The Empirical Econometrics and Quantitative Economics Letters
ISSN 2286 – 7147
Volume 2, Number 4 (December 2013), pp. 33 - 38.

An alternative perspective on Thailand's telecommunications regulatory governance index

Benjapon Prommawin

Faculty of Economics, Chiang Mai University
E-mail: b.prommawin@gmail.com

ABSTRACT

This paper proposes a revised calculation of the telecommunications regulatory governance index (TRGI) for Thailand. It criticizes the work of Woverman and Koutroumpis (2011) and revises the calculation using the officially up-to-date data from International Telecommunications Union (ITU) in 2012 and extended data in the Thai language from the National Broadcasting and Telecommunications Commission (NBTC) in 2013. The authors of the original work might not be able to access to these data in 2008 in which the governance body, NBTC, was just established in Thailand. As the result, the TRGI index of Thailand jumps from 0.11 to 0.33 by only the change of the period of the calculation from 2008 to 2012 using solely the ITU's data. It increases to the range of 0.53 to 0.73 combining with the data from NBTC in 2013. By these new numbers, Thailand's rank of the telecommunications regulatory governance is quite equivalent to the ranks of Singapore and Malaysia where the transparency of the governance is undoubtful.

Keywords: Telecommunication sector, governance, anti-trust policy, economics of regulation, transparency

JEL Classification: L96, L40, L51

1. Introduction

The Telecommunications Regulatory Governance Index (TRGI hereafter) is a global measure of the effectiveness of telecommunication regulators in regulating the telecoms sector and establishing the level-playing field between incumbents and entrants to promote healthy competition. TRGI is jointly developed by Leonard Waverman of the University of Calgary and Pantelis Koutroumpis of Imperial College London, the two prominent economists specializing in the field of telecommunications.

The index builds on five major indicators comprising transparency, independence, resources available to the regulator, abilities to enforce decisions and GDP per capita which is included partly as a control factor. [1] Each of these indicators is explained separately by their subcomponents. Table 1 below illustrates the five main components that make up the TRGI along with their associated subcomponents.

TABLE1. Constructing the TRGI

Regulatory Transparency	Independence	Resource availability	Enforcement on licensees	Per capita income
Are interconnection agreements made public?	Does the NRA report to legislature?	Experience (years of operation)	License revocation possible?	GDPC
Are interconnection prices made public?	Are members of the NRA appointed by the legislature?	NRA funded by government appropriations or industry fees and consumer levies	Monetary fines possible?	
Are operators required to publish Reference Interconnection Offer (RIO)?	Interconnection rates set by NRA or government?	Status of ownership of main fixed line operator	License suspension possible?	
Are licensing agreements made public?	Price regulation by NRA or government?		Modifications of license possible?	
Is there public information on spectrum policy?			Additional license obligations possible?	

Note: NRA refers to National Regulatory Authority
Source: Waverman and Koutroumpis (2011), Benchmarking telecoms regulation - The Telecommunications Regulatory Governance Index (TRGI), Telecommunications Policy Volume 35, Issue 5, 2011, pp. 450 – 468.

TRGI has been applied to assess the quality of telecommunications regulatory governance for the total of 142 telecoms governing bodies around the world including

[1] See Waverman and Koutroumpis (2011), "Benchmarking telecoms regulation - The Telecommunications Regulatory Governance Index (TRGI)", Telecommunications Policy 35 (2011) pp.450-468 for full details.

the National Broadcasting and Telecommunication Commission (NBTC) of Thailand. The results are available in the paper titled "Benchmarking telecoms regulation - The Telecommunications Regulatory Governance Index (TRGI)", published in Telecommunications Policy, a leading Telecommunications journal, in 2011. Table 2 provides the Asia and Pacific and selected countries' TRGI scores and rankings, compared to Thailand's.

TABLE 2. Thailand's TRGI scores in comparison to selected countries

Asia and Pacific TGRI index		Asia Rank	World Rank
Singapore	0.63	1	10
Australia	0.63	1	10
Malaysia	0.46	3	45
Samoa	0.45	4	54
Korea (Rep.)	0.44	5	59
India	0.42	6	68
Pakistan	0.41	7	72
Sri Lanka	0.4	8	78
Bangladesh	0.39	9	85
Philippines	0.38	10	90
Kyrgyzstan	0.36	11	96
New Zealand	0.35	12	98
Afghanistan	0.34	13	101
Mongolia	0.31	14	108
Nepal	0.29	15	112
Japan	0.28	16	114
Brunei Darussalam	0.27	17	116
Hong Kong	0.26	18	120
Indonesia	0.23	19	122
Thailand	0.11	20	128
Maldives	0.04	21	134

Selected Countries	TGRI Index	World Rank
Norway	0.74	1
Germany	0.71	2
United Kingdom	0.65	7
Greece	0.58	17
South Africa	0.48	39
Brazil	0.46	45
Uganda	0.41	72
Mexico	0.35	101
Saudi Arabia	0.46	122
Burundi	0.12	126
Thailand	0.11	128
Russia	0.05	133
Iraq	0	140

Note:
Asian Countries excluded due to lack of competition or telecom regulator or information are China, Cambodia, Lao P.D.R. , Myanmar and Vietnam.

Source: Waverman and Koutroumpis (2011), Benchmarking telecoms regulation - The Telecommunications Regulatory Governance Index (TRGI), Telecommunications Policy Volume 35, Issue 5, 2011, pp. 450 – 468.

Thailand ranks 20th out of the 21 Asia and Pacific countries in the sample and 128th in the world with the score of only 0.11 out of 1, the lowest of the 6 ASEAN Economic Community (AEC) countries in the sample and comparable to Burundi, one of the countries with lowest average income per capita. Such results have questioned and amounted to a potentially wrong image of Thailand and the NBTC in regulating the domestic telecoms industry on the international level of telecommunications academia.

However, a number of issues regarding the use of indices in evaluating telecoms regulators may arise. Whether indicators accurately reflect the true efficiency and abilities of the governing bodies in regulating the industry is debatable. Specifically for TRGI, the fact that Japan, possibly one of the countries with the most advanced telecommunications sector, scores relatively low and that Russia obtains only 0.05 out

of 1, even lower than Thailand, have shed light on possible errors or inaccuracies in constructing and calculating the index. Employing different indices to compare Thailand with other AEC countries reveals that rankings and indicator scores are directly influenced by the way in which indices are designed and calculated. Thailand, whose TRGI score is lower than the Philippines and Indonesia, somehow outclasses both countries in all subcomponents of both the Networked Readiness Index (NRI) and the Digital Economy Rankings.

Another concern when applying indices to rank countries is attributable to the incompleteness, obsolescence or inaccuracies of data stored by international organizations such as the International Telecommunications Union (ITU). Data collected and stored by these organizations are commonly used by researchers to calculate indices and thus may not reflect the true environment and quality in regulating the telecoms sector. As for an illustration, despite the TRGI results being published in 2011, in calculating the index, the researchers have used the ITU data collected in 2008. Hence, the recently publicized TRGI results are instead associated with the circumstances of a few years back.

ICT data is collected directly from countries, validated by ITU and made available on the ICT-Eye which is the ICT database of ITU. An apparent approach to tackle the problem of outdated ITU data and overturn the wrong perception of Thailand's telecommunications regulatory governance is to update the data and cross-check them with the NBTC as the Commission itself reports such annual data to ITU. Updated and more accurate data would inevitably yield a much more precise TRGI for Thailand and better reflect the conditions of Thailand's current telecoms regulatory system. Table 3 below provides a comparison of Thailand's TRGI results calculated by the author using different versions of ITU data.

TABLE 3. Thailand's TRGI calculations using different set of data

Researchers / Sources	**Data used in calculations**	**Estimated Thailand's TRGI**
Benchmarking telecoms regulation - The Telecommunications Regulatory Governance Index (TRGI), Telecommunications Policy Volume 35, Issue 5 2011 450 – 468	ITU's ICT-Eye 2008	0.11
The author	ITU's ICT-Eye 2012	0.33
The author	ITU data crosschecked with the NBTC in 2013	Minimum of 0.53 Maximum of 0.73

Source: Author's calculations using data from ITU's ICT-Eye 2008 and 2012 with the NBTC's review.

Applying the most recent ITU data from ICT-Eye, Thailand's TRGI triples from 0.11 to 0.33, reflecting the recent improvements in Thailand's regulatory system and increased efficiency of the NBTC. In the case where updated data that are reviewed and approved

by the NBTC were applied, Thailand would score at least 0.33 and the index could be as high as 0.73 depending on the interpretation of telecoms regulations and the ability of the NBTC in enforcing such regulations and agreements on operators. This score range is comparable to the 2011-published index of such countries with highly developed telecoms industry as Singapore, the US and the UK. Although improvements in the scores of these developed countries are expected if the most updated data are applied, the updated index for Thailand has already represented a more truthful and sound assessment of the NBTC's efficiency in regulating the telecoms sector.

A deeper analysis of the difference in scores between using the 2012 ITU data and the updated NBTC-cross-checked data reveals that some of Thailand's ICT data gathered by ITU are either inaccurate or incomplete, contributing to the unrealistically low index for Thailand. Thailand's data stored at ITU that are missing and would thus be assigned a zero mark in the associated subcomponents are data on public availability of interconnections agreements, price regulations by regulator, sources of funds for regulator, and enforcement on licensees. ITU also records incorrect data in terms of public availability of information on spectrum policy where the recorded data specifies that the information is inaccessible. In fact, the NBTC has readily made the information available, but merely in Thai.

A closer insight into each TRGI subcomponents can help identify Thailand's potential weaknesses in telecoms regulatory governance. The subcomponents in which Thailand is given relatively low scores or the assessment is unclear are the status of main fixed line operator which indicates Thailand's low degree of regulator's independence according to legislation since the main operator is still government run, and the ability of regulator in enforcing license agreements with transparency; being able to revoke or suspend licenses and place monetary fines on operators.

Anyhow, any national regulatory authority, including the NBTC, could construct its own version of index of which the criteria are favorable to the authority itself making its own score better than others. Nevertheless, the fact that indices constructed by leading researchers or developed countries are globally accepted, and that assessment results using these indices are officially published in international academia, means that they play an important role in highlighting and comparing the regulatory performance of regulators on the world stage. TRGI thus mirrors the NBTC's regulatory governance quality from international perspectives which might still does not look excellent. However, this study has already demonstrated that collecting or reporting inaccurate or incorrect data negatively affects the assessment results and, hence, the country's image.

In conclusion, the study has emphasized the significance of data stored by international organization such as ITU since researchers expect that these data should be of international standards and accurate, which, in truth, may not always be the case. Therefore, the government and NBTC, the reporters of Thailand's ICT data to ITU itself, should not allow such inaccuracies or errors in reporting data to occur and should consider making the data or information as well as telecoms regulations and policies publicly available in English. This would eventually lead to improvements in the quality of the country's ICT status and regulatory system assessments as well as allowing for better and more efficient policy designs, development plans and regulatory governance for, all in all, mutual benefits of all stakeholders in the society.

REFERENCES

International Telecommunications Union. ITC-Eye (ICT database) 2012, [Online] http://www.itu.int/net4/itu-d/icteye/ retrieved February 2013.

Leeahtam, Pisit et al. 2013. Comparative Review of Telecommunication Regulatory Governance Systems in ASEAN and Thailand's ICT preparation for AEC 2015. Working paper in the joint research project between Chiang Mai School of Economics and National Broadcasting and Telecommunications Commission (NBTC). Chiang Mai: Chiang Mai University.

Waverman, Leonard and Pantelis Koutroumois. 2011. "Benchmarking telecoms regulation - The Telecommunications Regulatory Governance Index (TRGI)," Telecommunications Policy 35, 5: pp. 450 – 468.