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Bridging the digital divide for rural communities: The case of China

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ABSTRACT

The provision of universal service in China is currently executed under a “Village Access Project” (“VAP”), which is neither explicit nor sustainable in terms of both regulatory incentives and regulatory governance. Four years after the execution of the VAP, this paper reviews possible deficiencies underlying the current regime and explores a sustainable institutional arrangement for Universal Service Obligations (USOs) in China based on the identification of unique institutional constraints. It is argued that the Universal Service Fund (“USF”) is currently unsuitable for China. Instead, a layer-based regulatory approach featuring a “non-subsidy” regime could be a sustainable institutional arrangement when coordination and agency problems are properly addressed in a governance architecture based on a “Joint-Commission” with members from various stakeholder groups.

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1. Introduction and overview

One consequence of structural reform in telecommunications¹ encountered by China is the issue of universal service provisioning, particularly in rural areas, which has become spotlighted and is a pressing issue of public policy drawing extensive public attention. With the ending of the internal cross-subsidy mechanism within a monopoly telecom system, China's government now faces the challenge of finding a new solution to the USO issue. Nonetheless, it will be no easy task for China to work out an optimal policy prescription within a short period of time given its drastic regulatory transition, industry consolidation, and general economic and socio-cultural conditions.

China commenced launching the “Village Access Project” (“VAP”)² in 2004 as an interim institutional arrangement in which access tasks are distributed among the six incumbent carriers³ to address the pressing issue of providing basic telephone services to its rural areas (MII, 2004, 2005). By the end of 2007, China's government has managed to connect

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¹ The Chinese telecommunications industry has undergone three rounds of major structural reforms starting in 1994 with the entry of China Unicom and followed then by the breakup of the former China Telecom into four service-specific companies in 1998 and the split of wireline monopoly into North and South in 2002. The industry is previously regulated by the Ministry of Information Industry (MII) under the *Telecommunications Regulations* issued in 2000 but now by the newly established Ministry of Industry and Information Technology (MIIT) (Congress, 2008). The MIIT has now integrated the former MII as its department. Meanwhile, China has just passed an *Anti-trust Act* in August 2007, which is effective on August 1, 2008. The *Act* leaves many of the jurisdictional issues undefined with regard to state-dominated industries such as telecommunications. See, e.g., *The Anti-Trust Act of the People's Republic of China*, Article 7, Chapter 1. For the description of structural reform in telecommunications in China, see, e.g., State Council (2002) and Liu (2004).

² For a detailed description of the VAP, see, e.g., Xia and Lu (2005).

³ i.e., China Mobile, China Telecom, China Netcom, China Unicom, China Railcom, and China Satcom.

roughly 99.5% of its total administrative villages⁴ each with at least two workable telephone lines (MII, 2008). In doing so, the six carriers have committed RMB 540 million to extending networks to rural areas by the end of 2006 (MII, 2007a).

As an objective of its contemporary ideology of building a “harmonious” society through a system of “Socialist New Villages” (“SNVs”),⁵ the Communist Party of China (“CPC”) is currently launching an even more ambitious goal of further promoting telephone penetration as well as Internet diffusion in its vast rural areas (Committee, 2005). The objective of this drive can be briefly summarized as extending “telephony to every village and broadband to every township” by the end of the 11th Five Year Plan (“FYP”). Political and ideological forces are now inclined to go even further to advocate a new round of large-scale crusades to eventually deploy most ICT services to every corner of rural China (MII, 2006a). Echoing the call of the CPC’s Central Committee (Committee, 2005), in the early 2006, the former MII promulgated a suggestion which loosely outlines, *inter alia*, the objectives and administrative measures of the ICT sector’s participation in the nationwide SNVs drive (MII, 2006b). This marks a new level of initiative to address the “Three Agrarian Issues (“TAIs”),⁶

Although the VAP has served as a useful interim platform for providing telephone services to rural areas, the regime has already highlighted a number of drawbacks or problems; the most salient part of which has been its nature of uncertainty and inconsistency, both in terms of regulatory incentive and regulatory governance. The problems can be generalized as follows⁷:

- *Ambiguous governments’ roles and central-local relations*—Although there is a division of responsibilities between central and local governments,⁸ an effective institutional mechanism for communication or coordination is still absent; thus, local participation (from governments and carriers’ local branches) was initially inadequate until political pressure began to surface in the late 2005. Central-local conflicts are further fueled by the absence of an explicit support mechanism, for which the government cannot seemingly provide a timetable.⁹
- *Ambiguous business’ roles and government-business relations*—Despite the fact that carriers are explicitly charged with specific VAP tasks, their obligations are not strictly binding.¹⁰ A business and regulatory culture featuring professionalism and the rule of law remains elusive in what remains a conventionally government-run industry.
- *Weak regulatory enforcement*—Both regulatory commitment and regulatory authoritativeness are inadequate.¹¹ As a result, the level at which the carriers observe the MII’s regulatory efforts regarding the VAP has been compromised. This has directly led to some unfavorable behavior on the part of the carriers such as suspending rural access tasks, disconnecting those telephone services already connected to some villages, and non-cooperation in terms of sharing network infrastructure such as interconnection and collocation.

The fundamental causes for these deficiencies are arguably rooted in China’s political foundation, and consequently, the socio-economic and legal system. This creates the concern of whether the current USO regime can be a sustainable regulatory arrangement. If viewed through the lens of institutional economics, the legislation and enforcement of universal service regulation involves contracting problems.¹² The purpose of this paper is to revisit the current USO regime in China and to gauge what seem to be the key institutional constraints in designing regulatory incentives and regulatory governance as well as sustainable solutions to address the constraints. Following the usual decision-making process in designing USO programs,¹³ the paper first briefly revisits the objective of USOs in China (Section 2) before moving on to the

⁴ China has a total of 640,139 administrative villages as reported at the end of 2005 (Statistics, 2007, Chapter 13). The national teledensity has reached 63.4% (wireline and wireless mixed) while wireline teledensity (including “Xiao Ling Tong” (“XLT”) or “Little Smart,” (also referred to as PHS, or Personal Handy-phone System) in rural and urban areas are 15.8% and 43.6%, respectively (Statistics, 2007, Chapter 3 and 16).

⁵ At its Sixteenth Congress, the Communist Party of China put forward a new ideological vision to construct a so-called harmonious society in which each individual, including those located in rural areas, is entitled to share the economic success brought about by the economic reform. Building the SNVs is the CPC’s most recent initiative in addressing the developmental issue in rural China (see, for e.g., Committee, 2005).

⁶ The Three Agrarian Issues refers to key developmental issue regarding the agricultural economy, village community, and farmers. The provisioning of telecommunication services in rural China has been regarded by the CPC and central government as an important step in addressing these issues. See MII (2007b).

⁷ The underlying institutional origin of these problems will be elaborated in Section 3.

⁸ As the MIIs (now MIITs) provincial counterparts, the Provincial Communication Bureaus (PCBs) are subject to dual supervision from both the provincial government and the central regulator. As far as the VAP is concerned, while the Department of Telecommunications Regulation (DTR) of the former MII acted as the specific acting body under the direct supervision of a deputy minister of the former MII, the PCBs are supposed to take charge of daily supervision and evaluation of developments in the VAP programs within their jurisdictions as well as leveraging other local government agencies for assistance in terms of parallel infrastructure and supportive taxation policy.

⁹ The enforcement of the VAP received resistance at the very beginning from carriers whose branches avowed a funding deficiency. In some areas where connections have been made, there is a tendency to fall back into disconnection because of alleged business losses. Since the government reform in 1998, the establishment of a USF as a levy on the industry has been envisioned by China’s government, particularly the MII, as an ultimate solution to the USO issue (see, e.g., CWW, 2004).

¹⁰ For example, carriers have been under the impression that there is an impending funding opportunity to support the VAP tasks. Thus, funding deficiency may be taken as an excuse for delaying construction.

¹¹ For example, carriers now tend to pay less heed to the call of the regulator while paying keen attention to the state-asset administrator, the State-Assets Supervision and Administration Commission (“SASAC”) which, in practice, acts as the superior. Despite the *de jure* enforcement of the Telecommunications Regulations by the former MII, this enforcement is *de facto* not binding with carriers. More detailed facts regarding this type of conflicts will be discussed in Section 3.

¹² See, e.g., North (1990).

¹³ See, e.g., OECD (1995) and Scott (1998).

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