# Pricing in Regulated Industries: The Telecommunications Sector

#### Arthur S. Cayanan and Ivy D.C. Suan\* University of the Philippines, Cesar E.A. Virata School of Business, Diliman, Quezon City 1101, Philippines

This paper discusses the factors affecting the pricing of telecommunication services and the pricing schemes used by telecom companies in the Philippines. In spite of the reduced prices mainly brought about by competition, the telecom services offered in the Philippines still remain one of the highest among the Asian countries covered in the comparison. With the acquisition of Digitel by PLDT in 2011 and reducing the sector to two major players, concerns have been raised regarding the prices and the quality of services offered by the remaining players. This is where regulation becomes crucial, but the question remains as to whether the regulatory agency can deliver its mandate of regulating the telecom companies.

*Keywords*: average revenue per user, interconnection rates, pricing, regulated industries, return on equity, return on rate base, tariffs, telecommunications sector, utilities

## 1 Introduction

The telecommunications sector covers fixed line, mobile telephone services and broadband. The importance of this sector in the national economy cannot be underestimated. It provides the infrastructure for the development of the business processing outsourcing sector, one of the biggest contributors to employment and gross international reserves of the country. According to the Business Processing Association of the Philippines (BPAP), the BPO sector employed around 640,000 people and generated US11 billion in revenues in 2011 (Hamlin, 2012). In 2012, the revenues are expected to increase to US13 billion and will add another 126,000 new jobs (Romero, 2012).

The telecommunications sector has also empowered small and medium enterprises. Marketing of products and services through the internet has become common. This development has, somehow, leveled the playing field between big and small players in different industries.

The telecommunications sector is also responsible for the growth of business-to-business (B2B), which may minimize transactions with middlemen. This should result in lower production costs for goods and services.

The telecommunications sector also contributed billions of pesos to taxes. The Philippine Long Distance Telephone Company (PLDT) and Globe Telecommunications Inc., the two biggest players in the Philippine telecommunications sector, paid a total of PHP16 billion in income taxes in 2011 and incurred a total of PHP5 billion in other taxes and licenses for the same year.<sup>1</sup>

This study intends to discuss the factors that affect the pricing of telecommunication services. This paper is organized as follows:

- 1. Description of methodology
- 2. Factors affecting the pricing of telecommunication services
- 3. Pricing schemes of telecommunication services
- 4. Financial performance of the major players in the Philippine telecom industry
- 5. Comparison of prices of telecommunication services with other countries
- 6. Conclusion

<sup>&</sup>lt;sup>\*</sup> Correspondence: Tel: +63 2 928 4571; Fax: +63 2 920 7990. Email: arthur.cayanan@gmail.com

<sup>&</sup>lt;sup>1</sup> The amounts were computed based on the information from the annual reports of PLDT and Globe Telecom.

# 2 Methodology

In conducting this study, the following steps were performed:

- 1. Read applicable laws about the telecommunications sector in the Philippines.
- 2. Read articles from the newspapers and internet affecting the telecommunications sector in the country.
- 3. Read annual reports of the major players in the telecommunications sector.
- 4. Searched the internet for the telecom services of other telecom companies in selected Asian countries.
- 5. Conducted interviews with an official from the National Telecommunications Commission (NTC).
- 6. Conducted interviews with some executives of one of the major players in the telecommunications sector. The executives of the other major telecom player refused to grant interviews.

### **3** Factors Affecting the Pricing of Telecommunication Services

Three major factors affect the pricing of telecommunication services: regulation, competition, and technology.

### 3.1 Regulation

The National Telecommunications Commission, which is currently under the Office of the President of the Republic of the Philippines, is mandated to regulate the telecommunications sector in the Philippines. It was created on July 23, 1979 through Executive Order Number 546 as part of the then Ministry of Transportation and Communications.

The role of the NTC changed over the years as the telecom sector also evolved from a monopolistic structure into a more competitive one. The Philippine telecom regulatory development has been a point of interest for many authors. For instance, the reforms were discussed by Patalinghug and Llanto (2005), Mirandilla (2007) and Mirandilla-Santos (2011). The breakthroughs that these authors considered important include the approval of new telecom franchises in 1987 and the enactment of Republic Act 7925, which is known as the "Public Telecommunications Policy Act of the Philippines."

The entry of new players in 1987 essentially ended the monopoly of PLDT. Competitors such as Bayan Telecommunications (Bayantel), Globe Telecom, Pilipino Telephone Corporation (Piltel), and Digital Telecommunications Philippines (Digitel) were able to penetrate the market. However, several acquisitions and mergers later, with the most recent being the merger of PLDT and Digitel in 2011, changed the structure back to that of a duopoly.

Before 1995, the telecom companies were being regulated based on the maximum return on rate base (RORB) of 12%. The formula for RORB is shown below:

RORB = OperatingIncome Net Fixed Assets + 2 months' ave. working capital

This 12% RORB influenced the tariff rates that telecom companies can charge for their services.

Since President Fidel Ramos approved RA 7925 on March 1, 1995, the role of NTC on rates and tariffs has changed. The NTC's power to regulate telecom rates and tariffs are stated in Section 17 of RA 7925:

"Rates and Tariffs. The Commission shall establish rates and tariffs which are fair and reasonable and which provide for the economic viability of telecommunications entities and a fair return on their investments considering the prevailing cost of capital in the domestic and international markets" (RA 7925, p. 11). "The Commission shall exempt any specific telecommunications service from its rate or tariff regulations if the service has sufficient competition to ensure fair and reasonable rates or tariffs. The Commission shall, however, retain its residual powers to regulate rates or tariffs when ruinous competition results or when a monopoly or a cartel or combination in restraint of free competition exists and the rates or tariffs are distorted or unable to function freely and the public is adversely affected. In such cases, the Commission shall either establish a floor or ceiling on the rates or tariffs." (Ibid.)

The administrative roles of NTC as stated in Section 5 of RA 7925 are summarized below.

- 1. Facilitate the entry of qualified service providers.
- 2. Ensure quality of service consistent with international standards.
- 3. Ensure interconnection at fair and reasonable rates.
- 4. Foster fair competition.
- 5. Promote consumers welfare by facilitating access to telecommunications services.
- 6. Protect consumers against misuse of a telecommunications entity's monopoly or quasimonopolistic powers.
- 7. Impose such fees and charges to cover reasonable costs and expenses related to the regulation and supervision of telecommunications entities.

Based on these laws and the other memoranda issued by NTC, telecom prices are now more deregulated and driven by market forces. While telecom companies are required to interconnect, NTC allows the telecom companies to determine rates and tariffs. To ensure that prices remain competitive, NTC monitors performance indicators such as the return on equity (ROE) and average revenue per user (ARPU). NTC also has equipment that allows it to monitor the quality of service for phone calls based on the following parameters: dropped calls, blocked calls, signal level, quality of signal, and call set-up time. NTC has started publishing its "Quarterly Quality of Service Benchmarking Report" in 2012. This report compares the quality of service of the leading telephone companies. NTC, however, is not equipped to monitor the quality of the other services provided by the telecom companies such as those related to broadband services.

One ongoing contention between the telecom companies and NTC is the setting of interconnection charges. The interconnection rates for mobile services in the Philippines are among the most expensive in Southeast Asia. At the start of 2011, it was set at PHP0.35 per short message service (SMS) or text message, and PHP4 per minute for voice calls. In 2011, the NTC issued Circular No. 02-10-2011<sup>2</sup> that requires telecom companies to reduce SMS interconnection charges by PHP0.20 per text from PHP0.35 to PHP0.15 per text. This would have reduced the regular rates from PHP1 to at most PHP0.80 per SMS. The telecom companies claimed that they have complied with this order but they did not reduce the SMS rates they charged their customers. They claimed that buckets and promos have already reduced the average revenue per SMS to PHP0.10 (Elchico, 2011).

On 20 November 2012, NTC ordered Smart, Digitel, and Globe to reimburse their subscribers for the difference in the rates they charged from December 1, 2011 when the memorandum circular was supposed to have been effective ("After Ignoring Order", 2012), for not reducing the SMS rates. NTC also ordered the telecom companies to pay PHP200 per day as a penalty from December 1, 2011 until they are able to comply with the circular. Unfortunately, RA 7925 does not have penal provisions so NTC based the penalty on a very old law called the Public Service Act of 1936. According to Mr. Cabarios, head of NTC's Common Carrier Authorization Department, the PHP200 per day penalty for violation is considered immaterial. Smart, Globe, and Digitel appealed the decision and filed motions for consideration on 5 November 2012 ("Smart Sun Globe", 2012).

<sup>&</sup>lt;sup>2</sup> http://www.ntc.gov.ph/info\_lawsrulesregulations\_memorandumcircular.php

# 3.2 Competition

### 3.2.1 Market Shares

As of 31 March 2013, PLDT and its subsidiaries Smart and Digitel continue to dominate the industry. In the mobile phone market for instance, PLDT has a 67.11% share (Philippine Long Distance Telephone Company [PLDT], 2013) while its major competitor Globe Telecom has a 32.89% share (Globe Telecom, Inc. [Globe], 2013). The exact numbers of PLDT and Globe subscribers for three services are shown in Table 1.

 Table 1. Market Shares of PLDT and Globe Telecom as of 31 March 2013

Services	PLDT	Globe				
Cellular	71,699,263	35,141,918				
Fixed Line (Voice)	2,063,522	687,775				
Broadband (Wireless and Fixed Line)	3,163,291	1,740,951				
Courses, DIDT SEC Form 17, 0, 10, 2012, Clobe Telesom SEC Form 17, 0, 10, 2012						

Sources: PLDT SEC Form 17-Q 1Q 2013; Globe Telecom SEC Form 17-Q 1Q 2013.

### 3.2.2 Deregulation and Competition

Prior to deregulation, the telecom companies were regulated based on a maximum RORB of 12% (Serafica, 2002). It was after deregulation that competition became one of the major driving forces that influenced telecom prices. The entry of more players resulted in the introduction of buffet pricing for some services and the bundling of different services to attract more subscribers. This minimized the prices charged for calls within the same networks and made SMS a lot cheaper. The international calls have become cheaper, too. It was USD2.00 per minute before the liberalization. At present, the charge for IDD calls from landlines is USD0.40 per minute.

The price war in mobile services was triggered when Digitel Mobile Philippines, Inc. (DMPI) or commercially known as Sun Cellular, a fully-owned subsidiary of Digitel, introduced 24/7 unlimited call and text messaging in 2004. Globe and Smart responded to Sun's challenge by offering similar promos after failing to stop these services through petitions filed in the NTC.

Telecom companies have to continually come up with new tariff plans to attract more customers and maintain client base. Today, firms present Filipino telecom subscribers with diverse and increasingly complex products. The extent of competition can be found in the succeeding tables that present some of the different plans and tariffs that telecom users can subscribe to. Tables 2 and 3 show the residential landline and wireless landline tariffs offered by the major providers in Metro Manila. Wireless landlines have the same features as fixed landline but they have some additional mobile-like capabilities. The prepaid regular rates and postpaid tariff plans of Smart, Talk 'N Text, Globe and Touch Mobile (TM) are summarized in Tables 4 to 6. Talk 'N Text is a brand offered by Smart while TM is under Globe. Some of the residential internet services offered by PLDT, Globe and Bayantel are described in Table 7.

Over the years, significant reductions have been observed in the prices offered for SMS, mobile voice call, and broadband services. It is evident that competition benefited subscribers. Alampay (2011) showed a declining gross yearly mobile phone average revenue per user (ARPU) trend for the period 2005-2011. As shown in Table 8, the ARPU of Globe and PLDT further decreased from the last quarter of 2011 and the first quarter of 2012 (see Globe, 2012b; PLDT, 2012).

Because of competition, a mobile phone subscriber can now avail of very cheap promotions that allow unlimited text messages to all networks. While the situation for voice calls is different due to expensive interconnection charges, there are several good deals for calling within the same network.

The major players in the Philippine telecom industry are set to maintain or probably even increase their market shares. The tariff wars have been particularly concentrated on unlimited and bucket promos. Because of these promos, the effective SMS average revenue is now only PHP0.10 per message, which is lower than the PHP0.13 per SMS average revenue in 2010.

	Bayantel	PLDT	
Landline (basic)	<ul> <li>Bayan Phone Basic Plan</li> <li>PHP 499 per month</li> <li>Special features: call waiting and 3-way conference</li> <li>Additional fees for other features.</li> <li>Bayan Phone Max Plan</li> <li>PHP699/month</li> <li>Free and unlimited local calls.</li> <li>Special features: call waiting, 3-way conference, call forwarding, speed dialing and caller ID</li> </ul>	<ul> <li>PLDT landline</li> <li>PHP650 per month</li> <li>Special features: call waiting, call forwarding, 3-way conference, speed dialing and caller ID</li> </ul>	
Local Calls	Free and Unlimited	Free and Unlimited	
NDD (same network)	Free and Unlimited	PHP5.10 per minute	
NDD (other networks)	PHP4.50 per minute	PHP5.10 per minute	
Landline to Cellular	PHP6.25 per minute	PHP14.00 per minute	
IDD	USD 0.10 per minute, USD0.19 per minute or USD0.40 per minute depending on destination.	USD0.40 per minute	

### Table 2. Basic Fixed Landline as of June 2012

Sources: Brochures, Interviews and Personal Consumption; http://www.bayan.com.ph/phone/; http://www.pldt.com.ph/products/consumers/landline/Pages/PLDTLandline.aspx

Table 3.	Wireless	Landline as of	June 2012
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Bayantel	Globe	PLDT		
Bayan Phone Extra	Globe Super Home Phone	PLDT Landline Plus Plan 600		
<ul> <li>PHP499 per month</li> </ul>	<ul> <li>PHP599 per month</li> </ul>	<ul> <li>PHP600 per month</li> </ul>		
<ul> <li>Free and unlimited local calls.</li> </ul>	<ul> <li>Free and unlimited local calls</li> </ul>	<ul> <li>Free 600 minutes of local calls</li> </ul>		
<ul> <li>Free and unlimited nationwide calls and texts to the same network.</li> <li>Free PHP100 worth of NDD/IDD calls and/or texts to other networks per month</li> </ul>	<ul> <li>Free and unlimited nationwide calls to the same network.</li> <li>PHP7.50 per minute for nationwide calls to other networks.</li> <li>PHP1 per SMS.</li> </ul>	<ul> <li>and 120 SMS.</li> <li>PHP1 per succeeding minute for local calls and PHP1 per additional SMS.</li> </ul>		

Sources: Brochures and Interviews; http://www.bayan.com.ph/bwl/; http://www.pldt.com.ph/products/consumers/landline/Pages/LandlinePlus.aspx

### Table 4. Smart and TNT Prepaid Regular Rates as of June 2012

Service	Smart	Talk 'N Text
SMS (local)	PHP1.00/160 characters	PHP1.00/160 characters
SMS (international)	PHP15.00/160 characters	PHP15.00/160 characters
Mobile to Mobile Calls (same network)	PHP6.50/minute (Smart to Smart/TNT/red)	PHP5.50/minute (TNT to TNT)
Mobile to Mobile Calls (other networks)	PHP7.50/minute	PHP6.50/minute
IDD	USD 0.40/minute	

Sources: http://www1.smart.com.ph/prepaid/rates/;

http://www1.smart.com.ph/help/prepaid/article/2011/11/12/talk-%27n-text-regular-rates

Service	Globe	ТМ
SMS (local)	PHP1.00/160 characters	PHP1.00/160 characters
SMS (international)	PHP15.00/message	PHP15.00/message
Mobile to Mobile Calls (same network)	PHP6.50/minute (Globe to Globe only)	PHP5.50 (TM to TM)
Mobile to Mobile Calls (other networks)	PHP7.50/minute (same rate for Globe to TM)	PHP6.50
IDD	USD 0.40/minute	USD 0.40/minute

### Table 5. Globe and TM Mobile Prepaid Regular Rates as of June 2012

Sources: Brochures, Interviews and Personal Consumption

### Table 6. Mobile Postpaid Plans as of June 2012

Company	Plans
Globe	<ul> <li>Monthly fees vary from PHP299 to PHP3799. Some plans include features such as unlimited SMS or calls within the same network, and unlimited internet. Several plans also offer free or discounted handsets.</li> <li>Globe also has more expensive high-end plans whose monthly rates are PHP5000 and PHP10,000</li> </ul>
Smart	<ul> <li>Rates range from PHP299 to PHP4000 per month. For some plans, Smart offers features such as unlimited SMS or calls within the same network, unlimited internet and free handsets.</li> <li>Additionally, a user can subscribe to "Freedom Plans." These plans give users the flexibility to select and combine different services.</li> </ul>

Sources: Brochures and Interviews; http://www1.smart.com.ph/Postpaid/plans

#### Table 7. Internet Broadband Services as of June 2012

Company	Plan
PLDT	<ul> <li>The monthly fees for "PLDT MyDSL" range from PHP990 to PHP3000 depending on the maximum speed.</li> <li>"Vibe" is PLDT's prepaid dial-up internet service. The cost is P100 for 20 hours or P50 for 10 hours.</li> </ul>
Globe	<ul> <li>The rates for "Globe Tattoo" plans depend on factors such as maximum speed and duration. For instance, stand-alone internet costs PHP999 per month with speed of up to 1 Mbps.</li> <li>Globe also offers a combined internet and landline service for as low as PHP1099 per month</li> </ul>
Bayantel	<ul> <li>The bundled plans for bayanDSL include a basic phone package and DSL service. These can be availed for as low as PHP1499 per month. Stand-alone DSL plans can be obtained for as low as PHP899 per month.</li> <li>Prepaid dial-up internet cards can also be bought for PHP100. These can be used for 20 hours.</li> </ul>

Sources: Brochures, Interviews ans Personal Consumption; http://www.bayan.com.ph/products.aspx http://www.pldt.com.ph/products/Pages/ProductSummary.aspx

December 2011 and March 2012						
Service	First Quarter 2012	Fourth Quarter 2011				
Globe Postpaid	1,162	1,152				
Globe Prepaid	156	166				
TM (Prepaid)	98	103				
Smart Prepaid	178	194				
Talk 'N Text Prepaid	118	124				
Red Mobile Prepaid	46	39				
Sun Cellular Prepaid	75	-				
Smart Postpaid	1,302	1,452				
Red Mobile Postpaid	339	355				
Sun Cellular Postpaid	414	-				

Table 8.Gross Monthly ARPU, Comparative Figures for the Months of<br/>December 2011 and March 2012

*Notes:* For Globe, "ARPU is computed by dividing recurring gross service revenues by the average number of the segment's subscribers and then dividing the quotient by the number of months in the period" (Globe, 2012b). Gross service revenues include interconnection expenses; For PLDT, "gross monthly ARPU is calculated by dividing gross cellular service revenues for the month, gross of discounts, allocated content provider costs and interconnection income but excluding inbound roaming revenues, by the average number of subscribers in the month" (PLDT, 2012).

Sources: PLDT SEC Form 17-Q 1Q 2012; Globe Telecom SEC Form 17-Q 1Q 2012.

# 3.3 Technology

While the incremental costs of sending an SMS or making a phone call is small, the telecom companies have invested substantial amount of resources building their capacity. The PLDT group has PHP130 billion of its assets in telecom equipment as of December 31, 2011. This accounts for about 33% of its total assets as of 2011. Globe has about PHP70 billion of its assets in telecom equipment as of 2011 and this accounts for about 53% of its assets that year.

In this sector, technologies can change very fast and such changes can sometimes be very costly for the players. Piltel, a PLDT subsidiary, which used to be the dominant player in the wireless phone business in the early up to mid-1990s, suffered a major setback when the global system for mobile communications or GSM technology was introduced in the market. GSM technology allows the sending of SMS or texts. Piltel was then using analog technology. As a result of this new technology, the company lost its subscribers base. In 2001, Piltel wrote off and recognized impairment losses on its telecom equipment, mostly coming from its AMPS/CDMA network, amounting to PHP14.37 billion. In 2002, Piltel recognized another impairment loss and wrote-off of its telecom equipment amounting to PHP16.79 billion. Piltel's consolidated net losses for 2001 and 2002 were PHP21.86 billion and PHP21.83 billion, respectively, mainly because of these impairment losses and write-offs.<sup>3</sup>

The following are among the telecom equipment that a player in this sector should invest in (Falch, 1997):

- 1. Access network. Access network includes the equipment used for connecting subscribers to national and international networks. This is composed of wires, fiber optics, cables and other equipment. This usually contributes to between one-third and one-half of total investment costs. For mobile telephony, this includes cell sites or base transceiver stations.
- 2. **Switching equipment**. Another integral part of a telecom network is the telephone exchange or switch. The exchange makes it possible for one user to connect to another user. Local calls are processed in local and national exchanges while international calls pass through international gateways.

<sup>&</sup>lt;sup>3</sup> 2001 and 2002 Annual reports of Piltel.

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  - 3. **Transmission/Long line equipment**. Companies provide long distance access through nationwide cable systems, undersea cable systems and satellite links. They may either own or rent these. These also include transmitters, repeaters and trunks. It is currently PLDT that owns the majority of the nationwide transmission backbone.

Shown in Table 9 are the capital expenditures of PLDT and Globe from 2001 to 2011.

(In Millions of PHP), 2001-2011								
Year PLDT Globe								
2011	30,559	18,007						
2010	28,056	17,552						
2009	27,378	20,989						
2008	24,425	18,783						
2007	24,282	13,825						
2006	20,125	11,998						
2005	14,486	15,950						
2004	20,567	20,284						
2003	17,132	17,452						
2002	13,355	17,918						
2001	28,151	26,092						

Table 9.	Capital	Expenditures	of	PLDT	and	Globe
	(In Milli	ons of PHP), 20	01-	2011		

Sources: Annual reports of PLDT and Globe Telecom.

As a result of this huge investment in telecom equipment, depreciation expense accounted for 16% to 27% of PLDT's revenues from 2001 to 2011, while it was 18% to 29% for Globe. Depreciation expense is one of the biggest expenses of both PLDT and Globe. Excluding construction in progress, telecom equipment accounted for 90% of PLDT's property, plant and equipment at the end of 2011. It was 80% for Globe Telecom.

# 4 Pricing Schemes

Telecom companies can use the following pricing schemes: cost-based pricing (long-range incremental cost (LRIC)), demand-based pricing, and market-based/competitive pricing.

# 4.1 Cost-Based Pricing

Cost-based pricing is a function of the cost to provide the service. Tariffs imposed must cover the cost of providing the service to the consumer. These are mostly fixed costs. Fixed costs include the technological cost factors described in the previous section, which are reflected in the depreciation of telecommunication equipment. Fixed costs may also come from the regular salaries of employees, and depreciation of other property, plant, and equipment such as office buildings. Other operating costs must also be covered like repairs and maintenance, marketing costs, and interconnection charges.

Depreciation accounted for one of the biggest expenses of PLDT and Globe, accounting for 16% to 29% of revenues of PLDT and Globe for the period 2001-2011.

Another significant cost is related to salaries of employees, which ranged from 13% to 15% of total revenues for PLDT during the 2009-2011 period and 8% for Globe.

Interconnection charges accounted for 8% to 9% for PLDT during the 2009-2011 period, but were not reported as a separate line item in the income statement of Globe. This interconnection charge cannot also be found in the notes to financial statements of Globe. However, the following

excerpt was taken from the company's May 2012 prospectus for its bond offering, which states that its revenues are net of interconnection charges:<sup>4</sup>

"Mobile data net service revenues consist of prorated monthly service fees on free text allocation of postpaid plans, revenues from value-added services such as inbound and outbound SMS and MMS, content downloading, mobile data browsing and infotext, international value-added service (VAS) and related services, subscription fees on unlimited and bucket prepaid SMS and add-on VAS services, net of any interconnection or settlement payouts to international and local carriers and content providers." (Globe Telecom Inc., 2012a, p. 105)

Another approach used in cost-based pricing that is applied in setting interconnection charge is the forward looking long run incremental cost or FL-LRAIC (Belfin & Lucanowicz, 1999). Based on this approach, the cost of providing a service by an efficient operator is assumed and becomes the basis of the interconnection charge. This FL-LRAIC also considered the cost of maintaining the capacity and the future investment in an efficient technology.

The selling, advertising, and promotions costs accounted for only 3% to 5% of total revenues for PLDT, while it was 6% to 7% for Globe during the 2009-2011 period.

Cost of sales, which accounted for only 3% of total revenues for PLDT and between 5% to 8% for Globe during the 2009-2011 period, refers mostly to cost of handsets, cellular SIM-packs, broad-band data modems and cost of point-product sales.

Financing costs were 3% to 4% of total revenues for both companies. These minimal percentages can be explained by the sound financial position of both companies. PLDT was 35% to 38% financed by equity during the 2009-2011 period, while Globe was 35% to 37% financed by equity during the same period. Foreign exchange gains and losses were also minimal as shown in the income statements of both companies. Loans denominated in foreign currencies, mostly US dollars, accounted for 13% to 16% of the total assets of PLDT during the 2009-2011 period. For Globe, it was 3% to 6% for the same period.

### 4.2 Demand-Based Pricing

Using this approach, a consumer is charged a price based on the perceived value a customer gets out of the service. There are different variations of this approach such as price skimming, price discrimination, and bundle pricing ("Pricing", n.d.). Price skimming is generally used when a service is being introduced. The service is generally priced high at this stage and normally, only a few who can afford can avail of the service. Over time, the price is adjusted downwards to make it more affordable to a larger market.

Price discrimination or price differentiation happens when the sale of exactly the same service is provided at different prices. This is made possible by offering different brands to different target markets.

Bundle pricing is when different services are offered at a certain price or a fixed price. This is what telecom companies are now offering where a certain number of text messages and a certain number of minutes of voice calls can be made either within the same network or with other networks at a certain price.

### 4.3 Market-Based or Competition-Based Pricing

With this approach, a telecom player observes the services and the prices offered by competitors. Based on the features of the services it plans to offer, it then prices its services either higher or lower than what the competitors offer. If it plans to grab market share, it may offer more services or features at the same price the others are offering.

<sup>&</sup>lt;sup>4</sup> May 2012 Prospectus for Globe Telecom's Offering of five year-and-three-month bonds and seven-year bonds.

The buffet pricing that Globe, Talk and Text and Smart offered in the past was in response to the unlimited texts that Sun Cellular started offering in the market. Sun Cellular is now part of the Smart and Talk and Text group. All of the telecom players in the country apply these pricing schemes.

# 5 Financial Performance of the Major Players in the Philippine Telecom Industry

Table 10 shows the operating performances of PLDT and Globe.

 Table 10. Operating Performance of PLDT and Globe (In Millions of PHP), 2001-2011

			PLDT					Globe		
	Opera-					Opera-				
	ting					ting				
	Income	Opera				Income	Opera-			
	before	-ting	Net			before	ting	Net		
	Taxes	Profit	Income	Net		Taxes	Profit	Income	Net	
	(In Mil-	Margin	(In Mil-	Profit		(In Mil-	Margin	(In Mil-	Profit	
	lions of	Before	lions of	Mar-		lions of	Before	lions of	Mar-	
Year	PHP)	Taxes	PHP)	gin	ROE	PHP)	Taxes	PHP)	gin	ROE
1995	8,416	33%	5,751	23%	11%	(254)	-39%	(155)	-24%	-4%
1996	11,442	40%	6,451	22%	11%	(645)	-34%	(751)	-39%	-4%
1997	15,071	42%	7,698	22%	12%	(751)	-29%	(870)	-33%	-15%
1998	9,845	21%	(1,454)	-3%	0%	308	6%	23	0.42%	0.19%
1999	12,937	23%	1,229	2%	3%	1,705	18%	940	10%	7%
2000	10,799	18%	(2,502)	-4%	-2%	4,611	23%	1,549	8%	8%
2001	16,643	24%	1,066	2%	2%	9,612	27%	4,305	12%	10%
2002	20,786	26%	3,070	4%	2%	15,711	34%	6,845	15%	14%
2003	26,211	24%	1,461	1%	0%	15,390	31%	9,953	20%	20%
2004	47,541	39%	27,959	23%	63%	18,189	33%	11,396	20%	21%
2005	46,152	37%	34,479	28%	48%	16,238	28%	10,315	18%	20%
2006	45,888	36%	35,341	28%	35%	19,577	33%	11,755	20%	21%
2007	53,502	39%	35,978	26%	33%	22,751	35%	13,277	20%	24%
2008	59,796	41%	35,298	24%	34%	19,710	30%	11,276	17%	23%
2009	57,882	36%	40,095	25%	42%	18,826	29%	12,569	20%	27%
2010	55,556	35%	40,259	27%	43%	15,034	20%	9,745	13%	21%
2011	43,221	28%	31,637	21%	21%	15,832	19%	9,832	12%	21%

Sources: Annual reports of PLDT and Globe Telecom.

PLDT's return on equity dropped to 21% in 2011 from 43% in 2010 due to declining operating profit margins. The company's operating profit margin dropped from PHP55.5 billion in 2010 to PHP43.2 billion in 2011.

Ten years ago, both companies were not as profitable as they are today. As shown in Table 10, there were years when both companies incurred net losses. This happened with PLDT in 2000 and 1998. Based on the data provided in Table 10, Globe was not profitable before 1998.

In terms of their financial position, both companies have sound balance sheets. As shown in Table 11, both companies have their assets financed by equity ranging from 35% to 38% over the 2009-2011 period. While the percentage of assets financed by liabilities ranged from 62% to 65%, the amounts financed by interest-bearing liabilities only ranged from 30% to 35% for PLDT, and 37% to 39% for Globe Telecom. Suppliers' credit in the form of accounts payable and accrued expenses payable provided most of the non-interest bearing sources of funds. For PLDT, this source of funds was 22% of the total assets in 2011 and was 18% for Globe. This explains the relatively low interest expense of both companies.

Both companies' exposure to foreign exchange rate volatilities is also limited as shown in their low reliance on loans denominated in foreign currencies. As a percentage of total assets, PLDT's loans in foreign currencies ranged from 13% to 16% during the 2009-2011 period. In the case of

Globe Telecom, the percentage is lower at 3% to 6% over the same period. This is the reason why both companies have relatively lower foreign exchange gains or losses as a percentage of revenues during the three-year period covered in the review.

	2011		2010		2009	
		% of		% of		% of
	Amounts	Assets	Amounts	Assets	Amounts	Assets
PLDT						
Total assets	395,646	100%	277,815	100%	280,148	100%
Equity	152,219	38%	97,385	35%	99,125	35%
Liabilities	243,427	62%	180,430	65%	181,023	65%
Interest-bearing liabilities	117,289	30%	89,689	32%	98,793	35%
Loans in foreign currencies	53,330	13%	38,414	14%	45,354	16%
Globe Telecom						
Total assets	130,839	100%	130,628	100%	127,644	100%
Equity	48,428	37%	48,869	37%	47,709	37%
Liabilities	82,411	63%	81,759	63%	79,935	63%
Interest-bearing liabilities	48,679	37%	50,371	39%	47,477	37%
Loans in foreign currencies	3,542	3%	7,317	6%	6,810	5%

 Table 11. Capital Structure of PLDT and Globe Telecom (In Millions of PHP), 2009-2011

Sources: Annual reports of PLDT and Globe Telecom.

Another telecom player, BayanTel reported an earnings before interest, depreciation and amortization (EBITDA) of PHP1.617 billion in 2011. Its revenues of PHP5.758 billion in 2011 is 4% down from the 2010 level.<sup>5</sup> There was no disclosure on the net income or net loss of the company based on the 2011 annual report of Lopez Holdings, Inc. In 2009, Bayantel reported a net loss of PHP505 million (Abadilla, 2011).

# 6 Comparison of Prices of Mobile Telecom Services in the Philippines with Other Southeast Asian Countries

A report from LIRNEasia (2010) showed the price comparisons for low user, medium user and high user baskets for different Asian countries. The Philippines ranked as the second most expensive among the 6 countries included in the study for high-end, medium-end prepaid mobile subscribers, and low-end card mobile subscribers. For postpaid mobile subscribers, the Philippines ranked second for the high-end and medium-end and third for the low-end. Singapore ranked the highest among the three categories of users. The Philippine mobile price baskets were based on Smart Buddy for the prepaid price basket and Smart Gold Lite 300 for the postpaid price basket.

<sup>&</sup>lt;sup>5</sup> From the 2011 Annual Report of Lopez Holdings, Inc.

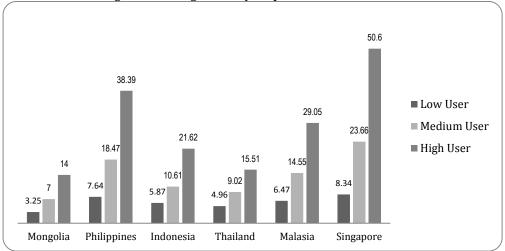


Figure 1. Average Monthly Prepaid Mobile Cost in US\$

*Note.* Adapted from Mobile Benchmarks East/Southeast Asia. LIRNEasia. Retrieved from http://lirneasia.net/wp-content/uploads/2007/08/10-02-SEA-Baskets-explained-v1-1.pdf

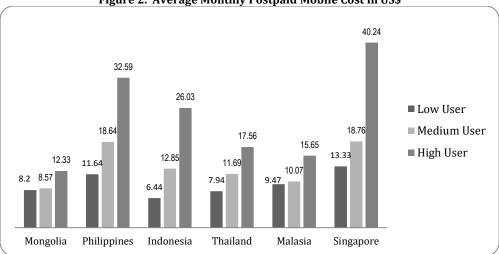


Figure 2. Average Monthly Postpaid Mobile Cost in US\$

*Note.* Adapted from Mobile Benchmarks East/Southeast Asia. LIRNEasia. Retrieved from http://lirneasia.net/wp-content/uploads/2007/08/10-02-SEA-Baskets-explained-v1-1.pdf

These rates were computed according to the OECD telecom baskets methodology. The compositions of the baskets are given in the table below.

Voice, minutes of use per month		
Low User	46	
Medium User	119	
High User	256	
SMS per month		
Low User	33	
Medium User	50	
High User	55	
MMS per month (3)		
Low User	1	
Medium User	1	
High User	1	

Table 12. Classification of Subscribers Based on Usage

*Note.* Adapted from Mobile Benchmarks East/Southeast Asia. LIRNEasia. Retrieved from http://lirneasia.net/wp-content/uploads/2007/08/10-02-SEA-Baskets-explained-v1-1.pdf

Table 13 shows the prepaid rates for the same packages that are included in the LIRNEasia report as of 2 August 2012.

Country	Company	SMS (same network)	SMS (other network)	Call Per Minute (same network)	Call Per Minute (other network)
Mongolia	MobiCom (Be)	0.01045	0.01791	0.05224	0.07463
Philippines	Smart Buddy	0.02389	0.02389	0.15513	0.17900
Thailand	AIS SIM One-2-Call 99!	N/A	N/A	0.06785*	0.06785*
Malaysia	Hotlink 5	0.00320	0.03197	0.03837	0.05755
Singapore	SingTel Hi Card	0.04012	0.04012	0.12839**	0.12839**

#### Table 13. Prepaid Rates in USD as of 2 August 2012

\* 2.14 baht/minute for the first minute, 0. 54 baht/minute for each additional minute for 24 hours. \*\* 8:00am to 7:59pm from Monday to Friday and half of the rate otherwise.

Sources : http://www.mobicom.mn/index.html?mmid=271; http://www1.smart.com.ph/;

http://www.ais.co.th/12call/en/simcard-one2call-99.html; http://www.telkomsel.com/product/kartu-as; http://info.singtel.com/personal/phones-plans/mobile/prepaid/rates

From the table, it can be observed that the prices charged for these telecom services are among the highest based on the Asian countries covered in the comparison. This is probably due to the interconnection charges which are set at PHP0.35 per SMS and PHP4 per minute for voice calls.

# 7 Conclusion

The liberalization of the telecom industry in 1987 ended the monopoly of PLDT and paved the way for the entry of new players. As a result, the consumers benefited by having more choices of services at relatively reduced prices. This liberalization also improved the operating performance of PLDT. The amount of profits that PLDT had been reporting in the last five years has never been realized when it was a monopoly. The competition has made the company more efficient and probably, more customer-oriented.

The industry is characterized by high capital investments and is vulnerable to technological changes. The experience of Piltel is a case in point. The introduction of GSM technology by Globe Telecom in the early 1990s led to its profitable operations and threatened the dominant player at that time. This GSM technology also made Globe Telecom a major player in the sector. Piltel, which

was heavily indebted during those years, was not in a position to respond to the emerging technology. If it were not for SMART, which eventually became its parent company, Piltel would not have probably survived the operating and financial problems it had in the late 1990s and early 2000s.

To keep their subscribers, the telecom companies keep on investing in new technology as shown in their capital expenditures. PLDT invested around PHP 60 billion in 2010 and 2011, mostly for improving its telecom network. For the same period, Globe Telecom invested around PHP 35 billion, mostly for upgrading their network.

Competition has certainly brought down the prices for telecom services as shown in the packages offered by the players. In the Philippines, this competition was even heightened when Sun Cellular, a much smaller player compared to PLDT and Globe Telecom, waged a price war in 2004 when they offered 24/7. This eventually resulted to unlimited texts and calls within networks. This is the reason why some have SIM cards for different networks.

With Sun Cellular<sup>6</sup> now being part of the PLDT group, concerns have been raised about competition. During the acquisition of Digitel by PLDT, some legislators have raised concerns regarding anti-trust laws. Senator Juan Ponce Enrile, however, stated that the merger did not violate any law because there is no anti-trust law in the Philippines ("Enrile", 2011).

The 2011 operating performance of both PLDT and Globe Telecom indicate, however, that competition is still in place. It is just a question of the degree. For the period 2009-2011, both companies' operating profit margins and net profit margins were down (see Table 10). Their returns on equity were also down during the same period, especially for PLDT in 2011, the year the merger with Sun Cellular took place.

In spite of the reduced prices, the telecom services offered by our telecom companies remain one of the highest among the Asian countries covered in the comparison. While the trend still seem to favor a reduction in prices of telecom services, will this trend not reverse given that there seems to be a duopoly now? The regulator is supposed to ensure fair prices for services, but even the regulators are complaining that they do not have enough teeth to regulate given the existing laws.

The powers of NTC in rates and tariffs offered by telecom players are stated in Section 17 of RA 7925:

Rates and Tariffs. The Commission shall establish rates and tariffs which are fair and reasonable and which provide for the economic viability of telecommunications entities and a fair return on their investments considering the prevailing cost of capital in the domestic and international markets. (Public Telecommunications Policy Act of the Philippines, 1995, p. 11)

The terms "fair and reasonable" rates and tariffs and a "fair return on investments" are very hard to operationalize. They can be subject to different interpretation and possible abuse. Without a formula such as those applicable to water distribution and power transmission and distribution, regulating telecom companies is really a challenge.

It seems that competition is the real key to bringing down prices and improving services. Competition will motivate players to invest in new technology so that they can offer better services to their customers, hopefully at the same or even lower prices. This is to protect their market share and their long-term viability. With more than 90 million Filipinos and the telephone density being already high, are the two major players enough?

The telecom sector is open to competition, but there are restrictions regarding foreign ownership. According to Section 11, Article XII of the 1987 Constitution, public utility companies should be at least 60% owned by Filipinos. With the issues regarding the citizenship of the controlling stockholders behind the two dominant players, shouldn't the government consider relaxing its policy on foreign ownership and allow more foreign players to participate? In reality, isn't this already the situation now? As of December 31, 2012, Globe was 47.31% owned by Singapore Telecom Int'l Pte. Ltd.

<sup>&</sup>lt;sup>6</sup> Sun Cellular, otherwise known as Digitel Mobile Philippines, Inc. is a subsidiary of Digitel.

One of the parameters used in regulating telecom players is ROE. The reported ROEs by PLDT and Globe as shown in Table 10 were very high in recent years. PLDT even hit a high of 63% ROE in 2004. Globe hit a high of 27% in 2009 and is constantly earning more than 20% the past few years. While PLDT's ROE went down to 21% in 2011, it was hitting more than 40% in the previous years. Are these high ROEs characteristic of a regulated company?

It is true that the delivery of telecom services at reduced prices has improved over the years, but our tariff rates are still among the highest. There should be more players in the market. The presence of Sun Cellular, a wholly-owned subsidiary of Digitel, posed a threat to PLDT and Globe when they launched 24/7. This benefitted customers a lot; now, Digitel is already part of the PLDT group.

With the sector now reduced to a duopoly, concerns have been raised regarding the availability, quality, and prices of telecom services. It also raises concerns regarding the ability of NTC to regulate the sector. ROE and average revenue per user (ARPU) are two of the mechanisms used by NTC to regulate the players. While ARPU continues to go down, computed ROEs for PLDT and Globe still remain high. How will NTC now define what a reasonable return on investment is? Without a prescribed formula to regulate the sector, how can NTC monitor the telecom players?

To enhance the regulatory environment, the following suggestions may be considered:

- 1. To determine what is a "fair" tariff, NTC should conduct public hearings. This is similar to what is done in the tariff rate setting for water and power distribution services.
- 2. To determine what is a reasonable return to the telecom companies, NTC should also monitor the prevailing costs of financing (e.g., yields on government securities and corporate bonds) especially those issued by the telecom companies it monitors, returns of listed companies coming from other sectors, and the returns of listed telecom companies within the Philippines and abroad. This information will allow NTC to assess the reasonableness of the returns generated by the companies it regulates.
- 3. Given the huge capital investments needed to put up a telecom company, Congress should consider relaxing the policy on foreign ownership and allow more foreign companies to participate in the sector. In India, foreign companies are allowed to own up to 100% of a telecom company ("Indian Government", 2013). If this were to be considered, measures have to be put in place to ensure national security.
- 4. Congress should come up with a penal provision that is more punitive to erring parties. The PHP200/day penalty is so immaterial for an erring telecom company.
- 5. NTC should also come up with memorandum circulars that are very clear as to what it wants the telecom companies to do. This recommendation is suggested to prevent the same experience NTC had with Circular No. 02-10-2011 which required telecom companies to reduce SMS interconnection charges by PHP0.20 per text from PHP0.35 to PHP0.15 per text and to reduce SMS charge by the same amount of PHP0.20. While the reduction in interconnection charge was complied, the telecom companies did not reduce the SMS charge. The case is now with the courts.
- 6. NTC should be equipped with the necessary facilities to allow it to monitor the quality of services offered by the telecom players.

### References

Abadilla, E. (2010, April 15). Bayantel trims net Loss by 35% to P777 million. *Manila Bulletin Newspaper Online*. Retrieved from http://www.mb.com.ph/node/252808/b

- After ignoring order to lower texting rates, telcos told to pay subscribers. (2012, November 20). *GMA News Online*. Retrieved from http://www.gmanetwork.com/news/story/283052/economy/ companies/after-ignoring-order-to-lower-texting-rates-telcos-told-to-pay-subscribers
- Alampay, E. (2011). ICT Sector Performance Review for Philippines. In LIRNEasia's Sector Performance Review (SPR)/Telecom Regulatory Environment (TRE) research project. Retrieved from http://ssrn.com/abstract=2006072

- Belfin, R., & Lucanowicz, M. (1999). Forward looking long run incremental costs for the calculation of interconnection fees (Policy Paper). Retrieved from http://www.rtr.at/en/tk/Kostenrechnungsmodelle/FL-LRAIC\_en.pdf
- Elchico, A. (2011, December 7). Telcos finally agree to cut SMS fees, says NTC. *ABS-CBNnews.com*. Retrieved from http://www.abs-cbnnews.com/business/12/07/11/telcos-finally-agree-cut-sms-fees-says-ntc
- Enrile: No laws broken in PLDT-Digitel merger. (2011, April 20). *Inquirer.net*. Retrieved from http://newsinfo.inquirer.net/inquirerheadlines/nation/view/20110417-331605/Enrile-No-laws-broken-in-PLDT-Digitel-merger
- Falch, M. (1997). Cost and demand characteristics of telecom networks. In W. H. Melody (Ed.), *Telecom Reform: Principles, Policies and Regulatory Practices* (pp. 107-122). Denmark: Technical University of Denmark.
- Globe Telecom, Inc. (1995-2012). Annual Reports.
- Globe Telecom, Inc. (2012a). *Prospectus*. Retrieved from http://www.globe.com.ph/documents/50301/0/GT+FINAL+PROSPECTUS+21+MAY+2012.pdf
- Globe Telecom, Inc. (2012b). *SEC Form 17-Q, First Quarter 2012*. Retrieved from http://www.globe.com.ph/documents/50301/0/GT\_17C\_1Q12+Press+Release+on+Financial+Re sults\_050812.pdf
- Globe Telecom, Inc. (2013). SEC Form 17-Q, First Quarter 2013. Retrieved from www.globe.com.ph/documents/50301/5574137/GT17Q\_1Q13.pdf
- Indian government approves 100% foreign direct investment in operators. (2013, August 2). *Global Telecoms Business.* Retrieved from http://www.globaltelecomsbusiness.com/article/3238996 /Indian-government-approves-100-foreign-direct-investment-in-operators.html
- Hamlin, M. (2012, June 4). Economist: Philippines is No. 1 [Web log post]. Retrieved from http://www.asianpundit.com/2012/06/economist-philippines-is-no-1/
- LIRNEasia (2010). *Mobile Benchmarks East/Southeast Asia* (Mobile benchmarks report). Retrieved from http://lirneasia.net/wp-content/uploads/2007/08/10-02-SEA-Baskets-explained-v1-1.pdf
- Lopez Holdings, Inc. (2010-2011). Annual Reports.
- Mirandilla, M. G. (2007, December). Achieving universal access through liberalization, regulation, and deregulation: The case of the Philippine telecommunications and ICT sector. Paper presented at the Communications Policy Research South2 Conference, Chennai, India.
- Mirandilla-Santos, M. G. (2011). Unleashing the Power of Competition, the Philippine Telecommunications Reform Story. In *Built on Dreams, Grounded in Reality: Economic Policy Reform in the Philippines*. Makati City: The Asia Foundation.
- Patalinghug, E., & Llanto, G. (2005). Competition Policy and Regulation in Power and Telecommunications (Discussion Paper Series No. 2005-18). Makati City: Philippine Institute for Development Studies.
- Philippine Long Distance Telephone Company. (1995-2013). Annual Reports.
- Philippine Long Distance Telephone Company. (2012). *SEC Form 17-Q 2012*. Retrieved from http://www.pldt.com.ph/investor/Documents/1Q2012%20MDA.pdf
- Philippine Long Distance Telephone Company (2013). *SEC Form 17-Q 2013*. Retrieved from www.pldt.com.ph/investor/Documents/1Q2013%20MD%20and%20A.pdf
- Piltel. (2000-2002). Annual Reports.
- "Pricing". Wikipedia. Retrieved from http://en.wikipedia.org/wiki/Pricing#Demand-based\_pricing
- Public Telecommunications Policy Act of the Philippines. (1995). *Republic Act No. 7925*. Retrieved from http://www.congress.gov.ph/download/ra\_09/Ra07925.pdf
- Romero, P. (2012, June 5). BPO sector seen paying P247 billion in wages this year. *The Philippine Star*. Retrieved from http://www.philstar.com/business/2012/07/05/824415/bpo-sector-seen-paying-p247-billion-wages-year
- Serafica, R. (2002). Competition in Philippine Telecommunications: A Survey of the Critical Issues. In *Toward a National Competition Policy for the Philippines*, edited by E. Medalla. Makati City: Philippine Institute for Development Studies.
- Smart, Sun, Globe appeal NTC order to refund customers, reduce SMS rates. (2012, December 11). *GMA News Online*. Retrieved from http://www.gmanetwork.com/news/story/285981/economy/ companies/smart-sun-globe appeal-ntc-order-to-refund-customers-reduce-sms-rates.