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Philippine Telecommunications Laws and Regulations: A TPP Gap Analysis¹

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ABSTRACT

This paper aims to promote competitive access for telecommunications providers. Among other things, it includes provisions for interconnection, access to physical facilities, and transparency. Reforms in these areas will likely benefit consumers and help businesses become more competitive.

There is a need, however, to determine if or what regulatory and policy reforms are necessary for the Philippines to qualify for entry into emerging new trade agreements such as the Trans-Pacific Partnership Agreement (TPPA). This paper uses the TPPA Final Text on Telecommunications (Chapter 13, Article XIII.4) released on February 6, 2016, to measure the Philippines' readiness to join the trade agreement.

Key recommendations include:

1. To ease restrictions on foreign ownership, the Philippines must address the constitutional provisions that constrain the growth and productivity of the country, either by amending the Constitution or through creative legislation that expands opportunities for foreign investment but in a manner consistent with the Constitution. Congress is well within its

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- powers to redefine “public utilities”, so that it narrows the areas of the economy that would remain covered by the Constitution, and opens up more opportunities for foreign investment in previously protected sectors.
2. At the minimum, comprehensive amendments to Republic Act 7925 (Public Telecommunications Policy Act of 1995) must be in order, especially with respect to interconnection, unbundling of network elements, cross-subsidization, number portability, and the powers of the National Telecommunications Commission (NTC) to police the market players. Additional provisions may be necessary to allow the NTC to impose obligations on major players with significant market power, as well as to create a universal service fund.
 3. Given the broad mandate and powers given to the newly formed Philippine Competition Commission (PCC), and the positive impact that addressing these issues may have on the environment for competition in the telecommunications sector, it may now be possible for the PCC and the NTC, working together, to bridge these gaps through a series of administrative issuances.
 4. Ensure adequate competition in the sector that upholds the public welfare and promotes the international competitiveness of Philippine enterprises, for which information and communications technology services is a key input for enterprises and represent significant costs of doing business.

INTRODUCTION

The Trans-Pacific Partnership Agreement (TPPA) is a free trade agreement (FTA) aimed at creating a platform for economic integration across the Asia-Pacific region. It stands out from other FTAs due to its nature and scope: a “megaregional” trade agreement with negotiators also pursuing nontrade-related issues. While it was hailed as a state-of-the-art FTA that will link countries on both sides of the Pacific, a recent rise in protectionist policies has made it doubtful that the agreement will come into force. Nevertheless, the TPPA remains a model for future agreements in the region.

Twelve countries participated in negotiations for the TPPA. These are: Brunei, Chile, New Zealand, Singapore, United States, Australia, Peru, Viet Nam, Malaysia, Mexico, Canada, and Japan. Due to the United States’ recent withdrawal from the trade agreement, there have been talks of the possibility of a version of the TPPA without the United States, or a shift in focus to negotiating other megaregional FTAs, such as the Regional Comprehensive Economic Partnership (RCEP) and the Free Trade Area for the Asia-Pacific (FTAAP).

The Philippines announced its interest in joining the TPPA in June 2015, and it is currently involved in discussions for both the RCEP and the FTAAP. There is a need, therefore, to determine if regulatory and policy reforms are necessary for the Philippines to qualify for entry into emerging new trade agreements such as the TPPA.

The focus of this paper is on telecommunications, an industry with issues that have increasingly gained attention in the past few years. Public telecommunications networks and services (PTNS) are vital for the effective functioning of the Philippine economy. In 2015, the gross value added of telecommunications was PHP 362 billion or 2.7 percent of the gross domestic product (GDP) (PSA

2016a). The industry also employed 1.0 percent (or approximately 381,000) of the working population (PSA 2016b). Aside from its contribution to GDP and employment, the public telecommunications infrastructure provides basic services that all people depend upon.

Unfortunately, the high price and poor quality of telecommunications services in the Philippines have become binding constraints to the country's development. According to the International Telecommunication Union (2015), the rates of information and communications technology (ICT) services in the Philippines are excessively prohibitive. In the ITU's ICT Price Basket (IPB), which measures the affordability of ICT services, the Philippines ranked 120th out of 170 economies as of end-2014.

Among the members of the Association of Southeast Asian Nations (ASEAN), ICT services in the Philippines are among the least affordable. ICT services in the country cost 5.9 percent of per capita gross national income, compared to the regional average of 3.4 percent. The IPB is based on three subbaskets: fixed telephone, mobile cellular, and fixed broadband services. The price of fixed telephone in the Philippines is highest among the ASEAN countries. Mobile and broadband are also relatively expensive, although prices are not as high as in the least developed countries (LDCs) of Laos and Cambodia.

And yet, despite the exorbitant rates being charged by operators, quality of services, particularly for broadband, remains poor. The Philippines is reported to have the slowest internet in the ASEAN, and among the slowest in the world. Based on data from Ookla Net Index for December 2014, the Philippines ranked 167th out of 190 countries. Average download speed in the country was recorded at 3.4 megabits per second (Mbps) while average upload speed was only 1.3 Mbps. To compare, the regional averages were 18.1 and 14.3, respectively.

The Philippines also scored low on reliability. Based on surveys, only 69 percent reported achieving the speed advertised by their provider. In contrast, the reliability rating of the other non-LDCs in ASEAN ranged from 89 to 100 percent.

The quality and cost of PTNS have a significant impact on economic growth and income inequalities in the country. As nearly every company, business, government, and person use telecommunications services, the lack of reliable and affordable access, particularly for the general public and small enterprises, is a constraint on development, competitiveness, and investments. Improving the provision and access to telecommunications services is critical for the Philippines to complete its transition from a factor- to an efficiency-driven economy.

The poor performance of the industry suggests that the policies and laws currently in place may need to be overhauled, or at least, revisited. Consistency with best international practice and experience in the crafting of laws, rules, and procedures could address the issues described above.

This paper on telecommunications of the TPPA is expected to promote competitive access for telecommunications providers. Among other things, it will include provisions for interconnection, access to physical facilities, and transparency. Reforms in these areas will likely benefit consumers and help businesses become more competitive.

ACCESS TO AND USE OF PUBLIC TELECOMMUNICATIONS NETWORKS AND SERVICES

Under Chapter 13 of the TPPA, each state party has the obligation of ensuring that access to and use of any public telecommunications service, including leased circuits, offered in its territory or across

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its borders, are provided at reasonable and nondiscriminatory terms and conditions.³ Hence, each party shall ensure that service suppliers of the other party are permitted to:

1. Purchase or lease, and attach terminals or other equipment that interface with a public telecommunications network;
2. Provide services to individual or multiple endusers over leased or owned circuits;
3. Connect leased or owned circuits with public telecommunications networks and services, or with circuits leased, or owned by another enterprise;
4. Perform switching, signaling, processing, and conversion functions; and
5. Use operating protocols of their choice.⁴

Interconnection between public telecommunications service providers or entities (PTEs) in the Philippines is already mandated to be provided on a reasonable and nondiscriminatory basis (Public Telecommunications Policy Act of 1995). Executive Order (EO) No. 59, issued in 1993, required compulsory interconnection between authorized public telecommunications carriers and specifies that “interconnection shall at all times satisfy the requirements of effective competition and shall be effected in a nondiscriminatory manner.” Subsequent regulations complemented and reinforced the provisions of EO 59.

The operation of a public telecommunications network, however, is considered to be a public utility which can only be operated by Filipinos or corporations or associations with at least 60 percent of its capital owned by Filipino citizens (Public Service Act of 1936). Under current jurisprudence, “Full beneficial ownership of 60 percent of the outstanding capital stock, coupled with 60 percent of the voting rights, is constitutionally required for the State’s grant of authority to operate a public utility” (Gamboa vs. Teves 2011). This effectively blocks service providers from other TPPA parties from accessing or using the Philippines’ PTNS, as they will be unable to resell or offer their services to the public without complying with the aforementioned ownership requirement.

The restrictions on foreign participation in telecommunications services stem from the nationalistic provisions of the 1935 Constitution, whose authors were anticipating future political independence, and retained in the 1987 Constitution. Since the Constitution does not define “public utilities”, the Public Service Act (PSA) of 1936 is usually used as a statutory reference to determine whether or not a business was a public utility. The PSA regulates “public services” and defines it to include “wire or wireless communications system[s]”⁵ among others.

Unfortunately, the limitation on foreign ownership imposed on the industries enumerated in the PSA has now become a barrier that diminishes the Philippines’ competitive capacity. Perhaps most significantly, the restrictions have constrained foreign direct investments (FDIs) to the Philippines. According to data from the World Bank, the Philippines has one of the lowest FDI inflows in the ASEAN at USD 5.84 billion in 2015, compared to a regional average of USD 13.00 billion (WB 2016). In order to transition to a developed economy, the Philippines needs considerably more FDIs. Relaxing the policy on the participation of foreigners will increase the entry of larger risk capital and strengthen the capital base of PTNS.

The experience of other countries has shown that relaxing foreign ownership restrictions can significantly increase FDIs, enhance competitiveness, and accelerate economic growth. Increasing competition and openness in the telecommunications sector allows access to higher quality services,

³ TPP Final Text (2016), Article 13.4 (1)

⁴ TPP Final Text (2016), Article 13.4 (2)

⁵ Commonwealth Act No. 146, Section 13 (b)

lower prices, and technology transfer. In contrast, discriminatory regulation impedes investments to the detriment of consumers and economic development.

To ease these restrictions on foreign ownership then, the Philippines must address the constitutional provisions that constrain the growth and productivity of the country, either by amending the Constitution or through creative legislation that expands the opportunities for foreign investment but in a manner consistent with the Constitution. For instance, Congress would well be within its powers to redefine “public utilities” by amending the PSA, so that it narrows the areas of the economy that would remain covered by the Constitution, and opens up more opportunities for foreign investment in previously protected sectors.

There is also a requirement under the TPPA for the state parties to ensure that an enterprise of a party may use public telecommunications services for the movement of information in its territory or across its borders. This includes use for intracorporate communications and for access to information contained in databases or otherwise stored in machine-readable form in the territory of either party.⁶ Measures necessary to ensure the security and confidentiality of messages may be taken as long as it is not applied in an arbitrary or unjustifiable discrimination or as a disguised restriction on trade in services.⁷

Generally, there is no issue with respect to intracorporate access to and movement of information in the Philippines, as enterprises of another party can freely enter into agreements with suppliers of such services operating within the Philippines. Such access to intracorporate information is, of course, subject to national security and privacy considerations (Data Privacy Act of 2012).

The TPPA further requires that state parties shall ensure that no condition is imposed on access to, and use of, PTNS, other than as necessary to safeguard the public service responsibilities of PTNS suppliers, in particular their ability to make their networks or services available to the public or protect their technical integrity.⁸ Conditions for access to and use of PTNS may include:

1. The use of a specified technical interface, including an interface protocol, for connection with those networks or services;
2. The interoperability of those networks and services;
3. Type approval (or Certificate of Conformity) of terminal or other equipment that interfaces with the network and technical requirements relating to the attachment of that equipment to those networks; and
4. A licensing, permit, registration, or notification procedure which, if adopted or maintained, is transparent and provides for the processing of applications filed thereunder in accordance with a party’s laws or regulations.⁹

As PTNS in the Philippines are owned and operated by private entities, access to and use of their network is dependent on negotiations between contracting parties. However, public utilities are not allowed to “provide or maintain any service that is unsafe, improper, or inadequate or withhold or refuse any service which can reasonably be demanded and furnished...” (Public Service Act of 1936).¹⁰

On access by PTEs to public telecommunications networks, the Philippines has already provided for mandatory interconnection for all duly authorized PTEs under Republic Act (RA) No. 7925 or the

⁶ TPP Final Text (2016), Article 13.4 (3)

⁷ TPP Final Text (2016), Article 13.4 (4)

⁸ TPP Final Text (2016), Article 13.4 (5)

⁹ TPP Final Text (2016), Article 13.4 (6)

¹⁰ Commonwealth Act No. 146, Section 19

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Public Telecommunications Policy Act of the Philippines. The said law provides that interconnecting carriers shall negotiate on access charges or revenue-sharing arrangements, which is submitted to the telecommunications regulatory agency, the National Telecommunications Commission (NTC), for information. Should the parties fail to agree on the same, they may submit the dispute to the NTC for resolution.

SUPPLIERS OF PUBLIC TELECOMMUNICATIONS SERVICES

Interconnection

Interconnection refers to the linking with suppliers providing public telecommunications services in order to allow the users of one supplier to communicate with users of another supplier and to access services provided by another supplier¹¹ (WTO 1997). As defined under Philippine law, specifically Section 2 of EO 59, it is “the linkage, by wire, radio, satellite, or other means, of two or more existing PTEs with one another for the purpose of allowing or enabling the subscribers or customers of one PTE to access or reach the subscribers or customers of the other PTE”.

Interconnection is fundamental to the success of a competitive telecommunications market and thus one of the most critical issues in the industry today. Without such arrangements, subscribers of one PTE would be unable to access the subscribers of other PTEs. Because interconnection rates and terms are negotiated bilaterally between firms, they are strongly affected by the relative bargaining strengths of the PTEs. Operators with fewer subscribers, for instance, have weaker bargaining power since dominant PTEs have little incentive to grant favorable terms to a minor market player.

The TPPA requires that each state party shall ensure that suppliers of public telecommunications services in its territory provide, directly or indirectly within the same territory, interconnection with suppliers of public telecommunications services of the other party at reasonable rates.¹²

Likewise, each party shall ensure that a *major* supplier in its territory provides interconnection for the facilities and equipment of suppliers of public telecommunications services of the other party:

1. At any technically feasible point in the major supplier’s network;
2. Under nondiscriminatory terms, conditions, and rates;
3. Of a quality no less favorable than that provided by the major supplier for its own like services, for like services of nonaffiliated services suppliers, or for its subsidiaries or other affiliates;
4. In a timely manner, and on terms and conditions, and at cost-oriented rates, that are transparent, reasonable, having regard to economic feasibility, and sufficiently unbundled so that the suppliers do not have to pay for network components or facilities that they do not require for the service to be provided; and
5. On request, at points in addition to the network termination points offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities.¹³

Philippine regulation already provides for interconnection of PTEs under Section 5 of NTC Memorandum Circular (MC) No. 14-7-2000, i.e., “interconnection should be ensured to any

¹¹ TPP Final Text (2016), Article 13.1

¹² TPP Final Text (2016), Article 13.5 (1) and (2)

¹³ TPP Final Text (2016), Article 13.11 (1)

technically feasible point in the network, under nondiscriminatory terms, conditions (including technical standards and specifications) and charges and of a quality no less favorable than that provided for its own like services or for like services of nonaffiliated service suppliers or for its subsidiaries or other affiliates; and in a timely fashion, on terms, conditions (including technical standards and specifications) and cost-based charges that are transparent, reasonable, having regard to economic feasibility, and sufficiently unbundled so that the supplier need not pay for network components for facilities that it does not require for the service to be provided.” The circular likewise outlines the procedure for interconnection negotiations which is given a 90-day timetable for execution, and allows recourse to the NTC. This is in compliance with the TPPA that requires each party to make publicly available the applicable procedures for interconnection negotiations with a major supplier in its territory.¹⁴

More expansively, Section 10 of this regulation requires all PTEs, with respect to interconnection:

1. To provide interconnection at cost-based charges in a manner sufficiently unbundled;
2. To negotiate in good faith with other PTEs regarding the terms and conditions of interconnection agreements;
3. To interconnect directly with the facilities and equipment of other PTEs to allow access to all types of services available to the customers of both parties;
4. To install network features, functions, and capabilities necessary for interconnection;
5. To provide nondiscriminatory access to network elements at any technically feasible point on charges, terms, and conditions that are just and reasonable;
6. To provide unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide telecommunications service;
7. To make available to other PTEs on a timely manner all data and other relevant information necessary to ensure an efficient, timely, and reliable interconnection; and
8. Not to abuse information obtained from competitors in relation to interconnection with the latter.

While the Philippines’ regulations on interconnection are compliant with the TPPA standard, as earlier discussed, such guarantees do not extend to interconnection with PTEs of other countries seeking to operate in Philippine territory.

The TPPA further requires that interconnection with a major PTE should be through:

1. A reference interconnection offer (RIO) or another standard interconnection offer containing the rates, terms, and conditions that the major supplier offers generally to suppliers of public telecommunications services; or
2. Terms and conditions of an interconnection agreement in effect;¹⁵
3. And that suppliers of public telecommunications services of another party have the opportunity to interconnect through negotiation of a new interconnection agreement.¹⁶

Such requirement is already found in Philippine regulation. In order to facilitate interconnection and promote transparency, NTC came out with MC 10-7-2007, wherein Section 3.2 mandated the development of reference access offers (RAOs). As similarly provided under the TPPA, a RAO is the default offer of a public telecommunications entity for access services provided to requesting service

¹⁴ TPP Final Text (2016), Article 13.11 (4)

¹⁵ TPP Final Text (2016), Article 13.11 (2)

¹⁶ TPP Final Text (2016), Article 13.11 (3)

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providers (or access seeker). It contains prices and sufficient details to allow an access seeker to weigh the offer without having to negotiate directly with the access provider.

Unfortunately, however, implementation is another matter entirely. No PTE has ever submitted a RAO for NTC's approval. A major PTE in the Philippines reportedly asserted that the commission cannot compel telecommunications entities to reveal interconnection terms with other carriers, characterizing such information as trade secrets (*ABS-CBN News* 2010). Interconnection agreements between PTEs have thus remained undisclosed to the public and even the NTC itself, except for very general terms that do not disclose costs and pertinent terms and conditions. While there may be a vestige of compliance with the standard that a major PTE in the Philippines file all interconnection agreements to which it is party with its telecommunications regulatory body,¹⁷ the NTC itself discloses that the information contained therein is extremely limited (Cabarios 2015).

The Philippines is therefore noncompliant with the requirement under the TPPA that if a major supplier in the territory of a party has a RIO, the party shall require the offer to be made publicly available,¹⁸ including interconnection agreements in effect between a major supplier in its territory and other suppliers of public telecommunications services in its territory.¹⁹

Number portability

The TPPA requires that each party shall ensure that suppliers of public telecommunications services in its territory provide number portability without impairment to quality and reliability, on reasonable and nondiscriminatory terms and conditions.²⁰

Number portability refers to the ability of a customer to transfer an account from one service provider to another without requiring a change in number. It reduces switching costs (that is, the costs that consumers incur as a result of changing suppliers) and increases competition. Without number portability, consumers are tied to the usage of their number. This barrier to exit can be used by incumbent operators to exploit monopolistic or dominant power.

Since switching costs lock users, firms need fewer resources to keep subscribers. Customers are then likely to receive higher prices and poorer service. There can also be price discrimination, such as higher rates for old customers. Moreover, switching costs are an additional barrier to entry for new operators, limiting the competitive constraint from potential competition and strengthening the market power of incumbent firms.

Number portability is a measure that has been used extensively and successfully in other countries to promote competition in telecommunications. However, there is no regulation that mandates number portability in the Philippines at the present time. Past efforts of the NTC to introduce number portability was met by strong opposition from the incumbent public telecommunications operators who argued that the measure would be too costly to implement. This argument, however, has limited basis given that number portability has already been successfully implemented in economies smaller than the Philippines, and is even offered free of charge in many countries.

Access to telephone numbers

The TPPA requires a state party to ensure that suppliers of public telecommunications services of the other party are afforded nondiscriminatory access to telephone numbers.²¹ NTC MC No. 11-5-94

¹⁷ TPP Final Text (2016), Article 13.11 (4)

¹⁸ TPP Final Text (2016), Article 13.11 (5)

¹⁹ TPP Final Text (2016), Article 13.11 (5)

²⁰ TPP Final Text (2016), Article 13.5 (4)

²¹ TPP Final Text (2016), Article 13.5 (5)

provides for the numbering plan within the country, which establishes the minimum functional dialing characteristics and capabilities that the national switching network, and switching equipment and accessories comprising the said network, must comply with. This is publicly available and PTEs are obligated to conform to this regulation.

ADDITIONAL OBLIGATIONS RELATING TO MAJOR SUPPLIERS

Equal treatment

The TPPA requires equal treatment to be accorded by a major supplier in a party's territory to suppliers of public telecommunications services of the other party, as to itself, its subsidiaries, its affiliates or nonaffiliated service suppliers regarding the availability, provisioning, rates, or quality of like public telecommunications services, and the availability of technical interfaces necessary for interconnection.²²

This requirement is met in the context of interconnection by NTC MC 14-7-2000, which obligates an access provider to provide nondiscriminatory treatment to access seekers, at no less favorable terms than the former affords to itself or its subsidiaries or affiliates; nondiscriminatory treatment to customers of the interconnecting party, at no less favorable terms than it affords to its own customers; nondiscriminatory dealing with interconnecting parties in relation to the technical and operational quality of the services it provides.

Contrary to the TPPA requirement on equal treatment, which has the objective of opening up competition to suppliers of public telecommunications services of other state parties, the equality of treatment clause in RA 7925, which pertains to equality of treatment in the grant of legislative franchises,²³ actually ensures that major suppliers in the Philippines retain their incumbent advantage vis-à-vis smaller players or new entrants. This clause could only have a procompetitive effect when a new domestic player or a major supplier in another state party, with sufficient resources at par with the current incumbents, enters the Philippine telecommunications market.

Considering that foreign telecommunications providers cannot be given a legislative franchise to operate a PTNS, this is not bound to happen, unless, as previously noted, the Constitution is amended or legislation excluding telecommunications services from the definition of "public utilities" is subsequently enacted.

The TPPA also prohibits a party from proscribing the resale of any public telecommunications services, and requires each party to ensure that a major supplier in its territory does not impose unreasonable or discriminatory conditions or limitations on the resale of its public telecommunications services.²⁴ While the Philippines makes no such prohibition of reselling, especially to suppliers of public telecommunications services of another party, said suppliers cannot offer these services for sale in the territory of the Philippines, which renders said TPPA obligation inapplicable to the Philippine context.

²² TPP Final Text (2016), Article 13.7

²³ "Section 23. *Equality of Treatment in the Telecommunications Industry.* Any advantage, favor, privilege, exemption, or immunity granted under existing franchises, or may hereafter be granted, shall *ipso facto* become part of previously granted telecommunications franchises and shall be accorded immediately and unconditionally to the grantees of such franchises: Provided, however, that the foregoing shall neither apply to nor affect provisions of telecommunications franchises concerning territory covered by the franchise, the life span of the franchise, or the type of service authorized by the franchise."

²⁴ TPP Final Text (2016), Article 13.9

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The current Philippine regulatory framework leaves arrangements of reselling of services to the contracting parties. This is only limited by the statutory requirement that no person shall commence or conduct the business of being a public telecommunications entity without obtaining a franchise²⁵ from the legislature, and a certificate of public convenience and necessity from the NTC.

An exception for obtaining a legislative franchise exists for value-added service providers (VAS), provided it does not put up its own network.²⁶ However, this is subject to: prior approval of the NTC; other providers of VAS are not discriminated against rates nor denied equitable access to facilities; and separate books of account are maintained for the VAS.

Unbundling of network elements

Unbundling requires incumbents to allow other operators to lease specific elements of a telecommunications network. Since some inputs of the network are available only from certain operators and cannot easily be duplicated, competition in downstream telecommunications services would be exceedingly difficult if these inputs are not available at suitable prices.

Unbundling of network elements allows competing operators to enter the market and provide services with considerably less sunk cost. New entrants can then offer competing services to customers without duplicating infrastructure or simply reselling the services of incumbent PTEs. Unbundling increases entry by reducing entry costs and intensifies competition in the provision of services. In addition, it can advance the introduction of new services even while relying on the existing network and technology.

The TPPA requires the state parties to provide its telecommunications regulatory body the authority to require a major supplier in its territory to offer access to network elements on an unbundled basis on terms and conditions, and at cost-oriented rates, that are reasonable, nondiscriminatory, and transparent for the supply of public telecommunications services.²⁷

NTC guidelines on the subject provide that:²⁸

1. An access provider may provide to an access seeker, for provision of a telecommunications service, access to its network elements on an unbundled basis.
2. The provision of access to unbundled network elements includes the provision of a connection to an unbundled network element independent of the access provider's providing interconnection to the access seeker.
3. An access provider shall provide an access seeker access to an unbundled network element, along with all of the unbundled elements features, functions, and capabilities, in a manner that allows the requesting PTE to provide any telecommunications service that can be offered by means of that network element.
4. An access provider may provide, on such commercial terms and conditions that are just, reasonable, and nondiscriminatory, any technically feasible method of obtaining interconnection or access to unbundled network elements at a particular point upon request by an access seeker.

However, the same circular also provided that existing agreements on a bundled basis shall continue to be in force and effect, until the NTC shall have reestablished rates and settling

²⁵ RA 7925, Section 16

²⁶ RA 7925, Section 11

²⁷ TPP Final Text (2016), Article 13.10

²⁸ NTC MC No. 14-7-2000, Sections 56-59

procedures.²⁹ Thus, the implementation of the unbundling has not been enforced. According to the NTC, it is extremely difficult to do so citing common costs, and at any rate, it has no power to compel submission of information from the PTEs (Cabarios 2015). This reinforces the need for new legislation to clarify and expand the powers of the NTC.

Leased circuits services

A major supplier in a state party's territory is required to provide service suppliers of another party leased circuits services that are public telecommunications services in a reasonable period of time on terms and conditions, and at rates that are reasonable and nondiscriminatory, and based on a generally available offer.³⁰ Hence, each party shall provide its telecommunications regulatory body the authority to require a major supplier in its territory to offer leased circuits services that are public telecommunications services to service suppliers of the other party at capacity-based, cost-oriented prices.³¹

The foregoing is governed by negotiations between contracting parties. Moreover, under RA 7925, PTEs shall offer leased line service to VAS providers at the same quality and at a price not higher than the prevailing leased line prices offered by the PTEs to the public. PTEs shall not deny requests by VAS providers for leased line service. If a PTE is unable to provide leased line to a VAS provider, said PTE shall inform in writing, copy furnishing the commission, the requesting VAS provider of the reasons for denial of request. The commission may require the PTE to further substantiate its denial of the request.³²

Colocation and access to poles, ducts, conduits, and rights-of-way

Another obligation for state parties is to ensure that a major supplier in its territory provides to suppliers of public telecommunications services of the other party in the party's territory physical colocation of equipment necessary for interconnection or access to unbundled network elements based on a generally available offer, on a timely basis, on terms and conditions, and at cost-oriented rates, that are reasonable and nondiscriminatory.³³ However, if physical colocation is not practicable, the party shall ensure that a major supplier in its territory provides an alternative solution, on the same terms as the above.³⁴

Rules on physical colocation are already found in NTC MC 14-7-2000, where the chapter on Standards of Physical and Virtual Colocation (Section 65) states that "(s)ubject to fair and nondiscriminatory compensation arrangements, and to the extent technically feasible, an access provider shall provide physical colocation and virtual colocation to access seekers on a first-come, first-served basis; Provided, that in case the compensation arrangements for colocation are not contained in the interconnection agreement, the delay in the negotiation for and execution of compensation arrangements shall in no way be a cause for the delay in the execution of interconnection agreement and actual interconnection of the parties."

TPPA requires each party to ensure that a major supplier in its territory affords access to poles, ducts, conduits, and rights-of-way owned or controlled by the major supplier to suppliers of public telecommunications services of the other party in the party's territory on a timely basis, on terms

²⁹ NTC MC No. 14-7-2000, Section 64

³⁰ TPP Final Text (2016), Article 13.12 (1)

³¹ TPP Final Text (2016), Article 13.12 (2)

³² RA 7925, Section 11

³³ TPP Final Text (2016), Article 13.13 (1)

³⁴ TPP Final Text (2016), Article 13.13 (2)

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and conditions, and at rates, that are reasonable, nondiscriminatory, and transparent, subject to technical feasibility.³⁵

One of the major limitations to market entry in PTNS is the cost of network deployment. Extensive infrastructure is needed to build telecommunications networks. In addition, the acquisition of rights-of-way and other permits required to install ducts, conduits, and poles can be time consuming.

Infrastructure sharing and colocation can significantly reduce barriers to competitive entry. They allow operators to provide services at a lower cost than if they built their infrastructure. Sharing also helps to reduce the control of essential facilities by dominant operators. Another benefit is reduced environmental impact and inconvenience to the public. Similar to the obligations for interconnection, prices for access to and use of facilities should be as transparent as possible to ensure fair trading.

However, agreements in the Philippines on colocation and access to poles are internal to the parties and are not provided to the public.

Submarine cable systems

The TPPA requires that where a supplier of telecommunications services in the territory of a party operates a submarine cable system to provide public telecommunications services, that party shall ensure that the supplier accords suppliers of public telecommunications services of the other party reasonable and nondiscriminatory treatment with respect to access to that submarine cable system, including landing facilities.³⁶ This is currently not governed by existing regulations in the Philippines, and is subject to the bilateral negotiations of the submarine cable system owner/operator and the access seeker.

INTERNATIONAL MOBILE ROAMING

State parties to the TPPA are obligated to endeavor to cooperate on promoting transparent and reasonable rates for international mobile roaming services.³⁷ Should a party choose to regulate rates or conditions for wholesale international roaming services, it shall ensure that a supplier of public telecommunications services of another party has access to the regulated rates or conditions for its customers roaming in the territory of the first party.³⁸

Also, each party shall provide to the other parties information on rates for retail international mobile roaming services for voice, data, and text messages offered to consumers of the party when visiting the territories of the other parties.³⁹

Currently, the Philippines has no regulations on international mobile roaming services, leaving it to its PTNS to negotiate with its foreign counterparts. There is then a lack of transparent and reasonable rates for such services. The information on retail rates will depend on different providers, and can be accessed by the customers through its service provider and not the NTC.

³⁵ TPP Final Text (2016), Article 13.14

³⁶ TPP Final Text (2016), Article 13.15

³⁷ TPP Final Text (2016), Article 13.6 (1)

³⁸ TPP Final Text (2016), Article 13.6 (4)

³⁹ TPP Final Text (2016), Article 13.5 (6)

COMPETITIVE SAFEGUARDS

Under the TPPA, state parties are obliged to maintain appropriate measures for the purpose of preventing suppliers of public telecommunications services that, alone or together, are a major supplier in its territory from engaging in or continuing anticompetitive practices,⁴⁰ which include:

1. Engaging in anticompetitive cross-subsidization;
2. Using information obtained from competitors with anticompetitive results; and
3. Not making available, on a timely basis, to suppliers of public telecommunications services, technical information about essential facilities and commercially relevant information that are necessary for them to provide services.

The Philippine Constitution already explicitly provides that the state shall regulate or prohibit monopolies when the public interest so requires. No combinations in restraint of trade or unfair competition shall be allowed.⁴¹ Jurisprudence affirms the foregoing provision in the following manner:

“Section 19, Article XII of our Constitution is antitrust in history and in spirit. It espouses competition. The desirability of competition is the reason for the prohibition against restraint of trade, the reason for the interdiction of unfair competition, and the reason for regulation of unmitigated monopolies. Competition is thus the underlying principle of Section 19, Article XII of our Constitution which cannot be violated by RA 8180. We subscribe to the observation of Prof. Gellhorn (1986, p. 45) that the objective of the antitrust law is ‘to assure a competitive economy, based upon the belief that through competition, producers will strive to satisfy consumer wants at the lowest price with the sacrifice of the fewest resources. Competition among producers allows consumers to bid for goods and services, and thus matches their desires with society’s opportunity costs.’

“Again, we underline in scarlet that the fundamental principle espoused by Section 19, Article XII of the Constitution is competition for it alone can release the creative forces of the market. But the competition that can unleash these creative forces is competition that is fighting yet is fair. Ideally, this kind of competition requires the presence of not one, not just a few, but several players. A market controlled by one player (monopoly) or dominated by a handful of players (oligopoly) is hardly the market where honest-to-goodness competition will prevail. Monopolistic or oligopolistic markets deserve our careful scrutiny and laws which barricade the entry points of new players in the market should be viewed with suspicion” (Tatad v. Sec. of Energy 1997).

Such emphasis on competition found its way into RA 7925, Section 4 (f), where it was declared as a national policy that “(a) healthy competitive environment shall be fostered, one in which telecommunications carriers are free to make business decisions and to interact with one another in providing telecommunications services, with the end in view of encouraging their financial viability while maintaining affordable rates.” Again, in NTC MC 14-7-2000, the commission stipulates that it can disapprove an interconnection agreement if it is anticompetitive.⁴²

It may be noted, however, that RA 7925 expressly mandates cross-subsidization to unprofitable local exchange areas in order to promote telephone density and provide extensive access to basic telecommunications services.⁴³ While this cross-subsidization policy used to be common in other countries, it has been phased out due to the distortions it creates in markets. Today, the mechanism

⁴⁰ TPP Final Text (2016), Article 13.8

⁴¹ 1987 Constitution, Article XII, Section 19

⁴² NTC MC No. 14-7-2000, Article V, Section 14 (d)

⁴³ RA 7925, 5(c)

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most used around the world is a Universal Service Fund (USF), which collects a percentage of revenues from PTEs.

To give teeth to the Philippines' increasingly difficult battle against anticompetitive acts and practices in various industries and markets, Congress has passed RA 10667, or otherwise called the Philippine Competition Act (PCA). The PCA prohibits acts that restrict, prevent, or lessen competition, such as bid manipulation, controlling production, markets or technical development, as well as the abuse of dominant position by a major player that includes imposing barriers to entry, or selling goods or services below cost to drive out competition, discriminatory prices, and the like.⁴⁴ In addition, mergers and acquisitions that substantially prevent, restrict, or lessen competition in the relevant market or in the market for goods or services are likewise prohibited.⁴⁵

This law will now cover the telecommunications industry, prohibiting major suppliers from performing any act that will substantially restrict or lessen competition in the telecommunications market.

In this context, it is expected that the Philippine Competition Commission (PCC), which has been created by the PCA, will also work with the NTC to address some of the challenges previously discussed—such as those on number portability, as well as on requiring more transparent reportorial submissions from industry players, among others—to the extent that these unreasonably restrict competition in the sector. One positive step done by the PCC toward promoting competition was when it sought to review a recent acquisition of the incumbent players of a potential entrant's telecommunication assets, including radio spectra. However, as of date, the review was put on a standstill due to an injunction filed by the incumbents against PCC to prevent the former from proceeding with its review (Camus 2017). Notably, according to the PCC, its initial study has yielded concerns that the transaction is likely to lead to substantial lessening of competition in the relevant markets, translating into consumer harm.

Developments on the PCC's discharge of its mandate to promote competition in the telecommunications sector, and the role NTC, alongside with the newly created Department of Information and Communications Technology, will take in supporting PCC's efforts, will demonstrate the country's resolve to promote competition in this vital sector.

As is apparent from the PCA, the PCC comes well equipped with its massive task, having primary and original jurisdiction over all competition-related issues, with the power to penalize potentially anticompetitive practices, such as foreclosure of competitors, exploitation of market power, and collusion. It can also prohibit mergers and acquisitions, and impose structural and behavioral remedies to address market failures.

LICENSING AND ENFORCEMENT

The TPPA requires a state party to have a telecommunications regulatory body that is separate from, and not accountable to, any supplier of public telecommunications services and is able to render impartial decisions.⁴⁶ Such body should not hold a financial interest or maintain any operating or management role in such a supplier.⁴⁷ As previously stated, the NTC fulfills this function. It

⁴⁴ RA 10667, Section 14–15

⁴⁵ RA 10667, Section 20

⁴⁶ TPP Final Text (2016), Article 13.16

⁴⁷ TPP Final Text (2016), Article 13.16

has jurisdiction over licensing, pricing, adoption of standards of reliability and interoperability, frequency allocation and assessment, dispute resolution, and consumer protection (Patalinghug and Llanto 2004).

The licensing process of the Philippines is in accordance with the TPPA which requires the same to be made publicly available.⁴⁸ The NTC publishes its Rules of Practice and Procedure (“Rules”) for public information. Existing permits and/or licenses are likewise publicly available in its offices and website, while the terms and conditions of the licenses can be found in the document issued itself. In the event of denial, the NTC provides the reasons for the same, and any revocation or refusal for renewal undergoes the proper proceedings pursuant to its rules.⁴⁹

NTC’s powers to enforce its mandate can be found in RA 7925 and the Public Service Act or Commonwealth Act No. 146. The sanctions, however, are not up to par with the TPPA’s requirement that the “authority shall include the ability to impose effective sanctions, which may include financial penalties, injunctive relief (on an interim or final basis), corrective orders, or the modification, suspension, or revocation of licenses.”⁵⁰ The fine imposable by the NTC is only PHP 200 per day for the period during which default or violation continues.⁵¹ There are no penalties or sanctions provided under RA 7925.

The maximum fine of PHP 200 per day, which was established 80 years ago in the Public Service Act of 1936, is clearly insufficient to deter anticompetitive behavior. Without effective sanctions for violations, inducing compliance is difficult. If penalties are too low and enforcement is unlikely, operators will tend to choose to violate the law and face the possible consequences.

For instance, in 2011, the NTC issued a memorandum circular requiring operators to reduce short message service (SMS) interconnection fees by PHP 0.20 and to drop prices from PHP 1.0 to PHP 0.80 per text. While operators complied with the former, they did not reduce the SMS rates they charged their customers. Thus, in 2012, the NTC instructed these firms to reimburse their subscribers for the difference in the rates they charged from when the circular was supposed to have been effective. The NTC also ordered the companies to pay PHP 200 per day until they are able to comply with the circular. This penalty for failing to implement the order is equivalent to only PHP 72,800 annually, a drop in the bucket compared to the billions these companies earn every year. Unsurprisingly, the operators chose to pay the fee instead of reducing rates and reimbursing customers.

The noncompliance by the operators highlights the NTC’s weakness as a regulator. For any law to have a deterrent effect, sanctions must be significant. One possible alternative may be to make the penalty a multiple of the profits earned as a result of the unlawful activity. For instance, in some countries, a fine of up to twice the gain or loss caused by the crime may be imposed. The amount of the losses to customers and other firms are included as they are often greater than the gains of the violating operator, thus highly discouraging unlawful behavior.

The passage of the PCA created an opportunity to indirectly give some teeth to NTC’s regulatory powers. The PCA empowers the PCC to impose far more significant and nontrivial fines and penalties. The NTC and the PCC could therefore work together to set up a system that can now deter players from engaging in anticompetitive behavior.

For resolution of telecommunications disputes, the TPPA requires that a telecommunications regulatory body should undertake this function. This includes interconnection-related disputes.⁵²

⁴⁸ TPP Final Text (2016), Article 13.18 (1)

⁴⁹ TPP Final Text (2016), Article 13.18 (2)

⁵⁰ TPP Final Text (2016), Article 13.20

⁵¹ Commonwealth Act No. 146, Section 21

⁵² TPP Final Text (2016), Article 13.21 (1)

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If the regulatory body declines to do so, it shall, upon request, provide a written explanation.⁵³ A system for petitioning for reconsideration a determination or decision of the telecommunications regulatory body must be in place. Nonetheless, these modes of redress will not stay compliance from the determination or decision of the regulatory body.⁵⁴

The designated function of the NTC to preside over a dispute on interconnection charges can be found under RA 7925. The law stipulates that should the parties fail to agree thereon within a reasonable period of time, the dispute shall be submitted to the commission for resolution.⁵⁵ Any other issues within NTC jurisdiction may be submitted for its consideration.⁵⁶ The steps for the proceedings before the NTC are set forth in the Rules of Practice and Procedure of the Commission, and is appealable to the Court of Appeals (NTC 2006).

ALLOCATION AND USE OF SCARCE RESOURCES

Each party is obligated under the TPPA to administer its procedures for the allocation and use of scarce telecommunications resources, including frequencies, numbers, and rights-of-way, in an objective, timely, transparent, and nondiscriminatory manner.⁵⁷ Moreover, it shall make publicly available the current state of allocated frequency bands, but retain the right not to provide detailed identification of frequencies allocated or assigned for specific government uses.⁵⁸ However, when making a spectrum allocation, each party shall rely on an open and transparent process, and market-based approaches in assigning spectrum.⁵⁹

Pursuant to NTC MC No. 8-9-95, the radio spectrum allocation and assignment shall be subject to review in the interest of public service and in order to keep pace with developments in wireless technology to ensure wider access to the limited radio spectrum and the use of cost-effective technology (NTC 1995). The NTC issues circulars providing for frequency allocations for wireless systems. Assignments of frequency allocated are not available to the general public information due to security reasons.

UNIVERSAL SERVICE

The TPPA requires each state party to administer any universal service obligation that it maintains in a transparent, nondiscriminatory, and competitively neutral manner, and shall ensure that its universal service obligation is not more burdensome than necessary for the kind of universal service that it has defined.⁶⁰ The full universal service goal of RA 7925 is met by the state requirement for carriers to cross-subsidize underserved areas.

The underlying concept of universal service is to ensure that all citizens have access to basic telecommunications services at reasonable charges. Since PTNS are more costly to provide in some

⁵³ TPP Final Text (2016), Article 13.21 (1)

⁵⁴ TPP Final Text (2016), Article 13.21 (1)

⁵⁵ RA 7925, Article 18

⁵⁶ RA 7925, Article 3, Section 5

⁵⁷ TPPA, *supra* note 1, Article 13.19 (1)

⁵⁸ TPPA, *supra* note 1, Article 13.19 (2)

⁵⁹ TPPA, *supra* note 1, Article 13.19 (4)

⁶⁰ TPP Final Text (2016), Article 14.15

areas than others, PTEs will tend to focus on more lucrative services and coverage, and neglect less profitable locations.

Mechanisms to implement universal service should avoid distortion of natural market competition and undue burden on the sector. Unfortunately, with the introduction of competition and liberalization in telecommunications, the traditional approach of cross-subsidization is no longer effective. Cross-subsidies have been shown to create strong distortions that impede effective competition.

Over the last two decades, many countries have turned to USFs to address universal service requirements. USFs operate by having the industry itself finance projects to extend the reach of PTNS, with PTEs typically contributing between 0.5 and 5 percent of their revenues. By applying fees horizontally to the whole sector, relative prices remain steady, and distortions in the economy are minimized. To align with recognized best practices, the Philippines would need to amend or replace RA 7925 to remove provisions on cross-subsidization and create a more competitively neutral mechanism, such as a USF, to achieve its universal service objectives.

CONCLUSION

There remain a number of issues in the telecommunications industry that must be resolved before the Philippines can be considered fully compliant with anticipated requirements in new generation FTAs that it might want to join in the future. Comprehensive amendments to RA 7925 are in order, especially with respect to interconnection, unbundling of network elements, cross-subsidization, number portability, and the powers of the NTC to police the market players, as was illustrated in this paper. Alternatively, given the broad mandate and powers given to the newly formed PCC, and the positive impact that addressing these issues may have on the environment for competition in the telecommunications sector, it may now be possible for the PCC and the NTC, working together, to bridge these gaps through a series of administrative issuances.

In any case, significant changes are still warranted in the Philippines' regulatory framework for the telecommunications sector. These are essential to be compliant with the requirements of emerging new trade agreements. More importantly, there is a need to ensure adequate competition in the sector that upholds the public welfare and promotes international competitiveness of Philippine enterprises, for which ICT services represent significant costs of doing business.

Finally, whether or not such legislative solutions would be enough to achieve compliance with the requirements of new trade agreements such as the TPPA, given the constitutional restrictions on foreign participation in public utilities, is arguable and deserves further study.

REFERENCES

- ABS-CBN News. 2010. NTC can't compel telcos to reveal interconnection terms. *ABS-CBN News.Com*. January 20. <http://www.abs-cbnnews.com/business/01/20/10/ntc-cant-compel-telcos-reveal-interconnection-terms> (accessed on January 12, 2017).
- Cabarios, E. 2015. Personal interview, August 13. National Telecommunications Commission director.
- Camus, M. 2017. SC asked to step into the sale of SMC telco to PLDT, Globe. *Inquirer.net*. April 19. <http://business.inquirer.net/227966/sc-asked-to-step-into-the-sale-of-smc-telco-to-pldt-globe> (accessed on May 4, 2017).

Philippine Telecommunications Laws and Regulations: A TPP Gap Analysis

- Commonwealth Act No. 146. 1936. An act to reorganize the Public Service Commission, prescribe its powers and duties, define and regulate public services, provide and fix the rates and quota of expenses to be paid by the same, and for other purposes. Manila, Philippines: National Assembly of the Philippines. http://www.upecon.org.ph/epdp/wp-content/uploads/2016/01/1936-11-7-960_CA-146-Public-Service-Commission-Act.pdf (accessed on June 3, 2016).
- Executive Order No. 59. 1993. Prescribing the policy guidelines for compulsory interconnection of authorized public telecommunications carriers in order to create a universally accessible and fully integrated nationwide telecommunications network and thereby encourage greater private sector investment in telecommunications. Manila, Philippines: Office of the President of the Philippines. <http://www.gov.ph/1993/02/24/executive-order-no-59-s-1993/> (accessed on June 3, 2016).
- Gamboa vs. Teves et al. 2011. G.R. No. 176579. June 28, 2011. <http://sc.judiciary.gov.ph/jurisprudence/2011/june2011/176579.html> (accessed on January 10, 2017).
- Gellhorn, E. 1986. *Antitrust law and economics in a nutshell*. St. Paul, MN: West Publishing Co.
- International Telecommunication Union (ITU). 2015. *Measuring the information society report*. Geneva, Switzerland: ITU.
- Memorandum Circular No. 11-5-94. 1994. Fundamental numbering plan. Quezon City, Philippines: National Telecommunications Commission.
- Memorandum Circular No. 8-9-95. 1995. Implementing rules and regulations for Republic Act 7925. An act to promote and govern the development of Philippine telecommunications and the delivery of public telecommunications services. Quezon City, Philippines: National Telecommunications Commission. <http://www.para.org.ph/legacy/NTC%20Memos/030396.pdf> (accessed on January 12, 2017).
- Memorandum Circular No. 14-7-2000. 2000. Implementing rules and regulations for the interconnection of authorized public telecommunications entities. Quezon City, Philippines: National Telecommunications Commission. http://ntc7.net.ph/images/MC_14-07-2000.PDF (accessed on January 12, 2017).
- Memorandum Circular No. 10-07-2007. 2007. Mandating the development of reference access offers to facilitate fair and expeditious interconnection or access between service providers. Quezon City, Philippines: National Telecommunications Commission.
- Ookla. 2014. *Speedtest global index*. Seattle, Washington: Ookla. <http://www.speedtest.net> (accessed in December 2014).
- Patalinghug, E. and G. Llanto. 2004. Competition policy and regulation in power and telecommunications. PIDS Discussion Paper No. 2005-18. Makati City, Philippines: Philippine Institute for Development Studies. <http://dirp3.pids.gov.ph/ris/dps/pidsdps0518.pdf> (accessed on January 12, 2017).
- Philippine Statistics Authority (PSA). 2016a. *National accounts of the Philippines*. Quezon City, Philippines: PSA.
- . 2016b. *Labor and employment statistics*. Quezon City, Philippines: PSA.
- Republic Act No. 7925. 1995. An act to promote and govern the development of Philippine telecommunications and the delivery of public telecommunications services. Manila, Philippines: Congress of the Philippines. http://www.lawphil.net/statutes/repacts/ra1995/ra_7925_1995.html (accessed on June 3, 2016).
- Republic Act No. 10173. 2012. An act protecting individual personal information in information and communications systems in the government and the private sector, creating for this purpose a National Privacy Commission, and for other purposes. Data Privacy Act of 2012. Manila, Philippines: Congress of the Philippines. <http://www.officialgazette.gov.ph/2012/08/15/republic-act-no-10173/> (accessed on January 12, 2017).
- Republic Act No. 10667. 2014. An act providing for a national competition policy prohibiting anti-competitive agreements, abuse of dominant position and anti-competitive mergers and acquisitions, establishing the Philippine Competition Commission and appropriating funds therefor. Manila, Philippines: Congress of the Philippines. <http://www.gov.ph/2015/07/21/republic-act-no-10667/> (accessed on January 12, 2017).

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- Republic of the Philippines. 1987. *Philippine Constitution*. Article XII on national economy and patrimony. Section 19. <http://www.gov.ph/constitutions/the-1987-constitution-of-the-republic-of-the-philippines/the-1987-constitution-of-the-republic-of-the-philippines-article-xii/> (accessed on January 10, 2017).
- Revised Administrative Circular 1-95. 2006. Rules of practice and procedure of the commission. Quezon City, Philippines: National Telecommunications Commission. http://www.ntc.gov.ph/info_lawsrulesregulations_ntcmanuals.php; <http://ntc.gov.ph/wpcontent/uploads/2015/10LawsRulesRegulations/RulesOfPracticeAndProcedures/RPP2006.pdf> (accessed on January 12, 2017).
- Tatad v. Secretary of Energy. 1997. G.R. No. 124360. December 3, 1997. http://www.lawphil.net/judjuris/juri1997/nov1997/gr_124360_1997.html (accessed on January 12, 2017).
- Trans-Pacific Partnership Final Text. 2016. Chapter 13: Telecommunications, Article XIII.4. (1). Washington, D.C.: Office of the United States Trade Representative. <https://ustr.gov/sites/default/files/TPP-Final-Text-Telecommunications.pdf> (accessed on June 3, 2016).
- World Bank (WB). 2016. *World development indicators*. Washington, D.C.: WB. <http://databank.worldbank.org/data/home.aspx> (accessed on February 5, 2017).
- World Trade Organization (WTO). 1997. WTO regulation reference paper: Appendix A. https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm (accessed on August 15, 2015).