Key Issues for PPP Infrastructure Development in Emerging Economies: A case of Dutertenomics in the Philippines

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Abstract

This paper examines environment for PPP infrastructure development in the Philippines by focusing on major policy shift on PPP from Aquino to Duterte administration. While Aquino administration focused PPP-based infrastructure development as a priority policy, the Duterte administration launched "Dutertenomics", a large-scale infrastructure development plan of about 8 trillion pesos, about 160 billion USD, over 6 years in 2017 which mainly depends on national budget and ODA as a financial source rather than PPP. This triggered debate on "PPP vs ODA" in the Philippines.

In this paper, key issues for further improvement of PPP environment in the Philippines will be discussed for policy recommendations: (1) enactment of PPP law, (2) development of "bankable" project, (3) government guarantee for contingent liabilities, (4) risk sharing mechanism, (5) foreign capital deregulation, and (6) development of capital market.

Keyword: Public-private partnership, Infrastructure, Philippines
JEL Classification Codes: E22; H54; O18

1. Introduction

Infrastructure such as roads, railways, and electric power is a major premise for economic development, as well as improving people's lives and contributing to poverty reduction. In many emerging countries, the necessity of infrastructure development is high, further considering future population increase and economic growth, it is one of the most important policy issues. There are many estimates on the difference, infrastructure gap, between the infrastructure investment necessary amount and the investment forecast amount in emerging countries. According to McKinsey (2016), one of the most quoted estimates, there is an infrastructure gap of 3.3 trillion USD a year worldwide between 2016 and 2030, of which about 1 trillion USD is for emerging and developing countries. Since the support from international financial institutions and bilateral donors, and the government's financial resources of the emerging and developing countries are limited, the expectation to the private sector to fill this gap is high. Furthermore, limitations are also seen on the planning and implementation capabilities of the government of emerging countries for the development of infrastructure. Therefore utilization of private sector's finance, know-how, technology for development of infrastructure in emerging countries through PPP, Public-Private Partnership is receiving attention in both academic research and actual projects including innovative attempts. On the other hand, although there are merits of reducing the external debt, fiscal burden of emerging countries' governments by PPP infrastructure development, it is also pointed out that there are issues in PPP.

In the Philippines, due to the power crisis that occurred in the 1980s, the development of PPP-related laws was relatively early among emerging economies. Philippine's BOT, Build-Operate-Transfer, law was enacted in 1990, which was the first of its kind in Asia. After that, PPP projects are being promoted in sectors including in electric power, water supply, and transportation. The Aquino Administration, which started in 2010, made important policy change to develop infrastructure through PPP, not through public procurement, mainly for the reduction of fiscal burden by establishment of a new government agency, called PPP center, to promote PPP, and various PPP support systems.

Against this backdrop, the Duterte administration, launched in 2016, announced "Detertenomics", a large-scale infrastructure development plan of about 8 trillion pesos (P), about 160 billion USD, in April 2017. The plan aims to make a major policy change in infrastructure development from PPP of Aquino former administration to (a) construction of infrastructure by public sector by using government budget and Official Development Assistance (ODA) together, (b) operation and maintenance of infrastructure by the private sector, the adoption of "hybrid method". In response to this, debates on "PPP vs ODA" is active in the Philippines.

This paper aims to evaluate environment for PPP infrastructure development in the Philippines following drastic policy shift in PPP by the Government of the Philippines from Aquino administration to Duterte administration based on a review of the relevant primary and secondary literature, anecdotal evidence, and the author's own knowledge on the subject coming from his involvement with the issue.

In this paper, section 2 outlines overview of PPP infrastructure development in emerging countries and literature review on PPPs, section 3 discusses current status of infrastructure development and achievements in PPP in the Philippines, section 4 depicts policy changes in Philippines' PPP policy, and section 5 argues the issues of PPP infrastructure development in the Philippines including policy recommendations

2. Overview of PPP Infrastructure Development in Emerging Countries and Literature Reviews

This section discusses definition of PPP, overview of PPP infrastructure development in emerging countries, and literature reviews on PPP infrastructure development.

2-1. Definition of PPP

PPP is a mechanism for collaboration between the public sector and the private sector in the provision of public services such as infrastructure construction, operation, and maintenance. It is said that the water supply business in France in the mid-nineteenth century was origin of PPP, but the term PPP brought about in the late 1990's UK. Though PPP was born in Europe and the United States and was developed a lot of schemes there, this has been introduced and developed particularly in emerging countries due to the large supply-demand gap of infrastructure and restrictions on government resources.

The definition of PPP is not academically established. This is because there are many schemes in PPP, from combination of traditional government procurement to complete privatization, in infrastructure asset design, construction, possession and operation. Schemes include such as DBM (Design-Build-Maintain), BOOT (Build-Own-Operate-Transfer), BOO (Build-Own-Operate), BOT (Build-Operate-Transfer), BLT (Build-Lease-Transfer), and ROT (Rehabilitate-Operate-Transfer) among others. According to Delomon (2010), there are over 25 PPP schemes. In this paper, PPP is defined as "A long-term contract between a private party and a government agency, for providing public services and/or developing public infrastructure, in which the private party bears significant risk and management responsibility, and remuneration is liked to performance"[1].

2-2. PPP in Emerging Economies

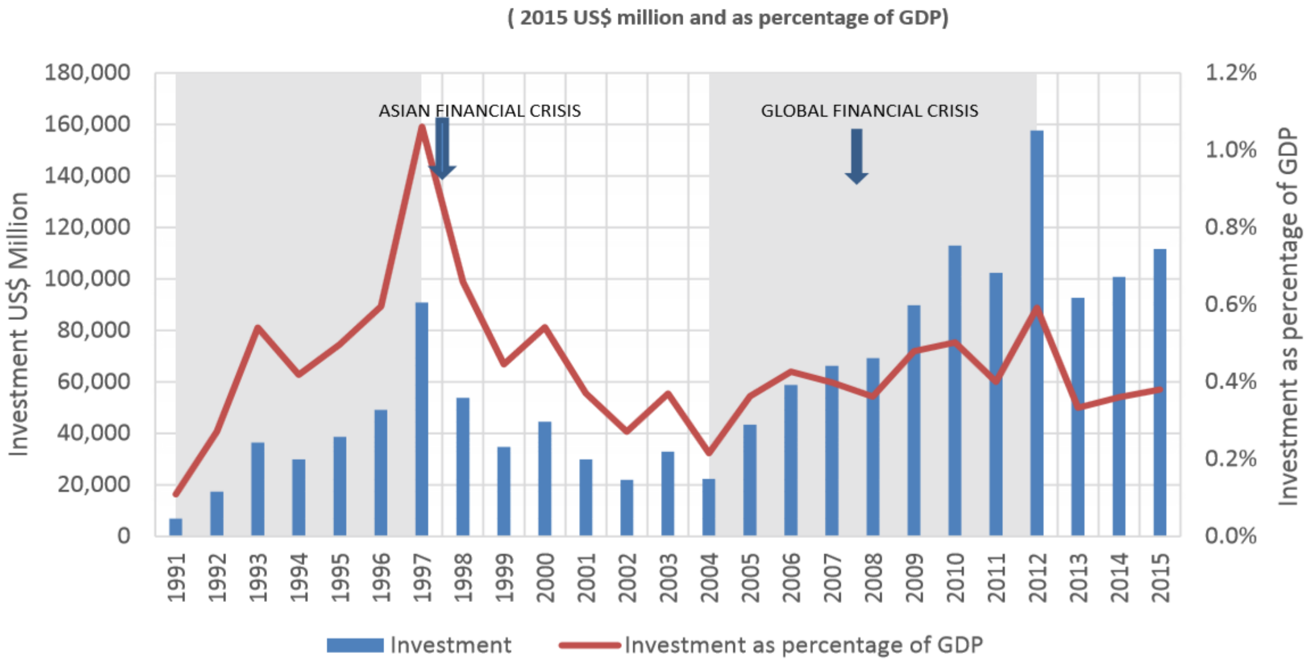
According to the World Bank's Private Participation in Infrastructure (PPI) Project Database, which maintains PPP data in emerging and developing countries since 1990, the total number of PPPs so far implemented is 7,023 amounting 1,739 billion USD in total as of the end of 2017. In the 1990s, Latin America and the Caribbean countries had relatively large number of PPP, but in recent years PPP projects are also increasing in Southeast Asia and South Asia due to the increase in infrastructure projects and macroeconomic stability. In emerging countries, Brazil, India, China, Turkey and Mexico are top 5 countries by investment, accounting for 58.7% of the total PPP in emerging and developing countries. In terms of sector, electricity, transportation, ICT, water supply and sewerage are popular sector, while electricity accounts for 50.2% of all sectors.

World Bank (2016) argues that Investments in PPP have grown in absolute terms since 1991

[1] World Bank Institute (2014)

with two notable periods of expansion and one period of contraction as shown in Figure 2.1. World Bank (2016) also argues that investments in PPP as percentage of GDP have remained flat in the last decade, without recovering the levels achieved prior to the Asian financial crisis.

Figure 2.1 Investments in PPP infrastructure projects 1991-2015



Source: World Bank (2016)

2-3. Literature Review on PPP

There have been many studies on PPP reflecting its history of nearly 30 years. Those studies could be classified as follows.

(a) On the advantage of PPP compared to traditional government procurement

UNESCAP (2015) points out the following advantages of PPP.

1) Access to private sector capital: With the increased access to private sector financing, the government budget is significantly relieved by an amount that is large enough to finance other equally important development projects.
2) Better allocation of risks: Another unique feature that highlights the importance of PPPs in meeting the growing demand for infrastructure is the ability of the involved parties to better, if not efficiently, allocate risks depending on the comparative advantage of the players and project characteristics.
3) Efficiency gains: If constructed carefully, PPP contracts allow for efficiency gains since they put more focus on the outputs, and less on the inputs.

The World Bank Institute (2014) points out the following seven points as an advantage of PPP.

1) Whole-of-life costing: Full integration incentivizes the single party to complete each project function (design, build, operate, maintain) in a way that minimizes total costs.
2) Risk transfer: Allocating some of the risk to a private party which can better manage it, can reduce the project's overall cost to government.
3) Focus on service delivery: Management in the PPP firm is focused on the service to be delivered without having to consider other objectives or constraints typical in the public sector.
4) Innovation: specifying outputs in a contract, rather than prescribing inputs, provides wider opportunity for innovation.
5) Asset utilization: private parties are motivated to use a single facility to support multiple revenue streams, reducing the cost of any particular service from the facility.
6) Mobilization of additional funding: charging users for services can bring in more revenue, and can sometime be done better or more easily with private operation than in the public sector.
7) Accountability: government payments are conditional on the private party providing the specified outputs at the agreed quality, quantity, and timeframe.

Trebilcock & Rosenstock (2015) argue that there are three motivation for governments in emerging markets as
1) Replacing of poorly performing public operators with private has incentives to induce optimal investments in infrastructure and quality at a relatively lower cost or risk to government or users.
2) Addressing construction-phase concerns, such as mitigating cost overruns and building new infrastructure more quickly.
3) PPP as a means of meeting infrastructure needs without compromising budget constraints.

(b) Research on success/failure factors of PPP
Akintoye et al (2003) investigated 61 PPP projects in UK and identified success factors for PPP projects as follows: efficient procurement, feasibility, desirable economic environment, well-established financial market.

OECD (2008) argues that effectiveness of the establishment of government unit exclusively for PPP as a success factor. This PPP agency is especially important for promoting smooth and advantageous negotiations on complicated PPP contracts with private enterprises with extensive experience in PPP and implementing various coordination within the government. For private sector, it also means the signal of the government's PPP implementation ability and its experience.

Trebilcock and Rosenstock (2015) discuss that capabilities and institutions of emerging countries' governments in value-for-money audits capacity, PPP dedicated department establishment, PPP-related law enactment status, are important success factors.

(c) Study on determinants of PPP

Analysis of the determinants of PPP by country and sector implemented in 1990-2003 revealed that factors such as larger markets, political stability, macroeconomic stability, stronger rule of law, administrative capacity, and greater consumer demand are determinants for PPP (Hammami et al (2006)).

(d) Results of PPP

When examined 181 PPP projects in Latin America for energy, communications and water sectors, the quality of service improved in all three sectors. With the introduction of PPP, user charges rose in the energy and water sectors, but in communication sector it was observed for both increase and decrease[2]. Moreover, compared with the case without introducing PPP, reduction of labor by 1/4 is achieved. However, with regard to expanding the range of service offerings through PPP, there was no significant change in the number of connections and sales volume in energy and water, and there was a certain increase in the number of subscribers and the duration of communication in communication sector[3] (Andres et al (2008)).

When examined 65 PPP projects in the urban water, the transition to PPP improved water leakage problem and reliability in water supply and billing operations. On the other hand, for water charges, charges increased in all cases except cases of four countries[4]. In addition, with the introduction of PPP, there was a reduction effect of 1/4 to 2/3 of the labor force. According to all the PPP contracts investigated, 24 million people were newly accessible to water[5] (Marin (2009)).

OECD (2008) argues that in the UK, the cost increase of construction costs in the PPP project is 23%, which is much lower than 73% of traditional government procurement method[6].

(e) PPP failure cases

Trebilcock and Rosenstock (2015) discuss that there are many cases that due to excessively optimistic revenue forecasts, the government side took revenue risk according to PPP contract.

Although PPP was launched nearly 30 years ago, there are still many on-going PPP projects involving long-term operation and maintenance and not yet completed or transferred to the

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[2] It should be noted that the fee charged by the public sector before the introduction of PPP may have been kept to an excessively low level with some subsidies.

[3] Regarding the expansion of services, it is necessary to verify how it is prescribed in the PPP contract.

[4] The same as footnotes 2 above.

[5] Since the study was not able to establish counterfactual for not having PPP, this 24 million people could be examined further.

[6] Regarding the cost of the PPP project, it is necessary to consider not only the construction cost but also the long term cost of operation and maintenance.

public. Therefore, it needs to further validate as to the results of PPP contract. Regarding areas, there are many studies concerning Europe, Latin America and Africa, and there are less studies concerning Southeast Asia.

3. Current Status of Infrastructure Development and Achievements in PPP in the Philippines

In this section, current status of infrastructure development and achievements in PPP in the Philippines are described.

3-1. Current Status of Infrastructure Development in the Philippines

Regarding the current status of infrastructure, ranking in the Global Competitiveness Index by the World Economic Forum is often cited for international comparison in recognized studies. According to the Index, ranking concerning infrastructure development status are shown in Table 3.1. Philippine's ranking and the score are among the lowest in comparison with other ASEAN peer countries. In comparison with 2010-2011, there is no change in the ranking in 2017-18, though the score itself declined. Meanwhile, both Indonesia and Vietnam have greatly increased their ranking and scores.

Table 3.1 Quality of overall infrastructure Ranking and Score in ( )

	2010-2011	2017-2018
Philippines	113 (3.2)	113 (3.0)
Indonesia	90 (3.7)	68 (4.1)
Thailand	46 (4.9)	67 (4.1)
Vietnam	123 (3.0)	89 (3.6)

Source: The Global Competitiveness Report 2010-2011 & 2017-2018

UNESCAP's Access to Physical Infrastructure Index (APII) is based on data from 2013 to 2015 on the status of infrastructure development in transportation, energy, ICT, water supply and sanitation in 41 Asian and Pacific Region Sector (UNESCAP (2017b)). Among them, the Philippines is 25th in all 41 countries, the score is 0.336, far below the average 0.431 in emerging countries in the region. It is lower than other ASEAN countries as shown in Table 3.2.

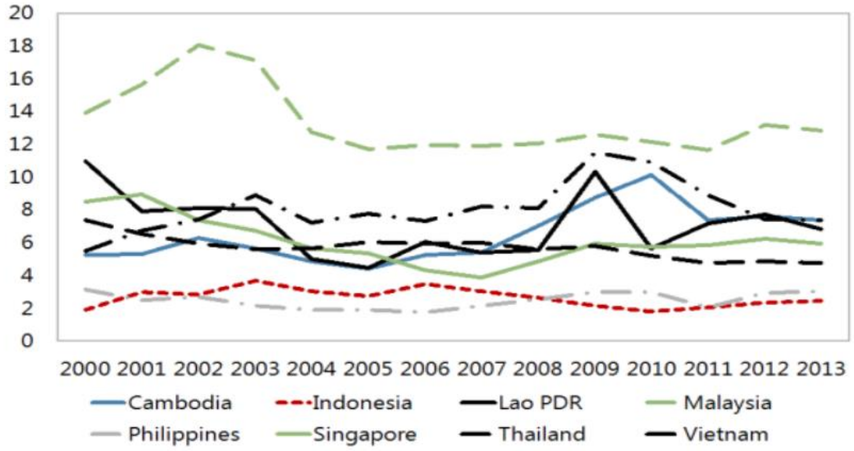
Table 3.2 APII Rank and Score

	APII Rank	APII Score
Philippines	24	0.336
Thailand	15	0.418
Indonesia	27	0.278
Vietnam	14	0.419

Source: UNESCAP 2017b

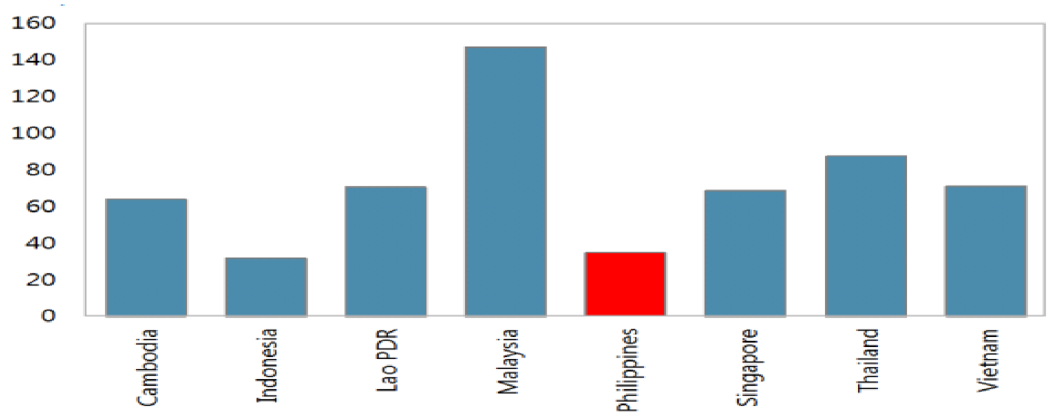
One of the reasons behind this relatively less development of infrastructure in the Philippines is low level of public investment. According to a study by the IMF (2015), the Philippines' public investment had consistently been the lowest among ASEAN countries in the recent past, averaging 2.5 % of GDP in 2000-2013 as shown in Figure 3.1. As a result, the study argues that the public capital stock is also one of the lowest among ASEAN countries, at around 35% of GDP in 2013 compared to the ASEAN average of 72% of GDP as shown in Figure 3.2.

Figure 3.1 Public Investment in percent of GDP



Source: IMF (2015)

Figure 3.2 Public capital stock in percent of GDP in 2013



Source: IMF (2015)

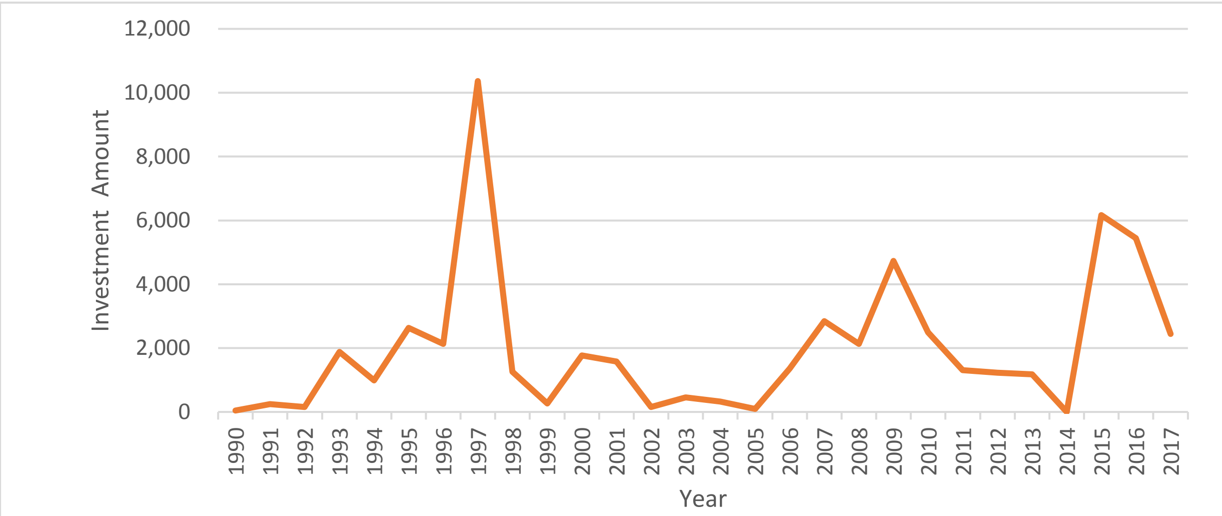
3-2. Achievement in PPP Infrastructure Development in the Philippines

Contrary to the infrastructure development situation, Philippines' achievements in PPP Infrastructure Development is relatively positive in ASEAN.

In 1990, the first BOT, Build-Operate-Transfer, law (Republic Act (RA) No. 6957) was enacted in the Philippines which was the first of its king in Asia, making the Philippines the oldest PPP country in Asia. The law was amended by Republic Act No. 7718 in 1994 to include other scheme such as BOO (Build-Own-Operate).

According to the World Bank PPI Database, the PPP project in the Philippines accumulated 56,073 million dollars totaling 149 projects from 1990 to 2017. In terms of investment value, Philippine is the eighth largest country among emerging countries[7]. Historical investments in PPP for the Philippines is shown in Figure 3.3. Peak in 1997 and contraction in 2002 is similar with trends in whole emerging and developing countries as shown in Figure 2.1.[8]

Figure 3.3 Investments in mil USD in PPP infrastructure projects, 1990-2017 in the Philippines



Source: World Bank PPI Database

Comparison with ASEAN neighboring countries is as shown in Table 3.3. This also shows that the country as relatively good record of PPP.

Table 3.3 PPP projects for 1990-2017

	Number of Projects	Investment (million USD)
Philippines	149	57,703
Thailand	167	39,456
Indonesia	123	58,856
Vietnam	96	14,705

Source: World Bank PPI Database

[7] Philippine is ranked after Brazil, India, China, Turkey, Mexico, Russia and Indonesia.
[8] In 1997, investment was made in the 2 PPP projects in water sector which is the largest and third largest in the Philippines so far in the metropolitan area of Manila.

World Bank PPI Database also shows that PPP projects in the Philippines, electricity sector accounts for overwhelming share of 72.4% on the basis of the total number of projects and 66.8% on the basis of the investment. Also top 6 sponsors by investment in the Philippine during 1990-2017 are all local conglomerates which accounts for 62.7% of the total investment which is $ 35,143 million.

Economist Intelligence Unit (EIU) (2015) depicts the PPP environment in the Asia-Pacific countries in 19 indices including the legal framework, government organization, PPP project implementation, investment environment, and finance. The Philippines' score is marked as 64.4 (full mark 100.0) which is the seventh in all Asia-Pacific countries and the highest in ASEAN as shown in Table 3.4. It is noted that Philippines' last score in 2011 was 47.1 and it shows the significant improvements in the PPP environment of the Philippines. This reflects various PPP promotion measures implemented during the Aquino administration (2010-2016), which will be discussed in section 4.1. Among 6 categories[9], ranking was relatively high for regulatory framework and institutional framework for the Philippines while operational maturity was relatively low.

Table 3.4 EIU ranking and score for PPP in 2011 and 2014

Rank 2014	Score 2014	Score 2011	Rank 2011
1 Australia	91.8	92.3	1
4 Japan	75.8	63.7	6
7 Philippines	64.6	47.1	8
9 Indonesia	53.5	46.1	9
10 Thailand	50.4	45.3	10

Source: Economist Intelligence Unit (2015)

In the report, the score was divided into three categories; "Mature" for scores more than 80, "Developed" for more than 60, and "Emerging" for more than 30. The Philippines was in the group of "Emerging" at the time of 2011 survey, but in 2014, raised to the category of "Developed", which is the only country in ASEAN in that category.

Although international recognition of PPP environment of the Philippines is relatively positive, results of some of PPP projects are mixed. OECD (2016) argues that the Philippine government tended to take on excessive risk in past contracts, particularly foreign exchange and demand risks, to extend overly generous guarantees, and to shoulder heavy contingent liabilities. PPP

[9] Regulatory framework, institutional framework, operational maturity, investment climate, financial facilities, and subnational adjustment.

succeeded in introducing power generation projects in the 1990s, resulted in mobilization of US $ 8 billion and additional 8,000 MW capacity. On the other hand, in the series of those PPP power projects, the government took the demand risk into a "take-or-pay" format. This is part of the reason that the current Philippine electricity tariff is one of the highest in Asia.

Also, in Metro Rail Transit line 3 project, MRT 3, which started operation in 2003 by BLT, Build-Lease-Transfer, revenue from train fare accounted only around 30% of operating cost and lease fee. In this BLT contract, the government took demand risk by guaranteeing IRR of 15% on a dollar basis which may affected incentives for efficient operation and improvement of services by private operator.

4. Transition of PPP policy in the Philippines

This section describes the drastic PPP policy change in the Aquino Administration (2010-2016) and the Duterte Administration (2016-2022).

4-1. Shift to PPP by the Aquino Administration

The Aquino administration, which took office in 2010, reviewed the existing infrastructure development policies which depended mainly on government budget and ODA. As a result of the review, the administration prioritized infrastructure development and launched an aggressive PPP program in November 2010. Ten priority projects were identified, targeting about 4 billion USD in private capital. Based on this policy changes, debate on "PPP vs ODA" was active then in the Philippines.

One of the first large-scale PPP projects launched by the Aquino administration was Manila’s “Ninoy Aquino International Airport Expressway Project”. The Project had been formulated as traditional public works during former Arroyo administration and then handed over to the Aquino administration. Based on this policy shift to PPP, the Aquino government changed public works project to PPP project. Through the bidding, the government was able to receive 11 billion pesos of premium, about 220 million USD. This successful bidding greatly boosted the PPP plan of the Aquino Administration.

The main achievements in PPP by the Aquino administration are as follows.

(a) Government organization

The administration reorganized the then BOT center, established under the Department of Trade and Industry in 1993, and created PPP Center (PPPC) by Executive Order No. 8 in 2010 and transferred it under the National Economic Development Authority (NEDA). Main duties of PPPC are promotion of PPP Policy and assistance in formulation, implementation and monitoring of PPP projects.

As a result, the main roles of major government agencies in PPP are as follows.
PPP Governing Board (PPPGB): Chaired by Director General of NEDA, composed of relevant departments including Department of Finance (DOF), Department of Budget and Management (DBM). This Board is responsible for overall policy issues in PPP.
NEDA: Review the appropriateness of specific PPP project, including validation of economic viability.
Investment Coordination Committee (ICC): Approval of PPP project.
DOF: Review risk sharing mechanism of specific PPP projects and the impact on government guarantees.
PPPC: Support to make business plan for specific PPP projects. Regarding the pipeline of the PPP project under preparation, relevant information is disclosed in the PPPC's website which could attract potential private sector including outside of the Philippines.

(b) Project Development Fund

Project Development and Monitoring Facility (PDMF) was established in PPPC in 2010 to support PPP project formation with the assistance of Asian Development Bank (ADB), Australian Government. Committed amount to PDMF is 42.9 million USD. This is a revolving fund meaning when the project is awarded successfully, the private sponsor will bear the cost of funds being used from PDMF. When the project was not awarded where Philippine government agency should be responsible for, then that agency will repay them in full to PDMF. If the project is terminated outside of the responsibility of the agency, the agency is obliged to repay half of fund utilized. According to PPPC, PDMF supported 35 PPP projects by the end of 2017.

(c) PPP Fund

In 2012, the Asian Development Bank (25 million USD), the Government Service Insurance System (GSIS) of the Philippines (400 million USD), the Netherlands pension fund, Algemene Pensioen Groep (APG), (150 million USD), and Australian Macquarie Infrastructure and Real Assets (MIRA) (50 million USD) established the Philippine Investment Alliance for Infrastructure Fund (PINAI Fund), the Philippine’s first private fund specializing in PPP (total fund size of $ 625 million). The fund already started investing in PPP projects including the electric power sector. Given the investment performance of the PINAI fund, GSIS is considering the establishment of PINAI Fund 2.

(d) Relaxation of Single Borrowers' Limit

In the Philippines, the role of domestic banks is important in promoting PPP infrastructure development. While local conglomerates are being active for PPP projects, those conglomerates also have banking arms which will be described in section 5.5 later and had some issues in single borrowers' limit (SBL).

Central Bank of the Philippines sets single borrowers' limit as 25% of net worth. However, the Central Bank added another 25% for SBL for PPP projects for the purpose of PPP promotion in 2010 until the end of 2013, later extended until the end of 2016.

In 2010, when the Aquino administration started, the ratio of infrastructure development to GDP was 1.8%, but in 2015 it was increased to 4%. The average of six years of the administration was 2.9%, exceeding 1.9% of the Arroyo administration (2001-20010). Also during the Aquino administration from June 2010 to June 2016, 28 PPP projects were approved by the government, however PPP contract was signed for 12 projects and 3 projects were completed[10] by the end of the administration.

4-2. Overviews of Dutertenomics: major change in PPP policy

In June 2016, when the Duterte administration took office, it announced 10-point Socio-Economic Agenda as the most important socio-economic priority. One of the agenda was about infrastructure and PPP; "Accelerating annual infrastructure spending to account for 5% of the gross domestic product (GDP), with public-private partnership playing a key role". However, in April 2017, "Dutertenomics" was announced. The Dutertenomics includes acceleration of infrastructure investment, achievement of sustainable development, and investment promotion, but the most important pillar is massive infrastructure improvement therefore Dutertenomics is also called as "Build, Build, Build program".

(a) Acceleration of Infrastructure Development

During the term of the office until 2022, Detertenomics plans infrastructure investments of 8.4 trillion pesos (about 168 billion USD), with 75 large-scale infrastructure projects. Moreover, the government plans to increase infrastructure investment rate with respect to GDP to 7.3% by 2022 making average rate during Duterte administration in 2017-2022 as 6.8%[11] which is significantly higher than the average of 2.9% of the Aquino government and 1.9% of the Arroyo administration. Among 75 large-scale infrastructure projects, railway sector is regarded as one of the most important sector which includes Philippines' first ever subway project, "Metro Manila Subway Project", "Manila North-South Commuter Line (North) Project", and "Manila North-South Commuter Line (South) Project".

[10] "Daang Hari-SLEX Link Road (Muntinlupa-Cavite Expressway) Project", "PPP for School Infrastructure Project (PSIP) – Phase I", and "Automatic Fare Collection System".

[11] In 2017, the ratio was 5.4%.

There is pending bill at Congress regarding granting emergency power to the President which does not require the congress's approval for the purpose of further implementation of infrastructure projects, especially which contribute decongestion of Metro Manila. Currently the bill is still in the deliberation stage.

(b) Shift from PPP to ODA

As a financial resource of this large-scale infrastructure development plan, Dutertenomics made drastic shift from PPP to government budget and ODA. Contrary to 2010's debate of "ODA vs. PPP", again this debate was active in Philippines in 2017 after announcement of Dutertenomics which made a major policy change from PPP to ODA.

Main reason for this policy shift was due to the fact that during the Aquino administration although 28 PPP projects were approved, contract for only 12 projects were concluded and 3 PPP projects were completed by the end of the administration. This was mainly caused by delay in PPP bidding process which involved various inquiries from private parties sometimes involving judicial branch. In some cases, contract negotiation was lengthened after bidding. EIU (2015) argues that controversies related to the bidding and award procedures for major transport infrastructure projects indicate certain weaknesses in public-sector decision-making and the whole process can be inefficient due to the length of time it takes to reach a final decision.

At the time of the start of the Duterte administration, six projects were in the bidding stage as PPP, of which four projects were changed as ODA projects and the other two projects were canceled by the government decision. The Aquino administration focused solicited PPP scheme, making unsolicited PPP scheme as an exception. However, Duterte administration made positon that it welcomes both solicited and unsolicited PPP.

(c) Hybrid PPP

Dutertenomics is not a complete shift from PPP to the public sector/ODA. The Government priority is to complete the construction phase by the public while operation and maintenance is left to the private sector. They call it "Hybrid PPP" scheme. This is to utilize the highly capable private expertise in operation and maintenance while spending budget and ODA for construction at lower cost. Although this is not popular scheme in other parts of the world, there are several PPP projects under this scheme in the Philippines including “Subic-Clark-Tarlac Expressway Project”.

In the bidding and negotiation process before PPP contract, it is necessary to carefully study and negotiate including how to share risk among public and private sectors and it tends to take time. In the case of ordinary PPP projects, it is necessary to conduct these study and negotiation before construction, in which case there may be a delay in the start of the construction phase. For this reason, "hybrid PPP" is government priority. The construction stage could be started with government finance or ODA first while during the construction period, bidding and contract negotiation for operation and maintenance of PPP project after completion could be done so that loss of time could be minimized. By this "hybrid PPP" scheme, public sector will bear risks in the construction phase like traditional public procurement. It can be said that this scheme is an attempt to simplify procedures and process and speed up the project implementation.

On the other hand, depending on the design, specifications, standards and systems of the physical infrastructure decided at the construction stage, there is a possibility that the private sector that can participate in the operation and maintenance stage is limited. Furthermore, by pursuing "hybrid PPP", utilization of some benefits of PPP as pointed out by the World Bank Institute (2014) as "Whole-of-life costing: Full integration incentivizes the single party to complete each project function (design, build, operate, maintain) in a way that minimizes total costs" in section 2-3. of this paper may not be achieved. For this purpose, it is necessary to involve interested private sector or even share some information of the project including design, specification, and standards to the potential private parties in early stage of the construction[12]. Also, it should be noted that in some ODA, the procurement condition is tied to specific countries that may affect PPP bidding for operation and maintenance after the construction phase.

(d) Financial Source of Dutertenomics

Duterte administration emphasizes the ODA and tax reform as a financial source of large-scale infrastructure development plan by the government. Regarding the former, the Philippine government has expectation for multinational institutions including Asian Development Bank, which used to focus mainly on program loans and now active in infrastructure, and bilateral donors including Japan, China and South Korea, especially Japan for "Quality infrastructure Initiative" and China for "One Belt One Road Initiative". The government also expects AIIB, Asian Infrastructure Investment Bank, in this sector as well.

For the tax reform, the government expects to increase revenues with the reform, including reduction of VAT exemption items, tax increase on automobiles, gasoline, and sweetened beverages. The first tax reform was passed in 2017 by Congress. The government is preparing second package of tax reform including review of incentives for foreign direct investment which is making some controversies among foreign investors.

The Philippines' public debt to GDP has decreased to 32.6% (2017) from its recent peak of 68.0%

[12] By doing these, it may take longer and, in the end, Hybrid PPP may not save time as originally planned.

recorded in 2003. In addition, the ratio of public interest payment in government expenditure is 13.9% (2017). Due to relatively stable fiscal situation, government is in the position that large-scale infrastructure projects could be promoted without too much depending on PPP. Philippine government has formulated a fund procurement plan as "80% domestic borrowing and 20% overseas borrowing in principle" in order to ease the influence from external shocks.

5. Issues in Promoting PPP in the Philippines

Section 4 stated that there were two major policy shifts in infrastructure development recently: first one from public to PPP in 2010 and second one from PPP to public in 2017, both triggered debate of "PPP vs ODA". Regardless of this debate, it is not realistic to develop all necessary infrastructure which lags behind with ASEAN peer countries by public alone. Therefore, it is not about the "PPP vs ODA" but how to promote complementary relations between the public and PPP/private in consideration of the characteristics the specific project, PPP related environment in both domestic and international; in other word "PPP and ODA".

As mentioned above, during Aquino administration, Philippines' PPP environment has greatly been improved and according to the EIU (2015), the country's PPP environment is regarded as "Developed" as only country in ASEAN. In the Duterte administration, the policy has been largely converted to the infrastructure development through public investment, but country's PPP institutions and support systems are sustained.

In this section, key issues for further improvement of PPP environment in the Philippines will be discussed for policy recommendations with reference to findings in the literature review in section 2-3. Specifically, following six issues will be examined: (1) enactment of PPP law, (2) development of "bankable" project, (3) government guarantee for contingent liabilities, (4) risk sharing mechanism, (5) foreign capital deregulation, and (6) development of capital market.

5-1. Enactment of PPP Law

PPP transactions in the Philippines are now based on the BOT law (RA 7718) and its Implementation Rule and Regulation (IRR). The latest version of IRR was revised in 2012. Llant (2010) argues that the current BOT law contains both the enabling policy framework and too many details that should be in the IRR, leaving the government with less flexibility to change these details in order to conform to the dynamic nature of such factors as technology and financial markets.

There was an attempt to create comprehensive PPP law based on the BOT law at the time of former administration for the purpose of promoting PPP. Draft PPP bill includes strengthening the institutional framework of PPP including already introduced measures such as PDMF and

ADR [13], simplifying and clarifying PPP procedures, strengthening government support mechanism including review of risk sharing, prohibition of implementation of PPP project by regulatory agencies. Also, the bill includes making head of the PPP Center as equivalent to secretary level unlike current undersecretary level, making the PPP Center equivalent to Department. The establishment of the Contingent Liability Fund, which will be discussed later, is also included in the bill.

During Aquino administration, although the bill was supported in the House of Representatives, the Senate was not able to approve it. In the Duterte administration, though PPP has ceased to be a priority, there is still some support in both House of Representatives and Senate for PPP bill, however there are not much development currently.

5-2. Development of "Bankable" Project

In order to promote PPP, it is indispensable to formulate an attractive "bankable" project from the viewpoint of private investors. In the Philippines there were difficulties in forming attractive PPP projects due to the issue of securing budget for Feasibility Studies (F/S) preparation, lack of government capacity for making F/S for PPP projects, and lack of government capacity making business plan for PPP project. However, by the establishment of PDMF in 2010 mentioned in section 4-1., now financial support for F/S creation, PPP bidding related expenses, and advisory services related to PPP business plan are being taken care thus making improvement in PPP environment.

In addition, with the support of ADB, the Infrastructure Preparation Innovative Facility (approx. $ 100 million) to the government of the Philippines was approved in 2017. As a result, this facility adds another support for financing projects of important projects, mainly the priority projects of Dutertenomics, for the preparation of business plan and preparation for procurement procedures.

On the other hand, the audit report of the Commission of Audit of the government of the Philippines which audited PDMF, discusses that 2015 to 2017 showed P845 million, about 17 million USD, of public funds were disbursed to various national government agencies (NGAs) and government-owned and controlled corporations (GOCCs) for PPP projects which are eventually canceled and not yet refunded to PDMF[14]. NGAs and GOCCs owe P 845 million to PDMF and this could be some concern about the fund's future sustainability if PDMF will not be

[13] Alternative Dispute Resolution: Since there were several cases that PPP projects which were delayed due to the dispute involving the judiciary, Executive Order No. 78 (2012) made it obligatory to stipulate ADR in all PPP contracts. However, there are no cases where ADR was actually implemented so far.

[14] "2017 Annual Audit Report for PPP Center"

functional as revolving fund as mention in section 4-1.[15]

Many government departments and agencies are involved in planning, contracting, and executing large-scale infrastructure projects, therefore there is challenge for smooth coordination across multiple departments and agencies. In response to this, in 2017, Project Facilitation, Monitoring and Innovation (PFMI) Task Force was established at NEDA with the purpose of monitoring and promotion of implementation of priority projects including PPP projects included in Dutertenomics. It needs further follow-up as to whether this PFMI Task Force will deliver results.

5-3. Government Guarantee for Contingent Liabilities

In the specific event stipulated in the PPP contract occurs, the government agency is obliged to pay the debt to the private sponsors according to the contract. If that government agency cannot pay the debt, the Philippine government's Risk Management Program guarantees to prepare the funds for payment against the contingent liability (CL). This is stated in BOT law and its IRR.

With regard to this government guarantee, there is a function to reduce the perception of risk in the private sector and to give incentive to private sector to participate in PPP. Regarding which risk to be guaranteed, it is stipulated in each of the PPP contract, but commercial risks are to be borne by private party which will be discussed in section 5-4. later.

Stipulation of CL on the legal system are being incorporated as mentioned above, but there is demand from the private sector to establish contingent liability fund (CLF) in order to ensure more secure payment from the government. This is because it is difficult to grasp the timing and amount of CL in advance, and because the budgeting requires appropriation procedures both by the executive branch and legislative branch. In this sense, there is risk that payment will not be made at appropriate timing or risk that deliberation at legislative branch may be suspended and payment will not be made. Therefore, establishment of CLF is preferred from the perspective of private party.

At the moment, the above-mentioned Risk Management Program (about P 30 billion, about 600 million USD), which covers not only contingent liabilities but also the risks related to the PPP project, was established, but it is within the scope of unprogrammed fund of the budget. Therefore this is not CLF strictly speaking. With regard to the establishment of this fund, as discussed in 5-1, discussions have been made to include relevant provisions in the PPP Law.

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[15] These projects may include those that did not result in PPP project due to policy shift by Dutertenomics and this need to be reviewed further.

Regarding the identification and calculation of the CL of the PPP project, it is under the jurisdiction of the Department of Finance of the Philippines. It is important to further strengthen capacity of the department on this area.

5-4. Risk Sharing Mechanism

One of the important elements of private investment decisions in the PPP project is that various risks are properly shared between the public and private sectors. PPPC issued a comprehensive optimum risk sharing table called Generic Preferred Risk Allocation Matrix (GPRAM). This matrix lists type of risk, definition, proposed risk allocation and rationale, possible risk mitigation strategies, and suggested contract provisions. In this table, risks that the government should bear in principle are regulatory risk, compensation for loss due to competing infrastructure, and payment due to business suspension. Commercial risks including demand risk are specified as risks to which the private sector is responsible. However, there is no binding force in this matrix and it is determined by individual PPP contract.

Among various risks, Demand Risk, Regulatory risk, and Changes in Law/Policy are especially to be noted.

(a) Demand Risk

There is certain demand from foreign investors that the government should bear the demand risk. Their argument is that since life of PPP project is relatively long and the project may be affected by change in urban development plan or other related infrastructure development resulting in fluctuation of demand. It is difficult to predict accurate long-term demand and the government is in a better position of controlling these factor to a certain extent.

On the other hand, by seeing the case of the government guarantee and subsidy on MRT No. 3 and the aforementioned report by OECD (2016) about power purchase agreements in the 1990s both mentioned in section 3-2. of this paper, and eventually making burdens for users by increasing user fees, this issue needs to be examined further.

(b) Regulatory risk

Tariff increase will be executed based on indices such as inflation and mathematical formula according to stipulations of PPP contract. On the other hand, in the Philippines, there are cases in which the government did not approve price increases and cases where the government approved but disapproved by judicial branch.

From this point of view, Republic Act of 8975 prohibits the issuance of temporary restraints order

(TRO) by lower courts against national projects implemented by the BOT law. This facilitates the smooth progress of the project. Although this will reduce the number of TRO by lower courts, the Supreme Court is not affected.

(c) Changes in Law/Policy

It takes a long time for a series of processes such as planning, decision making in the government, preparation for construction, actual construction and operation and maintenance for PPP projects. Therefore it is necessary to pay attention to the risk of policy consistency. In the Philippines, the President's term of office is once for six years and every six years there is a change in government. In addition, many of the executives of the central government bureaucracy are political appointees. Because of this background, there is a policy change risk every six years.

In the event of a change in administration, there is a possibility that not only the method of implementation of the project and the fund procurement plan but also the life of the project itself may be reviewed. Many of the large-scale infrastructure projects currently in progress such as railroad projects may not be completed within the current administration. This may cause some concern on private investors.

5-5. Foreign Capital Deregulation

The operation of the infrastructure project is only allowed for Philippine nationals or corporation registered with the Philippines' Securities and Exchange Commission (SEC) and more than 60% of the shares are owned by Philippine nationals. Article 12 of the 1987 Constitution stipulates restriction of foreign capital. In the Foreign Investment Act of 1991, for industries listed in the "Foreign Investment Negative List", foreign ownership is stipulated up to 40%. In the current negative list of 2015, the PPP project is included and therefore subject to the restriction of the foreign ownership. It is based on this fact that top 6 sponsors by investment in the Philippine during 1990-2017 are all local conglomerates as mentioned in section 3-2. of this paper.

As mentioned above, many Philippines' conglomerates operate in multi sector including finance, real estate, construction, communication, retail. Since some PPP projects have positive linkages with real estate, retail and construction, conglomerates actively participate in the PPP project. Therefore, as long as the foreign capital regulation continues, partnerships with local conglomerates are necessary and realistic option for foreign investors.

However, it may not always optimal from the viewpoint of users of infrastructure and taxpayers if local conglomerates are only participating in PPP projects. It is necessary to look into this foreign capital restriction to have further competitive environment for PPP projects. In fact, the

Philippine Competition Commission (PCC), which was newly established in 2015, is strengthening the monitoring of the PPP project. PCC and PPPC signed Memorandum of Agreement (MOA) for "developing the culture of competition in PPP projects"[16] in July 2018. From the viewpoint of reducing the burden on users of infrastructure and improving the quality of infrastructure services, it is important to secure further competition including foreign companies.

5-6. Development of Capital Market

Since many of the major local private banks are affiliated with conglomerates, it is becoming more challenging for local conglomerates from the viewpoint of single borrower's limit as 25% of net worth, after the expiration of additional 25% for PPP project by the end of 2016, to finance large-scale PPP projects to be handled mainly by financial institutions under their umbrella. In addition, due to Basel III requirements for increased bank capital and liquidity, restrictions on financing by domestic and overseas financial institutions are assumed. With these background, development of local capital market is necessary.

In November 2016, the Philippine Stock Exchange (PSE) announced a new regulation on listing companies involved in the PPP project. For private enterprises that became contracting parties to the PPP project, it is possible to be listed on the PSE if the total project cost of the PPP exceeds P5 billion (about 100 million USD). In addition, the company is exempted from the sales record for listing that is normally required over the past three years. This is because PPP companies are usually special purpose vehicles (SPVs) established for the purpose of implementing specific PPP projects and do not have business records as a company. Listing period is the same as concession period of the PPP project or 15 years which is longer. The relaxation of the listing requirement for companies that participate in PPP makes it possible for the companies to raise funds from the Philippine capital market. However, currently no private companies availed this scheme[17]. In addition, this is also beneficial for investors for increase of investment opportunities and contribute to the development of the Philippine capital market.

Issuing bonds specialized for specific PPP projects is also a subject for further promotion. In the case of large-scale infrastructure projects, it takes a long time to recover funds, but the long-term funds that can be financed from local banks in the Philippines is around 15 years, therefore infrastructure project bonds are expected to be issued from the perspective of diversification of fund procurement.

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[16] Statement made by PCC Chairman Balisacan on the occasion of signing of MOA.
[17] Information obtained during author's interview with Executive Director Pecson of PPPC conducted on August 31, 2018. PPPC has yet to identify its reason.

Currently, the PPP Center is involved in the development of the project bond market in collaboration with the Philippine Securities and Exchange Commission (SEC) and others. At the current plan, companies participating in the existing PPP business issue PPP project bonds and list them on the Philippine Dealing & Exchange Corporation (PDEx). If this plan becomes possible, PPP participating companies will not only be benefited for the diversification of means of procuring funds, but because the revenue collection in the PPP infrastructure business can be made possible by long-term investment, issuing bonds will provide long-term financing for PPP participating companies. However, the risk assessment of PPP infrastructure project bonds is more complicated than ordinary corporate bonds, therefore it is necessary to develop infrastructure for bond market, including appropriate rating of PPP infrastructure project bonds. In addition to the project bond by private sector, government is studying possibility of issuance of PPP project bond.

From this point of view, the Credit Guarantee and Investment Facility (CGIF), which was established with the aim of issuing local currency-denominated bonds within the region in 2011 by ASEAN+3. In 2016, project bond for the Philippine geothermal power plant project were issued (P 7.7 billion, about 150 million USD) with guarantee of CGIF as its first project.

6. Concluding Remarks

The Philippines needs to accelerate infrastructure development which lags behind with neighboring ASEAN countries. Regarding infrastructure development by public sector, Dutertenomics, currently major concerns are not seen in securing financial resources through support by international development financial institutions and bilateral donors including ADB, Japan, China, Korea, AIIB and government budget through tax reform.

However, the Philippines is no exception as the overall macro-economic downside risk of emerging countries is beginning to be seen. Recent peso depreciation and Basel III regulatory requirements may also affect PPP environment negatively. Currently, the Philippine government bonds is rated as investment grade, but there is a risk that the cost of raising funds will rise if the rating falls.

Therefore, in terms of infrastructure development in the Philippines, from the viewpoint of "PPP & ODA" rather than "PPP vs ODA", it is necessary to further improve PPP environment in order to strengthen mutual complementarity between public and PPP/private, especially in the area mentioned in section 5.

At present, discussions are in progress for shift to federalism from unitary system of government in the Philippines in congress. This is one of election promises of the President Duterte. Although many PPP projects are implemented in the Metro Manila area, PPP projects in outside of Metro Manila including Cebu, the second biggest city, and Davao, the third biggest city, are also being formulated, planned, and implemented. When shift to the federal system is implemented, it may create another uncertainty in PPP environment in the country.

About one year has passed since the launch of Dutertenomics. It is still too early to evaluate this policy shift. It needs more time to monitor progress of large-scale infrastructure projects listed in Dutertenomics and implication to speediness of project preparation, bidding and implementation and its cost and user fee.

Also PPP projects developed and approved during Aquino administration will be completing and getting into operation and maintenance phase of PPP. The success and failure of the PPP project can be determined not only at the construction stage but also at the operation and maintenance stage: whether efficient and effective infrastructure services can be provided at an appropriate fee, if forecast including demand for the project is within the range assumed by the private participants, and if public interest is protected. Therefore further validations are expected on the results of these PPP projects.

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