

Chapter 20

TELECOMMUNICATIONS IN VIET NAM

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- Vietnam adopted a transparent and predictable regulatory environment to foster competition, particularly in Internet-based services, and network investment.
- Prices and charges fell and penetration rose rapidly, exceeding that in peer economies.
- The establishment of the universal service fund made an important contribution to access to services.

20.1 INTRODUCTION

The telecommunications sector in Viet Nam has been considered an important element in the 'Doi Moi' economic reforms that started in 1986, and the economy has achieved a remarkable result through structural reform initiatives that depart from the traditional state monopoly mould.

Similar to many of its fellow APEC members, Viet Nam's market liberalisation policy is based on a progressive approach. Domestic entry is allowed to provide non-facility based/value-added services at the initial stage, while facility-based telecommunications services are to date still dominated by state-owned telecommunications operators, despite the fact that intense competition is taking place among them. The incumbent operator is the Viet Nam Posts and Telecommunications Corporation (VNPT), which spun off from the Department General of Posts and Telecommunications (DGPT) after the separation of regulatory and commercial functions of the latter in 1990. Following the creation of a separate regulatory entity, market segments were opened to competition, starting with mobile services in 1995. The international services market, considered the most lucrative, was opened to other providers in 2000.

This case study reviews the process of the introduction of these reforms and their consequences. A key interest is the treatment of Internet services. The next section reviews the licensing regime, regulation and market structure.

20.2 REGULATION AND MARKET STRUCTURE

20.2.1 Private and foreign entry conditions

Competition in all market segments in telecommunications in Viet Nam except value-added services is limited to state-owned operators that are under the supervision of different ministries. This policy appears to reflect the government's philosophy that telecommunications is a public service that the state should control to ensure equal and affordable access to its citizens.² However, a government decree issued in 2001 exempts Internet services from the

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² Liberalising ASEAN Telecom, 02-009.

state-dominating policy.³ This regulation opens up ISP business to the private sector and foreign investors but reserves the provision of Internet exchange to state-owned operators or operators where the state holds majority shares. Internet exchange operators supply local Internet Service Providers (ISPs) with access to the World Wide Web via their international gateways.

Foreign investment in Viet Nam's telecommunications sector was first introduced in the form of a Business Cooperation Contract (BCC) scheme. A BCC scheme enables foreign partners to provide infrastructure deployment and financing while the local state-owned partner provides services, with the revenue shared among the partners (USAID 2005). However, the foreign partner does not have an equity claim in the assets and does not have any managerial control on the project. The first BCC scheme was established in 1988. As at 2009 there were still a number of BCCs in operation (Table 20.1). Possibly some of these will become joint venture-based equity participation entities when Viet Nam's Law on Telecommunications comes into force, a direction that is in line with Viet Nam's WTO commitments.

Table 20.1: Examples of Business Cooperation Contracts (BCCs) in Viet Nam.

BCC partners	Began (years)	Areas of cooperation
VNPT-Telstra	1988 (6)	Fixed-line services
VNPT-Sapura (Malaysia)	1993 (8)	Public phone services
VNPT-Comvik (Sweden)	1995 (10)	GSM service through Viet Nam Mobile Service
VNPT-Voice International (Australia)	1995 (9)	Paging services
VNPT-Korea Telecom	1996 (10)	Fixed-line services
VNPT-NTT	1997 (15)	Fixed-line services
France Telecom and VNPT	1997 (15)	Fixed-line services
VNPT-Cable and Wireless	1997 (15)	Fixed-line services
SPTS-SK Telecom	2003 (*)	Mobile services
Hanoi Telecom-Hutchison Telecom (Hong Kong, China)	2005 (15)	Mobile services

Source: USAID, 2005

* Built-in clause to convert into equity participation when Viet Nam passes the Law on Telecommunications.

Relaxation of foreign participation took a significant step forward when Viet Nam ratified a Bilateral Trade Agreement (BTA) with the United States of America (USA) in November 2001 in light of Viet Nam's application to join the WTO. The USA–Viet Nam BTA includes not only Viet Nam's commitments and obligations in the telecommunications sector but also a roadmap and blueprints for future reform. The BTA requires Viet Nam, amongst other things, to adopt the regulatory principles set out in the WTO Reference Paper on Basic Telecommunications, (hereinafter WTO Reference Paper) in order to establish a transparent and pro-competitive regulatory regime, with the regime maintaining an arm's length relationship with operators.

In terms of market access, the BTA binds Viet Nam to relax its restrictions on foreign investment with respect to US firms and specifically allows the formation of joint ventures, where the US partner can have an equity share of up to 49%. Viet Nam's main commitments in the BTA include:

- Value-added telecommunications – US companies have been allowed to form joint ventures from 2 years after implementation of the Agreement (i.e., 2003);

³ Decree No. 55/2001/ND-CP, 23 August 2001.

- Basic telecommunications, including mobile cellular and satellite – Viet Nam has allowed US companies to form joint ventures since 4 years after implementation of the Agreement (i.e., 2005); and
- Voice telephone services – US companies have been allowed to form joint ventures since 6 years after implementation of the Agreement (i.e., 2007).

The joint ventures are not allowed to build a backbone network or gateway facilities but must lease these from VNPT.

An Ordinance on Posts and Telecommunications, Ordinance 43-2002-PL-UBTVQH10, was issued in May 2002 to implement many of Viet Nam's obligations under the BTA. As agreed in the BTA, the Ordinance includes many of the regulatory principles adopted by the WTO Reference Paper to create a pro-competitive regulatory framework for the telecommunications sector. In particular, the Ordinance adopts an 'asymmetric' regulatory approach, which subjects only service providers with market power to certain regulations on pricing, quality and other market behaviour. An operator covered by regulation is also required to maintain separate cost accounting systems for each type of service where it has at least 30% market share, and is expressly prohibited from carrying out anti-competitive practices. The Ordinance enabled new entrants to increase their market shares as they are permitted to launch promotions to attract new customers, while the incumbent is prohibited from doing the same. Since the Ordinance mandates lower interconnection rates to non-dominant firms, it allows new entrants to gain cost advantages. In addition, the Ordinance's implementing decree established a separate Ministry of Posts and Telematics to regulate the industry.⁴

A second reform milestone was Viet Nam's WTO accession in 2007. As part of its accession commitments, Viet Nam in essence offered to all WTO members, on a most-favoured nation basis, more favourable market access conditions than those offered to US companies in the BTA. This allowed joint ventures with foreign partners to provide telecommunications services related to network infrastructure such as telephone services, packet-switched data transmission services, circuit-switched data transmission services, telex services, telegraph services, facsimile services and private leased circuit services. Viet Nam's specific commitments are:

(1) *Basic telecommunications services*

- Non facilities-based services: The foreign capital contribution must not exceed 51% of the joint venture's capital; this limit rose to 65% 3 years after the accession (i.e., 2010), and without limitation on the choice of partner. For Virtual Private Networks, the foreign capital contribution must not exceed 70% of the legal capital of the joint ventures.
- Facilities-based services: On accession, joint ventures with telecommunications service suppliers duly licensed in Viet Nam became allowable. The foreign capital contribution must not exceed 49% of the legal capital of the joint ventures. For Virtual Private Network, the foreign capital contribution must not exceed 50%.

(2) *Value-added telecommunications services*

- Non facilities-based services: The foreign capital contribution must not exceed 51% of the joint venture's capital; this limit to rose to 65% 3 years after the accession (i.e., 2010), and without limitation on the choice of partner.
- Facilities-based services: On accession, joint ventures with telecommunications service suppliers duly licensed in Viet Nam became

⁴ Decree 90-2002-ND-CP on Establishing Functions, Tasks, Mandates and Organisation of the Ministry of Post and Telecom (11 November 2002).

allowable. The foreign capital contribution must not exceed 50% of legal capital of the joint ventures.

(3) *BCC conversion*

- For both basic and value-added telecommunications services, foreign investors in BCCs have the opportunity to renew current arrangements or to convert them into another form of establishment with conditions no less favourable than those they currently enjoy.

20.2.2 The Law on Telecommunications

In light of Viet Nam's WTO commitments, at the end of 2009 it formally passed a Law on Telecommunications to replace the existing Ordinance from July 2010.⁵ The Law on Telecommunications in essence establishes a framework for telecommunications regulations, with many specific regulatory items to be developed by implementation rules and regulations in the future (Informed Counsel 2010). For example, the Law divides telecommunications services into two categories – basic and value-added – without defining the scope of each category.

Further, the Law offers a legal basis for foreign and domestic investors to participate in the telecommunications sector. Specifically, Article 18 stipulates that the forms and conditions for investment in telecommunications services applicable to foreign investors must comply with Vietnamese laws and Viet Nam's WTO commitments, without further specifying the maximum foreign investment ceilings for each of the service categories. In this regard, the Law needs to be read in conjunction with Viet Nam's WTO commitments. However, the Law formalises the procedures for participation through the introduction of the 'Telecom Business Service Licensing' regime, which requires foreign operators to obtain an additional Investment Certificate. With particular respect to structural reform, the Law also includes provisions for a pro-competition regulatory regime, covering aspects such as abuse of market power regulation, interconnection rules and access to essential facilities.

The government retains control over fixed telephone service charges but operators will have the freedom to determine retail tariffs for other services. Yet for 'important' services, such as mobile services and the Internet, operators need to pre-register their proposed tariffs with the Ministry of Information and Communication (MIC) before applying the charges.

Finally, a regulatory authority to be established under the Law will be in charge of regulating competition issues in the telecommunications sector and will act as a dispute settlement body for interconnection and infrastructure sharing disputes. The Law does not specify the independence of this authority; it is positioned as an 'assisting' body to the MIC.

The major policy milestones in Viet Nam's telecommunications structural reform process are summarised in Table 20.2.

20.2.3 Licensing regime

Prior to 2002 there was a lack of a transparent and clearly defined licensing regime in Viet Nam. As all new operators were established by different government departments (e.g., Viettel by the military and EVN by the electricity monopoly), local governments, state-owned

⁵ <http://www.lookatVietNam.com/2009/12/telecommunication-law-to-take-effect-next-july.html>.

Table 20.2: Sequence of telecommunications reform in Viet Nam.

Reform initiatives	1988	1993	1996	1998	2000	2002	2003	2004	2005	2006	2007	2008	2009
Foreign participation through BCC													
Separation of VPNT from the regulator (DGPT)													
Second operator (Saigon P&T) entered market													
Signing of US-Viet Nam BTA													
Creation of Ministry of Posts and Telematics													
Post and Telecommunications Ordinance of 2002													
Acceded to the WTO													
Creation of Ministry of Information and Communications													
Licensing of 3G mobile market													
Passage of Law on Telecommunications, 2009													

enterprises and VNPT itself (such as VNPT's share-holding in SPT and MobiFone), licensing of new operators was more a matter of the government's internal coordination.

The first move towards modernising the licensing regime came with the introduction of the Ordinance on Post and Telecommunications in 2002. Specifically, Article 38 of the Ordinance provides for two types of licences: one for network infrastructure providers (Facility-based Operators [FBOs]) and one for telecommunications service providers (Services-based Operators [SBOs]). The FBO licence is exclusively reserved for state-owned or state-controlled enterprises and has a maximum term of 15 years. The SBO licence can be awarded to the private sector and has a maximum term of 10 years. Nonetheless, as the Ordinance does not contain provisions concerning administrative transparency and due process, there are no requirements for the disclosure of licensing conditions or background information on decisions made with respect to an application for a telecommunications licence.⁶

Of note is that the Law on Telecommunications creates licensing regimes for basic and value-added services. As mentioned, however, the Law does not provide definitions for either the scope of services under each category or the licensing procedures. At this time a lack of information means it is not clear how licensing each service category is to be carried out.

20.2.4 Market structure

Since the issuing of the first set of fixed-line licences to Viettel (100% owned by Viet Nam's military) and Saigon Postal and Telecom (SPT; a joint venture between the incumbent VNPT and other state-owned enterprises) in 1995, there are now eight licensed fixed-line and seven mobile FBO operators in Viet Nam (Table 20.3), all of whom are owned by other government departments and/or state-owned enterprises. The latest example is the Ministry of Public Security which controls G-Tel: it was awarded 3G (2009) and FBO licences (2010).

⁶ Liberalising ASEAN Telecom, economy report.

Table 20.3: History of market opening in Viet Nam.

Services		Year second operator entered market	No. of licenses issued
Fixed-line service	Local and DLD services	1995 (Viettel, SPT)	9 (VNPT, Viettel, SPT, HT(Hanoi Telecom), EVN, GTel, FPT, VTC* and CMC.
	International services	2000 (Viettel, SPT,)	
Mobile service		1998 (GSM) 2009 (3G)	<ul style="list-style-type: none"> ■ GSM and CDMA: 6 (VinaPhone, Viettel, Mobifone, EVN, SPT, HT) ■ 3G: 4 (MobiFone , VinaPhone, Viettel, GTel)
Mobile Virtual Network Operator (MVNO)		2009	1(Indochina Telecom)**
Internet service		1997	13 ISPs; 6 IXPs; 10 IOSPs

Sources: Various

* License revoked on February 2010 due to failure to complete network construction requirements.

** Leased capacity from Viettel.

It is noted that, for fixed-line services, some of the new entrants are competing with VNPT at specific geographical areas. For instance, SPT operates its fixed-line local services in Ho Chi Minh City, while HT Telecom's local service is confined to Hanoi City.

Despite the good number of new entrants, the fixed-line FBO services market remains concentrated, with the incumbent VNPT dominating about 65% of total fixed-line subscriptions, and Viettel and EVN having 18.1% and 16.3% shares of the remaining market respectively (Figure 20.1). Yet this development should be considered as an encouraging sign, given the fact that Viettel's market share was reported at a nominal 0.5% in 2002 (REPSF 2004). It is also a positive performance when compared with that of Chinese Taipei, where the incumbent's domination in the local market is close to 98%.

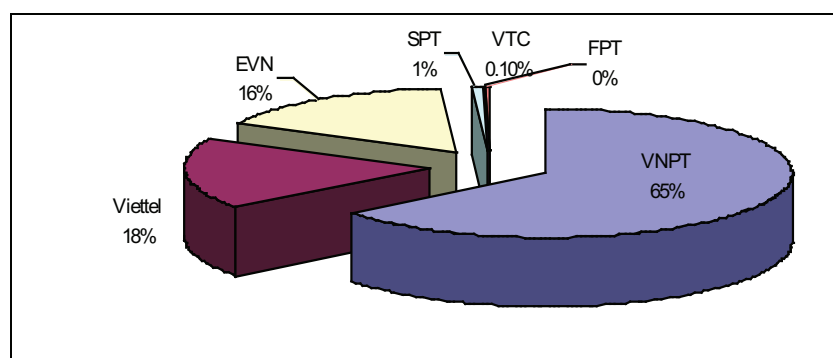


Figure 20.1: Market share in Viet Nam's fixed-line market, 2009 (% of total subscribers). (Source: MIC 2009)

The mobile market is significantly more competitive in Viet Nam. As of 2009, Viet Nam's mobile market is divided in principle between three major operators, namely VinaPhone, Viettel and MobiFone. Viettel accounts for 31.6% market share with around 8 million subscribers; MobiFone accounts for 25.4% market share with 6.5 million subscribers and VinaPhone accounts for 31.6% market share with 5.8 million subscribers (Figure 20.2). In addition, Viet Nam issued four third-generation (3G) mobile licences in early 2009, to the three major mobile operators (i.e., MobiFone, VinaPhone and Viettel) and to one new entrant (GTel). In the same year, Indochina Telecom received the first Mobile Virtual Network Operator (MVNO) licence. An MVNO operator is not required to build its own network infrastructure but to lease capacities from other FBOs.

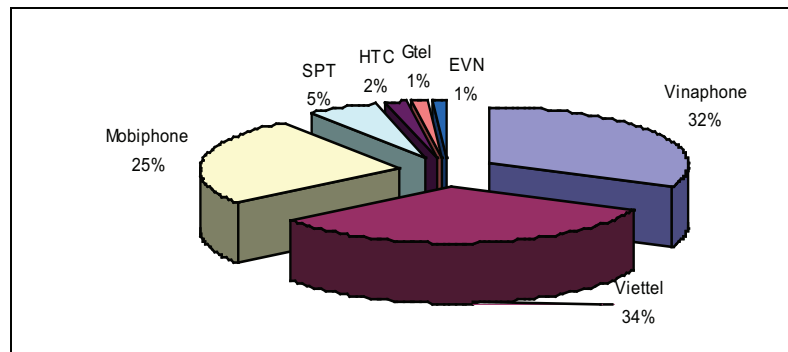


Figure 20.2: Market share in Viet Nam's mobile market, 2009 (% of total subscribers). (Source: MIC 2009)

It is noted, however, that while VinaPhone – the second largest operator – is a direct subsidiary of the incumbent, VNPT also enjoys a cross-ownership in MobiFone through its BCC contract with Sweden's Comvik. This structure indicates how VNPT remains dominant in the mobile market.

20.3 PRO-COMPETITION REGULATIONS

20.3.1 Overview and regulation of operators with significant market power

Before the promulgation of the Ordinance on Posts and Telecommunications in 2002 there was no clear regulatory framework: it was perhaps less urgent then, when the telecommunications sector was exclusively provided by state enterprises. But with the increased level of competition in all market segments, in tandem with private participation in the value-added/services-based services, came the need to define the conditions for private participation in the sector. The current Law lacks important provisions with respect to transparency and dispute resolution, and it has also not defined the regulatory objectives. Nonetheless, it does have laudable provisions that promote new entry and ensure fair competition by restraining abusive conduct by dominant players, as well as ensuring universal access to basic services.

Competition regulation in Viet Nam moved a step forward when the Law on Competition came into force in 2004. In particular, this Law prohibited enterprises with Significant Market Power (SMP) from taking any of the following abusive actions:

- selling goods, or providing services at prices lower than the aggregate costs, in order to eliminate competitors;
- imposing irrational buying or selling prices on goods or services or fixing minimum re-selling prices, causing damage to customers;
- restricting production or the distribution of goods or services, limiting markets, or preventing technical and technological development, causing damage to customers;
- imposing dissimilar commercial conditions in similar transactions, in order to create inequality in competition;
- imposing conditions on other enterprises to conclude goods or services purchase or sale contracts or forcing other enterprises to accept obligations which have no direct connection with the subject of their contracts; and
- preventing new competitors from entering the market.

Under the Law on Competition, the definition of SMP is based on single-firm dominance and joint dominance. For single-firm dominance, enterprises are considered to hold the dominant position if they have market shares of 30% or more on the relevant market or are capable of restricting competition considerably. For joint dominance, a specific group of enterprises are

considered to hold the dominant position if they, as a group, take concerted action to restrict competition and fall into one of the following classes:

- two enterprises having a total market share of 50% or more in the relevant market;
- three enterprises having a total market share of 65% or more in the relevant market; and
- four enterprises having a total market share of 75% or more in the relevant market.

In accordance with the Implementation Decree (Decree 116/2005/ND-CP), the Law on Competition is applicable to the telecommunications sector. As a result, in 2008 the MIC published a list of business services and telecommunications enterprises with SMP (Decision 1622; Table 20.4). Telecommunications enterprises included in the list are subject to the MIC's regulation on the retail tariff: they must submit any proposal to change the retail tariff to the MIC before issuing the tariff, and 'basic' and 'important' interconnection charges that would greatly affect the telecommunications market are also decided by the MIC.

Table 20.4: SMP telecommunications enterprises, 2008.

Services market	SMP operator	Single or Group SMP
International voice	VNPT	Single
DLD Voice	VNPT	Single
International and Domestic leased line	VNPT, Viettel, EVN Telecom	Group
Mobile services	Viettel, MobiFone, VinaPhone	Group
Wireless local voice	EVN Telecom	Single
Internet (leased line and ADSL)	VNPT, FPT, Viettel	Group

Source: MIC 2009

The anti-competition rules in the Law on Competition were incorporated into the Law on Telecommunications. The new provision on competition in the telecommunications business is Article 19 of the Law on Telecommunications. Specifically, telecommunications enterprises are prohibited from implementing practices that restrain competition and may not engage in unfair competitive practices. The Law also includes telecommunications-specific SMP regulations which control essential telecommunications facilities. Those regulations prohibit SMP telecommunications enterprises from:

- improperly intermingling different telecommunications services for an unfair competitive purpose;
- using their priority on telecommunications networks and essential facilities to impede market penetration, or limiting or creating obstacles for other telecommunications enterprises in providing telecommunications services;
- using information about other telecommunications enterprises for unfair competitive purposes; and
- providing other telecommunications enterprises with technical information on essential facilities and related trade information for providing telecommunications services in a timely manner.

At this stage, however, it is not clear about the division of jurisdiction between MIC and other competition authorities (the Viet Nam Competition Administration Department [VCAD] and the Viet Nam Competition Council [VCC]) over the regulation of anti-competitive practices in the telecommunications sector.

20.3.2 Interconnection regime

Article 43 of the Ordinance stipulates that all telecommunications enterprises have the right to 'link their own network to those of other telecommunications enterprises and shall be

obliged to allow those other telecommunications enterprises to link and access their own networks or services subject to fair and reasonable conditions'. Access and interconnection at every technically and economically feasible point is mandatory for service providers that hold 'essential equipment and facilities'. However, the Ordinance does not define the meaning of essential equipment and facilities, and unbundling of interconnection services is not required. Interconnection agreements are to be negotiated between operators, and where an agreement cannot be concluded within the time limit (45 days according to MIC regulations), the MIC will resolve the dispute. The MIC's decision is final, unless the affected party appeals the case to the Administrative Court. Interconnection charges are still regulated by the MIC.

Co-location is also envisioned in the Ordinance. Article 43(2) provides for 'shared use of linking points and technical infrastructure facilities via linking agreement between two signed parties'. Despite this provision, the sharing of facilities is one of the contentious issues in forging interconnection agreements.

The basis for setting an interconnection fee is *ad hoc*, although it is said to approximate cost plus a contribution to universal service (called a Community Service Obligation [CSO]). As required by Article 39 of the Ordinance, a service provider must maintain separate cost accounting systems for services where it holds the dominant market share. To this end, VNPT is currently implementing changes in its accounting system, so perhaps cost information will be more transparent in the near future. However, the cost associated with CSO remains an area of contention. But with the establishment of the universal service fund (VTF: see 20.3.3), this practice is to be phased out soon. Finally, because the Ordinance does not require disclosure of interconnection or access agreements, some regulation promoting transparency may be required in the future as Viet Nam complies with its WTO obligations.

20.3.3 Universal service obligations

Traditionally, VNPT has been the only operator to embrace the obligation to provide universal services in both the cities and rural areas. New operators have chosen to provide services only in areas that are profitable, such as Hanoi and Ho Chi Minh City.

VNPT has always cross-subsidised domestic services with revenues from international and domestic long distance services but with the declining price trend and emerging competition from new entrants, VNPT has become concerned about the gradual 'drying-up' of funding sources for universal services. The new operators, however, are concerned about being overcharged for universal services because the universal service obligation contribution was collected as a mark-up of the interconnection charges payable to VNPT.

In response to calls for reform, and consistent with the WTO Reference Paper, Section 5 of the 2002 Ordinance on Posts and Telecommunications deals specifically with universal service obligations, although it does not define the scope of universal services. However, Article 50 empowers the government to mobilise funds for the provision of telecommunications services for the public interest through interconnection or access charges or by setting up a universal service fund. The funds may be disbursed either by competitive tendering or by a universal service provider appointed by the government. The Ordinance further provides that the government can stipulate policies and measures for the provision of public telecommunications services.

As a result of the Ordinance's requirement, the Viet Nam Public Utility Telecommunication Service Fund (VTF) was established in 2004 as a public financing institution under the

Ministry of Posts and Telematics (now MIC). The mission of the VTF is to support the development and provision of public-utility telecommunications services in regions where market mechanisms fail to deliver the intended policy outcomes on a cost-effective basis. In 2006 the government approved the ‘Program on provision of public-utility telecommunications service until 2010’ (Decision No.: 74/QĐ-TTg; hereinafter the Program), which specifies the following services as part of the public-utility telecommunications service:

- universal telecommunications services, which include a standard telephone service and a standard Internet access service; and
- compulsory telecommunications services, which include emergency communication services, telecommunications services for searching, rescuing, protecting and fighting natural calamities as regulated by competent agencies and fixed telephone number enquiries and telecommunications services serving the state’s emergent activities.

Funding to support the VTF comes from industry-based levies. All eligible operators contribute to the VTF fund and the contribution is collected from 5% of mobile services revenue, 4% from international voice and leased line services and 3% from domestic long distance services and leased line services.

The functions of the VTF are mainly:

- to facilitate investment in and development of new infrastructure access points in locations where adequate public-utility telecommunications services are not yet available;
- to support maintenance costs for the continued provision of public-utility telecommunications services in areas where those services are already available; and
- for the development of users of those services.

VTF financial support has two categories. The first is direct funding for the development and maintenance of public-utility telecommunications services within designated regions. The second is soft financing to assist enterprises in establishing, upgrading, and extending telecommunications infrastructure and facilities to providing public-utility telecommunications services within designated regions.

As outlined in the program, the specific objectives of the VTF were to ensure that, by 2010:

- teledensity in the areas provided with public-utility telecommunications services reaches five telephone sets per 100 people;
- 100% of communes throughout Viet Nam have public telephone service access points;
- 70% have public Internet service access points; and
- all citizens have the right to free access to compulsory telecommunications services.

According to VTF’s statement, these policy targets were achieved in 2009, with 10.7 out of 100 people now using public telephones in remote areas and 4873 public telecommunications access areas already established.⁷

20.3.4 Allocation of spectrum

Prior to the Law on Telecommunications, there was no formal and official regulation relating to spectrum. While the new draft law may loosen government control of telecommunications enterprises, it still provides methods for allocating telecommunications resources. Those

⁷ <http://www.vtf.vn/en/news/2010/02/4F1B6200/>

resources with a high value will be allocated either via public auction or ‘beauty contest’, while other resources will be allocated on the usual ‘first come, first served’ basis.

In addition, the transferability of telecommunications resources will for the first time only be recognised if the resources were obtained via public auction. Unfortunately, the draft law ignores the transferability of telecommunication resources obtained by a telecommunications enterprise via other methods, such as when it makes capital contributions to form a new telecommunications company (e.g., a joint venture with a foreign partner under Viet Nam’s WTO commitments).

In 2006 and 2007 a joint pilot project between Intel, the Viet Nam Data Communication Company (VDC) and the United States Agency for International Development (USAID) was launched to deploy high-speed wireless broadband in remotely located villages in the northern part of Viet Nam, using a combination of WiMAX and geo-synchronous satellite. With limited mobile phone coverage and only two PSTN phone lines in the whole area, ShinCorp’s IPSTAR satellite is being used to provide the backbone of the Internet connection. These examples of technological innovation for closing the digital divide, however, require policy support beyond financial assistance. For instance, as Viet Nam has not decided the timing and spectrum band (most likely 2.3 MHz and 2.5 MHz) for the allocation of Wimax’s spectrum licensing, the pilot project is running under a trial licence. In this regard, acceleration of the spectrum licensing would facilitate not only competition for broadband access but also the provision of universal service.

20.4. ASSESSMENT OF PERFORMANCE

Viet Nam has set many policy targets before. In 2005 Viet Nam’s National Institute of Posts and Telematics Strategy (NIPTS) estimated that by 2010 the total telecommunications density would be around 32–35%, including 18–20% for mobile services. Also by 2010 Internet subscriber density would be 13%, while Internet user penetration would be 50%, including 30% broadband user penetration, and PC penetration was expected to be 10%.

In hindsight, the NIPTS’ 2010 vision was too modest, as all its policy targets were in principle achieved by 2008, except Internet subscription, which is just half-way towards its target. In particular, the ‘explosive’ style of fixed-line and mobile developments during 2006–08 underpins Viet Nam’s high quality performance in recent years. By 2007 mobile services had surpassed fixed-line services to become the most widely available telecommunications service in Viet Nam, reaching a penetration rate of nearly 80% of the population by 2008 (Figure 20.3). The rapid diffusion of telecommunications services to rural and remote areas is positively a major benefit of telecommunications structural reform.

Fixed-line development seems to be modest compared to the mobile growth rate, yet it is equally outstanding when compared with other APEC economies with similar levels of economic/telecommunications developments (Figure 20.4). Prior to 2003 Viet Nam (GDP *per capita* USD1042.4 at 2008) shared a similar level of fixed-line penetration rate with Indonesia (GDP *per capita* USD2237.7) and the Philippines (GDP *per capita* USD1851.5), yet a jump-start style of rapid development was observed for Viet Nam, starting from 2003.

Viet Nam has since moved from an under-developed economy to join many of its developed peers in the region in fixed-line availability. Structural reform efforts have evidently contributed to this outcome, with the introduction of the 2002 Ordinance and the establishment of the universal service fund (VTF). The Ordinance offers a relatively

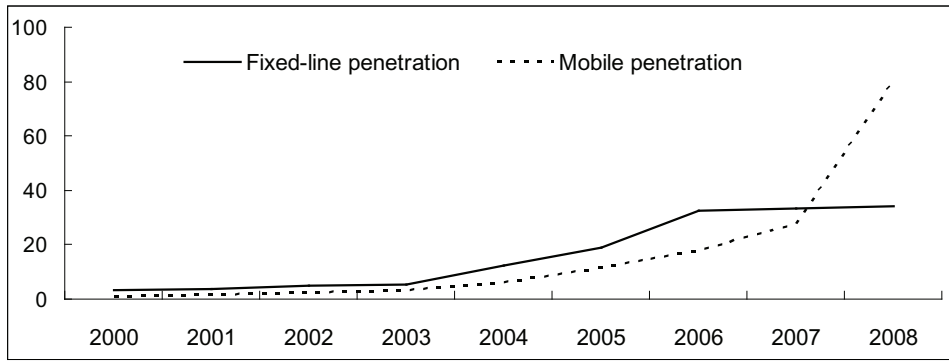
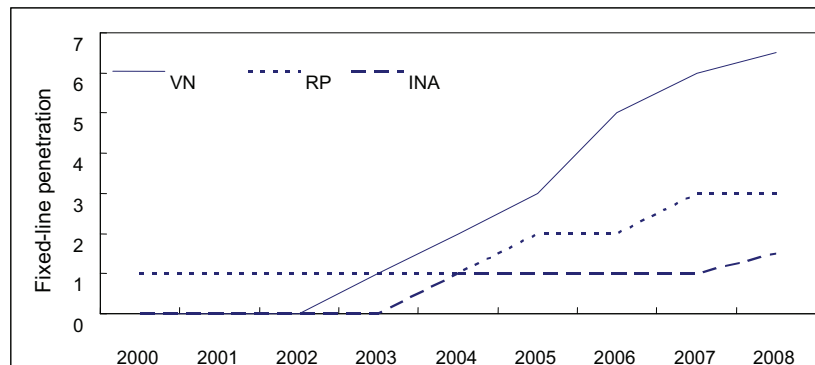
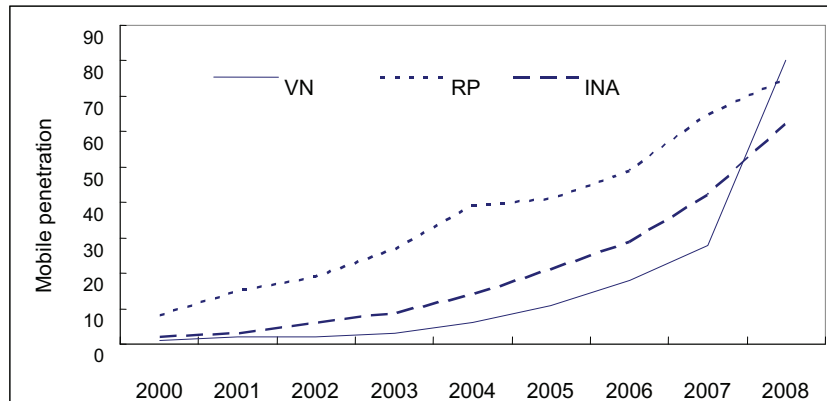


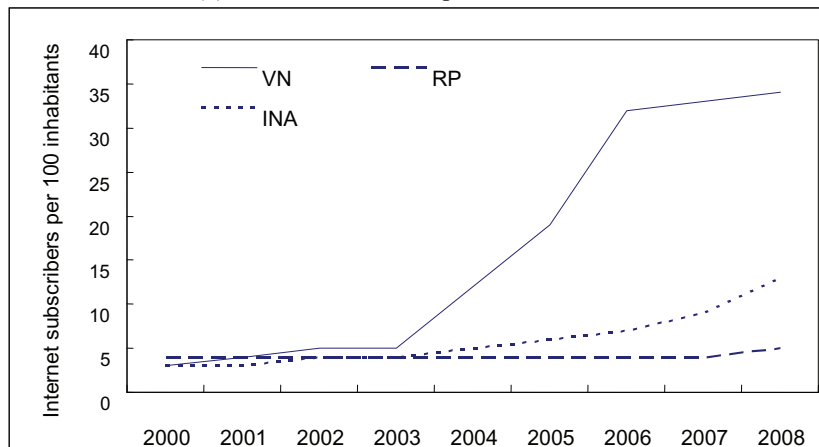
Figure 20.3: Changes in fixed-line and mobile penetration rates in Viet Nam. (Source: ITU 2009)



(1) Fixed-line subscribers per 100 inhabitants



(2) Mobile subscribers per 100 inhabitants



(3) Internet subscribers per 100 inhabitants

Figure 20.4: Comparison of the fixed-line, Internet and mobile penetration rates of Viet Nam; the Philippines; and Indonesia. (Source: ITU 2009)

transparent and predictable regulatory environment to foster competition and network investment, and the VTF offers clearly defined financial incentives to assist the rapid expansion of networks in under-served regions.

Mobile penetration in Viet Nam represents another interesting story. While Indonesia and the Philippines appear to follow a more linear development approach, mobile services in Viet Nam again show a jump-start style of network expansion, surpassing both Indonesia and the Philippines during 2007–08.

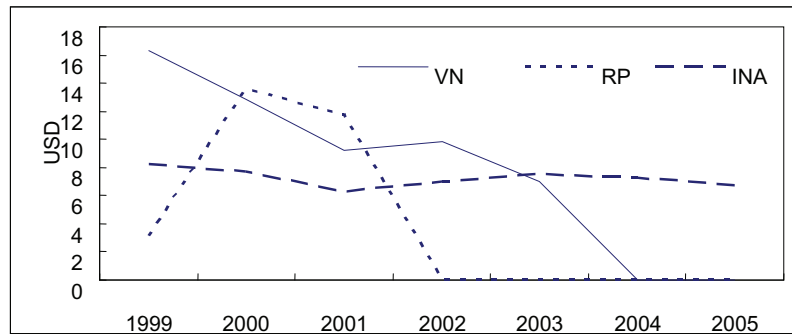
Finally, the rate of Viet Nam's Internet subscribers offers yet another good example of the correlation between reform and performance. Two primary reform initiatives are possibly responsible for the sharp increase in Internet subscription: the first, when the Internet services sector was liberalised in Viet Nam's 2002 Ordinance to allow private participation, which increased supply and the level of competition, and the second, the contribution of the VTF, which includes public Internet access as part of the universal service scheme. As noted above, however, at just halfway towards its target, this result is still short of meeting the NIPTS' vision to achieve a 13% penetration rate by 2010.

In relation to price, the experience in Viet Nam demonstrates a positive relationship between market liberalisation and performance (Figure 20.5). Monthly subscription charges for mobile services have been reduced from nearly USD17 in 1999 to zero in 2004 (Figure 20.5[1]). For the average tariff of a 3-minute off-peak mobile call, as at 2005 Viet Nam was the highest of the three sample economies, yet by 2008 it became the economy with the lowest rate. The main reason for the zero subscription charge strategy is that, as network coverage expands to a nation-wide level, free subscription is an effective way of achieving scale economies and enhancing the positive network effects. The latter, for example, gives a network with a larger subscription base an advantage in interconnection negotiations. From a universal service perspective, this outcome could be considered as an alternative and efficient way of achieving the universal service objective through a market mechanism.

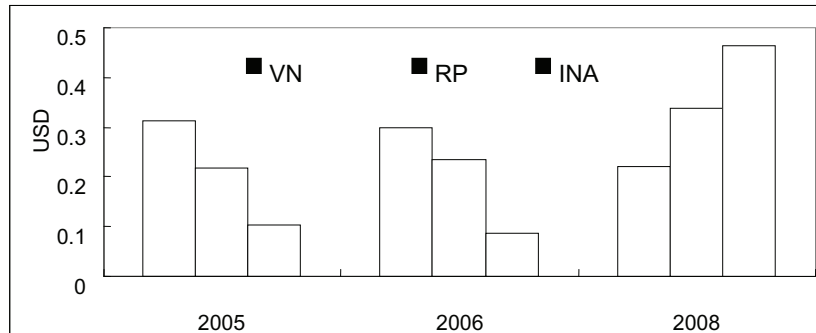
A different development, however, can be observed for fixed-line connection charges. Unlike usage-based charges, the fixed-line connection charge is something a potential subscriber cannot avoid. This has a direct impact on the affordability of a basket of fixed-line services, such as voice telephony and broadband. For this reason the fixed-line connection charge in Viet Nam has remained basically unchanged between 2000 and 2008, reflecting perhaps the cross-subsidy strategy adopted by the government (through VNPT) to promote affordability of telecommunications services in Viet Nam. This also indicates that tariff rebalancing will be an ongoing policy challenge for Viet Nam. Indonesia introduced a tariff rebalancing policy between 2000 and 2003, and this is reflected in the change in its connection charge. The charge is, however, too high for the Philippines. This is perhaps the result of the regional monopoly policy adopted in the Philippines.

20.5 CONCLUSION

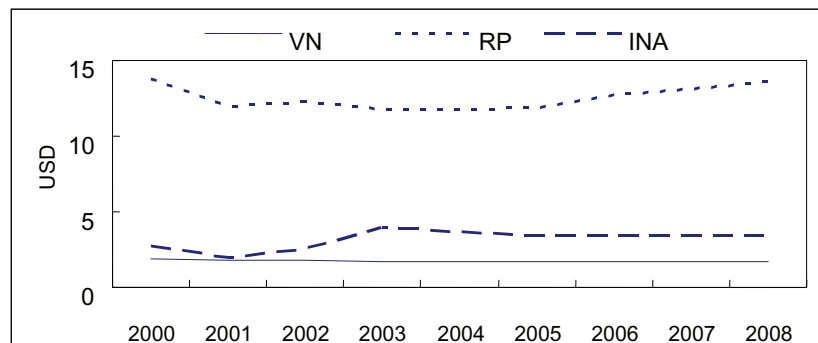
Viet Nam has achieved great success in its telecommunications structural reform process. The market was liberalised to both domestic and foreign investment in a gradual, phase-in manner, with the contract-based BCC scheme as the foundation for future participation. This approach is common among other APEC economies. Indonesia's KSO scheme and Thailand's BOT project are all based on a similar rationale and policy considerations. But the KSO failed in Indonesia, and Thailand is having a difficult time converting BOT contracts into formal



(1) Mobile service monthly subscription charge (USD)



(2) Price of a 3-minute off-peak mobile call (USD)



(3) Fixed-line connection charge (USD)

Figure 20.5: Comparison of selected retail tariffs between Viet Nam; the Philippines; and Indonesia. (Source: ITU 2009)

operational licences (Lee & Findlay 2005). It appears that Viet Nam has suffered less from the drawbacks of these types of structural reform strategies and experienced good performance improvements.

Yet there are still a number of issues that need to be addressed, some of which might critically affect Viet Nam’s ability to continue its remarkable performance.

20.5.1 Continuing structural reform through market liberalisation

Governments often argue that temporary control of market entry and foreign investment in the telecommunications sector is needed to allow the domestic ‘infant industry’ more time to adjust before full competition (Vickers & Yarrow 1991). However, as demonstrated in Indonesia and Thailand’s experiences and in the literature (Ros 1999; Fink et al. 2003), ownership control does not always bring about the desired policy outcomes in the long run. For this reason, Viet Nam committed in its WTO accession that exclusive state ownership in FBO licences would be removed and existing BCC partners would have the opportunity to

convert into operational licences with an investment ceiling. This movement away from ownership control is consistent with best practice and economic theory. It also unveils many regulatory issues that are not of concern when all operations are state owned. A transparent, predictable and non-discriminatory regulatory regime would be prerequisite to further advances in liberalisation.

Viet Nam's WTO commitments and the Law on Telecommunications provide a good opportunity to grasp the benefit of its market liberalisation, but reducing investment uncertainty at the time when current BCC partners will be applying for licence conversion remains a task for the future. Before then, it would be preferable for the government to publish clearly defined conversion requirements and procedures.

Vietnam's status as a Newly Acceded Member (RAM) means that it has virtually no obligation to offer new commitments in the WTO Doha round negotiation. Yet the telecommunications liberalisation process in Vietnam is half way through, with many structural and regulatory reform efforts still needed to fully realise the objectives and benefits of telecommunications structural reform. To this end, APEC's Leaders' Agenda to Implement Structural Reform (LAISR, 2004) would provide a valuable mandate for Vietnam to identify the telecommunications sector as a priority area to continue reform.

20.5.2 State dominance and the creation of an independent regulator

The incumbent VNPT still dominates the fixed-line and mobile markets in Viet Nam, so regulating market dominance to foster competition is not an easy task. While, under the Law on Telecommunications, facility-based services are opened to private participation, the legacy of state ownership in all existing FBO operators will be an obstacle to competition and investment.

Indeed, the Law establishes a pro-competition regulatory regime to prevent anti-competition practices and ensure interconnection as well as access to bottleneck facilities, even though the ownership relationships between the various state ministries and existing FBO operators indicates the importance of a more impartial and non-discriminatory regulatory environment. To achieve this objective, the creation of an independent regulator would be a critical step.

The current regulatory structure in Viet Nam is already consistent with the WTO Reference Paper's definition of an independent regulator that is separated from service provisions. Nonetheless, the fact that all existing FBO operators are state owned warrants a more demanding independence for the regulator. The independence of the regulator can be ensured in different forms. As a threshold, the regulator should be separated from the ministry responsible for policy decision making (MIC in Vietnam). Independence can be further enhanced by way of providing a certain degree of autonomy in carrying out core regulatory functions, such as investigating anti-competition activities, tariff regulation and interconnection/access dispute settlement. These regulatory structural reforms would significantly improve the quality of regulation and ensure a predictable, fair and non-discriminatory regulatory regime. It would also reduce the concerns of policy interference in regulations.

20.5.3 Reducing development disparity

Universal service obligation schemes in developed economies are usually centred on a few disconnected remote households and marginal socio-economic groups, such as low-income

earners and the disabled. However, similar development schemes in developing economies such as Viet Nam are focused on improving the overall availability of basic telecommunications services at community level to the vast majority of the population (ITU 2003). Given the lower deployment cost and above-cost tariffs, competition in long distance and international markets is more likely than competition in local telephony services. Furthermore, even if competition does occur in the local telephony market it will not automatically benefit rural areas, where networks are limited.

Refinement of the great disparity in access to telecommunication services between different geographical regions is one of the primary reform objectives. The literature demonstrates that liberalisation and competition enhance overall sector performance and facilitate network expansion, yet market-based policy has its limitations. For instance, for uneconomic areas the costs of providing telecommunications services are often greater than the subscribers' willingness to pay, thus preventing the operator from extending network coverage into these areas (World Bank 2000). Both cases warrant the implementation of a universal telecommunications service development scheme that often requires mandatory network deployment and service provisions, supported by an appropriate subsidy program.

A major issue commonly faced by many economies is the estimation of the costs for providing universal service (DCITA 2004). Before 2004 universal service in Viet Nam was financed primarily by inter-service cross-subsidisation and the levy of the CSO as part of the interconnection charge. Yet none of these funding programs was sustainable in the face of competition. For instance, cross-subsidy between international and local telephony services or between monthly rental and per call charges offers no incentive for operators to reduce cost or improve efficiency, since none of the tariffs are cost-based and operators can always manipulate the regime by allocating costs in subsidised services. There was a lack of transparency in the way revenue generated from subsidised services and CSO was used. While network rollout in both a profitable and an uneconomic area could each be receiving a subsidy and CSO, revenue from subsidised services and CSO could also be used in an anti-competitive manner to subsidise services – such as a mobile service – that were facing competition. But with market opening the above-cost tariffs of subsidising services often attract new entrants to compete in those lucrative segments rather than focusing on local network development.

The establishment of the VTS provides an ideal starting point to implement reform in the provision of universal telecommunications services. The industry-based levy funding arrangement also appears to be self-sustainable. Indeed the rural area focus and industry-wide funding arrangement of the VTS creates a more competitively neutral universal service regime in the light of competition. Yet given that the nature of VTS is to provide funding that has been collected from rivals for network development that would otherwise be carried out on the provider's own investment, this requires caution in order to avoid over and/or under compensation that could hamper competition.

For previously unserved areas, it is difficult but essential to identify genuine loss-making areas and to exclude areas with only temporary loss, such as emerging new housing areas. Also, cost estimation is affected by the scope of technologies (e.g., copper wire, satellite, CATV) to be included in the formula. This often requires updated understanding of, and prediction on, technological advancements and efficient network development over time. A more technology neutral approach is valuable for selecting universal service providers and determining the level of funding required.

With the proliferation of mobile and other wireless technologies (e.g., Worldwide Interoperability for Microwave Access [WiMax]), a wireless universal services scheme appears to be a cost-effective policy solution, as such a scheme has already been implemented in India, South Africa, Uganda, Nigeria, Bangladesh and Colombia (Oestmann 2003).

20.6 REFERENCES

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