liberalisation process, either became bargaining areas or else committees in which the MPT and its rivals struggled over control of the agenda. Thus, despite continuous support from the State Council and a certain margin of manoeuvre within the tightly controlled telecommunication sector, China Unicom was unable to achieve economies of scale in its mobile communications system and did not succeed at grabbing any significant market share for many years.

The situation started to change after the creation of MII<sup>31</sup>. In February 1999, the Chinese government made the decision to split the monopolistic China Telecom into four market segments: fixed-line telephone services, mobile telecommunications, paging services and satellite communications. Two new companies emerged from the split, China Mobile and China Satellite<sup>32</sup>. Through this reorganisation, MII openly promoted the policy of “*breaking up the monopoly and introducing competition*” (*pochu longduan, yinru jingzheng*)<sup>33</sup>. Subsequently, two operators were established, China Network Communications Corporations (China Netcom) in 1999<sup>34</sup> and China Railway Telecommunications Corporation (China Railcom<sup>35</sup>) in 2000. The second round of competitive restructuring was plagued by one major shortcoming: breaking up by type of services still protected the incumbent’s dominant position as it did not end China Telecom’s monopoly over

<sup>28</sup>  $HHI = (\text{share } 1 \times 100)^2 + (\text{share } 2 \times 100)^2 + \dots + (\text{share } n \times 100)^2$ . In the context of telecommunications, the analysis must always move beyond HHIs and towards the evaluation of the elasticities of supply and demand and, in particular, the presence (or lack) of barriers to entry (Naftel & Spivak, 2000). The Landes-Posner index offers such a measure.

<sup>29</sup> Its creation came at the same time as the effort to change “one country, many networks” into “one country, one unified network” Chang (1994).

<sup>30</sup> Guan (2002).

<sup>31</sup> To some, the main reason to merge the MPT and MEI into MII in 1998 was to spearhead competition. To others, it simply reflected the administrative restructuring and “downsizing” of governmental agencies.

<sup>32</sup> The paging service sector, Guoxing Paging Service Group, was merged into China Unicom.

<sup>33</sup> Lu (2002b).

<sup>34</sup> Backed by the Chinese Academy of Sciences, the State Administration of Radio, Film & Television, the Ministry of Railway and the Shanghai Municipal Government.

<sup>35</sup> In August 2004, China Railcom was renamed China Tietong.

local networks<sup>36</sup>. The latest and probably most important step in establishing competition was the split of China Telecom into two carriers towards the end of 2001<sup>37</sup>. As a result, the network of 10 northern provincial regions was taken over by China Netcom while the remaining 21 southern provincial regions were retained by the “new” China Telecom. The “North-South” divide – aimed at creating competition in the fixed-line market – met with little success as both operators ended up with virtual monopolies in their respective markets<sup>38</sup>.

Despite not having yet succeeded a fully competitive environment, the effect of additional operators has been manifest in several ways. First, and despite China Unicom’s early difficulties at seizing an important market share, the entry of a second carrier into the market coincided with a dramatic improvement in the rate of network deployment. Second, after the major re-organisation of 1999 and despite guidelines issued by various government bodies, prices in various segments dropped significantly in the fixed market. Likewise, competition drove provincial mobile operators to offer schemes that actually reduce prices drastically<sup>39</sup>. Some have argued that the reduction of fees since 1999 can be assumed to be the result of governmental decision rather than that of competition among businesses<sup>40</sup>. This is only correct to a certain extent. A cutthroat price war between China Mobile and China Unicom has forced MII to repeatedly intervene since 2001. Moreover, price competition and its effect on reducing prices is evident with services, such as IP telephony, where the government does not control pricing. Over the past couple of years, the government has indicated its wish to leave price setting to operators although it continues to set basic telecommunication charges, including monthly fees and mobile calling charges. In practice, however, provincial operators enjoy a large freedom to depart from the fixed tariffs<sup>41</sup>. Third, the quality and breadth of services improved. In fact, the disadvantage of the monopolistic system was neither the pace of development, nor uncompetitive pricing but the low quality of services provided by the incumbent<sup>42</sup>. Fourth, competition between China Unicom and China Telecom resulted in the adoption of more advanced technology (e.g. VoIP telephony) which in turn also had an effect on prices<sup>43, 44</sup>.

Since the early 1990s, the Chinese government has come under considerable pressure to break the monopoly in fixed and mobile telecommunication services, but the transition to a competitive market has proved much harder than what was initially hoped for. Growing expectations from telephone users, both in terms of quality and breadth of services, coupled with increasing critics and complaints, participated in pushing for an end to the monopoly policy, while competing ministries were anxious to participate in the profitable telecommunication market.

A number of institutional features specific to China, such as the absence of a telecommunication and competition law, as well as rivalling factions delayed the introduction of real competition and thus reduced its benefits. The sheer size and power of the incumbent also prevented any significant dent into the monopoly until the engineered division of China Telecom created in 2001 a Southern and Northern company. Finally external pressures, such as lending agencies or even

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<sup>36</sup> Guan (2002).

<sup>37</sup> The break-up of China Telecom into a northern and southern unit illustrates well China’s policy-making intricacies. In order to take place, consensus needed to take place among a number of policy-makers – SDPC and the Office for Restructuring Economic Systems. In the meantime, China Telecom had to postpone its network construction plans, dismaying foreign and Chinese equipment makers.

<sup>38</sup> The planned merger of China Netcom with China Unicom may change this as the merged company will have distribution channels all across China

<sup>39</sup> Most competition in pricing took place through packaging mechanisms, thus circumventing the constraints of established price ranges.

<sup>40</sup> OECD (2003).

<sup>41</sup> This is bound to change soon.

<sup>42</sup> Since 2000, MII publishes statistics about customers complaints relative to service quality.

<sup>43</sup> Before China Unicom entered the mobile market with advanced digital Global System for Mobile (GSM) in 1995, China Telecom was still using the analog Total Access Communication System (TACS) that it had adopted in 1987, even though GSM had become available as early as 1991 (Guan, 2002).

<sup>44</sup> For example, when a cable operator started offering some sort of data services, the tariffs for ADSL immediately came down tremendously and ADSL was promoted much more aggressively

China's accession to the WTO have had little impact on the introduction of competition, which, in absence of foreign operators, remains mostly driven from within.

Several other factors can explain the failure of achieving competition in the telecommunication sector. As its monopoly came under assault in the mid-1990s, the Ministry sought to protect its position of strength while its competitors mostly shunned cooperation. Instead, they adopted a strategy of monopoly breaking that politicised China's telecommunication industry over the course of the 1990s, letting the process get caught in a cycle of bureaucratic infighting<sup>45</sup>. State control provided a hurdle to the further development of competition in the sector. As firms remained partly funded by the government and did not have to worry too much about the sentiment of the stock market, and/or the investment return of private investors. In other words, there were limited incentives for them to push through efficiency improvements or to compete with one another in the market. Instead, the temptation was to compete for preferential policies. Furthermore, faced with the conflicting goals of introducing competition and avoiding the waste of resources, the State Council was unable to exert much influence over the MPT and for that matter over its successor MII. Finally, a weak regulatory framework (i.e. the absence of an overall telecommunication law and of institutions to enforce the existing regulations) prevented the new operators from challenging the incumbent's uncompetitive behaviour legally<sup>46</sup>.

### *III – Putting China's telecommunication liberalisation model in context*

How much does China's model of telecommunication liberalisation differ from other deregulation experiences? To provide some answer, we compare it first to reforms in the electricity sector.

Of all utilities, electricity probably offers the best comparison perspective<sup>47</sup>. Just like the telecommunication sector, electricity reforms in developing and transition countries were driven by the poor operating and financial performance of state-owned electricity systems, the lack of public funds, the unavailability of service for large portions of the population, and government desires to raise revenue through privatisation<sup>48</sup>.

In China, the electricity sector is dominated by state-owned companies, which are vertically integrated on generation, transmission, distribution and retail, both at national and provincial level. The industry is highly regulated by a number of central government agencies and their subsidiaries in each province (e.g. provincial planning commissions, provincial economy and trade commissions, provincial price bureau and provincial Power Company). Prices too are centrally fixed.

Reforms in the telecommunication and electricity sector share a number of characteristics. First, in 1995 the electricity industry underwent institutional restructuring and separation of government regulatory function from business operations<sup>49</sup>. Second, the privatisation of energy companies at the national, provincial and municipal levels has resulted in the state retaining a majority of the shares. Third, akin to MII and its predecessor, the Ministry of Electric Power as owner, regulator and policy-maker has dominated the electric industry. Although both sectors share many structural similarities, the timing, pace and nature of reforms varies significantly. What explains this? Is it because power was exposed to international pressures (multilateral lending agencies

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<sup>45</sup> Feigenbaum (2003). At the time of the creation of Liantong and Jitong, the central government had given MPT a regulatory role, since a truly autonomous regulatory structure had yet to be created.

<sup>46</sup> This is not to say that a "strong" regulatory framework would have solved all problems. Incumbent operators are able to navigate to their advantage the regulatory space in mature markets via non-market strategies (e.g. capture of the regulator, delaying tactics in courts, etc.)

<sup>47</sup> For a long time, utilities have been considered natural monopolies, that is until the unbundling of the value-chain has showed that only a few elements in the service are usually non-competitive, such as local residential telephony or local loop for telecommunication and high-voltage transmission and local distribution for electricity (Kessides, 2004). However, the comparison between privatising energy and telecommunication holds to a certain extent only as the gains from relaxing the constraints on investment are much larger and there is less concern on the part of the buyers that the regulatory compact will fail (Newbery, 1999).

<sup>48</sup> Kessides (2004).

<sup>49</sup> Lamech, Berrah et al. (2001).

and FDI)? Why does it take so long to pass the Telecommunication Law when the Chinese leadership acknowledges the weakness of the currently regulatory structure? Why has the government failed to replicate the reforms of the electricity sector?

A closer look at some of the reforms will help bring initial answers to those questions. First, the electricity sector benefits from a much better defined regulatory framework. The first Electricity Law was issued by the Ministry of Electric Power in 1995. Second, the amount of revenues generated by both sectors varies greatly, making telecommunication a much more strategic sector, at least from a financial perspective. This has prompted the government to handle the reform with extra-care.

Third, foreign investment has been allowed in the power industry through a set of regulations enacted as early as 1995 and through concession projects (BOT). Fourth, institutional continuity has meant that the government has been able to appropriately restructure the bureaucracies that oversee the electricity sector to smooth the way for independent power producers (IPPs). For instance, it abolished the Ministry of Electric Power (MOEP) that traditionally oversaw the sector and replaced it with the State Power Corporation. Restructuring of the policy-implementing machinery has reinforced the pragmatism at the policy-making levels, leading to relatively frictionless implementation<sup>50</sup>. Fifth, in the sector of power, China saw the role of private investors as complementary to that of public enterprises<sup>51</sup>. DeWoskin has argued that the restructuring telecommunication sector prior to the WTO accession has gone in the exact opposite direction of many other sectors, faced as it is with a unique set of forces and conditions<sup>52</sup>. This brief comparison with the electricity sector reveals that the liberalisation process in both utilities shares a number of similarities and difference but that the outcome of the liberalisation efforts differs notably (see Table 4 and Table 5).

**Table 4: Summary of outcome of reforms between China's telecommunication and electricity sectors**

	Telecommunication	Electricity
Competition <sup>53</sup>	Duopolies in fixed and mobile	Monopolies in distribution Competition in generation
Funding	Revenues and IPOs	n.a.
Decentralisation	Local administration bureaus	Direct supervision by higher-level
Legislative framework	No Telecommunication Law but Telecommunication Regulation	Electricity Law Electricity Regulation Regulations on Electricity Supervision and Control
Regulator	No independent regulator	SERC

Source: Compiled by author.

While domestic constraints have played a significant role on both the *nature* and *pace* of liberalisation, one has to integrate the international dimension. It will be argued that, despite the predominance of domestic factors and China's relative isolation from international pressures during most part of the reform era, external pressures nonetheless affected China's telecommunication reform model.

<sup>50</sup> Rufin, Rangan et al. (2003).

<sup>51</sup> Gabriele (2004).

<sup>52</sup> "Whereas the State Council chose to consolidate fragments of many industries into chaebol-like entities, it permitted telecommunication to diversify, and diversify quickly and deeply." (DeWoskin, 2001).

<sup>53</sup> Whereas it was possible to introduce competition to segments of the markets in telecommunication (equipment, international and long-distance calls, mobile) and thus to experiment with competitive markets, the possibility of doing so in electricity was limited. In electricity, generation and supply to final customers are activities generally considered as competitive, while high-voltage transmission and local distribution are not (Kessides, 2004).

**Table 5: Comparison between the telecommunication and electricity sectors**

	<b>Telecommunication</b>	<b>Electricity</b>
Structure	Pre-1998: Ministry of Post and Telecommunications (MPT) and Ministry of Electronics Industry (MEI)  Post-1998: Ministry of Information Industry (MII)	Pre-1997: Ministry of Electric Power (MOEP), policy-maker, regulator and enterprise manager for most of China's power industry Post-1997: State Power Corporation of China <sup>54</sup> (SPCC) takes over the enterprise management Post-1998: Abolition of MOEP and transfer of its government function to the SETC; plans to separate generation from transmission and distribution
Effect of 1998 reforms	1. Creation of a new Ministry, the Ministry of Information Industry (MII) to centrally coordinate infrastructure investment 2. Separation of government and enterprise	1. Function of enterprise management nominally removed from the government and assigned to the energy companies themselves 2. State Economic and Trade Commission (SETC) given an apparently important position in the energy sector 3. Creation of a new Ministry, the Ministry of Land and Resources (MLR)
Pricing	Prices fixed by operators within MII's guidelines; involvement of local government and SDRC	Producer and consumer prices fixed by central and local governments with high levels of subsidies and cross-subsidies; Functions of policy-making and regulation mixed together in SETC; SDRC retains some influence on pricing and investment policy; SPC seems to be driving the reform policy
Policy-maker	MII	SETC
Undergoing reforms	Attribution of licences across services to all operators at time of 3G introduction; Supervision of assets by the State-owned Assets Supervision and Administration Commission (SASAC)	Vertical separation of the generation, transmission and distribution functions – the reform will separate power plants and power grids and let power plants enter power grids through bidding. State Power Corp (SPC) is focused on transmission after the State Development and Reform Commission (SDRC) created five, roughly equal, nationwide generation groups by dividing up the capacity formerly controlled by SPC.
WTO effect	Geographic and phase-in	Not included in WTO commitments <sup>55</sup>
Operators	China Netcom and China Telecom; China Mobile and China Unicom	State Power Grid Co. (North) and the Southern Power Grid Co. (South)
Legal framework	Telecommunication Regulation (2000), various regulations. Telecommunication Law in draft	Electricity Law (1995)
Regulator	Ministry of Information Industry (MII). Local enforcement agencies (e.g. Shanghai Telecommunication Administration Bureau)	State Electricity Regulatory Commission (SERC). A law enforcement agency directly under the State Council, it is responsible for supervising and regulating market competition. It will also issue licences to operators, monitor their operations and hold them accountable for violations of pricing and competition rules.

Source: Adapted from Andrews-Speed, P., Dow, S., et al. (2000), Wu (2003).

Note: In early March 2005 China's government announced that it intended to establish a national leading group under the State Council to oversee the energy sector.

<sup>54</sup> SPCC is a holding company, which owns most of the transmission and distribution infrastructure through its ownership of nearly all the Provincial Power Companies.

<sup>55</sup> Energy services were not negotiated as a separate sector during the Uruguay Round. Though a few WTO Members undertook sparse commitments in various energy-related services, the vast majority of the global energy services industry is not covered by specific commitments under the GATS.

One can argue that reforms taking place in developed countries were not totally devoid of influence on China's domestic telecommunication reforms. In fact, China's attempt to introduce competition does not lag much behind other countries'. While not comparable to American or British early efforts, its experience is not radically different from other developing countries either and even from some industrialised ones. Whether the introduction of competition has met with success is altogether another question. As we have seen, basic services operators remain quasi-monopolies and despite major restructuring efforts, changes only take place at a very slow pace. The unsatisfactory level of competition, and of reforms in general, can be traced back to the late separation of government from operations, the size and power of the incumbent and a legacy of vested interests.

It is tempting to establish a causal link between the transformation in the international regime and China's domestic telecommunication reforms. On the one hand, China is a long-time member of the ITU and all the other multilateral agencies that have played a significant role in reforming telecommunication markets across the world. On the other hand, there has been a very limited cooperation on reforming telecommunication between China and international agencies. Despite being the key recipient of World Bank loans for many years, both parties seem to have set their priorities elsewhere. It has been argued elsewhere that much of the evolution in Chinese policy and attitude toward international market norms is a result of China's participation in global and domestic markets *per se*, not the influence of multilateral institutions<sup>56</sup>. The agreements have undeniably enabled the Chinese to become familiar with international practices in the telecommunications sector and to gauge the importance of the discrepancies between these and the situation in China, bringing out into the open the main points of contention<sup>57</sup>. There are signs that the bureaucracy is increasingly attuned to regulatory development across the world. Whether through World Bank sponsored projects or mandates to domestic research institutes, MII pursues an effort of benchmarking and scanning of best practices<sup>58</sup>. Thus, in addition to confronting China with some liberalisation issues, it has locked the country in the process of coming closer to international telecommunication regulations (ITR).

Until the WTO accession in 2001, there was no significant pressure at the government level to enshrine the telecommunication reforms in a supra-national institutional framework. The shift of the telecommunication agenda from ITU to WTO, and China's absence from the latter, deprived domestic reformers from using the on-going transformation of the telecommunication regime as a lever for pushing their domestic liberalisation agenda. In addition, long-held concerns over sovereignty and national security have mitigated the impact of China's inclusion in the international regime. China's on-going dilemma between the need for development and concerns over sovereignty is crystallised by its position on FDI, where foreign players have been confined to the value-added sectors, which stands in stark contrast with the telecommunication equipment sector, where foreign investment was not only welcomed by even encouraged. This is not to say that the transformation of the international telecommunication regime has not and will not have an impact on China's telecommunication policy-making and reforms. To the contrary, the regulatory conventions embedded in the Reference Paper will sooner or later confront the Chinese regulators and policy-makers with their responsibilities, either through a domestic push to benefit from the new regulatory framework derived from the international rules or because of pressure exerted by a foreign government.

If we consider the outcome, unlike other countries, most, if not all, of the competition in basic services still takes place between *state-owned or state-run enterprises*<sup>59</sup>. This overwhelming presence of the State can be attributed to historical reasons. Since the creation of the People's Republic of China in 1949, the incumbent has been state-owned. While other countries undergoing liberalisation have

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<sup>56</sup> Pearson (1999).

<sup>57</sup> Sautedé (2002).

<sup>58</sup> The most recent example is the World Bank funded project to implement price cap regulation.

<sup>59</sup> Willner (2002). Major international operators have integrated this in their strategy by either entering partnerships (e.g. Vodafone and China Mobile) or focusing on the value-added segment.

opened the market to non-state operators and reduced their ownership in the incumbents, the Chinese government seems keen on maintaining control over all basic services.

A number of particularities emerge from China's model of telecommunication liberalisation. As far as the process is concerned, the emergence of China Unicom and other new players in the industry was *more a product of domestic political power games than of market economics*. As noted, the initial push to introduce competition came through the bargaining of divided special interests. Wu Jichuan, formerly in charge of MPT and later MII, worked over the years to protect China Telecom's monopoly position, defending it with arguments of universal service and infrastructure rollout<sup>60</sup>. For strategic reform forces to outweigh Minister Wu's resistance to liberalisation, the most senior level of the government (i.e. the State Council) had to intervene. As we will see, the lack of *direct international pressure* played an important role at maintaining the status quo or at least at delaying the liberalisation process. International lending agencies have hardly been involved in the telecommunication liberalisation process, focusing their attention on other sectors judged more prone to reform.

In addition to the factors already mentioned the absence of an overarching law regulating the telecommunication sector is probably one of the most important causes of today's regulatory stalemate. Nonetheless, the substantial components of the law now exist in the regulations promulgated in September 2000. As such, the issuance of the telecommunication regulation marked a milestone in China's drive to define its telecommunication sector in terms that match with the WTO agreement, while maintaining market-driven reform, greater openness, and the divorce of government from business. The regulation itself and some follow-up administrative measures, notices and directives are a very important first step towards developing a comprehensive and pro-competitive regulatory framework, although many issues such as interpretation, clarity and implementation remain<sup>61</sup>. Moreover, some substantive areas have yet to be adequately addressed.

In other words, China's design of the regulatory environment can be characterised as pragmatic: by regulating "loosely" MII is testing to see what happens, what works and what does not. But the absence of clear and transparent regulatory environment has left the current regulator vulnerable to political manoeuvres. Indeed, since its inception MII has experienced difficulties pushing through the Telecommunication Law, although drafts have been around for years. Rapid technological changes, bureaucratic competition and conflicting interests among the various stakeholders, as well as central government policy changes have so far stalled efforts to finalise the telecommunication law<sup>62</sup>. In addition, the law and other regulatory measures, which tend to come in "bundles" and are introduced without much lead-time, still face important substantive and procedural issues<sup>63</sup>. Current policy coordination is still carried out by numerous agencies with conflicting interests and thus often characterised by *ad hoc* administrative intervention or arbitrated negotiations<sup>64</sup>. Administrative network boundaries have made it difficult for Chinese authorities to deal with the gradual convergence of media and telecommunications in a comprehensive manner. As a result, the absence of a telecommunication law represents a major obstacle standing in the way of the healthy development of the Chinese telecommunication sector. Let us underline, however, that there is an evolving legal framework based on the powers of the State Council and its Ministries to adopt secondary and tertiary regulations. For instance, the mere fact that the regulation was passed by the State Council (and not MII) indicates its heightened role in trying to synthesise what will be falling into the telecommunication regulatory structure.

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<sup>60</sup> The plan for the break-up of China Telecom is said to have been sent back and forth between the MII and the State Council about 6 times before it was finally accepted because it was not radical enough. Towards the end of his career, Wu Jichuan seemed, at least in public, to have accepted the rhetoric of competition and market economy.

<sup>61</sup> Pangestu and Mrongowius (2002).

<sup>62</sup> Horsley (2001) and Lu (2002a).

<sup>63</sup> This is not restricted to the telecommunications sector.

<sup>64</sup> Keller (2000) and Lu and Wong (2003).

Thus both the origin and outcome of China's telecommunication reforms differ from other countries. Pressure to liberalise originated from MPT's rival Ministries and not from international organisations or large telecommunication users. Despite several rounds of restructuring, reforms in the services sector are at a standstill. After more than 10 years of reforms, the country has barely achieved competition in basic telecommunication services. It has been argued that the drivers of China's model of telecommunication liberalisation are to be found primarily domestically, and that the international pressures have had only limited impact on the extent of liberalisation. Nevertheless, two mechanisms have at least been at work in helping to spread domestic liberalisation policies to China. These are modelling mechanism and what might be called a rational actor mechanism<sup>65</sup>. On one side, the introduction of limited competition happened at around the same time as other countries. On the other side, the government has largely refrained from privatising the telecommunication operators, opting instead for a model that assured constant revenue streams and maintaining control on the sector. Most important, though, have been the institutional factors specific to China's telecommunication sector. They have permitted MII to maintain its stronghold on the industry in accordance with the central government's desire to maintain control on the overall reform process. Thus, while the key tenets of the liberalisation programme have largely been modelled on those found in other countries, its outcome has differed notably.

Some authors have convincingly argued that we are witnessing the demise of the previous regulatory framework, putting an end to the era of coordinated competition<sup>66</sup>. Whereas the emerging regulatory framework is indeed characterised by a clearer definition of the functions of the policy-making agencies and a better definition of the legal instruments regulating the industry, the era of coordinated competition may not yet be history. The various proposals of NDRC to merge the operators in order to have two mobile operators and three to four fixed-line operators attest of the government's heavy-handed interventionism. An additional factor that has prolonged the system is the country's difficulties to establish an independent regulatory agency with implementation capacities that run from the centre to the provinces. Whereas we observe a shift to regulation by independent agencies in many parts of the world, China still applies *regulation by statutory control* in which a legislature or local government passes a law regulating some activity, and the administration enforces the law and monitors its application. At the same time, the creation of MII cannot be left totally aside.

#### IV – Discussion

A number of scholars have put forward the hypothesis that the Chinese state is learning to *regulate the market*. A legitimate question to ask is whether we are witnessing the rise of a regulatory state in and whether this will positively impact the development of China's telecommunication sector?<sup>67</sup> The type of regulations – and their content – issued by MII after 2000 indicates that policy-makers are increasingly concerned with economic efficiency and competitiveness – rather than with redistributive welfare policies<sup>68</sup>. In contrast to the welfare state, the regulatory state governance form involves a complex set of changes in public management involving the separation of operational from regulatory activities in some policy areas (sometimes linked to privatisation), a trend towards separating purchasers and providers of public services (through policies of contracting out and market testing) and towards separation of operational from policy tasks within government departments and the creation of executive agencies. In other words, the regulatory state entails a shift from traditional

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<sup>65</sup> Modelling can be defined as "action(s) that constitute a process of displaying, symbolically interpreting and copying conceptions of actions and this process itself". The rational actor mechanism involves a conception of the states as unitary, rational self-interested actors (Joseph & Drahos, 1998).

<sup>66</sup> Lovelock (1999), Lovelock and Ure (2000).

<sup>67</sup> Jordana and Sancho (2002) find that the introduction of regulatory policy-making led to a type of policy process which was more focused on interest groups, where costs and profits were distributed among a very defined set of groups or companies – for example, conflicts between new entrants to the market versus established companies.

<sup>68</sup> Until September 2000, the Chinese government created and modified the regulatory framework through broad policy statements rather than legislation.

bureaucratic mechanisms towards instruments of regulation and greater emphasis placed on formal rules and monitoring by freestanding agencies<sup>69</sup>.

The government made great efforts in the 1990s to improve its bureaucratic capacity to regulate market behaviour. These efforts were translated in the creation of a governmental regulator<sup>70</sup>. China's regulatory reform maintains nonetheless a strong social and industrial policy imperative. Regulation of network industries – seen as central to the industrialisation goals of the government – is designed to achieve social policy such as continuing the inflow of revenues from large state enterprises, as well as the provision of universal services and development of the Western region. In a sense, China has initiated a shift from regulation by statutory control to regulation by independent agencies<sup>71</sup>. Loughlin and Scott have identified three basic changes associated with this shift: 1) the separation of 'provision' from 'production', that is, the separation of policy-setting and operational activities – for example, through the transfer of state-owned enterprises to the private sector ('privatisation') but also through state-owned enterprise reforms, such as 'corporatisation'; 2) the creation of free-standing independent regulatory agencies which perform such activities as regulating prices, monitoring compliance with licence provisions and handling consumer complaints and; 3) the formalisation of relationships within the policy domain, including a shift from implicit understanding of norms of adequate service towards greater reliance on explicit formal rules, service standards and performance measures<sup>72</sup>.

**Table 6: Dimensions of the regulatory state in China's telecommunication sector**

Dimension	Particular issues	China
Ownership and market structure	<i>Ownership distribution</i>	Partial transfer of ownership from state to public via listing on foreign stock exchange. State ownership is in the hands of SASAC
	<i>Structure of policy domain</i>	Fragmentation of policy-making between MII, SASAC and NDRC
	<i>Vertical separation</i>	Increased vertical integration
Allocation of regulatory authority	<i>Authority and organisation of regulatory agency</i>	MIIT act simultaneously as Ministry and regulatory authority. Appointment procedures and funding opaque
	<i>Distribution of regulatory competencies across actors</i>	MIIZ in charge of telecommunication but SARFT still in charge of cable; NDRC
Decision-making style	<i>Formalised relationships between actors in terms of social obligations, price control and enforcement</i>	Increasingly transparent procedures despite episodic heavy-handed intervention. Enhance interaction between policy-makers and industry players through hearings.

Source: Adapted from Lodge and Stirton (2004).

The first "condition" has been fulfilled through the corporatisation of the state-owned operators in the mid-1990s and the subsequent transfer to SASAC. The creation of an independent regulatory agency<sup>73</sup> is another matter. The USTR sees China's inability to establish an independent regulator in the telecommunications services sector as the result of continuing resistance within the government to fully divorce itself from key decision-making<sup>74</sup>. But given the current political institutions and structure

<sup>69</sup> Scott (2004).

<sup>70</sup> Lü (2004) and Pearson (2003, 2004).

<sup>71</sup> The independence of regulatory institutions must not be understood as autonomy for developing actions and programming policies ignoring the government, but rather as the probability of implementing policies without the interference of political agents or of agents of the private sector (Baudrier, 2001).

<sup>72</sup> Loughlin and Scott (1997).

<sup>73</sup> The definition of a regulator's independence is still subject to intense debate. Gilardi offers a comparison of seven European telecommunication regulators and finds scores of independence ranging from 0.36 for Belgium to 0.74 for the United Kingdom (Gilardi, 2002).

<sup>74</sup> USTR (2004). USTR has singled out concerns about China's telecommunication environment in respect to burdensome capitalisation requirements, the barrier to offering of basic services on a purely resale basis and the elimination of restrictions on the entities with whom a foreign licensee can partner (USTR, 2005).

in China, it is hard to conceive that regulatory independence from politicians, government and the regulated industry could be achieved in the near term. The rise of the regulatory state also goes together with the creation of national regulatory agencies (NRA). In general, the telecommunication regulator is responsible for technical regulation (e.g. spectrum allocation, number allocation, type approval, and standard setting) as well as telecommunication specific economic and social regulation (e.g. licensing, universal service, price regulation, the interconnection regime and rights-of way)<sup>75</sup>. While the concept of regulator could in general be considered as referring primarily to the activity of rule-making, the concept of NRA does not, at least in the telecommunications sector, mean an institution entrusted with the setting up of the rules (e.g. institutions like parliaments or government) but is, in principle, used to describe the body in charge of rule implementation and application<sup>76</sup>. China's telecommunication sector remains thus short of the type and reach of institutions that comprise a regulatory state. This is not surprising. The advance of the regulatory state is conditioned by sectoral characteristics, the coexistence of multiple modes of regulation, path dependency and locus<sup>77</sup>.

#### *V – Concluding remarks*

Regulatory arrangements to make the new liberalised market structure workable are by no means adopted easily. The economic reforms that took place from the mid-1980s, and the ensuing restructuring in the telecommunications sector had proportions of revolutionary change in the basic policy regime. Subsequent developments, however, also evidenced the assertions that institutional change is evolutionary and that institutions persist in the face of a change in the market and technology conditions that might require a different institutional configuration in order to be efficient. The slow pace in reforming telecommunications regulation can be explained by the fact that regulators reveal a preference not to introduce policies that vastly diminish their roles<sup>78</sup>. In addition, Ministerial rivalries have represented a domestic counter-constituency that has blunted the impact of both the domestic constituency in favour of engagement, and of international forces<sup>79</sup>.

Joseph and Drahos have argued that “the single most important institution that is creating a whole new set of relations and structures in modern telecommunications is the market”<sup>80</sup>. Evidence suggests that market forces have started to shape China's policy-making and regulatory environment. At the same time the central leadership has frequently intervened to mould the evolution of the sector. Following the example of its economic reforms, China developed an idiosyncratic model of telecommunication liberalisation. The restructuring of the sector, which started along the lines of global liberalisation programmes and which could have been buttressed by the accession to the WTO was both shaped and blocked by diverse interests made possible by the fragmented Chinese political structure.

The drivers of China's model of telecommunication liberalisation are to be found primarily domestically. International pressures have had only limited impact on the extent of liberalisation. Nevertheless, two mechanisms have at least been at work in helping to spread domestic liberalisation policies to China. These are modelling mechanism and what might be called a rational actor mechanism. On one side, the introduction of limited competition happened at around the same time as other countries. On the other side, the government has largely refrained from privatising the telecommunication operators, opting instead for a model that assured constant revenue streams and maintaining control on the sector.

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<sup>75</sup> OECD (2000).

<sup>76</sup> Queck (2000).

<sup>77</sup> Jordana and Levi-Faur (2004).

<sup>78</sup> Noll (1999).

<sup>79</sup> Pearson (1999).

<sup>80</sup> Joseph and Drahos (1998).

This paper suggests that China's regulatory failure in the telecommunication sector must be analysed at several levels: first of all, and despite the government's pledge to grant independence to the regulator, the sector still suffers from continued and excessive political involvement. Secondly, one can not fail to observe a tendency to agency drift. During the WTO negotiation, MIIT showed enormous resistance, which culminated with the alleged resignation of Minister Wu after Zhu Rongji's visit to the United States in 1999. Thirdly, the regulatory environment continues to suffer from poor design. The sector also suffers from limited formal participation of a number of actors – notably the operators – in the regulatory decision-making process. More damaging, though, is the regulatory's slow response to environmental change. Convergence has created a new set of issues which the current agency rivalry and legislation are ill-suited to address. Finally, there is already a certain amount of regulatory capture.

In spite of several years of reforms, there is a general agreement that telecommunication enterprises tend to charge excessively high prices, provide low-quality services, excise excessive profits, and harm the state and consumers. China's telecommunication sector still suffers from the on-going lack of pro-competition measures<sup>81</sup>. The new restructuring scheme – designed to boost efficiency and create three full-service operators that offer mobile and fixed-line services – is expected to be completed by the end 2008. While representing a welcome measure the passing of anti-trust law in August 2008 will likely not have any effect in the short-term given the strong path dependency exhibited by the sector so far.

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<sup>81</sup> While representing a welcome measure the passing of anti-trust law in August 2008 will likely not have any effect in the short-term

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