

Takushoku University

Infrastructure Development in Developing Countries: Choice between Public Finance
and Public Private Partnership (PPP) in the Philippines

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in International Development Studies

by

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Contents

List of Tables	vi
List of Figures	vii
Abbreviations	ix
Introduction	1
Background of Dissertation	1
Research Objectives	4
Research Questions	5
Significance of the Dissertation	7
Structure of Dissertation	8
Chapter 1 Finance Options for Infrastructure Development	11
1.1 Public Finance	12
1.2 PPP	16
1.2.1 Definition of PPP	16
1.2.2 Characteristics of PPP	21
1.3 Summary	26
Chapter 2 Theory of PPP	27
2.1 History of PPP	27
2.2 Economics of PPP	28
2.3 Literature Review on PPP	32
2.3.1 Advantages of PPP	32
2.3.2 Success Factors of PPP	37
2.3.3 Determinants of PPP	39

2.3.4 Uncovered Ares of Past Researches	41
2.4 Summary	42
Chapter 3 Overview of PPP Infrastructure Development in Developing Countries	43
3.1 Trends of PPP Infrastructure Development in Developing Countries	43
3.2 Key Issues of PPP in Developing Countries	48
3.2.1 Regulatory Framework.....	48
3.2.2 Government Support.....	49
3.2.3 Institutional Framework	50
3.2.4 Institutional Capacity	50
3.3 Summary	51
Chapter 4 Current Status of Infrastructure Development and Achievements for PPP in the Philippines	52
4.1 Current Status of Infrastructure Development in the Philippines	52
4.2 Achievement in PPP Infrastructure Development of the Philippines	57
4.3 Case Studies on PPP Projects in the Philippines.....	60
4.3.1 Case Study 1: Water Concession in Metro Manila	60
4.3.2 Case Study 2: Metro Rail Transit Line 3.....	66
4.4 Summary	72
Chapter 5 Policy Changes over the Last Five Infrastructure Regimes: Three Decades in the Philippines	73
5.1 Overview of Policy Directions during the Last Five Regimes.....	73
5.2 Policy Changes and Directions of Each Administration	74
5.2.1 Ramos Administration (1992-1998).....	74
5.2.2 Estrada Administration (1998-2001)	78

5.2.3 Arroyo Administration (2001-2010).....	79
5.2.4 Aquino III Administration (2010-2016).....	80
5.3 Duterte Administration (2016-).....	83
5.3.1 Acceleration of Infrastructure Development.....	83
5.3.2 Shift from PPP to Public Finance/ODA.....	84
5.3.3 Hybrid PPP	86
5.3.4 Infrastructure Governance in the Second Half of Duterte Administration.....	89
5.4 Factors Affecting Infrastructure Governance in the Philippines	96
5.5 Summary	101
Chapter 6 Issues in PPP Infrastructure Development in Indonesia	102
6.1 Current Status of Infrastructure Development in Indonesia	103
6.2 Achievements in the PPP Infrastructure Development in Indonesia	107
6.3 Transition of PPP policy in Indonesia.....	112
6.3.1 Founding Period (up to year 2005).....	113
6.3.2 The Preparing Period (2005 to 2014)	113
6.3.3 Developing Period (since 2015).....	116
6.4 Issues in Promoting PPP in Indonesia.....	118
6.4.1 Regulatory Framework.....	118
6.4.2 Institutional framework.....	123
6.4.3 Institutional Capacity	125
6.4.4 Financial Facilities for Infrastructure Development	125
6.5 Comparison with Philippines' PPP Environment and Implications to the Philippines	127
6.6 Summary	129

Chapter 7 Assessment of the Finance Option in the Philippines.....	130
7.1 Assessment of Policy Changes over the Last Five Infrastructure Regimes ...	130
7.2 Assessment of the Fiscal Situation	132
7.3 Assessment of the PPP Governance.....	136
7.4 Assessment of the PPP Environment.....	139
7.5 Summary	142
Chapter 8 Conclusion and Policy Recommendations	144
8.1 Conclusion.....	144
8.2.1 Policy Change between Public Finance and PPP	154
8.2.2 Improvement of the Fiscal Situation.....	155
8.2.3 Improvement of the PPP Governance.....	158
8.2.4 Improvement of the PPP Environment	161
References.....	173

Tables

Table 1.1	Some of definitions of PPP	17
Table 3.1	Recent major initiatives for promotion of PPP by multilateral and bilateral agencies	47
Table 4.1	Quality of overall infrastructure Ranking and Score	53
Table 4.2	APII Ranking and Score	53
Table 4.3	Demand for Infrastructure Investment in the Philippines	55
Table 4.4	PPP projects for 1990-2019	59
Table 4.5	Changes after privatization for selected indicators for two water concessionaires	63
Table 5.1	Summary of revised list of flagship infrastructure project	90
Table 6.1	Infrastructure Ranking and Score	103
Table 6.2	APII Ranking and Score	104
Table 6.3	PPP projects for 1990-2019	109
Table 6.4	EIU score and ranking for PPP in 2011, 2014, and 2018	110
Table 6.5	EIU score and ranking of Indonesia in each category	111
Table 6.6	Score for PPP Regulatory Framework (1-100)	112
Table 6.7	Major government financial support for PPP of the Philippines and Indonesia	128
Table 7.1	EIU score and ranking for PPP in 2011, 2014, and 2018	139
Table 7.2	Score for PPP Regulatory Framework (1-100)	140
Table 8.1	ODA Loan Performance for 2019	157

Figures

Figure 1.1 Coverage of PPP	20
Figure 1.2 Basic PPP project structure and funds flow	20
Figure 3.1 PPP Investment and number of projects during 1990-2019	44
Figure 3.2 Top 10 countries by investment, 1990 – 2019	45
Figure 3.3 Primary sectors ranked by investment, 1990 – 2019	45
Figure 3.4 Regional distribution of PPP investment, 1990-2019 (in terms of number of projects)	46
Figure 3.5 Regional distribution of PPP investment, 1990-2019 (in terms of investment)	46
Figure 4.1 General government investment to GDP in comparison with ASEAN peer countries	56
Figure 4.2 General government capital stock to GDP in comparison with ASEAN peer countries	57
Figure 4.3 Investments in PPP infrastructure projects in the Philippines, 1990-2019	58
Figure 4.4 PPP Investment by Sectors in the Philippines 1990-2019	59
Figure 4.5 Basic Framework for Metro Manila Water Concession	62
Figure 4.6 Service Areas of Two Water Concessionaires	63
Figure 4.7 Basic Framework for MRT 3	67
Figure 4.8 Route Map of Urban Rail System in Metro Manila	68
Figure 5.1 PPP investments to GDP	76

Figure 5.2	Tax revenue to GDP	77
Figure 5.3	Fiscal balance to GDP	77
Figure 5.4	Central government debt to GDP	79
Figure 6.1	General government gross fixed capital formation	105
Figure 6.2	General government gross fixed capital formation against GDP	105
Figure 6.3	Public Investment in percent of GDP for selected ASEAN countries	106
Figure 6.4	General government capital stock against GDP	107
Figure 6.5	Public capital stock as a percentage of GDP for selected ASEAN countries	107
Figure 6.6	Investments in PPP infrastructure projects, 1990-2019 in Indonesia	108
Figure 6.7	Government support under the PPP financing scheme in Indonesia	120
Figure 6.8	Central government debt against GDP	122
Figure 6.9	Consolidated fiscal balance against GDP	122
Figure 7.1	ODA commitments	134
Figure 7.2	ODA net disbursements	135
Figure 7.3	ODA gross disbursements	135

Abbreviations

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
BLT	Build-Lease-Transfer
BOT	Build-Operate-Transfer
CGIF	Credit Guarantee and Investment Facility
CL	Contingent Liability
CLF	Contingent Liability Fund
DOF	Department of Finance
DOTr	Department of Transportation
DOTC	Department of Transportation and Communication
DPWH	Department of Public Works and Highways
F/S	Feasibility Study
GPRAM	Generic Preferred Risk Allocation Matrix
IIF	Indonesia Infrastructure Finance
IIGF	Indonesia Infrastructure Guarantee Fund
IMF	International Monetary Fund
IRR	Implementing Rules and Regulations
LRT	Light Rail Transit
MOA	Memorandum of Agreement
MRT	Metro Rail Transit
MRTC	Metro Rail Transit Corporation

MWSS	Metropolitan Waterworks and Sewerage System
NEDA	National Economic and Development Authority, the Philippines
NRW	Non-revenue water
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
PCC	Philippine Competition Commission
PDMF	Project Development and Monitoring Facility
PFI	Private Finance Initiative
PPI	Private Participation in Infrastructure
PPP	Public Private Partnership
PPPC	Public Private Partnership Center
PT SMI	PT Sarana Multi Infrastruktur
RA	Republic Act
RMP	Risk Management Program
SBL	Single Borrower's Limit
SOE	State Owned Enterprise
SPV	Special Purpose Vehicle
TRAIN	Tax Reform for Acceleration and Inclusion
TRO	Temporary Restraint Order
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USD	United States Dollar
VfM	Value for Money

VGF

Viability Gap Financing/Fund

Introduction

Background of Dissertation

Infrastructure such as roads, railways, and electric power is a major foundation for national economic development, as well as improving people's lives such as contributing to poverty reduction. In many developing countries, the necessity of infrastructure development is high due to mainly two factors. First, infrastructure is in general less developed faced with small fiscal space. Second, maintenance of infrastructure is another challenge because it commonly lacks a maintenance budget, trained personnel and overall national capabilities. Further considering future population increases and economic growth in developing countries, infrastructure development is one of the most important policy issues for developing countries.

There are many estimates that attempt to identify the infrastructure gap, difference between the infrastructure investment necessary and the investment forecast available in developing countries. According to McKinsey (2016), one of the most quoted estimates on the infrastructure gap, there is a gap of USD 3.3 trillion a year worldwide between 2016 and 2030, of which about USD 1 trillion is for emerging and developing countries.

For the regions of Asia and the Pacific, the Asian Development Bank (ADB, 2017b) has reviewed the demand for infrastructure in these two regions, and adjusted for climate change adaptation and mitigation, ADB has estimated that there is a USD 1.7 trillion per year gap between 2016 and 2030. This infrastructure gap is estimated to be equivalent to 2.4% of GDP of the region, and when excluding China, the figure reaches to 5.0% of GDP. The ADB also argues that 2.0% of 5.0% of this gap may be financed by the public through future fiscal reform, however the remaining 3.0%,

USD 250 billion per year, is clearly a significant financing gap for the infrastructure development in Asia and the Pacific.

Since the support from international financial institutions and bilateral donors, and the government's financial resources of the developing countries are limited, the expectation that the private sector will fill this gap is high. Furthermore, limitations also exist on the planning and implementation capabilities of the developing countries with regards to the development of infrastructure. Therefore, utilization of the private sector's finance, know-how, and technology for development of infrastructure in developing countries through the public-private partnership (PPP) is receiving a high level of attention in both academic research and actual projects including various innovative attempts.

PPP is expected to play an important role in infrastructure development not only in developing countries but developed countries too. Faced with aging infrastructures and with renewal issues and limited budgets, especially in local and regional governments where population decline is accelerating, developed countries have been introducing this financing and procurement modality for the development, operation, and maintenance of their infrastructure.

The introduction of PPP infrastructure, both in developing and developed countries, has been in progress since the 1990s. There are merits attainable by the use of PPP such as reducing the fiscal deficit and external public debt, at least for the short term, reduction of construction/operation/maintenance cost, improvement of infrastructure services, reduction of the labor force involved in infrastructure operation, and improving efficiency in developing and operating the infrastructure by incorporating private know-how and capabilities. However, it can also be pointed out that there are negative issues in the utilization of PPP. With the adaption of PPP, various issues have presented themselves such as increases in the public contingent debt, increases in

infrastructure user charges, and increase in the work load on the government side in implementing PPP thereby causing delays in the implementation of the projects (Trebilcock and Rosenstock 2015, Marin 2009, Andres et al 2008, UNESCAP 2015, The World Bank Institute 2014, Andres et al 2008, Organization for Economic Co-operation and Development (OECD) 2008, etc.).

In the Philippines, although infrastructure development status is lagging behind the ASEAN peer countries as a whole (World Economic Forum 2019), PPP investments is one of the largest among the developing countries (World Bank 2018). At the same time, the PPP environment status is one of the highest rated in the ASEAN region (Economist Intelligence Unit 2018). Due to the electric power crisis that occurred in the 1980s, the development of PPP-related law was enacted relatively early among the developing countries in the region. Philippine's BOT, Build-Operate-Transfer¹, law was enacted in 1990, which was the first of its kind in Asia. Subsequently PPP projects in the Philippines are being promoted in sectors including electric power, water supply, and transportation. On the other hand, there are many challenges in PPP infrastructure development (ADB 2017a and Navarro and Llanto 2014). It became clear that past PPP projects are not always successful cases, such as a newly created large amount of contingent debt due to excessive the risk burden carried by the government. (OECD 2016).

The Aquino III administration of the Philippines that entered office in 2010 made important policy changes to develop infrastructure through PPP, not through public finance, mainly for the reduction of the fiscal burden, by establishment of a new government agency called PPP Center to promote PPP and various PPP support systems.

¹ This is one of modalities of PPP. This topic will be further discussed in Chapter 5.

Against this backdrop, the Duterte administration, inaugurated in 2016, announced the “Build, Build, Build” program in its "Dutertenomics", a large-scale infrastructure development plan of about 8 trillion pesos, about USD 160 billion, in April 2017. The administration made a drastic policy shift in financing this massive infrastructure program from PPP to public finance including Official Development Assistance (ODA) from external resources. In response to these policy shifts, there has been a debate often called "PPP vs ODA" in the Philippines.

Research Objectives

This dissertation attempts to analyze PPP infrastructure development in developing countries by focusing on the extreme policy changes related to the roles of the public and private sectors in infrastructure development in the Philippines. The main objectives of this dissertation are to:

- a) review advantages and disadvantages of PPP infrastructure development in developing countries,
- b) assess policy changes in infrastructure development in the Philippines, and
- c) make policy recommendations for the improvement of infrastructure governance², including PPP governance³, of the Philippines.

The ultimate research objective based on the above research objectives is to put light on the ways to promote infrastructure development in the Philippines.

² Infrastructure governance is defined as the way governments manage development and delivery of public infrastructure through regulations and policy measures.

³ PPP governance is defined as the way governments manage development and delivery of PPP through regulations and policy measures.

Research Questions

This dissertation is designed to address the following research questions in relation to the objectives of this dissertation:

- a) Is PPP an effective financing and procurement⁴ option to develop infrastructure in developing countries?
- b) What are the factors behind changes in infrastructure governance in the Philippines, especially the drastic shift during the Aquino III and Duterte administrations?
- c) What are the desirable roles of public finance and PPP in developing infrastructure in developing countries?

Against the above research questions, the followings are hypothesis to be validated throughout the dissertation. First on the effectiveness, PPP is generally considered as effective financing and procurement option for developing infrastructure, especially in developing countries, because these countries face budget deficit and accumulation of debt (Delmon (2015), Kivleniece and Quelin (2012), and Gassner, Popov, and Pushak (2009)). Since the private party will mobilize some or all of the financing required for infrastructure to be developed through PPP, this option is highly expected to be promoted globally (World Bank (2017)). However, PPP is not a panacea for infrastructure development (Barlow and Koberle-Gaiser (2009) and Trebilcock & Rosenstock (2015)). In order for PPP to be an effective financing and procurement option to develop infrastructure in developing countries, proper allocation of risks among public and private parties is of critical importance (Yescombe and Farquharson (2018)).

⁴ PPP is regarded as not only a finance option as opposed to public finance but also procurement option as opposed to public procurement hereafter referred traditional procurement.

Second, on the factors behind changes in infrastructure governance in the Philippines, there are mainly two distinct factors. The first factor is the economic and fiscal situation (Canlas (2017)). Philippines have been facing fiscal constraints for infrastructure development which results in infrastructure deficit. Therefore, past administrations have tried to have fiscal reform to increase fiscal space for infrastructure development (Diokno (2017)). This also explains the introduction of policies and policy measures to bring private participation in infrastructure development through PPP in the Philippines (Llanto (2004)). The second factor is the time constraints, especially presidential term which is only one term for six year. There is a tendency to have changes in policy and priority during changes in the administration every six years. Drastic policy shift in infrastructure development from Arroyo to Aquino III and then to Duterte is major example for challenge to the continuity of policy. The time constraints are also related to the administrations' tendency to complete and deliver infrastructure projects within their own presidential term.

Third, on the desirable roles of public finance and PPP in developing infrastructure, there are several criteria for choosing the finance option. These include contractibility of quality of the service to be delivered by the said infrastructure (Hart (2003) and Engel, Fischer, and Galetovic (2014)), whether proper allocation of risk between public and private can be coordinated (UNESCAP (2015)), and innovation by private sector can be expected through PPP (World Bank Institute (2012)). If those criteria are met, PPP is regarded as the desirable finance for a particular project. In order to validate these criteria for a particular project, finance option test should be conducted with Value for Money (VfM) analysis.

Significance of the Dissertation

Infrastructure is extremely important for economic development and poverty reduction. However, given the infrastructure gap and pressures on public expenditure, there is a growing expectation that the public-private partnership (PPP) will fill this gap globally.

PPP as a mechanism for financing and procuring infrastructure has been an active and provocative debate in the Philippines over the years, which is known to have inadequate infrastructure, twice in 2010s when a significant policy shift on the financing source of public infrastructure was announced by the Philippine government. Drastic policy changes concerning the roles of public finance and PPP in infrastructure development within this decade are not seen in other developing countries. In other words, the case of the Philippines' shift in infrastructure governance can be said to be like a social experiment on infrastructure development in a developing country.

While there is no precedent, substantial study on the changes of infrastructure governance in the Philippines, this dissertation assesses policy changes in infrastructure development in the Philippines and to identify several factors behind the changes related to infrastructure governance in the Philippines, especially the drastic shift during the Aquino III and Duterte administrations, as academic contributions. Furthermore, the findings of the dissertation, including the desirable role of public finance and PPP in developing infrastructure in developing countries, could improve infrastructure governance, such as choice of financing mode, design and implementation of the PPP project, in other developing countries as an operable contribution to policy making.

Structure of Dissertation

This dissertation consists of Introduction and eight chapters with the composition as follows:

a) Introduction

Introduction aims to develop the general idea of the dissertation by presenting the background of the study, research objectives, research questions, and significance of the dissertation.

b) Chapter 1: Finance Options for Infrastructure Development

Chapter 1 discusses characteristics of two finance options for infrastructure development; namely public finance and PPP. The Chapter also presents a definition of PPP.

c) Chapter 2: Theory of PPP

Chapter 2 aims to develop a theoretical understanding of PPP including the history of PPP, the theoretical framework of PPP from perspectives of economics, and literature review on PPP. Literature review will be discussed the key areas of PPP such as the advantage of PPP, success factors of PPP, determinants of PPP and uncovered areas of past studies.

d) Chapter 3: Overview of PPP Infrastructure Development in Developing Countries

Chapter 3 illustrates overviews of PPP infrastructure development in developing countries including recent trends and key issues. Key issues for PPP in developing countries include regulatory framework, government support, institutional framework, and institutional capacity.

e) Chapter 4: Current Status of Infrastructure Development and Achievements for PPP in the Philippines

Chapter 4 depicts current status of infrastructure development, which lags behind its ASEAN peers, and the achievements for PPP, which is relatively positive, in the Philippines. In order to further discuss the achievements in PPP in the Philippines and advantages and disadvantages of PPP modality in general, two PPP projects, one in the water works and another in the railway sectors in the Philippines, will be illustrated as case studies.

f) Chapter 5: Policy Changes over the Last Five Infrastructure Regimes: Three Decades in the Philippines

Chapter 5 presents the changes of infrastructure governance over the last five infrastructure regimes, over three decades, in the Philippines. The last five administrations regimes are: Ramos, Estrada, Arroyo, Aquino III, and currently Duterte. Importantly, emphasis will be given to the Aquino III and Duterte administrations. Infrastructure governance of the Duterte administration for the second half of this administration since 2019 will also be reviewed. The Chapter finally analyzes the factors that have shaped infrastructure governance in the Philippines based on policy changes over the last five infrastructure regimes.

g) Chapter 6: Issues in PPP Infrastructure Development in Indonesia

Chapter 6 discusses PPP infrastructure development in Indonesia as one of the peer countries of the Philippines for comparison. Indonesia is now the largest PPP invested country in the ASEAN countries and one of the top ten emerging economies with improved PPP frameworks. This Chapter reviews the issues in promoting PPP in Indonesia as well as analyses comparison with those of the Philippines.

h) Chapter 7: Assessment of the Finance Option in the Philippines

Chapter 7 assesses the finance options for infrastructure development in the Philippines from four viewpoints: policy changes and directions over three decades,

fiscal situation including ODA, PPP governance, and PPP environment of the Philippines.

i) Chapter 8: Conclusion and Policy Recommendations

Chapter 8 draws a conclusion and then argues policy recommendations for improvement of the financing aspect of infrastructure governance with a focus on the improvement of PPP governance and its environment.

Chapter 1 Finance Options for Infrastructure Development

This Chapter discusses characteristics of two finance options for infrastructure development; namely public finance and PPP with their inherent characteristics. The Chapter also presents a definition of PPP.

Infrastructure⁵ requires long-term and large upfront investments. It involves many public/private players and stakeholders, taking in some cases 20 to 30 years to fully recover the initial investment costs. Since public infrastructure is considered as public goods, it has been characterized as "non-rivalrous"⁶ and "non-excludable"⁷. These two characteristics imply market failure, which may lead to inability, even actual failure, to achieve a socially desirable level of infrastructure services unless governments intervene.

Infrastructure development has traditionally been financed by public spending. Due to the public goods nature of infrastructure, governments have played a major role in financing infrastructure through taxation and public debt. However, large fiscal deficits and the concern with the growth of public debt have motivated governments, especially in developing countries, to mobilize private sector funds as alternative funding sources while at the same time tapping into the private sector's efficiency for infrastructure development.

There are then two broad options for financing public infrastructure, namely, public finance and Public-Private Partnership (PPP). A third financing and

⁵ Infrastructure is defined as the basic facilities necessary for the functioning of a society. Infrastructure mainly consists of economic infrastructure, such as power, transportation, communication, and social infrastructure, such as health and education. Economic infrastructure is defined as basic facilities which serve as foundation for economic development. On the other hand, social infrastructure is defined as basic facilities which serve as a foundation for the human resource development and social development.

⁶ Its consumption does not reduce its availability to others.

⁷ It is available to everyone and cannot be withheld even from people who do not pay for the services.

procurement option is the combination of public finance and PPP. This option will be reviewed later in Chapter 5.3.2 as a hybrid PPP. The fourth option is privatization which is transfer of infrastructure assets from the public sector to the private sector. However, privatization involves permanent transfer of ownership of infrastructure from public to private while the ownership is transferred back to the public sector upon the PPP contract expiration under the PPP arrangement. Since the said infrastructure under privatization cannot be regarded as public infrastructure, therefore the concept of privatization is not included in this dissertation.

1.1 Public Finance

Considering the public good nature of public infrastructure, it remains to be a major government responsibility and thus, public sector (government) financing has been and will be the most significant source of infrastructure development. Public finance consists of tax revenues, non-tax revenues, public bonds, and borrowings from both domestic and foreign markets. ODA and financial assistance both in the form of grant and loan from multilateral institutions and bilateral agencies is also included in public finance as its repayment is a government responsibility in case of loan.

Public finance in infrastructure has the following characteristics:

- 1) Lower cost: Yescombe and Farquharson (2018) assert that the capital cost for PPP is typically around 2-5% per annum higher than that of public funding. In case of ODA, the terms and conditions are concessional for loans and thus, government borrowing costs are much lower than rates charged by private capital markets.
- 2) Flexibility: Since government retains ownership of the infrastructure asset, it also has greater flexibility for operation and maintenance.
- 3) Cost and time overruns: Usually, the public sector directly manages private contractors who have been engaged to construct public infrastructure. Inefficient and

ineffective management of private contractors by the public sector results in cost and time overruns. (It is noted as well that there are also cost and time overruns in PPP contracts. The empirical evidence on who better implements public infrastructure projects seems to be mixed into this topic too.)

4) Competition for budget: Due to public sector budget constraints, infrastructure spending has to compete with equally prioritized budget items. Competition for scarce budgetary resources is evident where government attention is given to social protection and welfare programs such as basic education, health and nutrition, and conditional cash transfer. Large scale and long-gestating infrastructure projects may give way to other priorities based on what policymakers see as critical development constraints.

Engel, Fischer, and Galetovic (2014) argue that there are four challenges in developing public infrastructure publicly: 1) poor project selection, 2) inadequate maintenance, 3) inefficient pricing, and 4) capture and corruption. On the issue of poor project selection, Llanto (2007) discusses the topic as “inconsistencies between technocratic infrastructure plans and political infrastructure decisions”. IMF (2015) reveals that due to the issue of poor project selection together with the matter of inadequate maintenance, about 30% of potential gains from public infrastructure investment is lost through inefficiencies in planning, including project selection, and implementation. On the issue of inadequate maintenance, governments tend to prioritize building new infrastructure rather than maintaining already constructed infrastructure, which is more economical, partly due to new infrastructure being more visible to its citizen than maintenance work. On the issue of inefficient pricing, tariff and user charge for the public infrastructure tends to be low especially for populist governments for political and social considerations. On the issue of capture and corruption, the authors include “sectorial capture of the government by the construction lobby which aims to limit competition by requiring qualifications that exclude newcomers or foreign firms” in addition to outright corruption.

However, each of these issues can and often are also found in PPP arrangement projects. For example, the issue of inefficient pricing, and capture and corruption. If a government decides to subsidize the user fee of infrastructure developed by PPP, the setting of the user fee can likely be inefficient⁸. In case of project capture, limiting competition for PPP arrangement could happen as well. Corrupt activities can also be observed in PPP projects.

Delmon (2017) also points out a few other challenges in publicly financed infrastructure, namely: 1) inefficiency arising from public procurement processes, 2) failure or unwillingness to implement incentive mechanisms to achieve greater efficiency, and 3) failure to control changes and other risks that result in higher construction and operation costs. These challenges show the inefficient aspect of infrastructure by public finance and procurement.

ODA, which is regarded as part of public finance, has the following characteristics.

- 1) Lower cost: In case of ODA, concessional loans have a longer tenor with lower interest rates in comparison with private borrowings.
- 2) Technical assistance from donor agency: In some cases, technical assistance on project execution including project preparation, design, procurement, and implementation that supplements the government capability is provided by the donor agency.
- 3) Procurement condition: In some ODA projects, procurement of goods and services is tied to specific countries, which may not be economical nor offer the best quality in view of the life cycle of the infrastructure.
- 4) Foreign exchange risk: There is a foreign exchange risk unless ODA loans are denominated in local currency. This is very problematic for developing countries with a small export base and limited foreign market access. The ADB has pointed out the

⁸ The case of Metro Rail Transit Line 3 (MRT3) project of Metro Manila in the Philippines will be discussed in Chapter 4.3.2 as one of the cases for this inefficient pricing in PPP.

need for appropriate hedging of foreign currency debt of a project. This is to minimize the risk of losses due to foreign exchange rate movements.⁹

5) Foreign debt and government fiscal burden: In case of ODA loans, the loans have a significant impact of foreign debt on the county's fiscal balance.

From the taxpayer's viewpoint, current taxpayers pay for the cost of tax-financed infrastructure while future taxpayers pay for the cost of infrastructures financed through government borrowing, including ODA loans. These contrast with infrastructure services which are totally covered by user fees where current users pay for current consumption of the infrastructure services.

Long-term infrastructure assets set the condition for growth and development, which will benefit future generations. For infrastructure financed by government borrowing including ODA, the expectation is that public infrastructures will be long lasting and will provide a stream of benefits to the future generations who will pay for public infrastructure that is used and enjoyed by the current generation.

Government guarantee, both implicit and explicit, for PPP arrangement is also part of public finance. This enters into the space of fiscal accounts as contingent liabilities which may translate into actual liabilities if there are losses. There may be cases where such potential obligations to be under- or inadequately reported which may arise if there is inefficient debt management by the government. Llanto (2007b) laid as a practical approach in dealing with contingent liabilities, the assignment of risks to the parties (government and private sector, respectively) that are best able to address any issues, and the minimization of the component risks through efficient risk management.

⁹ <https://www.adb.org/sites/default/files/linked-documents/44444-013-sd-03.pdf> Second Green Power Development Project (RRP BHU 44444)

1.2 PPP

PPP has been tapped to develop and operate public infrastructure by the private sector by utilizing their funds, management expertise and technical ability. The expectation is that private sector resources and expertise will lead to a more efficient and effective delivery of public services. Various experiences with PPP show that costs can be reduced and higher quality services can be provided throughout the project life by bundling project design, financing, procurement, construction, operation, and maintenance to be discussed in Chapter 2.

1.2.1 Definition of PPP

PPP is a mechanism for collaboration between the public and the private sectors in the provision of public services such as infrastructure construction, operation, and maintenance. A universally accepted definition of PPP does not exist. A definition of PPP is not academically established yet either. This is because there are many schemes in PPP, from the combination of the traditional government procurement to complete privatization, in infrastructure asset design, construction, possession and operation. Delmon (2010) discusses that there are over 25 PPP schemes including BOT¹⁰ and BLT¹¹ schemes. Table 1.1 presents some of definitions of PPP by multilateral agencies, countries and academicians.

¹⁰ BOT stands for Build-Operate-Transfer where the private party builds infrastructure, operates the said infrastructure, and transfers the infrastructure asset to the public entity after the PPP contract expires.

¹¹ BLT stands for Build-Lease-Transfer where the private party builds infrastructure, leases the said infrastructure to the public entity, and transfers the infrastructure asset to the public entity after the PPP contract expires.

Table 1.1 Some of definitions of PPP

Agency	Definitions of PPP
World Bank	A long-term contract between a private party and a government entity, for providing a public asset or services, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance (World Bank 2017).
ADB	Contractual arrangement between public and private entities through which the skills, assets, and/or financial resources of each of the public and private sectors are allocated in a complementary manner, thereby sharing the risks and rewards, to seek to provide optimal service delivery and good value to citizens. In a PPP, the public sector retains the ultimate responsibility for service delivery, although the private sector provides the service for an extended time (ADB 2019).
OECD	An agreement between the government and one or more private partners according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners (OECD 2008).
HM Treasury, United Kingdom	Arrangements typified by joint working between the public and private sector. In their broadest sense they can cover all types of collaboration across the private-public sector interface involving collaborative working together and risk sharing to deliver policies, services and infrastructure (HM Treasury 2008).
Delmon	Any contractual or legal relationship between public and private entities aimed at improving and/or expanding infrastructure services (Delmon 2017).
Engel, Fischer, and Galetovic	An arrangement by which the government contracts a private company to build or improve infrastructure works and to subsequently maintain and operate them for an extended period in exchange for a stream of revenue during the life of the contract (Engel, Fischer, and Galetovic 2014).

Source: author

Critical elements for the definition of PPP are the following:

- Contract between public and private
- Contract is for the provision of public services
- Long term

- Often involving the bundling of services such as planning, engineering, procurement, financial mobilization, construction, operation and maintenance
- Fees to private party are provided depending on performance of the private party
- Risks under the infrastructure project is shared by both the public and private sectors

With these elements considered, PPP is defined for the purpose of this writing as "A long-term contract between a public and a private party for the provision of public services, often involving bundling of some or all of the services such as planning, engineering, procurement, financial mobilization, construction, operation and maintenance, in which risks during the contract is shared by both public and private while the fee to the private party is provided depending on performance of the private party".

Therefore, pure public infrastructure service and pure private infrastructure service under privatization are not PPP by the above definition. As discussed earlier in this Chapter, privatization involves the permanent transfer of ownership of infrastructure from public to private while the ownership is transferred back to the public sector upon the PPP contract expiration under the PPP arrangement.

Since “risk” is included in the author’s definition and some of definitions of PPP in Table 1.1, the following are the major risks associated with PPP.

- 1) Completion risk: Any risks during the construction phase of PPP including time of completion and quality of work,
- 2) Cost increase risk: Any risks during the construction and operation phase related to cost increase including inflation, interest rate, exchange rate, construction cost increase, and operation cost increase,
- 3) Operation risk: Any risks during the operation phase which affects the operation of the developed infrastructure including defects in design of the infrastructure, improper maintenance, and non-availability of capable technical staff for operation,

4) Demand risk: Any risks during operation phase which affect's demand and revenue of the developed infrastructure including failure in demand forecast such as economic forecast and population forecast and development of competing facilities. This risk is also called offtake risk, and

5) Political risk: Any risks related to political nature including change in law, change in government, change in budget, expropriation, and host government decision different from agreement in the signed PPP contract.

There are two important steps related to risks in PPP: identification of risks and appropriate allocation of risks. First, risks associated with a particular PPP project must be identified during project preparation. Then, these identified risks should be allocated to either of the contract party who is the best able to manage such risks: host government or private party. This second step of appropriate allocation of risk based on efficiency is of particular importance for the success of the PPP project. However, in practice, risks tend to be allocated from the stronger party to the weaker party through the negotiation process. This misallocation of risk is regarded as one of factors for failure of the PPP project which will be discussed later in this dissertation.

To supplement the above discussion, two figures are presented below. Figure 1.1 shows the coverage of PPP in the infrastructure project. Basic PPP project structure and its funds flow is shown in Figure 1.2, where a government contracting agency and project company as a special purpose vehicle conclude a PPP contract.

Private Sector Participation

Low ← High

Public Investment for Hospital

Management Contract for Port Operation

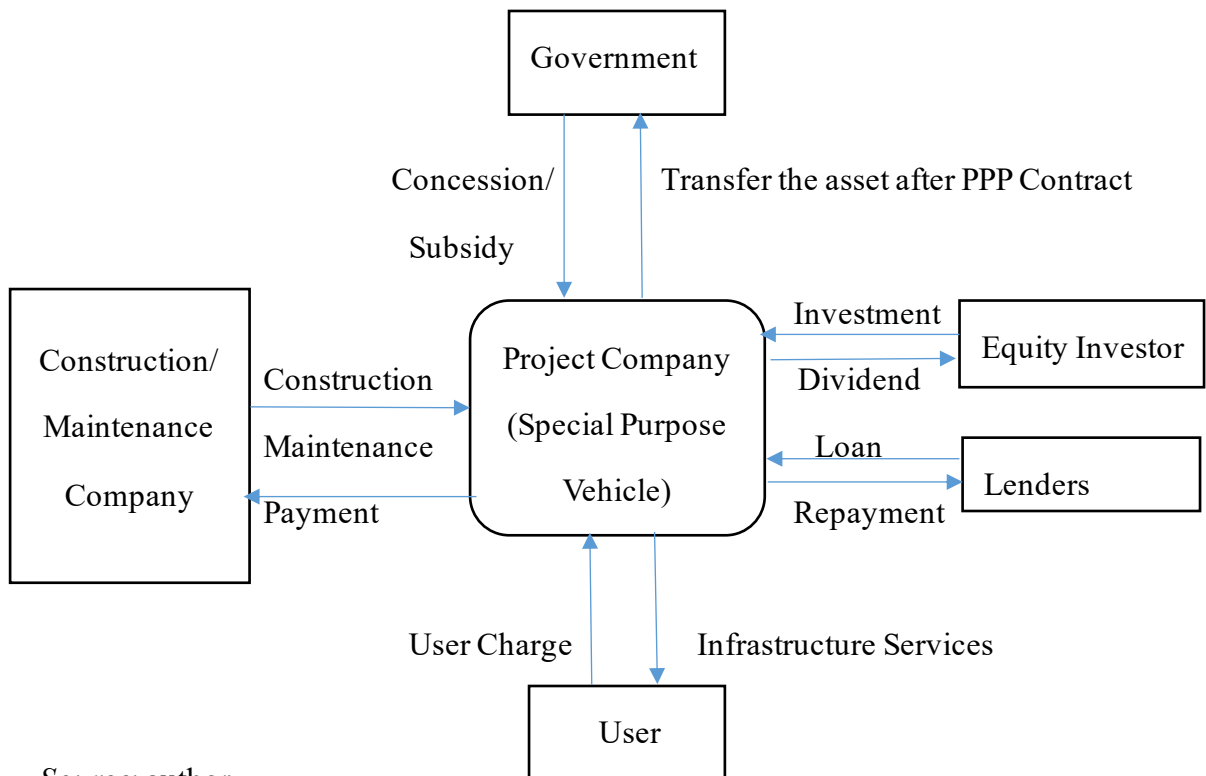
Build-Operate-Transfer Project for Road (government holds demand risk)

Design-Build-Operate contract for Railway (tarriff is the only financial source)

Power Generation under Privatization

PPP

Figure 1.2 Basic PPP project structure and funds flow



20

1.2.2 Characteristics of PPP

A clear rationale for PPP is the concern about the public sector's inefficiency in providing infrastructure. IMF (2015) argues that government intervention can generate inefficiencies due to the absence of market signals and commercial discipline, resulting in government failure. In this case, PPP is invoked if governments cannot build nor operate infrastructure efficiently.

PPP has the following characteristics:

- 1) Lower whole-life cost: When design, construction, and operation contracts are bundled, PPP sponsors or equity investor in Figure 1.2 will have the incentive to reduce the total cost of infrastructure over the project lifecycle.
- 2) Lower cost and time overrun: With expertise of the private sector and due diligence, cost and time overrun are assumed to be less, though there is mixed evidence.
- 3) Significant cost increase with inappropriate risk allocation: When some risks are inappropriately borne by the private sector, there will likely be significant cost increase.
- 4) Less flexibility during operation and maintenance: PPP involves long-term contracts for operation and maintenance. Thus, there is less flexibility during operation and maintenance when the external environment surrounding the project changes, such as innovations in technology and changing demand, unless such unforeseen events are adequately treated in PPP contracts. To mitigate this situation, a contract may contain provision for re-negotiation in the event of changes in the operating environment. This addition is very crucial in contract writing. To this end, the public sector (government) must ensure that it can deploy the appropriate legal, finance and economic expertise at this stage of PPP to protect taxpayers' rights.
- 5) Higher financing cost: Special purpose vehicles, which are deployed to implement PPP projects, generally face higher borrowing cost in comparison with government borrowing.

The World Bank (2017) points out the following eight points as advantages 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) Upfront commitment to maintenance, and predictability and transparency of whole-of-life costs: PPP requires an upfront commitment by the private operator to the whole-of-life cost of providing adequate maintenance for the asset over its lifetime. This commitment strengthens budgetary predictability over the life of the infrastructure, and reduces the risks of funds not being available for maintenance after the project is constructed.

4) 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.

5) Innovation: Specifying outputs in a contract, rather than prescribing inputs, provides wider opportunity for innovation.

6) 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.

7) Mobilization of additional funding: Charging users for services can bring in more revenue, and can sometime be done better or easier with private operation than in the public sector.

8) Accountability: Government payments are conditional on the private party providing the specified outputs at the agreed quality, quantity, and timeframe.

Delmon (2017) clarifies a distinct advantage of private finance: the private sector can provide new sources of finance when constraints, such as having a narrow fiscal space, limit the availability of government financing. Private finance can also impose clear efficiency incentives on a project.

On the financing aspect, UNESCAP (2015) avers that access to private sector capital through PPP significantly relieves the government budget by an amount that is large enough to finance other equally important development projects. This is the same line of thinking of Trebilcock & Rosenstock (2015) who argue that PPP plays a role in meeting infrastructure needs without compromising budget constraints.

However, it should be clear to taxpayers that private money through PPP is not “free money”. The financing of PPP projects will be paid by either the users and/or taxpayers during the duration of the PPP contract. Engel, Fischer, and Galetovic (2014) argue that a common claim that PPP relieves budgetary restrictions and releases public funds is misleading. Private finance through PPP is a mechanism to overcome short-term constraints on public financing resources. Engel, Fischer, and Galetovic (2014) explain that PPP arrangements where the capital cost of project will be covered by future government payments are in practice lending funds to the government. The borrowed funds have to be repaid at some future date. Suppose a government develops a PPP project where the capital cost of the project will be covered by user fees. This arrangement is the same as the government setting aside the revenue flow generated by the project and using this to repay the borrowing from the private capital markets that financed the infrastructure project. Yescombe and Farquharson (2018) name this situation as “affordability illusion” (p 100), which can drive governments to choose PPP because the scheme allows them to make public investments while keeping future obligations off the balance sheet and beyond legislative control. Governments need to be careful with the accumulation of such obligations that may spin out of control without adequate debt management and proper operation and maintenance.

Related to this issue of off-balancing of cost of PPP, the IMF (2015) asserts that the PPP scheme was introduced not for efficiency reasons, but to circumvent budgetary constraints and delay the recording of the fiscal costs of providing infrastructure services. This explains why some governments have proceeded with low-quality and

fiscally costly projects that would otherwise have been excluded from their public investment plans. It is a costly mistake to use the PPP scheme in this manner. It defeats the valid reasons for using PPP, that is, to tap private sector efficiency and resources for a project that may self-pay because of user fees associated with the scheme. A more costly effect is the fiscal burden that eventually comes with financing low quality projects.

If the above discussion holds, is it a given that poor project selection, a result as one of four challenges of public financing of infrastructure, occur in PPP as well? Given the above, the answer is yes. It is possible to have a poorly designed PPP project with improper risk allocation between the private and public sector, overly optimistic demand assumptions, and excessive government guarantees. Therefore, PPP is not a panacea. It is not necessarily a better mode than public finance in providing infrastructure. Rather, PPP schemes will only be beneficial to the taxpayer and the government when the infrastructure project is properly designed, implemented and operated, as is the case for public finance in providing infrastructure.

In general, there are two forms of PPP: solicited and unsolicited. In solicited form, government takes the initiative in project preparation and private bidders are required to submit competitive bids by deadline dates as set by the government. An unsolicited form is a proposal presented by a private party to undertake infrastructure project through PPP at the initiative of the private party, rather than in response to a request from the government. The government in turn notifies other interested parties to match or exceed the unsolicited proposal. The original private proponent is selected when other interested parties cannot match nor exceed the unsolicited proposal. There has a resemblance of competition. The way to handle this unsolicited proposal, to ensure transparency in the procurement process with the recognition that the initiative of the original proponent is challenging.

One of the advantages of the unsolicited proposal is that project preparation, including conducting a feasibility study (F/S), is done entirely by private proponents. In this context, unsolicited proposals appear as mechanisms to supplement government's capacity, sometimes inadequately, for infrastructure project preparation including the mobilization of manpower and financial resources to implement the project.

However, the basic issue against unsolicited proposals is weak or even maybe absent of competitions. Although allowing a competitive bid challenge is one way to introduce competition. Engel, Fischer, and Galetovic (2014) argue that unsolicited proposals lack competition, suffer from opaqueness and creates space for corruption to occur.

In the case of the Philippines, this competitive bid challenge is known as the "Swiss challenge". The time period for a Swiss challenge is 60 working days in the Philippines. The original proponent is allowed to match a lower-priced challenge within this period of time. Considering the large scale and complex nature of infrastructure projects, 60 working days may not be enough to prepare a competitive bid to match the original proponent. Therefore, original proponents generally have a decisive advantage over potential bidders. In testimony to this view, only one matching proposal of 12 unsolicited projects in the Philippines submitted under the Swiss challenge was successfully awarded the contract (Llanto 2010).

Although there are many empirical studies which show the advantages of PPP, there are a number of studies that demonstrated mixed results of PPP as well which will be discussed in Chapter 2. The quick lesson here is that PPP as a solution to the problem of infrastructure provision does not offer an unmitigated advantage to the public nor to their respective governments. There are many aspects to consider in PPP schemes. For example, issues such as risk allocation, government guarantees, demand assumptions, repayments through user charges, and subsidies among others. Users pay

fully or partly for infrastructure services developed through PPP depending on whether the infrastructure services are completely paid through user charge, or whether a subsidy from government is provided in addition to revenues from a user charge. In some cases, when infrastructure projects under a user-pay principle is not totally covered by user charges, taxpayers who are not provided with such infrastructure services or who do not enjoy the use due to reasons of geography, etc. may end up contributing to the payment of the cost of infrastructure through their taxes.

1.3 Summary

This Chapter discussed the finance option for infrastructure development, public finance and PPP, and their inherent characteristics. The Chapter also discussed the definition of PPP. Based on the arguments in this Chapter, we can conclude that both public finance and PPP have advantages and disadvantages. Although there is high expectation for PPP to fill the infrastructure gap in developing countries, policy makers have to understand that PPP is not a panacea for infrastructure development nor does it offer “free money” for infrastructure development.

Chapter 2 Theory of PPP

Chapter 2 aims to develop a theoretical understanding of PPP including the history of PPP, the theoretical framework of PPP from perspectives of economics, and literature review on PPP. Literature review will be discussed on the key areas of PPP study such as advantages, success factors, determinants and other areas for further study.

2.1 History of PPP

It is said that a water supply project in France and railway project in UK respectively in the mid-nineteenth century is the origin of PPP, but the term PPP first appeared in the 1990's in the UK. Though PPP was “born” in Europe, the concept has been introduced and developed particularly in developing countries due to the large infrastructure gap and limitation on government resources.

The term BOT which is a form of PPP was first used for the power sector in Turkey in 1984. During the same period, private participation in infrastructure development was promoted mainly in Latin America by the IMF and the World Bank for the countries faced with serious fiscal deficits.

In UK, Prime Minister Thatcher promoted the realization of a “small government” to revive its economy. Priority was placed on market principles and entrepreneurship to prevent government economic intervention. From the latter half of the 1980s, public utilities were successively privatized in various sectors including telephone, gas, airport, aviation, and water supply expanding private sector participation in the public infrastructure. The Private Finance Initiative (PFI), which is regarded as a PPP, was developed by the Major administration (UK) in 1992 as an extension of the

privatization, and later adopted throughout the world. The Labor Party administration in UK promoted PFI from the late 1990s into the 2000s.

With these developments, PPP has gradually spread throughout Europe, Latin America and South East Asia. In Latin America, PPP projects in electricity, water, and the gas sector in Chile and Argentina are active. In Asia, the first PPP law was enacted in the Philippines in 1990 which paved the way for private participation in power, water, and telecommunication as well.

It should be noted that the UK Treasury Department announced in October, 2018 that while the government would continue to support private investment in infrastructure, it would no longer use PFI for the development of infrastructures. At that time, the government explained that PFI is criticized for its inflexibility and fiscal risk to the government¹².

2.2 Economics of PPP

In this section, PPP will be analyzed from the point of view of economics. Then, implication to PPP operations will be discussed based on analysis.

Based on the definition of PPP discussed in Chapter 1.2.1, PPP can be regarded as outsourcing the public infrastructure service from the public sector to private sector based on a mutually binding contract of the two parties – private and public. Under this situation, the New Institutional Economics¹³, including economics of organization and economics of information are useful tools to analyze PPP. This section illustrates three aspects of PPP based on the concepts of the New Institutional Economics; 1) implications to PPP contracts, 2) appropriate sector/ project for PPP, and 3) renegotiation of PPP contracts.

¹² Developments on this announcement should be monitored.

¹³ New Institutional Economics is one of schools in economics which incorporates a notion of institutions into economics.

First, on the implications to PPP contracts, one of the important concepts in the New Institutional Economics is the principal-agent problem. In PPP, the public party is regarded as the principal while private party is regarded as the agent. This is the case when the principal (Public), wishes to procure efficient public services from the private through PPP. The agent (Private), delivers the public services valued by the principal according to the PPP contract while maximizing its own profits. Due to the asymmetry of information between the principal and the agent, there is the necessity for effective monitoring of activities of the private by the public party. In this case, transaction cost for monitoring of the activities of the private party will be increased. Therefore, the implication for PPP operations based on this analysis is to design the PPP contract to introduce effective incentives and disincentives for the private party to act on behalf of the public so that transaction cost can be minimized.

This principal-agent condition can be applied to others including the government as principal and government officials as the agent and tax payer as the principal and government, and the private party as agent. These relations can be analyzed not only for PPP but also for traditional procurement channels.

Second, on the appropriate sector/ project for PPP, since the duration of a PPP contract is long term, it is desirable for both parties to stipulate in the PPP contract that an endeavor to respond to all foreseeable and unforeseeable events shall be made. This type of contract is called “complete contract” in the contract theory¹⁴ of economics of organizations. However, the parties cannot possibly foresee all possible future contingencies in ex ante nor have perfect solutions to deal with them. In this situation, a contract is known as an “incomplete contract”. Incomplete contracts do not explicitly mention the terms and conditions under which future issues between the contracting parties may be decided. In fact, it is argued that most contracts by their very nature are

¹⁴ Contract theory is one of the theories in economics. The theory discusses how contracting entity will form contractual arrangements and manage contracts based on the notion of information asymmetry.

incomplete. Further, both parties may voluntarily decide to renegotiate the contract in the future, thus making current terms void.

Hart (2003) argues, based on this concept of incomplete contract, that traditional procurement by public finance is appropriate when the quality of the physical infrastructure during the construction phase can be specified while the quality of the infrastructure services during the operation phase cannot. On the other hand, he argues that PPP is appropriate if the quality of the service during the operation phase can be specified in the initial contract while the quality of the physical infrastructure during construction phase cannot. He exhibits prisons and schools as an example for the former case while hospitals for latter case.

Implication of this concept of incomplete contract and Hart's argument to the PPP operation includes that sectors such as roads where the quality of the physical infrastructure is not relatively difficult to specify, while in education, for example, the quality of infrastructure service is relatively difficult to specify in the initial contract and thus should not be implemented through PPP but under the conventional procurement by public finance. In case of PPP in the road sector, quality of infrastructure services can be defined as road condition including the surface pavement condition. These conditions are not difficult to quantify and monitor during the operation and maintenance phase. Since quality of the service of road during the operation phase can be specified in the initial contract, therefore PPP is more appropriate. However, in case of education, quality of infrastructure services is very difficult to define, especially primary education. Some may argue that academic achievements as quality of infrastructure services which is relatively measurable. But some others may argue that physical and mental development, or even moral value as quality of infrastructure services which is difficult to define, quantify, and monitor during operation phase. Since the quality of the education service during the operation

phase cannot be specified in the initial contract, PPP is not suitable as a financial investment scheme.

It should be noted that the above statement is based on the concept of an incomplete contract and it is an overstatement to suggest that road sector projects should be applied to PPP. However, this finding gives theoretical background to one of the research questions of this dissertation namely as a desirable role of public finance and PPP in infrastructure development.

Third, on the renegotiation of PPP, another implication to the PPP operation by this concept of incomplete contract is to stipulate future possible events in the PPP contract as much as possible. However, transaction cost including design, negotiation, and monitoring of such PPP contract would necessarily increase.

In this contract theory, the notion of “hold-up problem” is important to PPP. The hold-up problem is a situation where two parties do not work together efficiently, because of concerns that one of the parties may give the other party increased bargaining power, and thereby reduce their own profits. In the PPP contract, if we suppose, for instance, that the private party has made a prior commitment to a relationship with the public party, such as signing a contract with a construction company for constructing an infrastructure project, the latter can 'hold up' the former for the value of that commitment. The hold-up problem leads to severe economic cost and might also lead to ex ante underinvestment on the part of the private party seeking to avoid losing any bargaining power.

In the PPP contract, this hold-up problem is often associated with the renegotiation of the PPP contract. Since the duration of PPP contract is long term, there is a possibility for renegotiation of the PPP contract due to change in government policy or administration. Renegotiation of the PPP contract can also be triggered by the private party. There are many cases of renegotiation of PPP contracts where private sponsor bids in a low price and then after several years request a renegotiation of PPP

contract or would otherwise terminate the contract, taking advantage of this hold-up problem. These cases are observed especially in Latin America. If such a renegotiation of the contract is proposed, the other party tends to lose its bargaining power because of this hold-up problem. Therefore, it is important to determine the success of the project to make the best efforts so that the initial contract will be implemented without renegotiation. This is related to one of the cases of PPP in the Philippines as discussed in Chapter 5.

2.3 Literature Review on PPP

Many studies have been undertaken on PPP reflecting its history of nearly 30 years, although Kivleniece and Quelin (2012) argue that a systematic review of PPP is still limited and PPP related literature remains fragmented. These studies can be classified mainly into the following groups: (1) advantages of PPP, (2) success factors of PPP, and (3) determinants of PPP.

2.3.1 Advantages of PPP

This group of literature generally argues that PPP modality has advantage over traditional government procurement though the government budget and ODA.

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

- 1) Access to the private sector capital: With the increased access to private sector's 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: 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; and.

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 (2012) further disaggregate the above advantages and argues the following advantages of PPP:

- 1) 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;
- 2) 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;
- 3) Innovation: Specifying outputs in a contract, rather than prescribing inputs, provides wider opportunity for innovation;
- 4) 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;
- 5) 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;
- 6) Predictability and transparency of costs and funding: PPP provides budgetary predictability over the life of the infrastructure and reduces the risks of funds not being available for maintenance after the project is constructed;
- 7) 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;
- 8) Accountability: Government payments are conditional on the private party providing the specified outputs at the agreed quality, quantity, and timeframe.

“Whole-of-life costing” aspect discussed by the World Bank Institute (2012) is also supported by Delmon (2015) that PPP incentivizes the builder-operator to incorporate long-term operating cost considerations in the design and construction phases of a

project and reduces the coordination costs. In addition to this, Delmon (2017) puts forward the following advantages of PPP:

- 1) Efficiency,
- 2) Transparency and anticorruption,
- 3) Technology, innovation, and know-how, and
- 4) New sources of financing.

Trebilcock & Rosenstock (2015) argue that there are three motivations for governments of developing countries to employ PPP as:

- 1) Replacing 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, and
- 3) PPP as a means of meeting infrastructure needs without compromising budget constraints.

Kivleniece and Quelin (2012) also emphasize “innovation” argued by the World Bank Institute (2012) as PPP allows the public sector to access resources and capabilities to realize innovation and improved service quality.

The above studies share the views on the advantages of PPP as funding, quality of services, innovation, and efficiency among others. The following empirical studies including case studies also show the advantages of PPP.

Upon examination of 181 PPP projects in the energy, communications and water sectors in Latin America, 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 the communication sector both increases and decreases¹⁵ occurred. Moreover, compared

¹⁵ 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.

with the case that did not introduce PPP into the financial framework, a reduction of labor by 25% was achieved. However, with regard to expanding the range of service offerings through PPP, there was no significant change in the number of connections. On the other hand, the number of subscribers and the duration of communication in the communication sector¹⁶ in terms of sales volume in the energy and water sectors increased (Andres et al (2008)).

On the macroeconomic effect, Lee et al (2018) argue that the ratio of PPP investment to GDP, improves the access to and quality of infrastructure services, and the economic growth will be higher.

Considering the efficiency aspect, Gassner, Popov, and Pushak (2009), in a comprehensive empirical study of about 1,200 water and electricity utilities in 71 developing countries, it was illustrated that there are efficiency gains, such as reduced water/power losses, while staff efficiency, coverage, bill collection rates and daily hours of service increased when the PPP finance mode is introduced as part of the investment package. They argue that the private sector delivers on the expectation of higher labor productivity and operational efficiency, thus convincingly out-performing a set of comparable companies that remained state owned and operated.

A study which examined 65 PPP projects in the urban water sector also showed the efficiency of PPP; the transition to PPP improved the water leakage problem and the reliability in water supply and billing operations in general (Marin (2009)). On the other hand, for water fees, charges increased in all cases except for four countries¹⁷. In addition, with the introduction of PPP, there was a reduction effect of 1/4 to 2/3 of the

¹⁶ Regarding the expansion of services, it is necessary to verify how it is prescribed in the PPP contract.

¹⁷ The same as footnote vii above.

labor force during the operation phase. The results of the 65 PPP contracts investigated, show that 24 million people were newly accessible to a reliable water supply¹⁸.

On the cost overrun issue which is often seen in infrastructure development projects, OECD (2008) argues that in the case of the UK, the increase of construction costs in the PPP project is 23%, which is much lower than 73% under the traditional government procurement method¹⁹.

However, there are a number of studies that show concerns over PPP. Based on a study of hospital construction in the UK, Barlow and Koberle-Gaiser (2009) argue the following negative aspects of PPP; very high transaction costs over the project life, limited integration between service models and infrastructure design and delivery, and lack of innovation realized by PPPs. Grout (1997) discusses, based on a study of the UK experience, that incentive structure of private proponents in PPP projects focuses on cost minimization and not on service enhancing activities. Another study in the UK health sector shows that under PPP, soft facilities management services, including cleaning services, have been shown to provide less value for money compared to non-PPP hospitals (Liebe, M. and Pollock, A. (2009)). They argue that PPP creates serious affordability problems, diverting money to banks and shareholders at the expense of staff and patient care, taxpayers, and citizens. Trebilcock and Rosenstock (2015) also discuss that there are many cases that due to excessively optimistic revenue forecasts, the government side has taken the revenue risk in PPP contracts.

A study in school procurement in Ireland shows no evidence that PPP leads to faster delivery of infrastructure and on the contrary shows limited evidence for PPP results with a better value for money in comparison with conventional procurement

¹⁸ Since the study was not able to establish counterfactual for not having PPP, the 24 million number requires further investigate.

¹⁹ 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.

through public finance (O'shea, C., Palcic, D. and Reeves, E. (2019)). A systematic literature review on PPP by Petersen (2019) also argues that PPP is more costly and provides actually a similar value for the money as traditional procurement.

Although the majority of the literature argues that PPP is advantageous, empirical studies show mixed results of PPP projects. The above empirical studies, however, need more analysis on reasoning of their findings

2.3.2 Success Factors of PPP

A second group of literature discusses the factors contributing to the success of PPP projects. They include both macro level factors such as macro-economic and investment environment, legal systems, and institutional frameworks, as well as micro level factors such as project feasibility and risk allocation.

On the institutional framework of the government, OECD (2008) argues that the effectiveness of the establishment of the government unit exclusively for PPP is a success factor. This type PPP agency is especially important for promoting smooth and advantageous negotiations on complicated PPP contracts with private enterprises and has extensive experience in PPP and implementing various coordination within various governments. For the private sector, it is also the signal of the government's PPP implementation ability and its experience. ADB (2008) and the World Bank (2007) also argue that the importance of creating a PPP dedicated unit to make the public sector as an equal partner with a private proponent in PPP, especially during negotiations of the PPP contract. This can be a key factor in the success of the project. The latter study's conclusion, drawn from a qualitative assessment of 8 PPP units around the world, concludes that relatively successful PPP units directly target specific government failures, and PPP units with executive power tend to be more effective than those that are purely advisory. Without a high-level of political support for the

PPP program, a PPP unit will most likely fail. Trebilcock and Rosenstock (2015) explore the capabilities and institutions of emerging countries' governments in the value-for-money audits capacity, and conclude that with PPP dedicated department establishment and PPP-related law enactment status are important factors that can lead to success.

The following studies argue for the success factors at both the macro and micro level. Zhang (2005) argues that a favorable investment environment, an economic viability of a project, a reliable consortium with technical strength, a sound financial package, and a reliable contractual arrangement are critical success factors. Jamali (2004) points out that careful preparatory work which includes a comprehensive feasibility study and through economic evaluations of PPP projects and better regulatory systems that include protection from expropriation, arbitration procedures, are respect that led to a contract as a successful measure. Akintoye, Beck, and Hardcastle (2003) investigated 61 PPP projects in the UK and identified the success factors for the PPP projects as follows: efficient procurement, feasibility, desirable economic environment, and a well-established financial market. Interestingly, all the above-mentioned studies assert that the feasibility or the economic viability of a project, in other words, "bankability" of the project are the factors that lead to success.

Based on a detailed analysis of PPPs in the UK and British Columbia, Canada, Aziz (2007) concludes the following principles help ensure the success of a PPP project: availability of a PPP legal framework and implementation units; perception of the private finance objectives, risk allocation consequences, and value-for-money objectives; maintenance of PPPs process transparency; standardization of procedures; and use of performance specifications.

On the other hand, failure factors are spelled out as inappropriate risk allocation, demand for higher subsidies and guarantees by the concessionaire(s) during procurement and the project tendering stage, delayed acquisition of land, a slow and

hindered project construction progress, cost overrun during the construction stage, lower traffic demands than forecasted, enforcement of exorbitant toll pricing, and legal proceedings due to a conflict between partners during the project operation stage, all based on the study of 35 transport PPP projects (Soomro and Zhang (2013)). It is noted that the failure factors are not necessarily opposite to the success factors discussed above.

Studies on both success and failure factors need to further clarify the root causes of these factors, and analyze how these factors led to project successes or failures. Also, the definition of “success” and “failure” in PPP is not necessarily clear nor shared in the above studies. Part of the reasons for this lack of clarity is that the definition of PPP is not established and there are many schemes in PPP as discussed in Chapter 1.2.1.

2.3.3 Determinants of PPP

The third group of study on PPP is on the factors which control or affects the private sector’s decision to participate in the PPP project; in other words, how to attract private investment in public infrastructure especially in developing countries. Studies in this group give practical implications for policymakers of developing countries in framing policies.

On macroeconomic and market conditions, Sharma (2012) shows that large size and relatively higher income markets, macroeconomic stability, standards of regulation and governance are the determinants while political factors and budget constraint are not significant, based on the data for the period of 1990-2008. Analysis of the determinants of PPP by country and the sector implemented during 1990-2003 reveals that factors such as larger markets, political stability, macroeconomic stability, stronger rule of law, administrative capacity, and greater consumer demand are

determinants for PPP project (Hammami, Ruhashyankiko, and Yehouse (2006)). Trebilcock and Rosenstock (2015) also argue that a ranking of countries by their PPP environments explains the attraction towards wealthier developing countries as a function of their established legal, regulatory and institutional frameworks, project experience and investment and financing climate. On the particular sector of the economy, Mengistu (2013) finds that countries with larger service sectors, a greater contribution of industry to GDP, greater openness to trade and established democracies, greater stable macroeconomic environment levels of fiscal freedom and availability of domestic credit are more likely to have PPP projects.

On the legal and governance issue, Moszoro et al. (2014) argue that PPP is highly sensitive to the quality of government variables and underscores the following factors as highly sensitive to PPP investment in infrastructure: freedom from corruption, rule of law, quality of regulations, and the number of disputes in a sector.

On the finance sector side, a well-developed finance sector, especially a capital market, with depth and liquidity are found to be key determinants based on the study of the power sector in 37 developing countries between 1990 and 2007 (Ba, Lika Gasmi, and Nounba Um (2010)). Kinda (2008) also shows economic growth, physical infrastructure, and level of development of the finance sector as determinants based on infrastructure projects in 61 developing countries between 1970 and 2003.

A study on 48 Muslim developing countries between 2002 and 2011 shows market conditions, which includes population, purchasing power and income, institutional qualities, and country risks, are the most crucial factors in determining PPP in infrastructure (Kasri and Wibowo (2015)) development projects.

Determinants of PPP include macroeconomic status, legal framework, finance sector development, and political stability as discussed. However, it is not clear why some of the determinants such as physical infrastructure and larger service sector as reviewed above lead to the mobilization of private money into public infrastructure.

2.3.4 Uncovered Areas of Past Researches

The above-mentioned studies and discussions tell us that PPP has advantages over traditional procurement financed by government budget/ODA, and actually deliver efficiencies. However, as noted before, some empirical studies show traditional procurement delivers better results than the PPP schemes. Although PPP was launched nearly 30 years ago, there are still many on-going PPP projects involving long-term operation and maintenance that are not yet complete, expired or transferred to the public. Bovaird (2004) argues that we are still at an early stage of learning which types of PPP are appropriate for which tasks and therefore cannot judge how important PPP will become or not.

Based on above findings, there are three uncovered areas of past researches. First, in the Philippines' PPP, there are several studies conducted on the PPP infrastructure development in the Philippines. However, there is no academic research on the recent policy shift in PPP in the Philippines discussed in the Introduction as far as the author researched. Since the Philippines' case of shifting finance option between public finance and PPP is very unique in infrastructure development, further studies are expected to be pursued.

Second, there are less studies for the selection criteria for PPP or public finance for a particular infrastructure project. The question is, under what condition and under what type of project is PPP advantageous over traditional procurement and the contrary. In other words, what are the appropriate roles of private/PPP and government budget/ODA, or appropriate roles of private sector and public sector in developing public infrastructure for a particular economy or a particular project.

Third, studies on ex-post evaluation of PPP projects including Value for Money (VfM) calculation, service quality and user fees by comparing ex-ante evaluation

whether PPP project actually delivers benefits planned at the time of planning stage of the project or not. Additional ex-post evaluation studies should involve comparison with matched pairs of public and PPP infrastructure in the same sector of a similar specification and magnitude to better validate whether PPP has advantages over traditional procurement in what condition. However, obtaining such above information is generally a challenge due to the limited disclosure of information, since private corporations is involvement in PPP.

2.4 Summary

Chapter 2 developed a theoretical understanding of PPP including the history of PPP, theoretical framework of PPP from perspectives of economics, and literature review on PPP. Literature review was discussed for the key areas of PPP study such as advantages, success factors and determinants of PPP, and uncovered areas of past research. Based on the nearly thirty years of operation and experience, PPP have been able to gain popularity and trust. However, as discussed in Chapter 1, PPP has both advantages and disadvantages for infrastructure development in developing countries. As discussed in this Chapter 2, selection criteria for PPP or public finance for a particular infrastructure project is not well covered by the past studies. Therefore, this dissertation fills this research gap by an in-depth review of the case of the Philippines' change in infrastructure governance.

Chapter 3 Overview of PPP Infrastructure Development in Developing Countries

This Chapter illustrates overviews of PPP infrastructure development in developing countries including recent trends and key issues. Key issues for PPP in developing countries include regulatory framework²⁰, government support²¹, institutional framework²², and institutional capacity²³.

3.1 Trends of PPP Infrastructure Development in Developing Countries

According to the World Bank's Private Participation in Infrastructure (PPI) Project Database, which maintains PPP data in emerging and developing countries since 1990, with less than USD20 billion to over USD160 billion in 2012 and the total number of PPP projects implemented as 8,173, amounting to USD1,959 billion at the end of 2019. Investments in PPP have grown in absolute terms since 1991 with two notable periods of expansion, first before the Asian financial crisis of 1997 and second in 2012 as shown in Figure 3.1. However, the World Bank (2016) argues that investments in PPP as a percentage of GDP have remained low and flat (between 0.2 to 0.6%) in the last decade, without recovering the levels achieved prior to the Asian financial crisis, which is recorded as 1.1% in 1997.

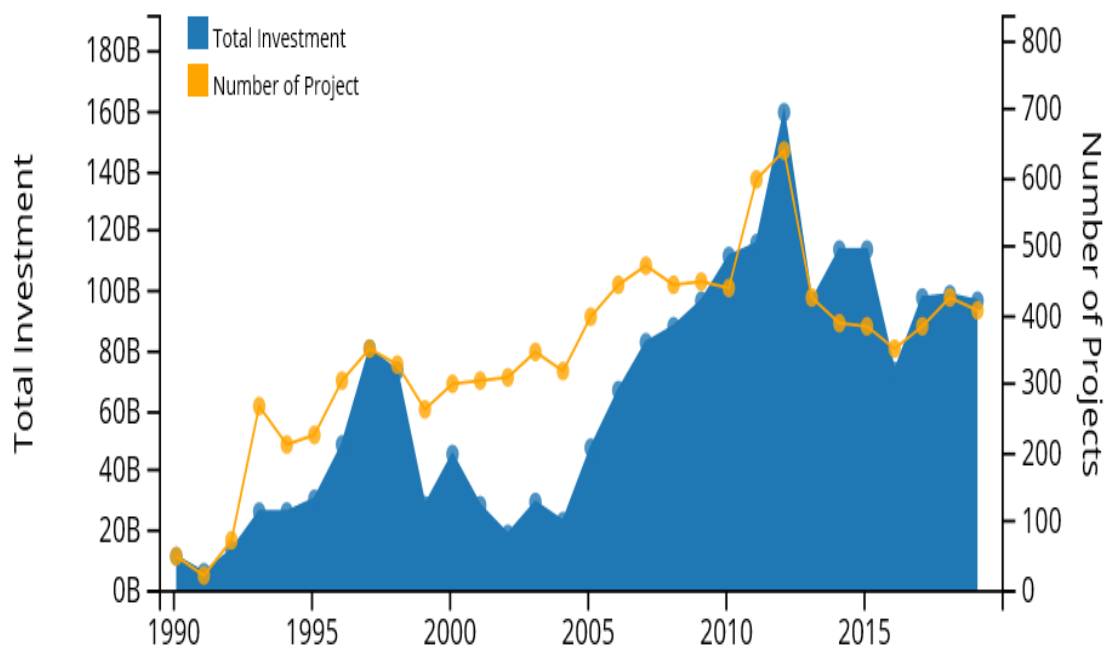
²⁰ Regulatory framework is defined as laws, regulations, decrees and other forms of rules of the host government regulating PPP infrastructure development.

²¹ Government support is defined as any form of support by the host government for facilitation of the PPP infrastructure development.

²² Institutional framework is defined as a system of institutions or agencies of the host government for promotion and implementation of PPP infrastructure development.

²³ Institutional capacity is defined as a PPP related capacity of concerned institution or agencies of the host government.

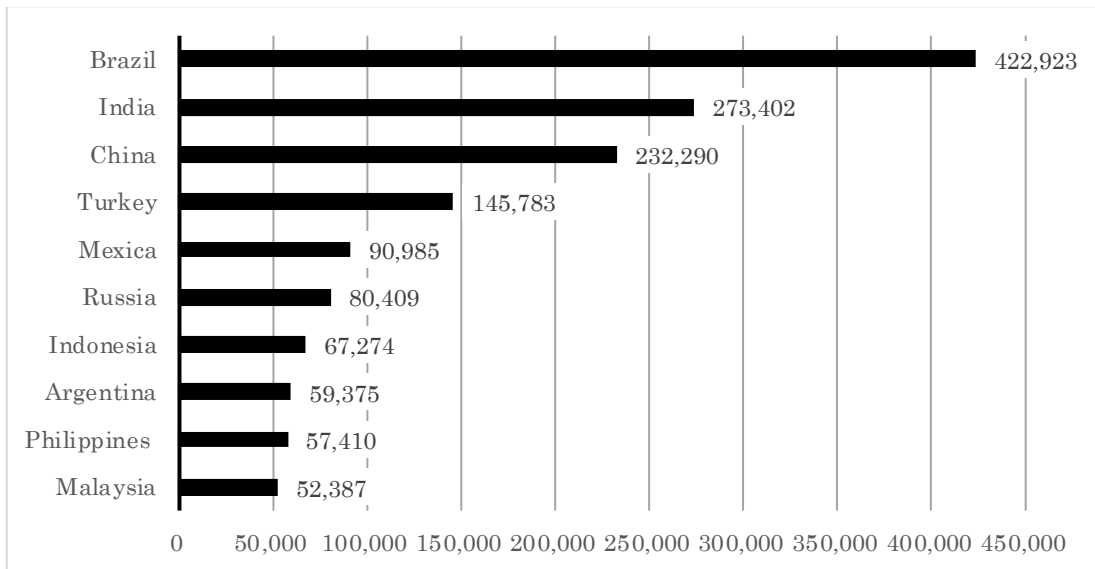
Figure 3.1 PPP Investment and number of projects during 1990-2019 (unit: USD billion for total investment)



Source: PPI Database, the World Bank

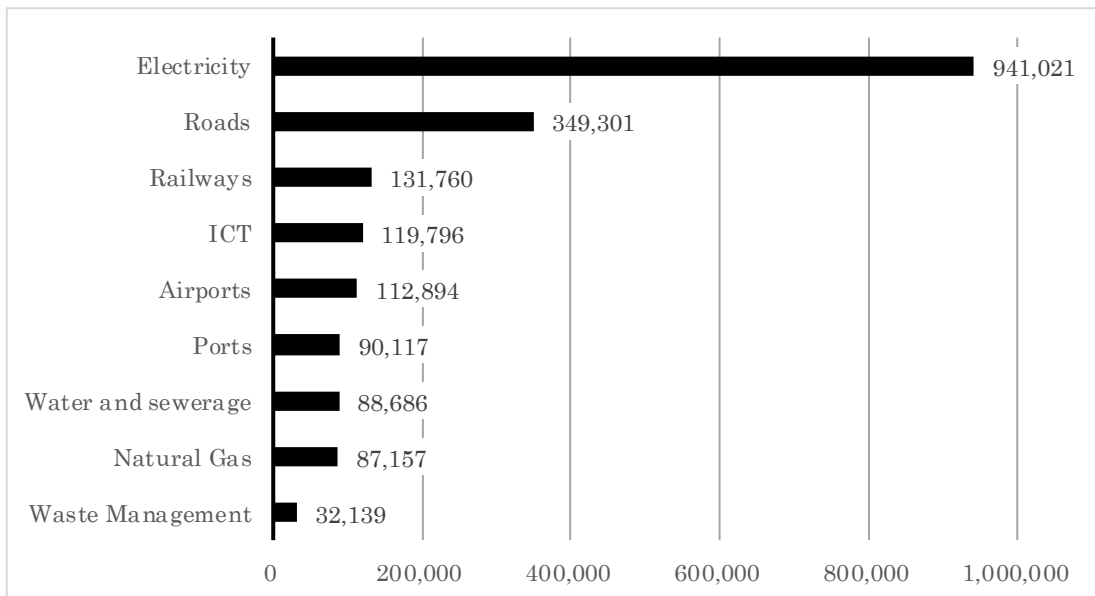
The top five countries in terms of volume of PPP investment are namely Brazil, India, China, Turkey and Mexico, and account for 59.5% of the total in the emerging and developing countries (Figure 3.2). In terms of sector, electricity, roads, ICT, railways, airports, ports, water supply and sewerage are the foremost investment sectors, while the electricity and road sectors account for 48.0% and 17.8% respectively of all sectors (Figure 3.3).

Figure 3.2 Top 10 countries by investment, 1990 – 2019 (USD million)



Source: PPI Database, the World Bank

Figure 3.3 Primary sectors ranked by investment, 1990 – 2019 (USD million)

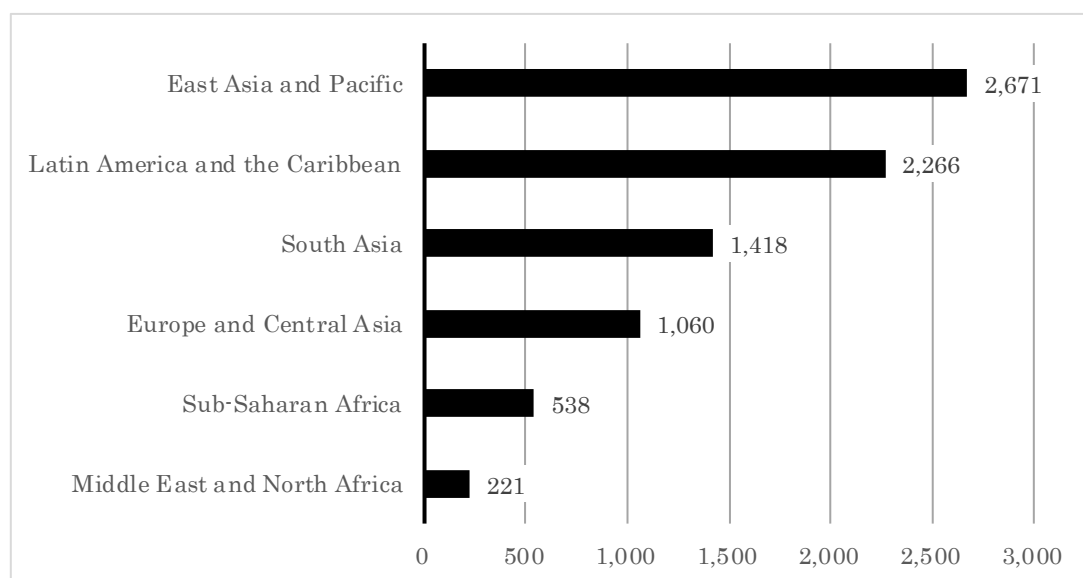


Source: PPI Database, the World Bank

With regards to PPP investment trends in the various regions, Figure 3.4 and 3.5 show regional distribution of PPP investment in emerging and developing countries between 1990-2019, both in terms of number of projects and investment. Latin

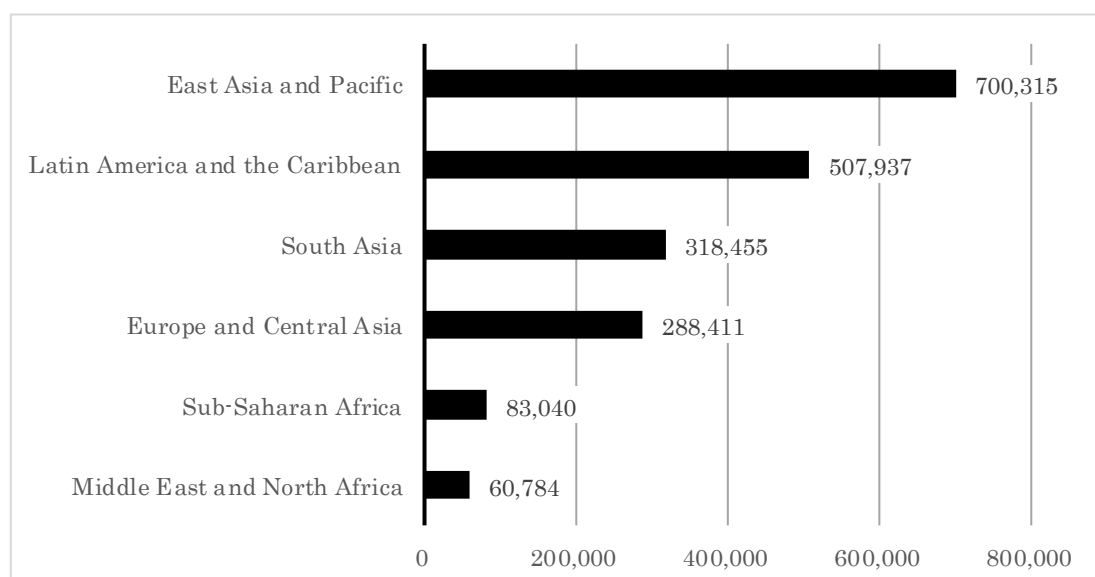
America and Caribbean have dominated PPP investment historically. East Asia and Pacific is also the major region for PPP in terms of number of projects.

Figure 3.4 Regional distribution of PPP investment, 1990-2019 (in terms of number of projects)



Source: PPI Database, the World Bank

Figure 3.5 Regional distribution of PPP investment, 1990-2019 (in terms of investment in USD million)



Source: PPI Database, the World Bank

In Asia and the Pacific, the Asian Development Bank (ADB) (2017) points out that government funds currently finance 92.0% of the region's infrastructure investment while in South Asia public sector infrastructure investment is not as dominant with the private sector accounting for a considerable portion of investments unlike in East Asia.

It is noted that multilateral and bilateral development agencies have been recently expanding their support on infrastructure development through PPP in developing countries. To illustrate this, the following table presents a few major recent developments (Table 3.1).

Table 3.1 Recent major initiatives for promotion of PPP by multilateral and bilateral agencies

Agency	Recent Major Initiatives
The World Bank	The Bank increased its paid-in capital to USD 5.5 billion for the private sector learning window, International Finance Corporation (IFC), in 2018.
ADB	ADB plans to boost its private sector operations to reach one-third of its operations by 2024 ²⁴ which includes scaling up its support for PPP.
OECD	OECD has been advocating the concept of “blended finance” ²⁵ , an approach to mix different forms of capital in support of development, including PPP since 2015.
USA	The BUILD Act, Better Utilization of Investments Leading to the Development Act, was signed into law in 2018. This act establishes a new agency, the US International Development Finance Corporation (IDFC) whose mission is to mobilize private sector capital and skills for the economic benefit of less developed countries. It is expected that PPP will be one of main operations of IDFC.

²⁴ “Strategy 2030” by ADB (2018)

²⁵ “Blended finance” is defined as activities that combine “concessional public finance with non-concessional private finance and expertise from the public and private sector, special-purpose vehicles, non-recourse project financing, risk mitigation instruments and pooled funding structures.” (Paragraph 48 of The Addis Ababa Action Agenda of the 3rd International Conference on Finance for Development in 2015)

Japan	“Infrastructure System Export Strategy”, where PPP is the main agenda, was formulated in 2013 and is revised yearly. Concept of “Quality Infrastructure” has been advocated.
Japan, USA, and Australia	Indo Pacific Infrastructure Investment Partnership (2018)
China	Belt and Road Initiative (2014) and Asian Infrastructure Investment Bank (2015)

Source: author

Table 3.1 demonstrates that both multilateral and bilateral development agencies and countries are focusing more on infrastructure including PPP for their operations.

3.2 Key Issues of PPP in Developing Countries

Based on literature review in Chapter 2.4, key issues of PPP in developing countries can be classified as: 1) regulatory framework, 2) government support, 3) institutional framework, and 4) institutional capacity. These four areas are the prerequisite for promoting participation of the private investment in infrastructure development in developing countries.

3.2.1 Regulatory Framework

Regulatory framework includes policies, guidelines, and legal framework, such as PPP laws. These regulatory frameworks are one of the keys enabling environment forces for PPP promotion in order to reduce the perception of risk on the part of the private sector. The regulatory framework, especially the legal framework, serves as the foundation of all elements for the PPP environment.

While much effort has been undertaken to improve the regulatory framework in developing countries by multilateral and bilateral development agencies, there is much room for further improvements. One area is the enactment of a comprehensive PPP law which is the most critical regulatory framework. Some countries do not have a

comprehensive PPP law, while on the other hand are pursuing growth in the PPP investment space. For example, in Indonesia no PPP law exist; PPP programs are implemented by a series of Presidential Decrees which are inferior to law in the legal hierarchy in Indonesia.

3.2.2 Government Support

In order to attract private participation in infrastructure development in developing countries, the host government's support, especially financial support, is essential. Government support includes project development funds, viability gap funds, state guarantee funds, availability to make payments, and loan and equity for PPP projects. Among these, the project development fund is of particular importance. It is argued that one of the reasons for less PPP in developing countries is lack of "bankable" projects. The project development fund is aimed to formulate attractive and viable projects for PPP. The viability gap fund is another way to better ensure a PPP project's viability by injecting a government subsidy into the project. State guarantee funds and the availability to make a payment are another important financial support, which reduces risk on the part of the private sector thereby facilitating private participation.

Other important government support includes assistance in land acquisition. Land acquisition especially in the transport sector is of crucial importance for implementing PPP projects. However, many of PPP projects continue to experience delay due to issues in land acquisition. Ideally, the host government acquires land first so that the private sponsor can implement the PPP project according to the plan. However, in some countries, such as Indonesia, the government delegate the private sector to acquire land first, then reimburse the cost later. This is another support system to facilitate the PPP project.

3.2.3 Institutional Framework

As discussed in Chapter 2.3.2, creating a dedicated and specialized PPP-promoting government agency or unit is one of the key elements for the institutional framework to create the PPP enabling environment. This agency can serve as a single point of contact from the private sector as well as other government agencies. The agency can also act as a coordinator for facilitation of PPP projects, since the PPP project involves many government agencies such as implementing ministry and ministries for finance, planning, and the budget. Also, this agency can coordinate with different sectors so as to have a uniform PPP program across all the sectors.

However, this type of PPP agency is not established in some of developing countries. In the Philippines, this agency was established in 2010 as discussed in Chapter 5.2.4. In Indonesia, on the contrary, there are two PPP units in the government; one in Ministry of Finance and the other in Planning Ministry which are illustrated in Chapter 6.4.2. The case of Indonesia seems to create confusion and inefficiency rather than improved facilitation of PPP.

In addition to a centralized PPP agency or unit for the whole government, PPP units are usually established in each of line Ministries, such as Transport, Public Works, Water, and Electric Power. This structure is because infrastructure projects, including PPP, are initiated and formulated in each of those line Ministries not at some central PPP unit. Unless each line Ministry is well equipped with viable information on PPP, such as advantages, disadvantages, and procedures, appropriate PPP projects will not be initiated.

3.2.4 Institutional Capacity

Operations of PPP, such as preparation of the PPP project, procurement for the PPP investor, negotiation of the PPP contract, and monitoring of private entity based on the

PPP contract, is relatively complicated and different from those of traditional procurement activities. In addition, lack of commercial and legal skills to match those of the private sector may lead the public sector into a disadvantage in the negotiations and monitoring of the PPP contract. Therefore, it is important to capacitate the government of developing countries to handle each PPP program. In this regard, the project development fund discussed in Chapter 3.2.2 also supports the government capacity to formulate viable PPP projects.

3.3 Summary

As we understand from Chapter 2.3, if prepared and managed right, PPP delivers Value for Money (VfM) as well as benefits to users of infrastructure and tax payers. However, it must be noted that PPP is not a panacea for infrastructure development in all circumstances. As discussed in Chapter 2.3, not all infrastructure projects are suitable to be implemented by PPP. Therefore, the selection process whether to implement a traditional procurement project or a PPP project for a given infrastructure project is particularly important.

Policy recommendations for the promotion of PPP in developing countries include, establishment of an enabling legal and regulatory framework, implementation capacity enhancement of the government of developing countries for PPP, setting up an appropriate institution framework for PPP, including a PPP unit, developing a government support network, financial support especially, and political commitment by the government of developing countries. Political commitment with consistency is of crucial importance too, since the duration of all PPP contracts is long term that can blanket over many election cycles. This will contribute to assure the private party that the PPP policy remains consistent in the long run.

Chapter 4 Current Status of Infrastructure Development and Achievements for PPP in the Philippines

This Chapter depicts current status of infrastructure development, which lags behind ASEAN peers, and the achievements for PPP, which is relatively positive, in the Philippines. In order to further discuss the achievements in PPP in the Philippines and advantages and disadvantages of PPP modality in general, two PPP projects one in the water works and another in the railway sectors in the Philippines will be illustrated as case studies.

4.1 Current Status of Infrastructure Development in the Philippines

Regarding the current status of infrastructure development, rankings in the Global Competitiveness Index created by the World Economic Forum is often cited as an international comparison in recognized studies. Reviewing the Index, the ranking for infrastructure development for the Philippines and other ASEAN peer countries such as Indonesia, Thailand, and Vietnam are shown in Table 4.1. Philippine's ranking and the score are among the lowest in comparison with other ASEAN peer countries listed. In comparison with the year 2010, the ranking declined in the year 2019. Meanwhile, both Indonesia and Vietnam have increased their ranking.

Table 4.1 Quality of overall infrastructure Ranking and Score²⁶ in ()

Country	2010	2019
Philippines	104 (2.9)	96 (57.8)
Indonesia	82 (3.6)	72 (67.7)
Thailand	35 (4.8)	71 (67.8)
Vietnam	83 (3.6)	77 (65.9)

Source: World Economic Forum (2010), The Global Competitiveness Report 2010-2011 and World Economic Forum (2019) The Global Competitiveness Report 2019 data

UNESCAP's Access to Physical Infrastructure Index (APII) is based on data from the year 2013 to 2015 on the status of infrastructure development in transportation, energy, ICT, water supply and sanitation sector in 41 countries in Asia and Pacific Region (UNESCAP (2017b)). Among those countries, the Philippines is 25th of 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 4.2.

Table 4.2 APII Ranking and Score

Country	APII Rank	APII Score
Philippines	24	0.336
Indonesia	27	0.278
Thailand	15	0.418
Vietnam	14	0.419
Average for the Region ²⁷	-	0.431

Source: United Nations Economic and Social Commission for Asia and the Pacific, 2017. Asia-Pacific Countries with Special Needs Development Report, 2017: Investing in infrastructure for an inclusive and sustainable future.

²⁶ Scale of score has changed from the 2018 report. Until 2017, the scale of score was 1-7, while since 2018, the scale of score has changed to 1-100. Therefore, the scores of 2010 and 2019 are not actually comparable.

²⁷ The ranking refers to the average of the category of "developing countries" listed in the report.

On the demand for infrastructure investment, the latest estimates for Asia are found in ADB (2017b). This study estimates the demand for infrastructure investment in the regions of Asia and the Pacific both for baseline estimates and the adjusted estimates for climate change adaptation and mitigation. Annual average for the whole regions is estimated for the baseline as USD 1,503 billion²⁸ and for climate adjusted as USD 1,744 billion per year between 2016 and 2030. However, ADB (2017b) does not show estimates for infrastructure investment demand for each country except for China, India, and Indonesia.

According to Bhattacharyay (2012), estimated annual average demand for infrastructure investment in the regions of Asia and the Pacific between 2010 and 2020 is USD 748 billion which is much lower than the estimates by ADB (2017b). The difference can be explained mainly due to the year of estimation: 2015 for ADB and 2008 for Bhattacharyay (2012). This difference of year of estimation affected the difference in price as well as growth forecast for the region. Estimates for the Philippines by Bhattacharyay (2012) are shown in the Table 4.3.

²⁸ Another often quoted but not latest estimates by McKinsey (2016) show the annual average demand of infrastructure investment for the same regions between 2016 and 2030 as USD 3,300 billion which is much higher than the estimates of ADB (2017b). However, estimates of McKinsey (2016) employs the fixed percentage of infrastructure investments to GDP forecast as 3.8%. Since estimates of ADB (2017b) as USD 1,503 billion and for climate adjusted as USD 1,744 billion are equivalent to 5.1% and 5.9% of their projected GDP, the difference between those of ADB and McKinsey (2016) can be attributed to their different estimates for GDP forecasts.

Table 4.3 Demand for Infrastructure Investment in the Philippines

Investment	Philippines
Investment demand (2010-2020)	USD 127 billion
Breakdown for new infrastructure	53 %
Breakdown for maintenance	47%
Annual average investment	USD 12 billion
Percentage of the Philippines among total Asia and the Pacific region's investment demand	1.546 %

Source: Bhattacharyay, Biswa Nath. 2012. "Estimating Demand for Infrastructure, 2010–2020." In *Infrastructure for Asian Connectivity*, edited by Biswa Nath Bhattacharyay, Masahiro Kawai and Rajat M. Nag, 19-89. Cheltenham, UK and Northampton, MA, United States: Edwin Elgar Publishing Limited

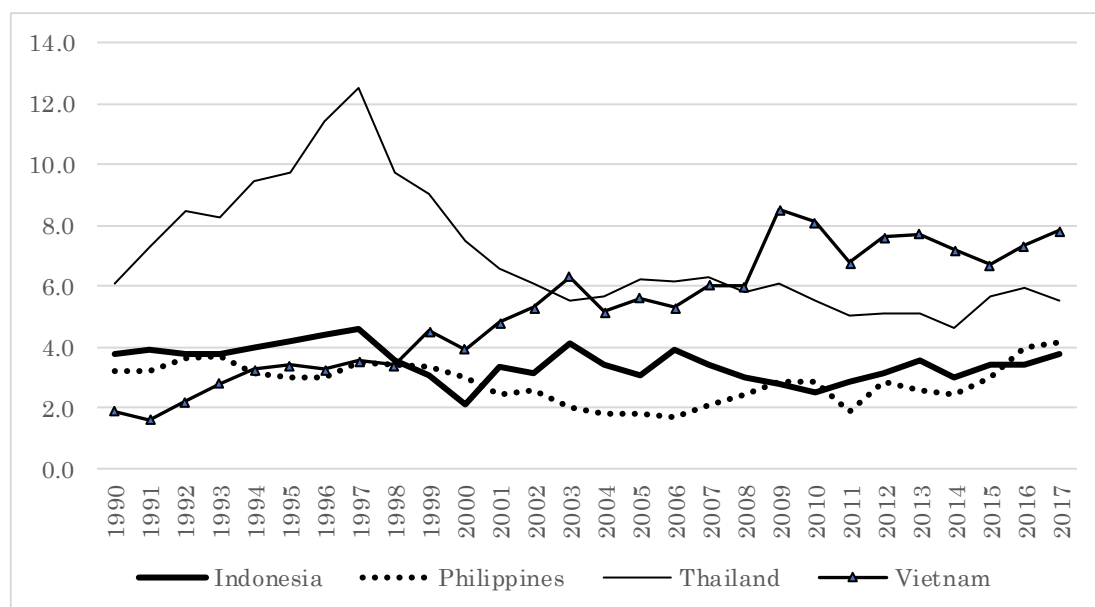
Since the percentage for the Philippines in relation to the Asia and the Pacific region's infrastructure total investment, demand according to Bhattacharyay (2012) is 1.546 %. This the Philippines's demand can be calculated by multiplying 1.546% by the estimates of investment demand of ADB (2017b) with the baseline as USD 1,503 billion and for climate adjusted as USD 1,744 billion as a proxy for the Philippines' latest county demand for infrastructure investment. As a result, the Philippines's annual demand for infrastructure investment based on the 2015 estimation is calculated as USD 23.2 billion for the baseline and USD 27.0 billion for the climate adjusted per year between 2016 and 2030.

One of the reasons behind this relatively lower infrastructure development in the Philippines is the noticeably low level of public investment. Figure 4.1 shows general government investment ²⁹ to GDP (%) in comparison with other ASEAN peer countries. This explains why the Philippines' public investment had consistently been

²⁹ This is taken from the general government gross fixed capital formation of the Investment and Capital Stock Dataset of IMF. It should be noted that this investment by the general government, which means both central and subnational governments, on fixed assets that include not only infrastructure but also non-infrastructure investment such as building, machinery and equipment, and weapon systems according to national accounting standards. Although this statistic has been widely used as a proxy for public infrastructure investment, it should be treated that this statistic may overstate infrastructure investment.

the lowest among ASEAN countries, averaging 2.8 % of GDP in 1990-2017, although the number is increasing since 2011.

Figure 4.1 General government investment to GDP (%) in comparison with ASEAN peer countries



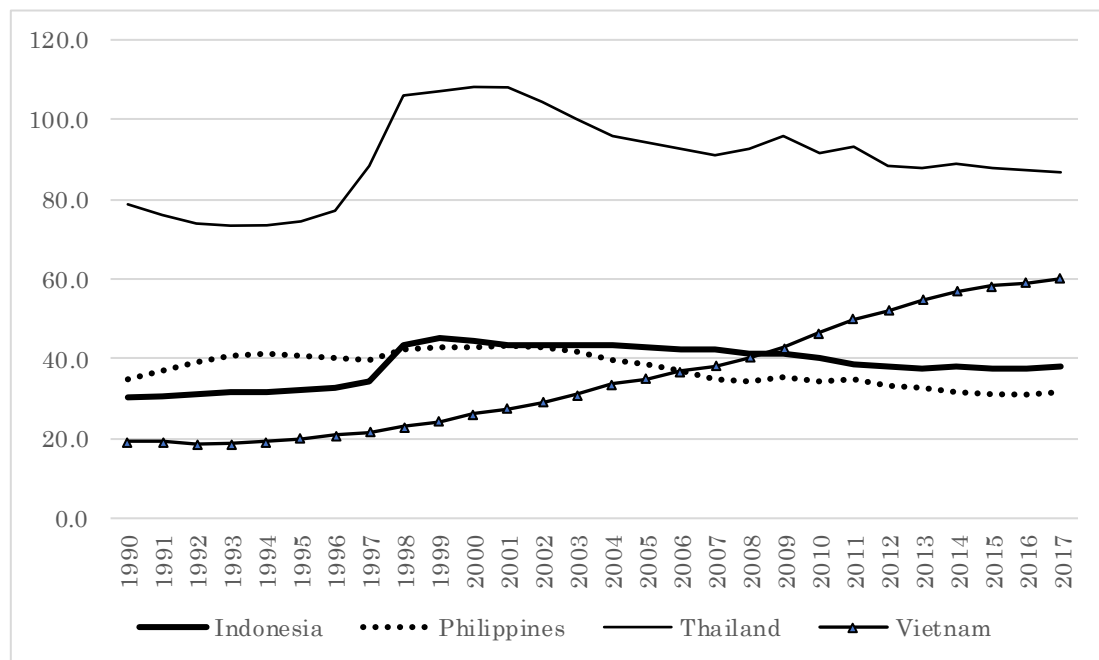
Source: Investment and Capital Stock Dataset of IMF

As a result, the general government capital stock³⁰ to GDP (%) is also one of the lowest among ASEAN peer countries as shown in Figure 4.2. In addition to its low figures, the percentage is steadily decreasing since 2001 as 43.3% to around 31% in recent years which is alarming. IMF (2019b) argues that the difference of capital stock to GDP between the Philippines and that of ASEAN countries is more than 30% while the average emerging economies' capital stock is 93% of GDP in 2015 which is almost three times as of the Philippines. However, we have to note that, as Chapter 5 explains, the government of the Philippines implemented privatization in the power and water

³⁰ Since this is the same statistic on the stock base of general government gross fixed capital formation, the same footnote 27 will be applied here as well.

sector in the late 1990s and throughout 2000s. The decreasing trend of capital stock to GDP is partly due to transfer of assets from the public sector to the private sector under privatization in those sectors, especially in power.

Figure 4.2 General government capital stock to GDP (%) in comparison with ASEAN peer countries



Source: Investment and Capital Stock Dataset of IMF

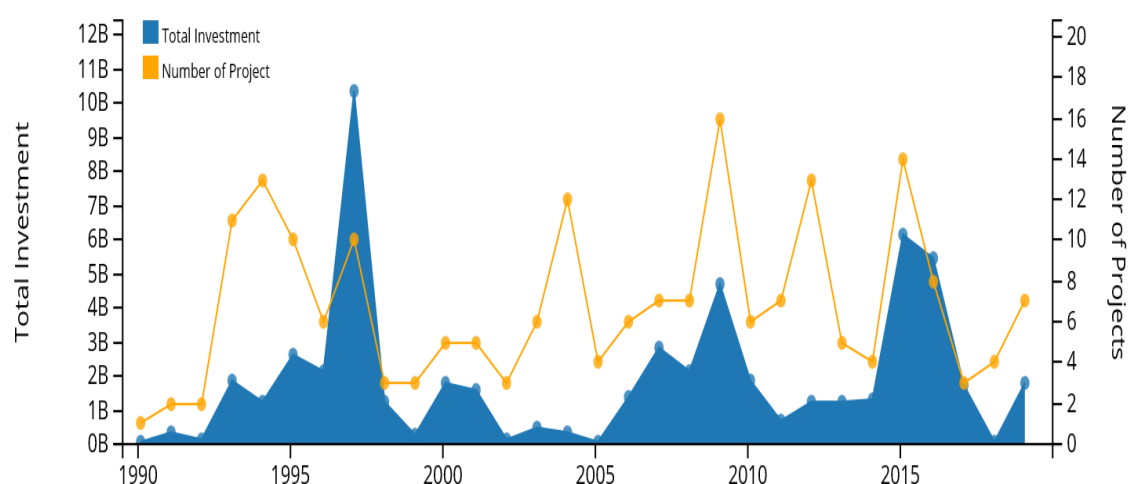
4.2 Achievement in PPP Infrastructure Development of the Philippines

This section discusses achievements in PPP infrastructure development of the Philippines. Contrary to the infrastructure development situation, the Philippines' achievements in PPP Infrastructure Development are relatively positive in relation to other ASEAN countries.

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

According to the World Bank's PPI Database, PPP projects in the Philippines accounted for USD 57,410 million totaling 166 projects from 1990 to 2019. In terms of investment value, the Philippine is the ninth largest country among emerging countries³¹. Historical investments in PPP for the Philippines are shown in Figure 4.3. This position peaked in 1997³² and has been steadily contracting since 2002. This trend is similar with other emerging and developing countries as shown in Figure 3.1.

Figure 4.3 Investments in PPP infrastructure projects in the Philippines, 1990-2019 (unit: USD billion for total investment)



Source: World Bank PPI Database

Below is a comparison with other ASEAN neighboring countries is as shown in Table 4.4. This table also shows that the country has a relatively good record of PPP both in terms of number of projects and investment volume.

³¹ Philippine is ranked after Brazil, India, China, Turkey, Mexico, Russia, Indonesia, and Argentina.

³² In 1997, investment was made in the two PPP projects both in the water sector which is the first and third largest in the Philippines located in the metropolitan area of Manila. These PPP projects are discussed in Chapter 4.3.1.

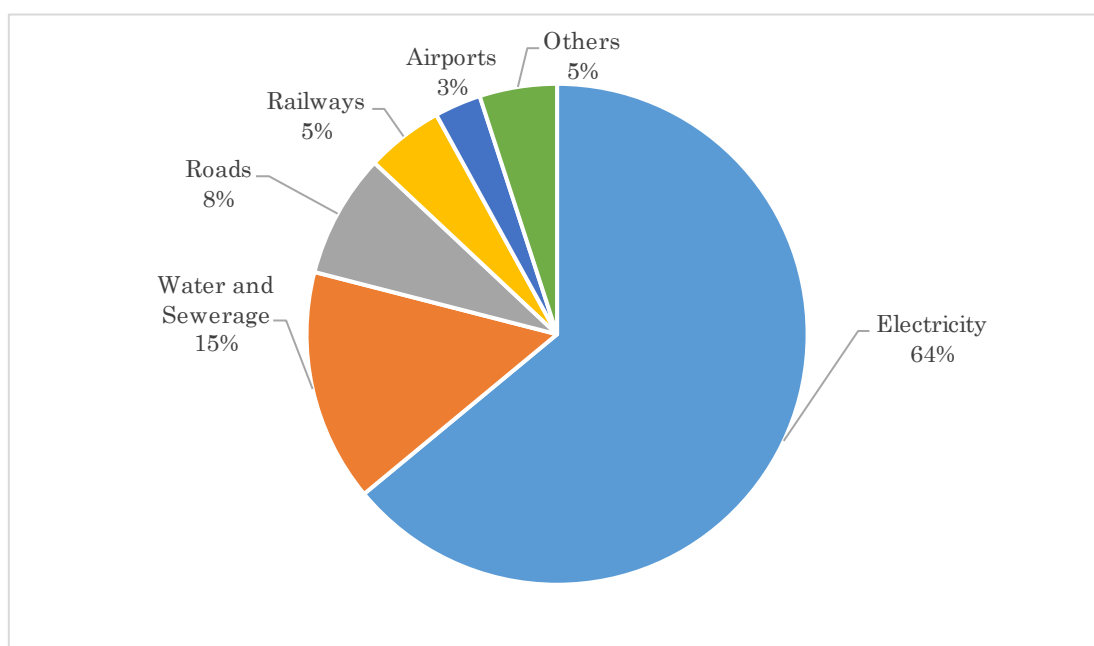
Table 4.4 PPP projects for 1990-2019

Country	Number of Projects	Investment (USD million)
Philippines	166	57,410
Thailand	181	43,821
Indonesia	140	67,274
Vietnam	123	22,918

Source: World Bank PPI Database

Similar to Figure 3.3, Chapter 3, World Bank PPI Database also shows that in terms of sector of PPP projects in the Philippines, the electricity sector accounts for an overwhelming share of 64% on the basis of the total investment (Figure 4.4) reflecting the sector's long-term history in PPP in the country and its profitability. Since PPP in the Philippines started within the electricity sector, we can understand that there is a long history of PPP projects in the sector, as discussed in Chapter 5.

Figure 4.4 PPP Investment by Sectors in the Philippines, 1990-2019



Source: World Bank PPI database

The top 10 private sponsors by investment in the Philippine during 1990-2019 to the turn of USD 42,382 million, accounts for 73.8% of total investment in the country. This suggests that a relatively small number of private players dominate PPP market in the Philippines. Slicing the top 10 private sponsors, six are local conglomerates, such as Aboitiz, Ayala, and San Miguel, accounting for 77.5% of the investment at USD 32,738 million. This partly explains the barrier to entry the PPP market in the Philippines by foreign investor, as explained in Chapter 8.2.4.1. Also, these values will provide an interesting comparison with the case of Indonesia as discussed in the Chapter 6.

4.3 Case Studies on PPP Projects in the Philippines

This section illustrates two case studies on PPP projects in the Philippines, one in the water sector and the other in the railway (transport) sector. These projects were selected in consideration of sector and results of PPP, success or failure. These two cases demonstrate both advantages and disadvantages, complexities, and the challenging nature of PPP modality. We discuss this in detail in Chapter 4.3.1 and 4.3.2.

4.3.1 Case Study 1: Water Concession in Metro Manila

The Metro Manila water concession project is regarded as a successful PPP project, not only in the Philippines but globally by researcher in the field, at least for the Eastern Zone of Metro Manila. Concessions is one of the forms of PPP wherein the government grants the private entity the authority to develop and/or operate public infrastructure and charge tariff from the users of the infrastructure based on the public regulation and the concession contract. Also, this project was one of the largest PPP in the water sector

in the world involving a USD 7 billion investment commitment. The project privatized the operation of water and the sewerage system in Metro Manila where the Metropolitan Waterworks and Sewerage System (MWSS), a national government agency, operated to provide water supply and sewerage disposal for about 12 million inhabitants of Metro Manila. This type of privatization is included as PPP, since the assets are not transferred to the private sector permanently.

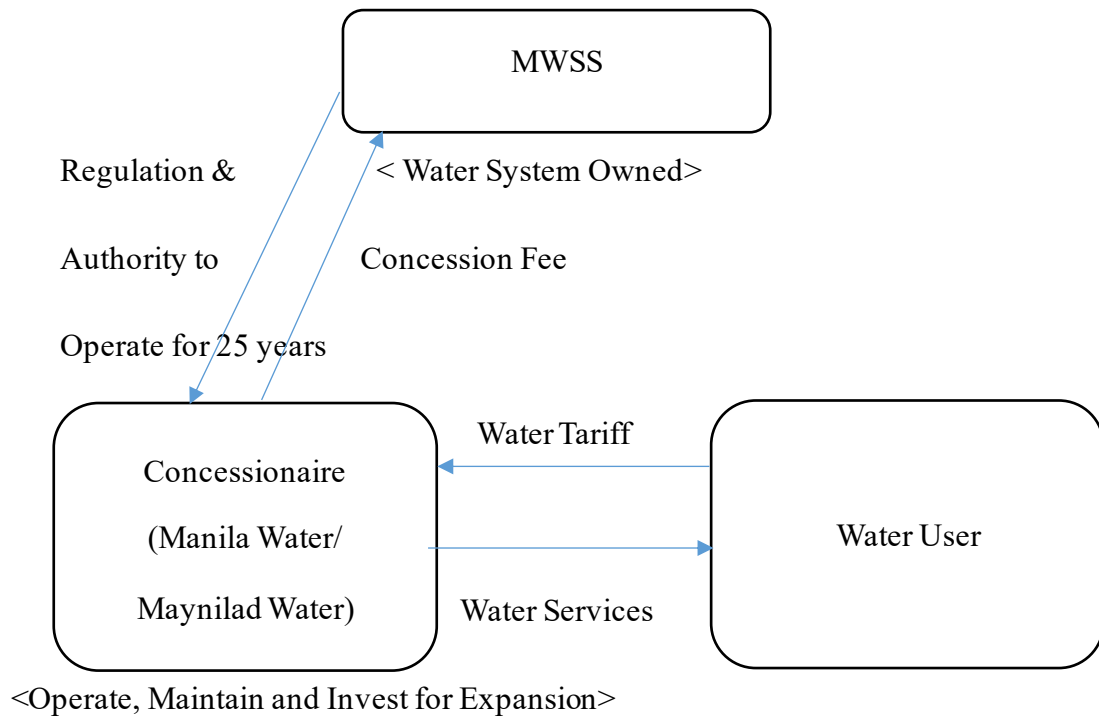
Water services delivered by MWSS was facing a lot of problems. MWSS was only able to supply water to about two-thirds of population in the coverage for an average of about 16 hours per day. Non-revenue water (NRW)³³ level of 63% was one of the highest in ASEAN capital cities; other cities including Bangkok and Kuala Lumpur maintained a NRW of between 35% and 38%. Also, the number of staff per one thousand connections, 9.8, was the highest; Bangkok had 4.6 and Kuala Lumpur had 1.4 (Wu and Malaluan (2008)).

Against this backdrop, the Ramos administration decided to privatize the operations of MWSS by enacting the Water Crisis Act of 1995, to be discussed in the greater detail in Chapter 5, which gave the President the power to negotiate and contract a PPP in water sector. While MWSS retained ownership of the water infrastructure assets, the operation, maintenance, and capacity expansion of the water system was handed over to two private corporations, namely the Manila Water Company Inc. which covers the East Zone of Metro Manila and Maynilad Water Services Inc. which covers the West Zone for a period of 25 years through a water concessionaire agreement signed in 1997 as shown in Figure 4.5. These two Manila water companies were formed by including Ayala Corporation, a local conglomerate while Maynilad Water was established by Lyonnaise des Eaux and Benpres Holdings.

³³ NRW is water that has been produced but not billed. Reasons could be loss through leaks, illegal connections or metering inaccuracies.

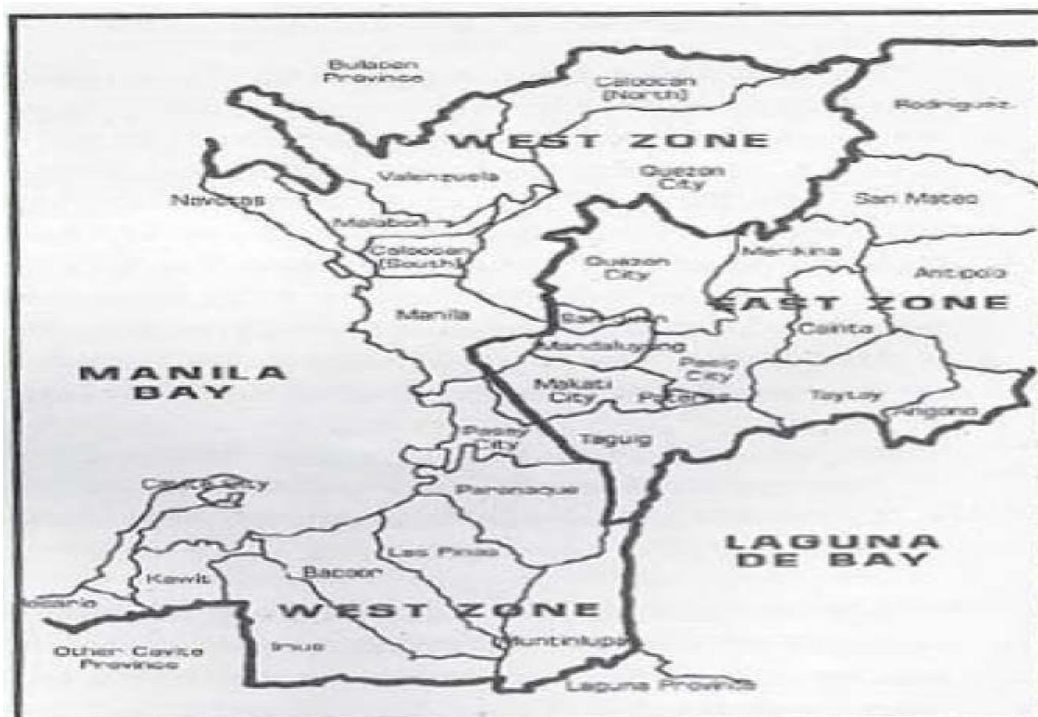
Figure 4.6 shows service area map of the two water concessionaires; East Zone managed by Manila Water and West Zone managed by Maynilad Water.

Figure 4.5 Basic Framework for Metro Manila Water Concession



Source: Author

Figure 4.6 Service Areas of Two Water Concessionaires



Source: MWSS

After privatization, the two water concessionaires improved the water services as shown in Table 4.5.

Table 4.5 Changes after privatization for selected indicators for two water concessionaires

Selected Indicators	Manila Water (East Zone)	Maynilad Water (West Zone)
NRW	52% → 30% (2006)	66% → 66% (2006)
Coverage	49% → 94% (2006)	67% → 86% (2006)
New connections	250,000 (by 2006)	230,000 (by 2006)
Population newly gaining access to piped water	2,900,000 (by 2006)	1,900,000 (by 2006)
Level of potability compliance	about 96% → almost 100 % (2000)	about 96% → almost 100% (2000)

Tariff	23% increase (2006)	150% increase (2006)
Labor productivity ratio (number of staff per one thousand connections)	9.8 → 1.8 (2005)	9.8 → 3.5 (2005)

Source: compiled by author from Marin, P. 2009. *Public-private partnerships for urban water utilities*. Washington DC: World Bank

These two concessionaires were able to improve the services both in quantity and quality during the first ten years of concession. However, we can understand from the above, Manila Water better performed. One of the major reasons for Maynilad not being able to improve as well as Manila Water is the issue of holding a heavy foreign currency denominated debt that had been transferred from MWSS³⁴ which was exasperated after the Asian Financial Crisis. The financial situation of Maynilad was not stable and finally filed for bankruptcy in 2003. The concession contract was terminated and awarded to another private proponent in 2006. A Joint venture between DMCI Holdings, Inc. (DMCI) and Metro Pacific Investments Corporation (MPIC) took over the management of Maynilad in 2007. Mainly due to these above finance issues, NRW and some of other indicators of Maynilad Water did not improve in the first 10 years.

Another achievement of Manila Water was the improved connection to the urban poor under the program called “Tubig para sa Barangay” (Water for the (poor) community). The program is aimed at the community with low-income households, where illegal water connections are often found, to provide an affordable potable water supply. The program is aimed to accommodate economic conditions of the poor households through a flexible financing option and a tariff scheme by providing one Manila Water’s water meter to be utilized by two to five poor households. This group is formed by the assistance from the community and municipality. The program has

³⁴ Debt owed by MWSS at the time of the concession agreement were divided between Manila Water and Maynilad Water according to the facilities covered in each zone a 10:90 ratio.

provided clean water to over 1.8 million people in low-income communities of the Metro Manila's East Zone since 1998.

After the privatization of operation, MWSS has remained as a regulator. Infrastructure tends to create natural monopoly³⁵ and water is one of the typical examples similar to electric power and railway transportation systems. In this natural monopolistic situation, it is very important to have a regulator to monitor and enforce the quality of services and to set tariffs in the absence of competition. For this purpose, Regulatory Office was established in the MWSS under the MWSS Board of Trustees from the beginning of the concession as a quasi-autonomous entity.

Metro Manila water concession project was able to deliver results in both quantity and quality as shown in Table 4.5. These improvements were not possible to obtain if MWSS remained as an operator. However, there are several challenges for this successful PPP project. First, the increase of tariff. When there is a drastic improvement in quality of services, it is expected to increase in tariff or price. Whether the tariff increase shown in Table 4.5 is reasonable or not needs further discussion. Chapter 5.3.4 will discuss the related issue. Second challenge is about water source development. In this PPP model, investment of water related infrastructure investment including treatment plants, sewerage plants, trunk water mains and distribution networks except water source development is to be shouldered by two concessionaires. In other words, the public side, MWSS, should take care of the water source development including by building water dams and digging wells. Major water source development has not been undertaken since privatization, water shortage has become an acute issue in Metro Manila recently, to be further discussed in Chapter 5.3.4.

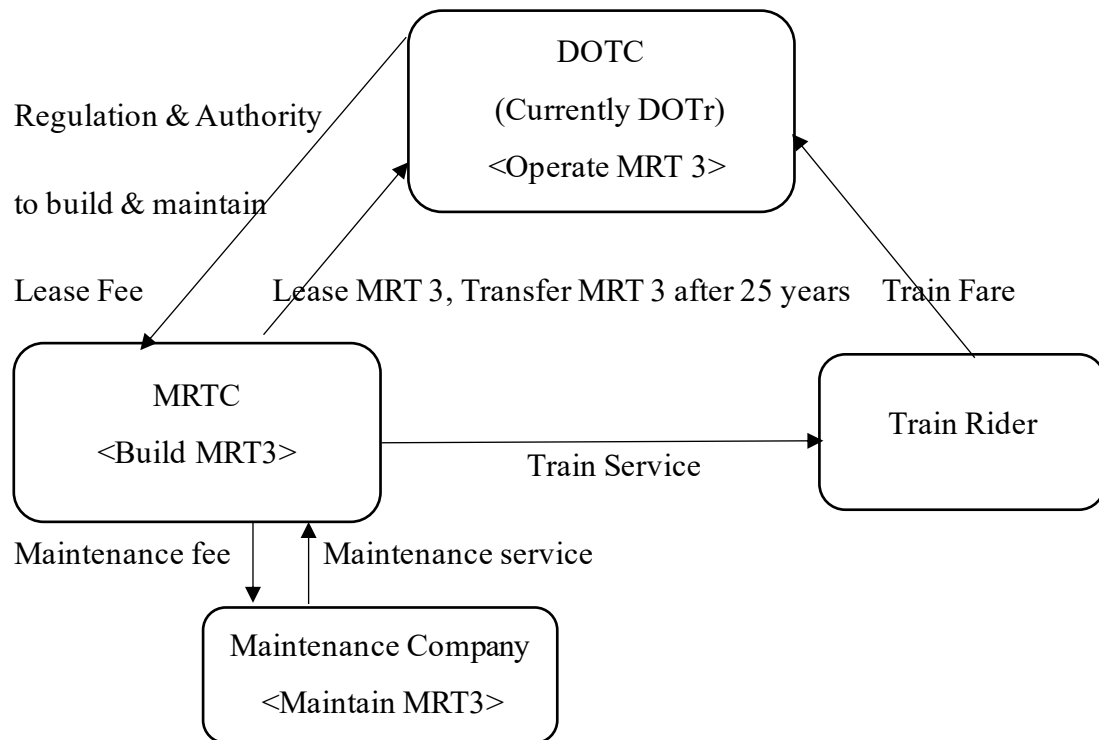
³⁵ A natural monopoly happens in where there cannot be more than one efficient provider, to fully exploit the economies of scale, for the sector or of a good. This occurs when the particular industry involved has extremely high fixed or infrastructure costs. In this situation, under a natural monopoly condition, competition among providers tends to increase costs and prices rather than decrease them. Regrettably, the long-run average cost curve (LRAC) falls continuously over a large range of output.

4.3.2 Case Study 2: Metro Rail Transit Line 3

The second PPP project presented here as a case study is the Metro Rail Transit Line 3 (MRT 3) project which is regarded as a failed PPP project in the Philippines. The project was inaugurated in 2000, ten years after it was proposed by the PPP proponent based on Build-Lease-Transfer (BLT) mode of PPP under an unsolicited arrangement. This means that: 1) the rail system is built by the private proponent with its financing, 2) the system is leased to the Philippine government for 25 years for operation, and 3) the asset of rail system is transferred to the government by the private party after 25 years as shown in Figure 4.7.

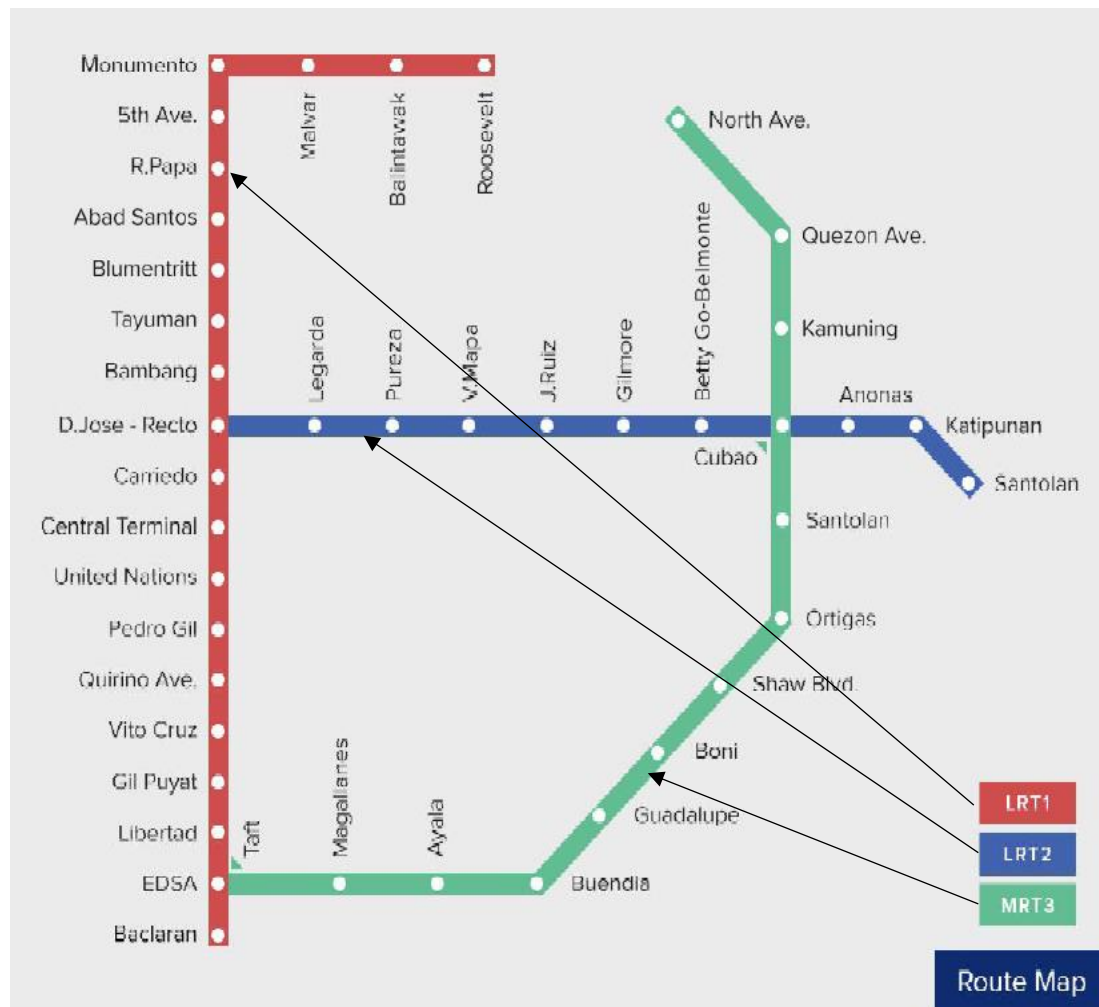
This 17 km urban elevated rail project was developed to ease congestion on one of the main roads connecting the north-south direction of Metro Manila known as Epifanio de los Santos Avenue. Designed capacity of daily passengers for MRT 3 is 350,000. In Metro Manila, there are two other urban rail systems called Light Rail Transit line 1 (LRT 1), running the north-south direction near Manila Bay for 20 km, and line 2 (LRT 2), running the east-west direction for 14 km, besides MRT 3 as shown in Figure 4.8.

Figure 4.7 Basic Framework for MRT 3



Source: Author

Figure 4.8 Route Map of Urban Rail System in Metro Manila



Source: Adapted from DOTC³⁶

The Philippine government, represented by then Department of Transportation and Communication (DOTC), was responsible for land acquisition and operation, while a special purpose company, private side, called Metro Rail Transit Corporation (MRTC) was established by mainly Ayala Corporation, a local conglomerate, and the Fil-Estate, a local real estate company, through equity investments, and was responsible for

³⁶ <https://dotcmrt3.gov.ph/uploads/c00eb7d8-88ef-4f08-ae37-f18e6b2e650d.pdf> accessed on June 20, 2020

construction, procurement of rolling stocks and other materials and maintenance. DOTC's role is as the operator while at the same time the regulator. This arrangement has a potential conflict of interest. The asset of the project is owned by MRTC under the BLT scheme. Actual construction and procurement of rolling stocks and other materials were conducted by a Japanese consortium namely Sumitomo Corporation and Mitsubishi Heavy Industry as a subcontractor for the MRTC with financing by then Import-Export Bank of Japan (now Japan Bank of International Cooperation) and Czech Export Credit Agency and other foreign and local financial institutions. Maintenance work was also conducted by a Japanese consortium.

The PPP project risk sharing arrangement is one of the crucial factors as discussed in Chapter 1. Among those risks, demand risk is critically discussed as to who, public or private, should shoulder the risk. With the above arrangement, DOTC operates the MRT3 by paying a leasing fee to MRTC and a maintenance fee to the Japanese consortium through MRTC. Therefore, DOTC is fully responsible for every aspect of operation including running the trains and collecting ride fare. In short, DOTC took the demand risk or ridership risk full on. In this BLT contract, it is agreed that private side is guaranteed to be paid a secured 15% Internal Rate of Return (IRR) on dollar basis which is a rather favorable arrangement for a private proponent. The difference between lease fee to be paid to MRTC by DOTC and revenue from ride fare is subsidized by the Philippines government. Therefore, after completing the construction work, MRTC had no incentive to improve the asset of MRT 3.

To make the matters worse, ride fares were kept low even in comparison with bus fare along the same route. When MRT 3 started operation, the ride fare was almost double the fare of mini bus along the same line. After knowing that MRT 3 were running almost empty due to ride fare fee, the then President Estrada ordered DOTC to reduce the fare by almost half. While with this fare reduction, ridership of MRT 3

improved, but the Philippine government was heavily burdened subsidizing the project. According to one report, passengers of MRT 3 are charged an average of Philippine Peso 12.40 per trip while they should be charged Peso 53.96 per trip to recover the leasing fee, resulting in the government shouldering the remaining P41.56, which translates to 77% of the fare³⁷. ADB (2016) estimates that subsidy by the Philippine government is USD 12.5 million per month during the 2014-2024 period while it was USD 3.3 million per month in 2008.

Another issue for this heavy subsidy is who bears the burden of the subsidy. Subsidy comes from all taxpayers in the Philippines regardless of whether one has taken ride on the MRT or not. In other words, taxpayers in Mindanao Island subsidize Metro Manila rail transit riders.

On the operation of MRT 3, there was no major issue mainly due to the maintenance work by the private proponent. However, DOTC terminated the maintenance contract and decided to take over the work by themselves in 2012, and later signed a maintenance contract with a local provider and a South Korean company, Busan Rail Inc. This change deteriorated the quality of services of MRT 3 and accidents and glitches began to happen often resulting in social problems. In 2017, Department of Transportation (DOTr), current DOTC, terminated the maintenance contract and signed the said contract with the same, formally contracted Japanese consortium in the same year. Major rehabilitation works, including replacement of rail damaged due to low quality maintenance is being implemented by utilizing Japanese ODA.

³⁷ “Messed-up mass transport system”, The Manila Times, February 9, 2014.
<https://archive.is/20140423062613/http://www.manilatimes.net/messed-up-mass-transport-system/74431/#selection-423.0-423.17>

There are mainly two lessons from this failed PPP of the MRT 3. First, PPP is not “free money” as discussed in the Chapter 1.2.2. The Philippine government expected to be receiving a critical infrastructure project free of charge, at least in the short term, since the construction and procurement was fully responsible under the private proponent. Although land acquisition was on the part of the Philippines government, the acquisition was not substantial due to the fact that the rail alignment occupies the middle part or elevated along EDSA. Agreeing to guarantee a 15% IRR and, moreover, on dollar basis although the fare is denominated in Philippine Peso is very much advantageous to the private side. Faced with the heavy traffic congestion along EDSA street, tight fiscal situation in the early 1990s and less experience with PPP, the Philippine government at the time may not have had much of an option but to accept the unsolicited proposal for MRT 3.

LRT 1 and 2 were both developed by public investment and managed by a government agency called Light Rail Transit Authority (LRTA). LRT 1 was inaugurated in 1984 which was financed by the Belgium export credit and capacity expansion was financed by ODA of Japan. LRT 2, which was inaugurated in 2003, was also financed by ODA of Japan. Considering that other urban rail systems in Metro Manila, namely LRT 1 and 2 were procured and financed publicly, one can argue that MRT 3 should not have been developed by PPP, but by rather public investment.

Second lesson is about coordination with other projects. Connection between those three lines, MRT 3 and LRT 1 and 2, are not well designed. Transferring to other lines require long walks. Tickets are not standardized. Closing the loop for LRT 1 and MRT 3 physically is not possible due to differences in traffic system and design of rolling stocks and stations. This is partly due to the fact that MRT 3 was established under an unsolicited PPP mode where a private proponent initiated the project and led the construction phase. However, even in the unsolicited PPP, the public side is possible

to coordinate well with other existing and future projects. Again, similar to LRT 1 and 2 project that were initiated and developed as public investment projects, MRT 3 may have been planned and developed by DOTC and LRTA in the same line with LRT 1 and 2.

4.4 Summary

This Chapter depicted that infrastructure is less developed in the Philippines in comparison with other ASEAN neighboring countries. This Chapter, on the other hand, illustrated relatively active performance of PPP in the Philippines. Although this contrast may show some contradiction, analysis on this matter will be dealt with in Chapter 5.

This Chapter also discussed two PPP project case studies in the Philippines; Water Concession in Metro Manila and Metro Rail Transit Line 3. The first project has been regarded as one of successful PPP projects not only in the Philippines but globally as one of model PPP projects in the water sector. Although the project delivered benefits to residents of Metro Manila over the years, it was pointed out that there are still some issues including structuring of the project in water source development. MRT 3, on the other hand, is regarded as a failed PPP project that requires continued government subsidies and other defects of the railway system. These cases well illustrated both advantages and disadvantages, complexities, and challenging nature of PPP modality. The case of MRT 3 also clearly exhibits that PPP does not bring “free money” as emphasized in Chapter 1.

Chapter 5 Policy Changes over the Last Five Infrastructure Regimes: Three Decades in the Philippines

Public-Private Partnership (PPP) versus Official Development Assistance (ODA) as a mechanism for infrastructure financing has been an active provocative debate in the Philippines once in 2010 and again in 2017 when a significant policy shift on the financing source of public infrastructure was announced by the then respective governments. In 2010 the Aquino III administration announced that it would drastically expand PPP arrangements to accelerate infrastructure development. Then again in 2017 the current Duterte administration tilted infrastructure development more significantly toward public finance and ODA including foreign financial assistance, especially Chinese government loans. Here we take “PPP vs ODA” as a door to open a discussion on infrastructure financing given the country’s state of development. This Chapter discusses the financing aspects of infrastructure development during the last five regimes for over 30 years. In the context of the country’s evolving socio-economic, fiscal policy and institutional directions, this Chapter discusses the finance options, public finance and PPP, and weighs their distinctive roles, fiscal implications and the mechanisms in which they are to reinforce each other to address the massive infrastructure gap in the Philippines.

5.1 Overview of Policy Directions during the Last Five Regimes

Addressing the issues of infrastructure deficit has been a top priority for every administration over the last five administrations³⁸ in the Philippines. In the last three decades, infrastructure development has been one of the core pillars of the Medium-

³⁸ The last five administrations since 1992 refer to the Ramos, Estrada, Arroyo, Aquino III and Duterte administrations.

Term Philippine Development Plan (MTPDP) of each administration. Canlas (2017) argues that the policy reforms in the government's infrastructure development program for the last three decades have been anchored on two major approaches: (1) strengthen the tax policy and tax administration to enable the government to increase significantly its infrastructure spending and (2) promote the private participation in infrastructure. On the private sector side participation in infrastructure development, Llanto (2004) points out that the huge budget constraint faced by the government was instrumental in the shift in policy toward using private sector resources and expertise in infrastructure development. Apparently, policymakers viewed PPP as a more efficient and effective means to address certain types of infrastructure needs of the country.

This Chapter provides an overview of policy changes and directions in infrastructure over the last five administrations. It focuses on laws / regulations, finance, including fiscal reform and ODA, specific sectors / projects (with focus on financing and procurement option), and institutional framework. The Chapter highlights the major policy shift over PPP both in the Aquino III administration, from public investment and ODA to PPP, and the Duterte administration, from PPP to public investment and ODA.

5.2 Policy Changes and Directions of Each Administration

5.2.1 Ramos Administration (1992-1998)

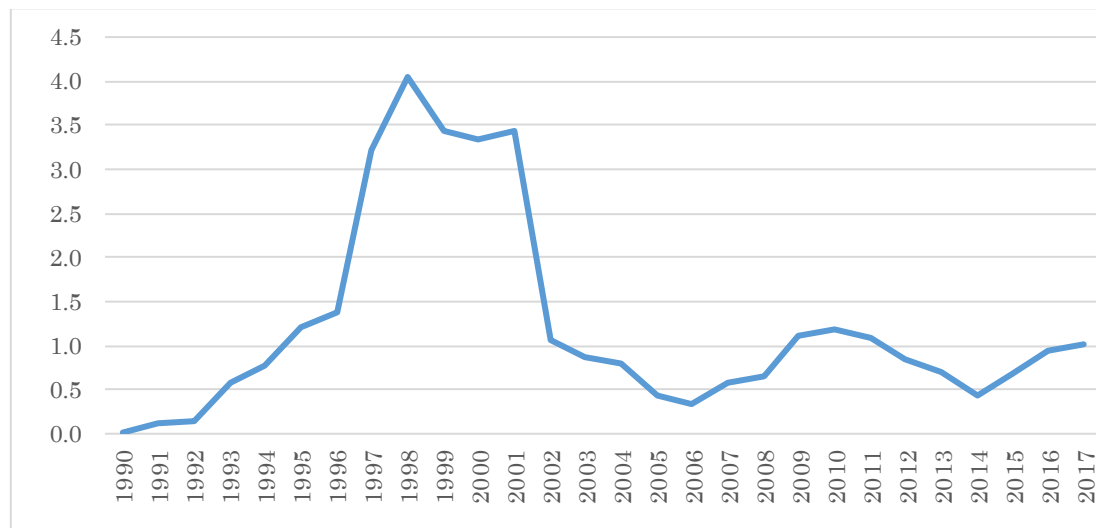
The Ramos administration inherited the momentum for the importance of the role of the private sector in developing infrastructure in the Philippines from the Corazon Aquino administration (1986-1992). During the Corazon Aquino administration, the Republic Act No. 6957, BOT law of 1990, was enacted becoming the first BOT law in Asia. A BOT scheme is one of the modalities of PPP. Under the scheme, infrastructure

is built and operated for a long term, usually between twenty and thirty years, by the private sponsor, then the said infrastructure is transferred to the public entity.

The Ramos administration also viewed the private sector participation, including privatization, as a key policy for infrastructure development. One of the most important developments during this administration was the enactment of RA 7718 in 1993 which amended the RA 6957 BOT law of 1990 to allow for various forms of PPP other than BOT. Through the amendments introduced by RA 7718 to the original BOT law, PPP including private financing represented a significant paradigm shift in the infrastructure policy of the Philippines. As shown in Figure 4.3, PPP investments during the Ramos administration became very active and recorded the highest ever investment for a year, USD 9.5 billion in 1997. In 1998, PPP investment to the GDP ratio at 4% marked the highest ever in this administration, which is also very high by global standards (Figure 5.1). To help implement the new infrastructure policy and promote PPP, the Ramos administration established the BOT Center under the Office of the President³⁹.

³⁹ President Ramos issued Memorandum Order No166 directing the Coordinating Council of the Philippine Assistance Center (CCPAP) of the Office of the President to establish a BOT Center with the CCPAP Chairman as BOT Action Officer.”

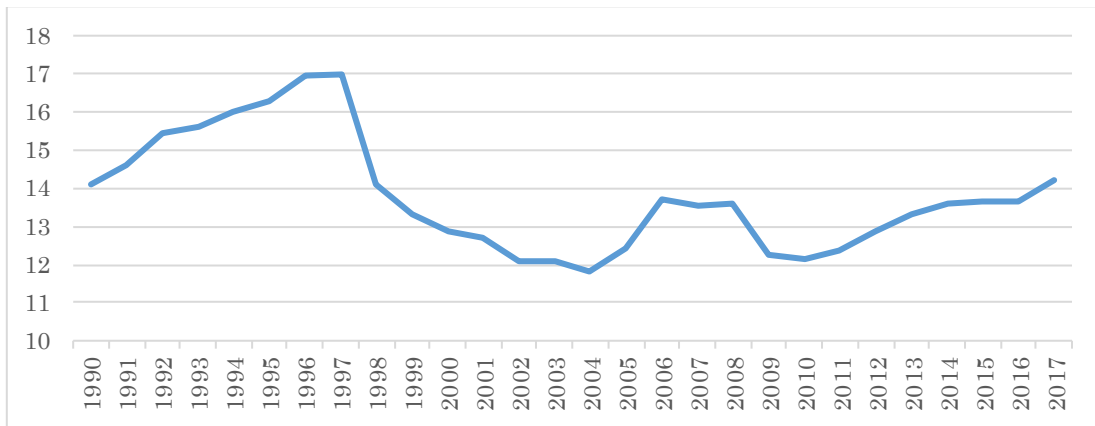
Figure 5.1 PPP investments to GDP (%)



Source: Investment and Capital Stock Dataset of IMF

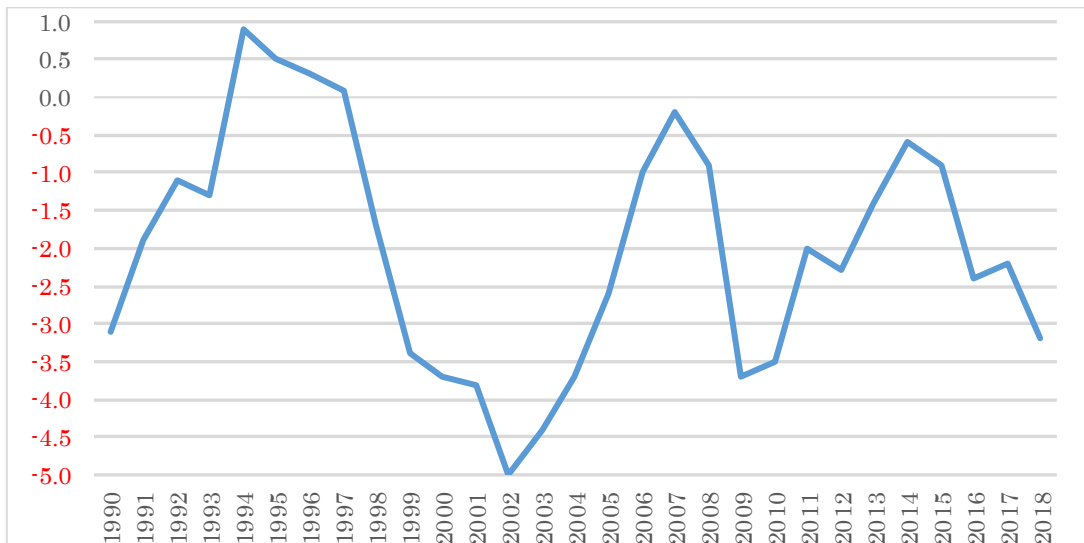
On the fiscal front, the Ramos administration introduced several tax reforms under the enactment of the Comprehensive Tax Reform Law, which included the expansion of VAT coverage and improvements on the corporate tax and personal income tax regimes. Due to this reform, tax collection to the GDP ratio jumped to 17.0% during the administration, one of the highest ever in the Philippines (Figure 5.2), creating a fiscal surplus for most of the years that the administration was in power. This happened only in this administration for the last three decades as illustrated in Figure 5.3. The proceeds of privatization of some public infrastructure improved the tight fiscal situation.

Figure 5.2 Tax revenue to GDP (%)



Source: World Development Indicators (WDI) of the World Bank

Figure 5.3 Fiscal balance to GDP (%)



Source: Fiscal Statistics Handbook of the Department of Budget and Management of the government of the Philippines

Due to the failure of past administrations to increase investments in infrastructure, the Ramos administration had to face a debilitating electric power and water crisis, power being the most severe. Through the Electric Power Crisis Act (RA 7648) of 1993, Congress granted President Ramos emergency powers to negotiate contracts for the construction, repair, rehabilitation, and maintenance of power plants and allowed the entry of private independent power producers. With these arrangements, total installed

capacity of power increased by 73% from 6,949 MW in 1992 to 12,067 MW in 1998 (Llanto (2004)). This marked the beginning of the privatization of the power sector which continued into the Arroyo administration.

Water was another sector which experienced a major reform. As discussed in Chapter 4.3.1, the enactment of the National Water Crisis Act of 1995 (RA8041) paved the way for the privatization of water distribution in Metro Manila. The Metropolitan Waterworks and Sewerage System (MWSS), a national government agency retained ownership of the water infrastructure assets, but the operation and maintenance of the water system was handed over to two private corporations, namely the Manila Water Company Inc. and Maynilad Water Services Inc. through a water concessionaire agreement.

The telecommunication sector was the third sector which undertook a major reform during the Ramos era. The Public Telecommunications Policy Act of 1995 (RA7925) mandated the interconnection of all local telephone exchanges and the participation of several telecommunications service providers, which ended the telecommunication monopoly by the government. This law opened the sector to private players and improved service quality of telecommunication sector.

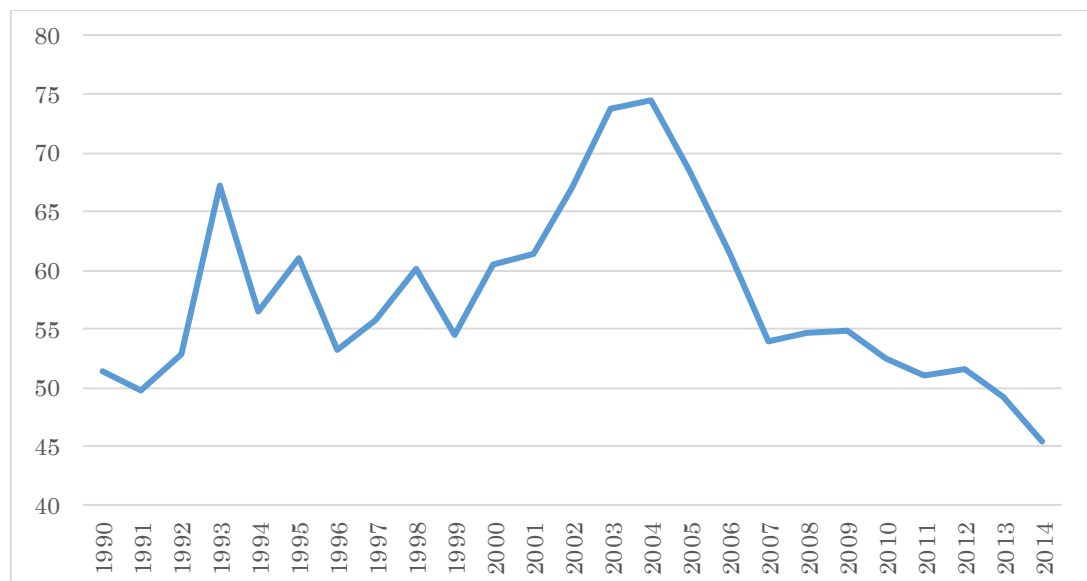
5.2.2 Estrada Administration (1998-2001)

During the less than three years of the Estrada administration, there were no notable reforms nor policy developments regarding infrastructure development. The BOT Center was reorganized into the Coordinating Council for Private Sector Participation by virtue of Administrative Order No. 67. With this reorganization, the coverage of the BOT Center was expanded to other schemes of the private sector participation in addition to BOT.

5.2.3 Arroyo Administration (2001-2010)

When the Arroyo administration succeeded the Estrada administration, it faced a large fiscal deficit. The administration exerted great effort in increasing the VAT rate from 10 to 12%, which provided a substantial fiscal relief as shown in Figure 5.3. This contributed to the improvement of government debt status during this administration (Figure 5.4). However, the fiscal balance in the final years of the administration deteriorated with the 2008 global financial crisis.

Figure 5.4 Central government debt to GDP (%)



Source: World Development Indicators (WDI) of the World Bank

A very significant sectoral reform measure was implemented in the power sector at the beginning of the Arroyo administration. With the enactment of the Electric Power Industry Reform Act (RA9136) of 2001, the national power industry which had been monopolized by the National Power Corporation (NPC) up until then was opened up to private investments. The Act unbundled the electric power sector into generation, transmission and distribution. As a consequence, private firms invested in the generation and distribution systems while the operation and maintenance of

transmission, which continued to be government-owned, was privatized. The Act also introduced the Wholesale Electricity Spot Market (WESM) where generating companies could sell their electricity to WESM and supply is then bid out to distribution companies.

On the institutional front, the administration converted the CCPSP into the BOT Center and placed it under the Department of Trade and Industry (DTI).

During the Arroyo administration, there were several controversial cases involving infrastructure. Based on a Supreme Court decision of the Philippines, the Philippine government abrogated the BOT contract of Terminal 3 of the Ninoy Aquino International Airport (NAIA) in Manila and expropriated the terminal⁴⁰. Another case was the allegations of corruption in the North Rail project and National Broadband Network project both financially supported by the Chinese government. Controversies such as these tended to create on the private investors side a negative perception of the environment for infrastructure investments.

5.2.4 Aquino III Administration (2010-2016)

The Aquino III administration, which took office in 2010, reviewed the existing infrastructure development policies, which depended mainly on the government budget and ODA under the previous administration. As a result of the review, the administration prioritized infrastructure development and launched an aggressive PPP program in November 2010⁴¹. Ten priority projects were identified, targeting about 4

⁴⁰ Aurea Calica of Philstar.com reported on May 6, 2003: “The Supreme Court nullified yesterday the government contracts of the consortium that built the new Terminal 3 of Ninoy Aquino International Airport (NAIA 3). Voting 10-3, the tribunal ruled that the Philippine International Air Terminals Co. (Piatco) was not qualified to participate in the 1997 bidding for the construction and operation of NAIA 3”. The Supreme Court voids all Piatco deals.
<https://www.philstar.com/headlines/2003/05/06/205027/supreme-court-voids-all-piatco-deals>

⁴¹ The Aquino III administration focused on solicited PPP schemes, making unsolicited PPP schemes as an exception.

billion USD in private capital. PPP became the principal mechanism for infrastructure development. With this policy shift, PPP investment during the Aquino III administration underwent a rapid increase as shown in Figure 4.3, Chapter 4.

The main achievements in PPP by the Aquino III administration are briefed below.

Government Organization

The administration reorganized the BOT center into the PPP Center (PPPC) by Executive Order No. 8 in 2010, and transferred it from the Department of Trade and Industry to The National Economic and Development Authority (NEDA). The main duties of PPPC are the promotion of PPP schemes and assistance to implementing agencies in the formulation, implementation and monitoring of PPP projects.

Another development was the creation of the PPP Governing Board, which is chaired by the Director General of NEDA and composed of oversight departments including the Department of Finance (DOF) and Department of Budget and Management. This Board is responsible for overall policy directions on PPP. The NEDA Investment Coordination Committee reviews the economic and financial viability, and approves infrastructure projects while the DOF reviews the risk-sharing mechanism of specific PPP projects and their impact on government guarantees and contingent liabilities. PPPC assists in the preparation of the business plan for specific PPP projects.

Project Development Fund

The Project Development and Monitoring Facility (PDMF) was established within PPPC in 2010 to support PPP project formulation with the assistance of the ADB and the Australian Government. The main function of this fund is to support implementing

agencies in preparing related studies such as feasibility studies and business plan and assisting procurement process including preparation of tender documents, evaluation of bid documents, and contract negotiation for specific PPP projects by hiring consultants. PDMF The committed amount to PDMF is USD 42.9 million.

PPP Fund

In 2012, the ADB provided USD 25 million, the Government Service Insurance System (GSIS) of the Philippines set-aside USD 400 million, the Netherlands pension fund, Algemene Pensioen Group (APG) invested USD 150 million) and Australian Macquarie Infrastructure and Real Assets (MIRA) provided USD 50 million to establish the Philippine Investment Alliance for Infrastructure Fund, the Philippine's first private fund specializing in PPP, totaling USD 625 million. The fund is to facilitate PPP projects by investing in PPP projects including the those in the electric power sector.

Relaxation of Single Borrowers' Limit

The Central Bank of the Philippines, Bangko Sentral ng Pilipinas (BSP), sets a single borrower's limit (SBL) of 25% of net worth of private banks in the Philippines. Since conglomerates in the Philippines have their own banks within their groups, this limit had a potential to become a bottleneck in the expansion of PPP by local conglomerates. With this background, the BSP added another 25% to the borrower's limit (SBL) for PPP projects for the purpose of PPP promotion in 2010 until the end of 2013, which was later extended until the end of 2016.

On the fiscal front, another significant development during the Aquino III administration was the upgrade of the sovereign credit ratings to the investment grade in 2013. This contributed positively for the government to fund source the infrastructure investment. This was attributed to the expansion of fiscal space and strong macroeconomic fundamentals as shown in Figures 5.2, 5.3, and 5.4.

5.3 Duterte Administration (2016-)

In June 2016, right after the Presidential election, the in-coming Duterte administration announced the “0 to 10-point Socio-Economic Agenda”, which listed its most important socio-economic priorities. One of the agenda items was infrastructure and PPP. The Agenda states: “accelerating annual infrastructure spending to account for 5% of the gross domestic product (GDP), with public-private partnership playing a key role”. In April 2017, the administration announced a large-scale infrastructure investment program called the “Build, Build, Build” program, which the government promised to be the “golden age for infrastructure” in the Philippines.

5.3.1 Acceleration of Infrastructure Development

The Duterte administration announced a flagship infrastructure investment program called “Build, Build, Build” of 8.4 trillion pesos (about USD 168 billion) which includes 75 large-scale flagship infrastructure projects in 2017. It envisages to increase the infrastructure investment rate to 7.3% of GDP by 2022, with an average rate of 6.8% during this period, significantly higher than the average of 2.9% of GDP for the Aquino III government and 1.9% of GDP for the Arroyo administration.

5.3.2 Shift from PPP to Public Finance/ODA

As a financial source of such a large-scale infrastructure development plan, the Duterte administration made a drastic shift from PPP to financing through the government budget and ODA. Out of 75 flagship projects, there are only nine PPP projects, while the number of projects under ODA⁴² and public finance⁴³ were 53 and 13, respectively. The debate of "PPP vs ODA" surfaced and became an active topic as a result. The then government believed that PPP cannot address the large demand for infrastructure projects based on actual experience. This is clearly shown in Figure 4.3 as a sharp decline of PPP investment for both investment volume and number of projects since 2016. However, it should be noted that the current administration welcomes unsolicited PPP in contrast to the Aquino III administration's preference for solicited PPP.

The ambitious planned infrastructure investments will necessarily require commensurate funding. In this regard, the Duterte administration packaged a comprehensive tax reform package that is expected to raise revenues and improve the tax system in the country. The first component of the comprehensive tax reform package was the reform of personal income taxation under the Tax Reform for Acceleration and Inclusion (TRAIN) Act enacted in 2017⁴⁴. The government has proposed legislation on the next component of the tax reform package which will review the fiscal incentives given to foreign direct investment and reduce the corporate income tax to make it at par with corporate taxation in other ASEAN countries.

⁴² Projects under ODA means projects which will be financed both ODA and government budget.

⁴³ Projects under public finance means projects which will be financed pure government budget.

⁴⁴ Republic Act No. 10963 or the Tax Reform for Acceleration and Inclusion (TRAIN) Act was signed into law on December 19, 2017. It is the initial package of the Comprehensive Tax Reform Program (CTRP), a bold tax reform program envisaged by the Duterte administration.

As for ODA and financial assistance from multilateral and bilateral financial institutions, the Philippine government has high expectations to receive financing from multilateral institutions such as the ADB, which seeks to provide more infrastructure loans relative to its former focus on program loans. As for bilateral donors, Japan, China and South Korea are high on the list of ODA partners especially Japan for “Quality Infrastructure Initiative” and China for “One Belt One Road Initiative”. The government also expects the Chinese-led Asian Infrastructure Investment Bank (AIIB) to support its increase in infrastructure as well.

Initially PPP was considered as a financing mode but a policy shift was made in 2017 because it was perceived as incapable of addressing the massive infrastructure needs of the country. It was noted that under the Aquino III administration only 14 PPP contracts were signed and three PPP projects were completed although 28 projects had been approved⁴⁵. This situation was mainly caused by delays in the PPP bidding process, which involved numerous inquiries from private parties, and sometimes involving the judicial branch of government too. In some cases, contract negotiations were prolonged after winning the bid. The Duterte administration deemed that the PPP process would be slow and would fail to match its aggressive infrastructure investment program (the Build-Build-Build program).

However, it should be noted that the abovementioned factors, that is, delay in the bidding process, prolonged contract negotiations, controversies related to the bidding and award procedures including lawsuits filed by losing bidders are not necessarily inherent issues in PPP projects. Rather, these problems can also occur in traditional procurement through government budget and ODA.

⁴⁵ In a speech during the general membership meeting of the Management Association of the Philippines on May 30, 2017, NEDA Undersecretary Rolando G. Tungpalan made the following statement: “In the period 2010 to 2016, of the 28 PPP projects approved by the NEDA Board, 14 projects have yet to be implemented or were either discontinued or terminated. In comparison, at least 80% of ODA and locally-financed projects are currently ongoing or have been completed”.

It is submitted here that regardless of procurement mode, delays and other infirmities in public infrastructure projects can be attributed to weaknesses in public-sector planning, decision-making and inadequate capacity of the public sector to manage or oversee the implementation of large infrastructure projects⁴⁶.

At the start of the Duterte administration, four of six PPP projects that had already entered the bidding stage were changed to ODA projects while the remaining two PPP projects were canceled by the government⁴⁷.

5.3.3 Hybrid PPP

In reality, the Duterte administration has not completely abandoned PPP in favor of public sector and ODA financing. It has decided to experiment with a “hybrid PPP” scheme. This means assigning to the government responsibility over the construction of the infrastructure asset (for example, railway), and requiring the private sector to take over operation and maintenance. The government believes that using the public sector budget and ODA to construct infrastructure assets will result in lower cost of construction. This will occur as they will tap into the highly capable private expertise in operation and maintenance and thus lead to an improvement of service by infrastructure users. However, generally speaking the hybrid PPP is not popular in other parts of the world. On the other hand, the Philippines can point to a chief example of a hybrid PPP, namely the Subic-Clark-Tarlac Expressway, which has increased the mobility and connectivity of local areas serviced by this expressway.

In the bidding and negotiation process for a PPP contract, it is necessary to carefully study and negotiate how to share the risks between public and private sectors. In the case of non-hybrid PPP or ordinary PPP projects, it is necessary to study and

⁴⁶ Political interference is another reason behind problematic projects.

⁴⁷ It remains to be seen whether this was a wise move by the administration.

negotiate risk allocation before construction, which may lead to possible delays in starting the construction phase of the project. Under a hybrid PPP, construction is started with the public sector or ODA financing while the bidding and contract negotiation for operation and maintenance is done during the construction phase of the infrastructure. This approach minimizes the loss of time because construction is not held up by the bidding and contract negotiation component for operation and maintenance phase. By this "hybrid PPP" scheme, the public sector bears risk in the construction phase, which is under traditional public procurement. The private sector bears the demand-side risks of operation and maintenance. It can be then said that this scheme is an attempt to simplify procedures and speed up project implementation.

The hybrid PPP scheme may shorten the time required for bidding and contract negotiation for construction phase but there are several issues that need careful study. First, risks during construction, which is one of the biggest risks in infrastructure development, is shouldered by the government and not by the private proponent in hybrid PPP. Second, since the planning and design, such as carrying capacity and alignment, of the project will be solely determined by the public, the private sector may not agree to assume the demand risk. Third, there is a possible conflict of interest between the private firm which builds the infrastructure and the private firm that operates and/or maintains it, if problems occur after construction. In other words, there is the interface risk. Fourth, there could be a limited number or few private sector firms willing to participate in the operation and maintenance stage when the design, specifications, standards and systems of the infrastructure have all been decided by the public sector (government) at the start of the construction stage. This leads to a sub-optimal situation when private firms capable of efficient operation and maintenance opt out.

This implies that the use of the "hybrid PPP" may not result in the full realization of benefits arising from ordinary PPP schemes. As pointed out by the World Bank

(2017), the whole of life costing and full integration creates the incentive for a single party to complete each project phase (design, build, operate, maintain) in a way that minimizes total costs. For this reason, it may be appropriate in some cases to involve the interested private entities in project design, specification and standard setting in the early stage of the construction, or even share with them necessary information. It is noted that when ODA is used for the construction phase, procurement is tied to a specific country or countries as the case may be, and this might affect bidding for operation and maintenance after the construction phase.

Another option for the hybrid PPP is for the government to utilize ODA or the government's budget to finance the liabilities in the PPP contract such as viability gap, subsidies or availability of payments, while the project itself is implemented through PPP by a private party. In this model, the government is able to utilize concessional ODA funds or government funding for a PPP project while availing itself of the advantages of "bundling" and efficiency of private sector in design, construction, and operation and maintenance. Also, private parties can also compete with each other for the minimum subsidy funded by ODA funds or public funds. However, in this scheme, since bidding for the PPP contract should be conducted before the design stage of the project in the same way as in ordinary PPP, the time saving effect under a hybrid PPP will not be realized.

5.3.4 Infrastructure Governance in the Second Half of Duterte Administration

After the landslide victory of the administration over the mid-term election in May 2019⁴⁸, there have been several new developments in infrastructure governance by the administration three of which should be noted as an important new direction.

Revision of Flagship Project List in “Build, Build, Build” Program

In November 2019, the administration revised the list of flagship infrastructure projects. The revised list, which has 100 projects instead of 75, has 29 in the PPP mode while the previous list only had 9 projects under such finance mode although the majority of projects are still under public finance and ODA both in terms of number of projects and project cost (Table 5.1). Another notable development in this revision is the large share of the unsolicited mode under PPP, accounting for 73% of total PPP in terms of project cost.

⁴⁸ This mid-term election includes the Senate, the House of Representatives, state governor, mayor, and legislators of all level, but does not include the President. The Philippines President stays for one term of six years.

Table 5.1 Summary of revised list of flagship infrastructure project

Finance Source	Project Numbers	Project Cost (Billion Peso)	Project Cost (%)
Public Finance	22	172	3.9
ODA	49	2,447	55.7
PPP (solicited)	14	476	10.8
PPP (unsolicited)	15	1,297	29.6
Total	100	4,392	100.0

Source: compiled by author from NEDA data as of February 2020

Although this development to give a greater role to the PPP is welcome, there are two issues to note. First, on the issue of unsolicited PPP. One of the advantages of unsolicited proposals is that project preparation, including conducting a feasibility study, is done entirely by private proponents. In this context, unsolicited proposals appear as mechanisms to supplement government's capacity, sometimes inadequate, for infrastructure project preparation including the mobilization of manpower and financial resources to implement the project. The basic issue against unsolicited proposals is weak or even the absent of competition. Allowing a competitive bid challenge is one way to introduce competition, Engel, Fischer, and Galetovic (2014) argue that unsolicited proposals lack competition, suffer from opaqueness and leaves room for corruption. In the case of the Philippines, this competitive bid challenge is called the "Swiss challenge". The time period for a Swiss challenge is 60 working days in the Philippines. The original proponent is allowed to match a lower-priced challenge within this period of time. Considering the large scale and complex nature of infrastructure projects, 60 working days may not be enough to prepare a competitive bid to match the original proponent. Therefore, original proponents generally have a decisive advantage over other potential bidders. In the past, only one matching proposal in 12 unsolicited projects in the Philippines submitted under the Swiss challenge was awarded the contract over the original proponent (Llanto 2010).

Therefore, the issue of weak or absent competition under the unsolicited PPP should be carefully considered when implementing these unsolicited PPP projects.

Second, the administration is now not inclined to include such provision as: 1) automatic rate increases, 2) commitment of non-interference, and 3) non-compete clauses for the PPP project under the revised list as the administration deems that “the government has been tied to (these) provisions, which strip it of its ability to require concessionaires to improve services, all of which have been detrimental to the public interest”⁴⁹. First, on the automatic rate increases, government of the Philippines was required to approve the rate increases proposed by the private party based on a formula. Second, on the commitments of non-interference, there were several instances where the government was forced to commit not to interfere with the rate setting mechanism provided in the PPP contract. In cases where such interference was identified, the government made it liable to indemnify the private party for the loss it incurred by reason of said interference. This non-interference clause limits the government’s function to manage tariff setting. Third, on non-compete clauses, the government signed the PPP contract to maintain a monopolistic situation even in a situation when the PPP project company makes a profit beyond its expected return. In some cases,⁵⁰ the government made the commitment that there will be no other competing infrastructure in the same sector which may affect the original PPP project. If the government would like to develop a new infrastructure which may compete with the PPP project, the government is required to reimburse the market value of the infrastructure assets plus the future profit of the original business until the end of the PPP contract.

⁴⁹ The statement by Mr. Vivencio B. Dizon, the Presidential Adviser for Flagship Programs and Projects who also serves as the President and CEO of Bases Conversion and Development Authority (BCDA), on November 6, 2019 posted on the BCDA website. (<https://bcda.gov.ph/neda-approves-revised-list-infra-flagship-projects>)

⁵⁰ Examples include Mactan-Cebu International Airport PPP project.

It is understandable for the administration not to include such unfavorable conditions for future PPP contracts which may limit the government's function to regulate and provide better infrastructure service to infrastructure user under a reasonable tariff. However, since these three clauses favors the private side, the impact of the non-inclusion of these provisions on the investors' sentiment should be further examined.

“Low” Utilization of Financial Assistance from China

As discussed in Chapter 5.3.1, the Duterte administration eyes financial assistance from China as one of major financial sources for the “Build, Build, Build” infrastructure development program. During the first state visit of President Duterte to China in October 2016, 13 cooperation agreements were signed which consists of a private investment amounting to USD 15 billion and development assistance worth USD 9 billion. This USD 9 billion development assistance is also composed of commercial loans of USD 7 billion and USD 2 billion of concessional loans. The two countries also signed a Memorandum of Understanding on the cooperation on the Belt and Road Initiative (BRI) together with another 28 agreements and documents at the time of Chinese President Xi Jinping's visit to Manila in November 2018.

However, since the start of the administration, despite the agreements made as mentioned above, the two countries have so far signed only three loan agreements worth USD 493.08 million: 1) Chico River pump irrigation project (USD 62.09 million), 2) New Centennial Water Source-Kaliwa Dam (USD 211.21 million), and 3) Philippines National Railways-South Long Haul Project (USD 219.78 million) together with grant assistance for construction of two bridges crossing the Pasig River worth of USD 99.27 million.

Two China-funded infrastructure projects signed during Arroyo administration were cancelled due to allegations of corruption, as discussed in Chapter 5.2.3. These earlier cases together with the growing global concern on debt trap issue associated with financial assistance from China, the Philippine government seems to be cautious about actually availing assistance from China, as then Socioeconomic Planning Secretary Ernesto Pernia mention as “we have been very cautious and strict in scrutinizing” loan agreements and their related contracts⁵¹. Although cautious and strict scrutiny of foreign loan for infrastructure project is necessary for both sound debt management and infrastructure governance regardless of origin of such loan, this may affect implementation of “Build, Build, Build” Program, at least in part.

Although the Duterte administration had high expectation for the financial assistance from China to support “Build, Build, Build” program from the beginning, this “slow” process for preparation and approval process for the financial assistance from China paved the way for increase of PPP projects in the second half of the administration as discussed.

Review of the “Onerous” PPP Contracts

In December 2019, President Duterte ordered the filing of criminal charges against the two water private utilities in Metro Manila, Manila Water and Maynilad Water, and demanded new contracts to replace “onerous and disadvantageous” contracts. He also tasked the Department of Justice and Metropolitan Waterworks and Sewerage System (MWSS) to conduct a re-negotiation of new concession agreements for the years between 2022 and 2037 which were agreed during Arroyo administration in 2009.

⁵¹ de Vera, Ben, “China ‘slow’ to provide loans for Duterte’s ‘Build, Build, Build’ — Pernia”, Philippine Daily Inquirer, February 03, 2020, <https://business.inquirer.net/289590/china-slow-to-provide-loans-for-dutertes-build-build-build-pernia>

As discussed in Chapter 5.2.1, concession contracts between MWSS and two water private companies were signed in 1997 for 25 years until 2022. One of the concerns of the government on the concession agreements is a rebasing clause, namely the prohibition against government interference in rate-setting and the provisions on indemnification for possible losses in the event of such government interference. This provision allows the adjustment of water rates every five years to enable the water companies to recoup their investments and realize a reasonable rate of return on their investment. Because of this provision, the President referred to the agreement as an “onerous” contract.

In the rate rebasing in 2013, during Aquino III administration, two concessionaires were not able to get approval from the government for the rate increases. They filed for international arbitration with the International Chamber of Commerce, in Singapore. In December 2019, the permanent court of arbitration in Singapore ordered the Philippine government to pay Manila Water 7.4 billion peso (about USD 148 million) to recoup foregone revenues from rate increases that were rejected by regulators. Maynilad Water won a separate arbitration in 2018. The above statement by the President was made after this court orders.

This rebasing provision is related to: 1) automatic rate increases and 2) commitments of non-interference argued by Mr. Vivencio B. Dizon, the Presidential Adviser for Flagship Programs and Projects, mentioned earlier in this Chapter. Although this water concessionaire arrangement in Metro Manila has been regarded as one of the largest and most successful PPP projects in the sector globally, the review of the “onerous” contract, which was already agreed by the past administration, by the Duterte administration may imperil the principle of the “sanctity of contract” and give negative signals to potential private investors for PPP in the Philippines in the future. Also, this re-negotiation for the already agreed contract is against international

standards. This development is regarded as a negative side of infrastructure governance of Duterte administration.

This issue is partly related to a loan from China towards the Kaliwa Dam project, which will be constructed by China funds as one of the three loans already signed as mentioned earlier in this Section, will be one of the inevitable new water sources for the two water concessionaires in Manila. The administration's position is that there should be the commitment of the two concessionaries to share as their obligation in the repayment of the loan from China.

Move to Amend the Public Service Act

Article 12, Section 11 of the 1987 Constitution stipulates a restriction on foreign capital ownership of public utilities. The operation of the public utility infrastructure is only allowed for Philippine nationals or corporations registered with the Philippines' Securities and Exchange Commission (SEC) with at least 60% of the shares shall be owned by Philippine nationals. In the Foreign Investment Act of 1991, for industries listed in the "Foreign Investment Negative List", foreign ownership is stipulated up to 40%. PPP projects are included in the current negative list and, therefore, are subject to the restriction on foreign ownership.

It may not always be optimal from the viewpoint of users of infrastructure and taxpayers to only have domestic conglomerates as participants in PPP projects. It is necessary to look into the foreign capital restriction, which constrains the competitive environment for PPP projects in the Philippines. From the viewpoint of reducing the burden on infrastructure users and improving the quality of infrastructure services, it is important to secure competition among domestic and foreign companies.

Against this background, there is a move in the House of Representatives to approve House Bill 78 which seeks to amend the Public Services Act of 1936 or Commonwealth Act 146 of the Philippines. The bill aims to amend the Act to allow full foreign ownership in certain public service sectors such as transportation and communications by limiting the definition of public utility in the Act to distribution and transmission of electricity, water distribution, and sewerage pipeline system which remain to be public utilities and subject to the 1987 Constitution's 60%-40% restriction on foreign ownership.

Currently, the definition of public utility is in accordance with the Public Services Act and other jurisprudence issued by the Supreme Court. There is no distinction between "public utility" and "public service" as ruled by the Supreme Court. Some of the criteria included in the Bill for classification of public utility are: 1) the person regularly supplies and directly transmits and distributes to the public through a network a commodity or service of public consequence and 2) the commodity or service is necessary for the maintenance of life and occupation of residents.

Although the amendment of the Act is still in the deliberation stage in the lower chamber, this legislative reform, if passed, is expected to increase the competition in developing and delivering infrastructure services in the transport and communication sector and thereby would result in a possible improved quality of services with a lower tariff.

5.4 Factors Affecting Infrastructure Governance in the Philippines

In general, the factors that affects infrastructure governance include economic condition, fiscal situation, political condition, government capabilities for planning and implementation of infrastructure, and business interests of both international, local

private firms for infrastructure businesses, and international relations. Of these, as infrastructure governance over the past 30 years in the Philippines and as Chapter 5 suggests, the economic and fiscal factors of how to finance infrastructure development has been relatively important. From this point of view, securing the financial resources for infrastructure development through fiscal reforms and mobilizing private funds by promoting PPP is one of most crucial issues. In addition to this, in the case of the Philippines, the political factor that the term of office of the president is only one term for six years is considered to affect infrastructure governance.

Based on this, the main factors of the policy change from the Aquino III administration to the Duterte administration concerning infrastructure governance discussed in Chapter 5 can be considered as follows. First is the economic and fiscal condition. At the start of the Duterte administration in June 2016, the fiscal situation in the Philippines including fiscal balance to GDP ratio and government debt to GDP ratio has improved compared to the beginning of the Aquino III administration as shown in Figures 5.3 and 5.4. Therefore, the issue of securing financial resources for infrastructure development was relatively not an issue.

In addition to this, the Duterte administration introduced five packages of tax reforms to widen the fiscal space and increase the budget for infrastructure development. The first package of the comprehensive tax reform, the TRAIN Law (Republic Act No. 10963), was enacted in January 2018 as discussed in Chapter 5.3. The fact that rating of the Philippine government bond was upgraded to investment grade in 2013 under the Aquino III administration and maintained thereafter has also influenced the policy change in the Duterte administration.

Furthermore, there is another factor which affected the infrastructure governance of the Duterte administration which is related to international relations. As for economic cooperation for infrastructure development, in addition to traditional donors,

that include the World Bank, ADB, Japan, USA and Australia, the Duterte administration expects a significant financial cooperation both from the Asian Infrastructure Investment Bank (AIIB)⁵² as well as China unlike its predecessor. Economic cooperation from China was suspended after the Aquino III administration filed a lawsuit to the international tribunal in The Hague regarding the territorial dispute over the South China Sea in 2013.

Just less than a month after the establishment of the Duterte administration, the international tribunal in The Hague ruled, in July 2016, in favor of the Philippines over China in a maritime dispute concluding China has no legal basis to claim historic rights to the bulk of the South China Sea. Instead of claiming victory, the Duterte administration decided to shelve the ruling and approached China to strengthen its ties with China administration. President Duterte visited Beijing in October 2016, as discussed in Chapter 5.3, and signed a large-scale financial cooperation agreement with Beijing. This also affected the policy shift from PPP to public finance over infrastructure governance.

Secondly, the fact that the term of office of the president is only one six-year term also influenced this policy shift. The progress of PPP project planned and started under the Aquino III administration was slow, and in particular, it took time to coordinate with the private sector during the bidding process as discussed in Chapter 5.3.2. On the other hand, the traffic congestion problem in Metro Manila which is mainly caused by the progress of motorization due to economic growth and the slow progress of infrastructure development, has been highlighted as a social problem, and it was one

⁵² The Philippine government decided to join AIIB in December, 2015 as the last founding member of the China-led AIIB amid dispute over the South China Sea. It was just six months prior to the inauguration of the Duterte administration.

of the issues of the 2016 presidential election ⁵³. For this reason, the Duterte administration, during the 6-year administration term, has prioritized rapid large-scale infrastructure development as a "Build, Build, Build" program through public investment to avoid PPP which seemed to be overly slow in progressing.

In fact, the "0 to 10 point Socio-Economic Agenda", which is the most important 10 socio-economic policies as discussed in Chapter 5.3, announced prior to the inauguration of the government in June 2016, stated that PPP should be emphasized in infrastructure development. However, in the "Build, Build, Build" plan, which is a large-scale infrastructure development plan announced in April 2017, the financial resources were changed to focus on public investment including ODA rather than PPP. During this mentioned time, it can be seen that policy changes were made within the administration due to the above development. However, it should be noted, as argued in Chapter 5.3, infrastructure development not only through PPP but also by public finance requires a long time to plan and implement and delays in planning, procurement, and construction of large-scale infrastructure projects can happen regardless of finance option.

Then what are the factors affecting the partial return to PPP in the second half of the Duterte administration discussed earlier? The revision of the infrastructure flagship project made in November 2019 is also considered to be influenced by the economic and financial conditions and the time constraints (political conditions). First, regarding the economic and fiscal situation, including the government bond rating, there have been no major changes since the start of the administration. However, there are the following developments that can be said to be unexpected factors for the administration.

⁵³ During election campaign, President Duterte said he would solve the congestion problem in Metro Manila in six months.

First, regarding the above-mentioned tax reform, the first package was enacted as a law in January 2018, but the remaining four packages were still in the either deliberation stage within House of Representatives and the Senate chambers or still yet to submit to the both chambers. In addition, with regard to economic cooperation from China, although two countries signed cooperation agreements amounting USD 9 billion for development assistance, the loan agreements were signed only amounting to USD 493.08 million in total so far, as discussed earlier in Chapter 5.3.4. For these reasons, it can be said that the problem of securing financial resources for infrastructure development is becoming apparent.

Regarding the time constraint, although it was already less than three years, at the time of the revision of the infrastructure flagship project made in November 2019, until the end of the Presidential term in June 2022, there are many infrastructure projects in flagship list of the "Build, Build, Build" program which will not be started the construction phase yet and/or are at risk of not being completed within the administration term. It can be said that the administration recognizes that even in the case of infrastructure development by public finance, infrastructure development takes time and does not necessarily progress as planned by the administration.

It is considered that this delay in progress of flagship projects is partly due to the government's inability to plan and implement infrastructure development projects, similar to the delay in the Aquino III administration's PPP project. As discussed in Chapter 1.2.2, under the unsolicited PPP, private sector formulates a concrete business plan, proposes the project plan to the government, and the project is implemented and operated by the private sector with the concession from the government. In light of this, it can be seen that the Duterte administration has changed its infrastructure governance to "dependent" on the unsolicited PPP which are initiated by the private sector and mostly by the local Philippine conglomerates.

5.5 Summary

This Chapter analyzed policy changes in infrastructure development over the five administrations in the Philippines over three decades, although the emphasis was on two recent administrations, namely Aquino III and Duterte administrations. While infrastructure development has always been one of center pillars of the socio-economic development agenda over the time with government's expressed commitment for development of infrastructure, the infrastructure gap in the Philippines has not substantially narrowed over the last five infrastructure regimes.

Policy reforms and developments related to infrastructure have been carried out mainly in four different areas: laws / regulations, finance, including fiscal reform and ODA, specific sectors / projects (with focus on financing and procurement option), and institutional framework. On infrastructure financing, there have been two main areas of reform: 1) improving fiscal space and 2) better utilization of private finance. Faced with a high public debt and low revenues, each administration in the last three decades introduced major fiscal reforms to finance development priorities, including public infrastructure. Also, introduction of private finance through PPP has been another major policy measure for development of infrastructure in the Philippines. This is one answer to the seemingly contradicted situation of having less developed infrastructure at the same time having relatively a well-developed PPP market in the Philippines as reviewed in the conclusion of the Chapter 4.

Developments in the second half of Duterte administration suggest partial return of PPP. Although utilization of both finance option of public finance and PPP in a more balanced manner is in the right direction, dependency on the unsolicited mode of infrastructure development, poses some concern as discussed in this Chapter.

Chapter 6 Issues in PPP Infrastructure Development in Indonesia

This Chapter discusses a case of PPP infrastructure development in Indonesia as a comparison case of the Philippines and to learn if there are any lessons for the Philippines. Indonesia was selected because the two countries have similarities in infrastructure development status, PPP investment records, economic development stage and both countries are located in Southeast Asia.

PPP infrastructure development in Indonesia started in the 1990s, but the substantial regulatory framework of PPP was not introduced until 2005 under the Yudhoyono administration. Subsequently, the PPP policy has been improved, including by the Presidential Regulation No. 38 of 2015 in 2015 under the President Joko Widodo administration. With this background, the country's PPP investment performance has been remarkable over the past few years. Of the USD 67.2 billion PPP investment in the country from 1990 to 2019, about USD 31 billion over three years (2016 to 2018) was invested accounting for over 46% to the total making Indonesia the largest PPP invested country within ASEAN and one of the top 10 emerging economies with improved PPP frameworks.

On the other hand, there are still issues with the PPP program in Indonesia. This Chapter identifies key issues of the PPP program namely: 1) regulatory framework, 2) institutional framework, 3) institutional capacity, and 4) financial facilities with policy recommendations. Chapter 6.1 outlines the current status of infrastructure development, Chapter 6.2 illustrates achievements in PPP in Indonesia, Chapter 6.3 discusses the transition of the PPP policy in Indonesia, Chapter 6.4 argues key issues of PPP infrastructure development in Indonesia including policy recommendations, and Chapter 6.5 discusses comparative studies with the case of the Philippines and extracts lessons for the Philippines.

6.1 Current Status of Infrastructure Development in Indonesia

Regarding the current status of infrastructure, the ranking of the Global Competitiveness Index by the World Economic Forum is often cited for international comparison in recognized studies. According to the Index, the ranking of infrastructure development is shown in Table 6.1. Indonesia rank and score are not among the lowest in comparison with other ASEAN peer countries, however its ranking has not been improved much over the years.

Table 6.1 Infrastructure Ranking and Score⁵⁴ in ()

Country	2010	2019
Indonesia	82 (3.6)	72 (67.7)
Philippines	104 (2.9)	96 (57.8)
Thailand	35 (4.8)	71 (67.8)
Vietnam	83 (3.6)	77 (65.9)

Source: World Economic Forum, 2010. *The Global Competitiveness Report 2010-2011*. Geneva: World Economic Forum and World Economic Forum, 2019. *The Global Competitiveness Report 2019*, Geneva: World Economic Forum.

Another infrastructure index often used is the UNESCAP's Access to Physical Infrastructure Index (APII) which is based on data from 2013 to 2015 on the status of infrastructure development in transportation, electric power, ICT, water supply and sanitation in 41 Asian and Pacific Region countries (UNESCAP (2017b)). Among the 41 countries, Indonesia is ranked 27th with a score of 0.278, far below the average of 0.431 against other emerging countries in the region and one of the lowest among all the ASEAN countries as shown in Table 6.2.

⁵⁴ Scale of score has changed from the 2018 report. Until 2017, the scale of score was 1-7, while since 2018, the scale of score has changed to 1-100. Therefore, the scores of 2010 and 2019 are not actually comparable.

Table 6.2 APII Ranking and Score

Country	APII Ranking	APII Score
Indonesia	27	0.278
Philippines	24	0.336
Thailand	15	0.418
Vietnam	14	0.419
Average for the Region ⁵⁵	-	0.431

Source: United Nations Economic and Social Commission for Asia and the Pacific, 2017. *Asia-Pacific Countries with Special Needs Development Report, 2017: Investing in infrastructure for an inclusive and sustainable future*. Bangkok: UNESCAP

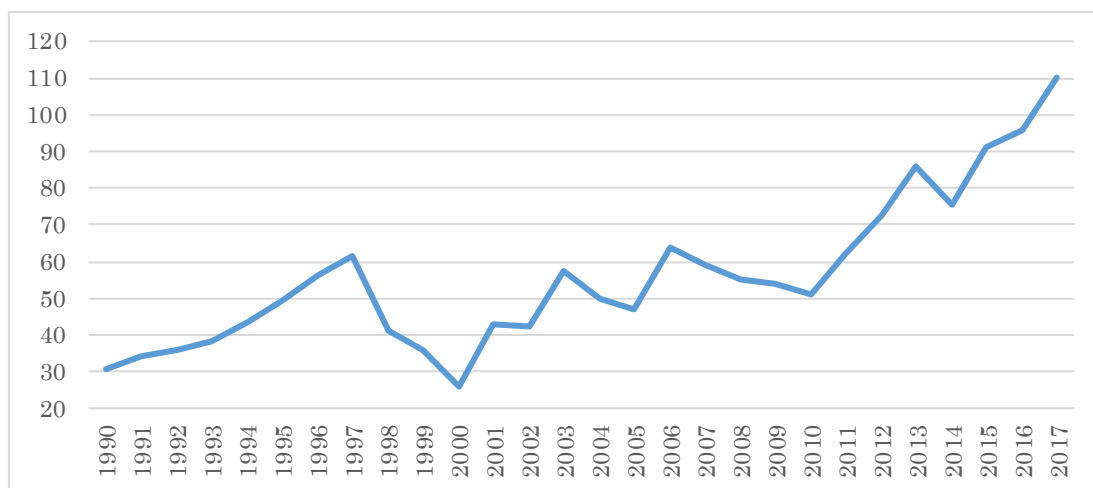
With this background, ADB (2017) informs that the investment needs for Indonesia during the term of 2016-2030 is estimated as USD 1,108 billion which is equivalent to 5.5% of GDP on the baseline estimate, and under the climate-adjusted estimates, the figures increase to USD 1,229 billion which is equivalent to 6.0% of GDP. These numbers suggest a very challenging future environment for Indonesia.

One of the reasons behind this relatively reduced infrastructure development in Indonesia is the low level of public investment. Although Figure 6.1 shows that the general government gross fixed capital formation⁵⁶ has been increasing over the years, the same capital formation against GDP has been very low, a pre-crisis level of 4.6% in 1997 and has shown an even higher rate in recent years (Figure 6.2). As shown in Figure 6.3, Indonesia's public investment has consistently been the lowest among ASEAN peer countries in the recent past.

⁵⁵ This refers to the average of the category of "developing countries" in the report.

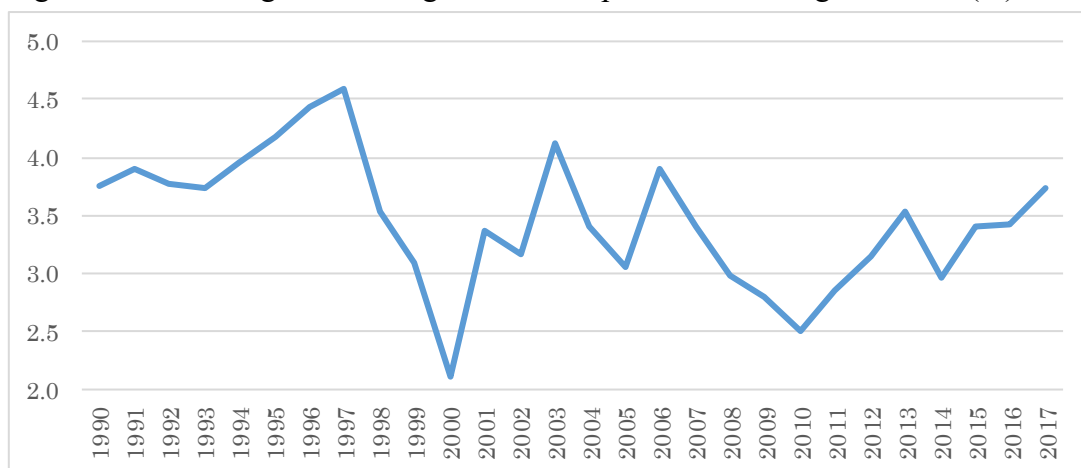
⁵⁶ Footnote 27 will be applied here and subsequent parts as well.

Figure 6.1 General government gross fixed capital formation (USD billion)



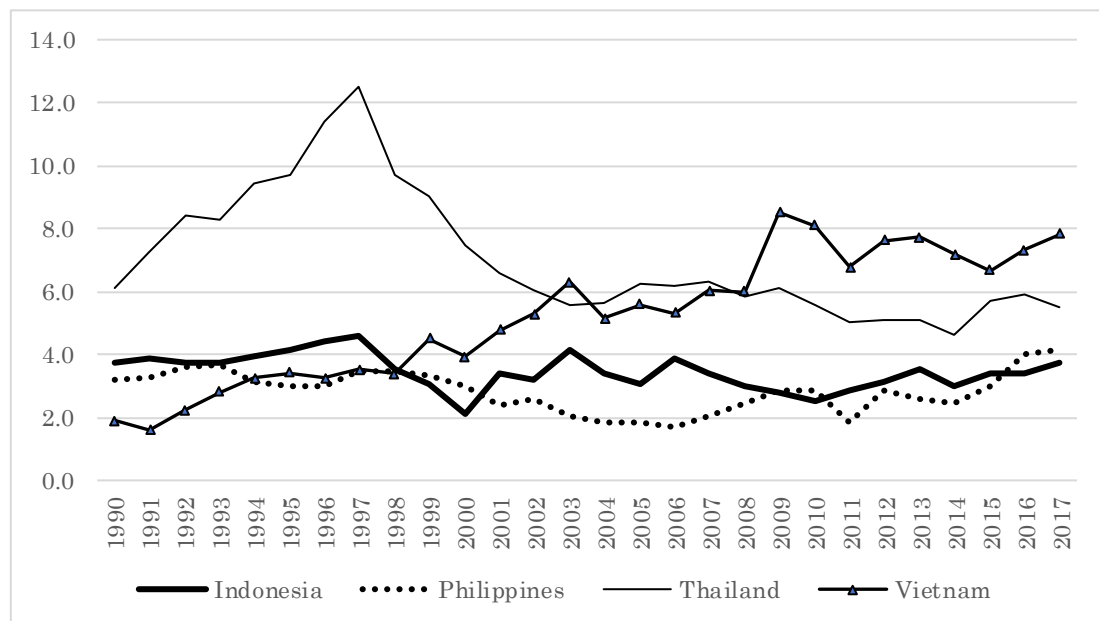
Source: Investment and Capital Stock Dataset of IMF

Figure 6.2 General government gross fixed capital formation against GDP (%)



Source: Investment and Capital Stock Dataset of IMF

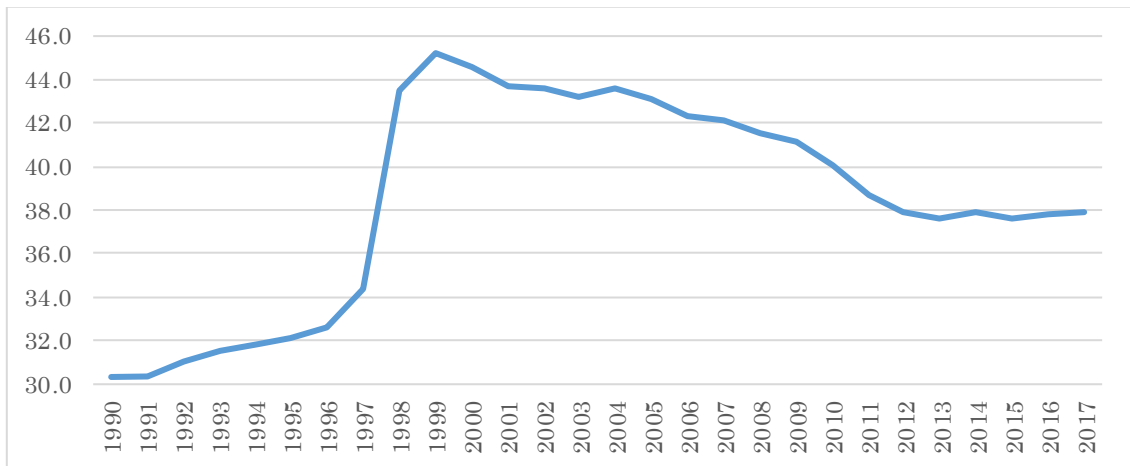
Figure 6.3 Public Investment in percent of GDP for selected ASEAN countries (%)



Source: Investment and Capital Stock Dataset of IMF

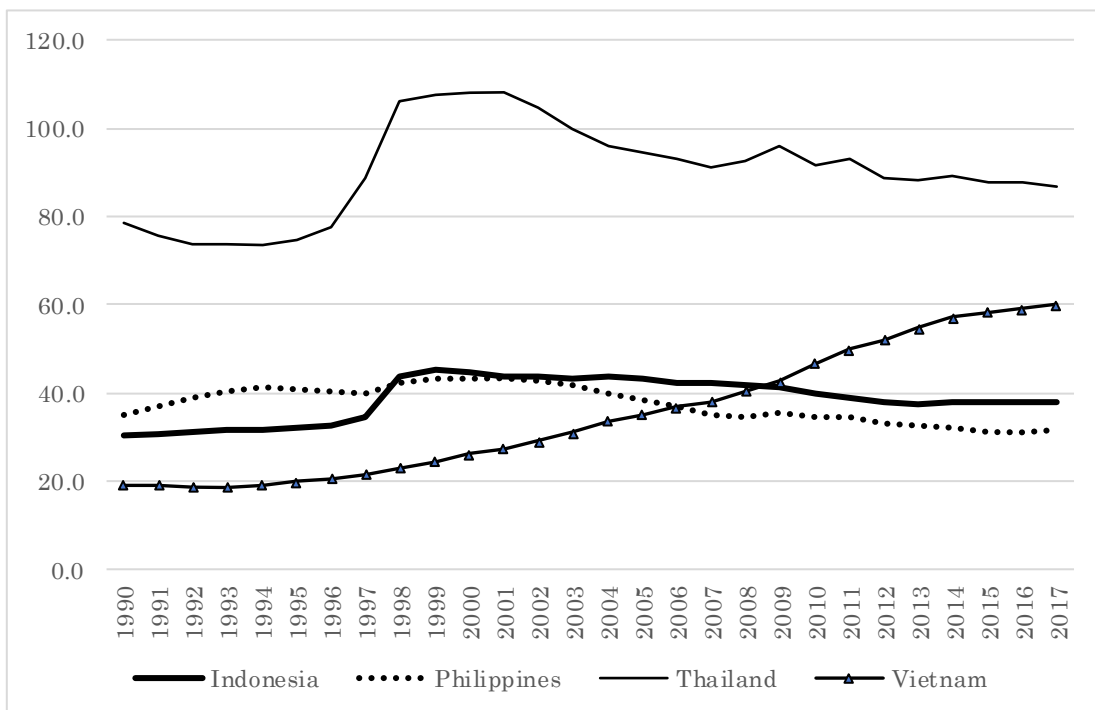
As a result, Indonesia's general government capital stock against GDP eroded steadily from the late 1990's with its peak of 45.2% in 1999 (Figure 6.4). This trend is partly due to the financial crisis in 1997. Indonesia's general government capital stock was 37.9 % of the GDP in 2017. This is very low by emerging market economic standards. According to the IMF (2019b), the average emerging market economies' capital stock in 2015 was 93% of GDP which is more than two times than that of Indonesia. The country's public capital stock is also one of the lowest among ASEAN peer countries as shown in Figure 6.5.

Figure 6.4 General government capital stock against GDP (%)



Source: Investment and Capital Stock Dataset of IMF

Figure 6.5 Public capital stock as a percentage of GDP for selected ASEAN countries



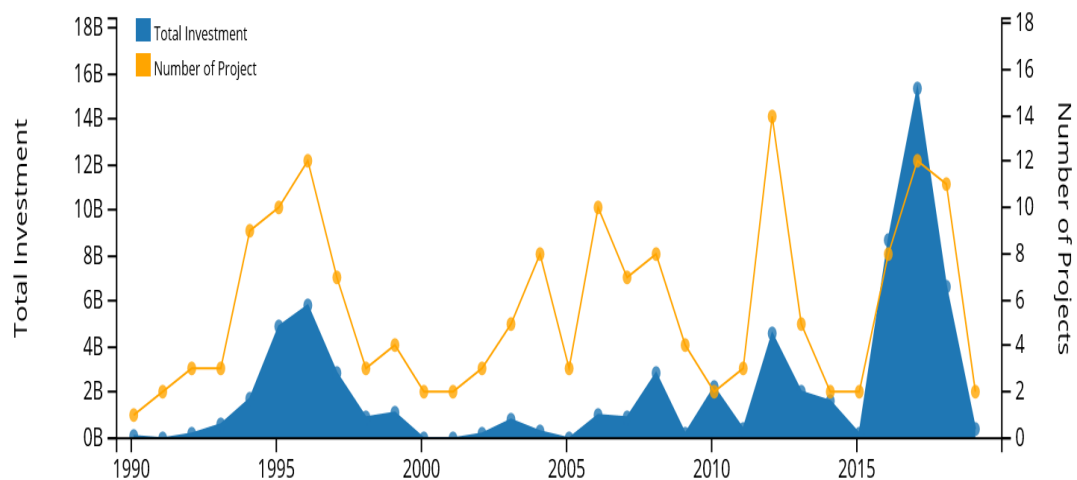
Source: Investment and Capital Stock Dataset of IMF

6.2 Achievements in the PPP Infrastructure Development in Indonesia

Contrary to the infrastructure development situation, Indonesia's achievements in PPP Infrastructure Development are relatively positive amongst other ASEAN countries.

According to the World Bank's PPI Database, PPP projects in Indonesia accumulated USD 67.2 billion totaling 140 projects from 1990 to 2019. In terms of investment value, Indonesia is the seventh largest country among the emerging countries. Historical investments in PPP for Indonesia are shown in Figure 6.6 with the first peak in 1996 as USD 5.8 billion and the second peak and largest ever in 2017 as USD 15.4 billion. Figure 6.6 shows a recent huge investment increase in 2016 to 2018, namely USD 31.0 billion for just these three years which accounts for about 46% of whole investments between 1990 and 2019. This is partly due to the outcome of recent improvements in the PPP framework in Indonesia which will be discussed in Chapter 6.3.3.

Figure 6.6 Investments in PPP infrastructure projects, 1990-2019 in Indonesia (unit: USD billion for total investment)



Source: World Bank PPI Database

A comparison (number of projects and investment amount) with other ASEAN neighboring countries is shown in Table 6.3. The table also shows that the country has

a relatively good record of PPP, the largest PPP country among selected ASEAN countries in terms of investment volume.

Table 6.3 PPP projects for 1990-2019

Country	Project Numbers	Investment (USD million)
Indonesia	140	67,274
Philippines	166	57,410
Thailand	181	43,821
Vietnam	123	22,918

Source: World Bank PPI Database

The World Bank PPI Database also shows that PPP projects in Indonesia for the electricity sector accounts for 50.4% of the total number of projects and 63.7% of the investment, while the road sector accounts for 20.1% and 11.8%, respectively. Also, among the top 10 private sponsors by investment in Indonesia during 1990-2019, only three are Indonesian corporations, others are five Japanese, one Chinese and one Korean. Investments made by those three Indonesian sponsors, represent USD 10,314 million, and accounts for 32.0% out of investment made by the top 10 sponsors, which is USD 32,201 million. This is very different from the case of the Philippines which was discussed in Chapter 6.5. In case of the Philippines, there are six local sponsors out of top 10 sponsors which accounts for 77.5% of the investment made by top 10 sponsors. This is partly due to foreign equity restriction imposed in the Philippines and presence of strong conglomerates which is discussed in Chapter 8.2.4.1.

On assessment of the PPP enabling environment, the Economist Intelligence Unit (EIU), the world leader in global business intelligence, for the year 2018 has tabulated the PPP environment in Asian countries including the legal framework, government organization, PPP project implementation, investment environment, and finance.

Indonesia's score is marked as 61.0 (full mark is 100.0) which ranks ninth among all Asian countries. It is noted that Indonesia's last score in 2011 and 2014 were 46.1 and 53.5, respectively, showing a steady improvement in the PPP environment of Indonesia (Table 6.4). This reflects various PPP promotional measures implemented during these years, which is discussed in Chapter 6.3. Among the 5 different categories⁵⁷, Indonesia's score was above the global average for regulations, investment & business climate, and finance, while institutions such as institutional framework and maturity are below the global average (Table 6.5).

Indonesia certainly lacks maturity or experience in PPP. Although the country is one of the top 10 PPP invested countries in the developing and emerging world, the country has just emerged as a PPP use country in recent years after 2016. Institutions have bottlenecks which will be discussed later. Therefore, EIU's relatively low score for maturity and institutions are acceptable. However, the score for the regulations, which include legal framework, seems too high for the country for the reasons to be discussed later.

Table 6.4 EIU score and ranking⁵⁸ in () for PPP in 2011, 2014, and 2018

Country	2011	2014	2018
Indonesia	46.1 (9)	53.5 (9)	61.0 (9)
Philippines	47.1 (8)	64.6 (7)	81.0 (2)
Thailand	45.3 (10)	50.4 (10)	83.0 (1)
Vietnam	26.3 (14)	33.1 (18)	66.0 (7)

Source: Economist Intelligence Unit (2015) and (2018)

⁵⁷ Regulations, institutions, maturity, investment & business climate, and finance.

⁵⁸ 2018 ranking, in total 19 countries, does not include advanced economies in Asia, such as Australia and Japan unlike for ranking in 2011 and 2014, in total number of 21 countries. Therefore, rankings for 2018 and 2011/2014 are not comparable.

Table 6.5 EIU score and ranking of Indonesia in each category

Category	Score/100	Rank/19
Overall score	61	9
1) Regulations	78	3
2) Institutions	53	14
3) Maturity	50	15
4) Investment & business climate	79	6
5) Financing	52	6

Source: compiled by author using data from The Economist Intelligence Unit (EIU), 2018. *Evaluating the environment for public-private partnerships in Asia: The 2018 Infrascope*. The EIU, London

In the EIU report, the score was divided into three categories: “Mature” for scores greater than 80, “Developed” for scores greater than 60, and “Emerging” for scores greater than 30. Indonesia was in the group of “Emerging” at the time of the 2011 and 2014 survey, but in 2018, advanced to the category of “Developed”.

World Bank (2018) assessed the PPP environment of 135 economies in four aspect, namely: the main three stages of the PPP process, 1) preparation, 2) procurement, and 3) contract management in addition to the management of unsolicited proposals (USPs)⁵⁹ with a scoring of 1-100. Table 6.6 shows the score for all four areas of 1) to 4) for selected countries in Southeast Asia and lower-middle-income countries’ average which Indonesia belongs. It is noted that Indonesia’s score is higher than the average of the Lower-middle-income country group in all four areas, though the country’s score is not the best among some Southeast Asian countries. The score of Indonesia is high in “Procurement”. This reflects various PPP promotion measures implemented especially since 2015 by the Indonesian government.

⁵⁹ Please refer to Chapter 1.2.2 for the explanation of the unsolicited form of PPP.

Table 6.6 Score for PPP Regulatory Framework (1-100)

Country	Preparation	Procurement	Contract Management	USPs
Indonesia	50	74	58	58
Philippines	85	76	88	83
Thailand	27	45	58	Not regulated
Vietnam	77	77	62	25
Lower-middle-income countries' Average	44	58	52	53

Source: compiled by author using data from World Bank. 2018. *Procuring infrastructure public-private partnerships report 2018*. Washington DC: World Bank

ADB (2019) also tracks the development of the PPP business environment as well as the challenges of doing PPPs in selected Asian countries including Indonesia in the four categories, namely: 1) regulatory framework, 2) institutional capacity, 3) PPP market maturity, and 4) financial facilities. Although the report does not include a ranking and score value for comparison among countries studied, it points out that the country improved the PPP regulatory framework by the institutionalization and promotion of PPP with continuous efforts.

6.3 Transition of PPP policy in Indonesia

This section describes the transition of the PPP policy in Indonesia. The transition of PPP policy in Indonesia can be divided to three periods: 1) founding period (up to year 2005), 2) preparing period (between 2005 and 2014), and 3) developing period (since 2015).

6.3.1 Founding Period (up to year 2005)

Indonesia's PPP started with two sectors, electric power and road development based on Law No. 15 of 1985, Government Regulation No. 10 of 1989, and Presidential Decree No. 37 of 1992 for electric power and Law No. 13 of 1987 and Government Regulation No. 8 of 1990 for the road sector. Presidential Decree No. 55 of 1993 was also introduced for land acquisition. The first Indonesian PPP regulation which covers all sectors was Presidential Decree No. 7 of 1998 with the assistance by the World Bank and USAID (United States Agency for International Development). The Decree stipulated a partnership between the government and the private sector in infrastructure development and management.

With the introduction of these laws and regulations, PPP investment increased especially in the electric power sector, mostly in the form of IPP (Independent Power Producer). However, after 1997, investment have steadily decreased both in terms of volume of investment and number of PPP projects as shown in Figure 6.6 partly due to the financial crisis of 1997. During this period (1997 to 2000), government infrastructure spending in terms of percentage of GDP had a sharp drop from 4.6% to 2.1% (Figure 6.2) which was also affected by the Asian financial crisis.

6.3.2 The Preparing Period (2005 to 2014)

The second period of PPP project accelerated activity in Indonesia started with "Indonesia Infrastructure Summit 2005" which called for PPP. Presidential Regulation No. 67 of 2005 was introduced to replace Presidential Decree No. 7 of 1998 for the PPP framework. The regulation was strengthened by Presidential Regulation No. 13 of 2010, No. 56 of 2011, and No. 66 of 2013. These regulations stipulated the 1) eligibility of types of PPP projects and government agencies, 2) role of the private

sector, and 3) responsibilities of the government including the Ministry of Finance in support and guarantee of the project framework.

During this period, the Yudhoyono administration unveiled the Master Plan for the Acceleration and Expansion of Indonesian Economic Development in 2011. The 4,012 trillion Rupiah (USD 440 billion) plan estimated that more than half of the financing requirements would come from the private sector including PPP. However, the Master Plan was not implemented as planned, as Ray and Ing (2016) argue since the plan is essentially only a list of infrastructure and industrial projects, thus it is widely forgotten.

Important government financial support mechanisms were also introduced in this period. First, the government guarantee. If a 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, it is expected that the government pays the contingent liabilities. In response to this, Indonesia Infrastructure Guarantee Fund (IIGF) was established as a state-owned company to appraise and guarantee infrastructure PPP projects in 2009 with assistance by the World Bank. IIGF guarantees political risk, performance risk⁶⁰, and demand risk. Those risks are evaluated by the Risk Management Unit of the Ministry of Finance. It should be noted that only risks which are shouldered by the government and state-owned enterprises are guaranteed. Also, payment from IIGF to private party are recovered from the concerned government agency later based on recourse agreement concluded from time to time between IIGF and the concerned government agency.

Second important development on the financial support by the government in PPP is the creation of PT Sarana Multi Infrastruktur (PT SMI) by Government Regulation No. 75 of 2008 which provides loans and equity investment to PPP projects. The state

⁶⁰ The risk of under-performance of the completed project

own enterprise (SOE) also provides advisory services and project preparation and development facilities for PPP projects.

Third, under the PT SMI, Indonesia Infrastructure Finance (IIF) was established in 2010 as a private institution which also provides financing for PPP projects. IIF's shares are held mainly by PT SMI, the International Finance Corporation (IFC), World Bank Group member, the ADB, the German Investment Corporation, and Sumitomo Mitsui Banking Corporation of Japan among others.

The fourth government financial support for PPP is the introduction of the Viability Gap Financing (VGF) scheme was set up in 2012 by Ministry of Finance Regulation No. 223 of 2012 which was later amended by the Ministry of Finance Regulation No. 170 of 2018. VGF is government support through the Ministry of Finance, in the form of a financial contribution given to PPP Projects with economic viability to improve its financial viability and effectivity. Government support is given to PPP projects to partially fund the construction costs of PPP projects, provided that such funding does not dominate the construction cost of the PPP project.

In line with the above discussion, land acquisition, Law of Land Acquisition for Public Use (Law No. 2 of 2012) was enacted to facilitate timely acquisition of land for infrastructure projects thereby giving certainty and flexibility to the private sector at that the development stage.

In 2014, with the Presidential Regulation No. 75 of 2014, the Committee for Acceleration of Priority Infrastructure Delivery (KPPIP) was established to act as the point of contact to facilitate coordination for national strategic projects and priority projects. With its vision of "Champion in Managing and Delivering the Strategic and Priority Infrastructure Projects in Indonesia", KPPIP's main objective is the coordination in decision-making processes to encourage settlement of issues arising from the lack of effective coordination between the various stakeholders. KPPIP is chaired by the Coordinating Minister of Economic Affairs with membership

comprising of the Minister of the National Development Planning, the Minister of Finance, the Minister of Agrarian and Spatial Planning, the Coordinating Minister of Maritime Affairs and the Minister of Environment and Forestry. As of October 2019, KPPIP has identified 37 priority projects covering eight sectors.

However, even with the establishment and series of improvements in PPP framework, actual investments in PPP have not substantially increased during the period of 2005-2014 as shown in Figure 6.6.

6.3.3 Developing Period (since 2015)

Infrastructure development was one of center pieces of President Joko Widodo's election campaign. With this back ground, infrastructure policy became a top concern for the key economic policy-makers of Joko Widodo administration which started in October 2014.

With this background, the "National Development Plan 2015-2019" of Indonesia was announced. The plan requires USD409 billion to cover infrastructure investment which includes 1,000 km of highways, 2,650 km of roads, 3,258 km of railways, 15 new airports, 24 new seaports, and bus rapid transit in 29 cities, among others. The financing plan of this Development Plan is the national budget (50%), state-owned enterprises (SOEs) (19%), and private or PPP (31%), which clearly shows a high expectation by the administration for PPP programs. Annual investment volume over this planned period is about USD 82 billion an equivalent to 9-10% of the nominal GDP. It should be noted that this investment volume is very challenging considering the recent general government gross fixed capital formation against GDP is around 3% as shown in Figure 6.2. To fund USD 127 billion through PPP over a five-year period is also very challenging even for OECD countries with a mature PPP environment.

One of the developments to support the Development Plan was shifting the budget from energy subsidies to other prioritized area including infrastructure. Another and more important development are the introduction of Presidential Regulation No. 38 of 2015 which covers the cross-sector PPP regulatory framework that replaces Presidential Regulation No. 76 of 2005 and supplemental regulations. The regulation includes expansion of coverage of the PPP in the social sector such as education, sports, health, and public housing. Allowing bundling of several PPP projects into one PPP project is another feature of the regulation.

However, the most significant item is the introduction of the availability payment scheme⁶¹ as a source of investment return, in addition to the user fee payment scheme. The availability payment scheme is one of the popular schemes found in mature PPP markets that aims to attract private participation in PPP. This scheme is targeted for the sectors where the government is not an off-taker of the infrastructure services. It should be noted that the availability payment scheme will not be provided for the PPP project supported by VGF in case the central government is the contracting agency⁶².

Regarding land acquisition which has been often mentioned as one of the main issues for delay in infrastructure development in Indonesia, Presidential Regulation No. 30 of 2015 was introduced to allow the private investor for PPP projects to acquire land on behalf of the government first which is reimbursable by the government to facilitate land acquisition and expedite implementation of infrastructure project.

⁶¹ Availability payment scheme is an annuity payment scheme operational during the PPP contract period.

⁶² In case the local government is the contracting agency, both VGF and availability payment can be provided.

6.4 Issues in Promoting PPP in Indonesia

In this section, key issues for the further improvement of the PPP environment in Indonesia are discussed in four areas namely: 1) regulatory framework, 2) institutional framework, 3) institutional capacity, and 4) financial facilities.

6.4.1 Regulatory Framework

Needs for a Consolidated and Comprehensive PPP Legal Framework

In Indonesia, PPP is defined as a project being handled based on Presidential Regulation No. 38 of 2015 and its related regulations. However, there are PPP projects which are not based on this regulation but on a sectoral PPP related law and regulation. There are laws and regulations for each sector allowing a PPP mode to develop infrastructure in the said sector. In the electric power sector, there exist Law No. 30 of 2009 and Government Regulation No. 3 of 2005. Similarly, Law No. 38 of 2004 and Government Regulation No. 15 of 2005 applies towards the road sector. There are clear differences between PPP based on the Presidential Regulation No. 38 of 2015 and PPP based on sectoral law and regulation as both are applicable for government fiscal support. If a government agency requires government support such as a government guarantee or VGF for a PPP project, compliance with the related Presidential regulations is necessary too. This complexity of legal framework is causing confusion on both the government and private side.

In addition to the sectoral issue, there are other issues with PPP projects at the local government level. With decentralization in Indonesia since 1999, it is expected that PPP projects by local governments will increase. However, there is no law and/or regulation stipulating that PPP projects are to be handled by local governments, currently.

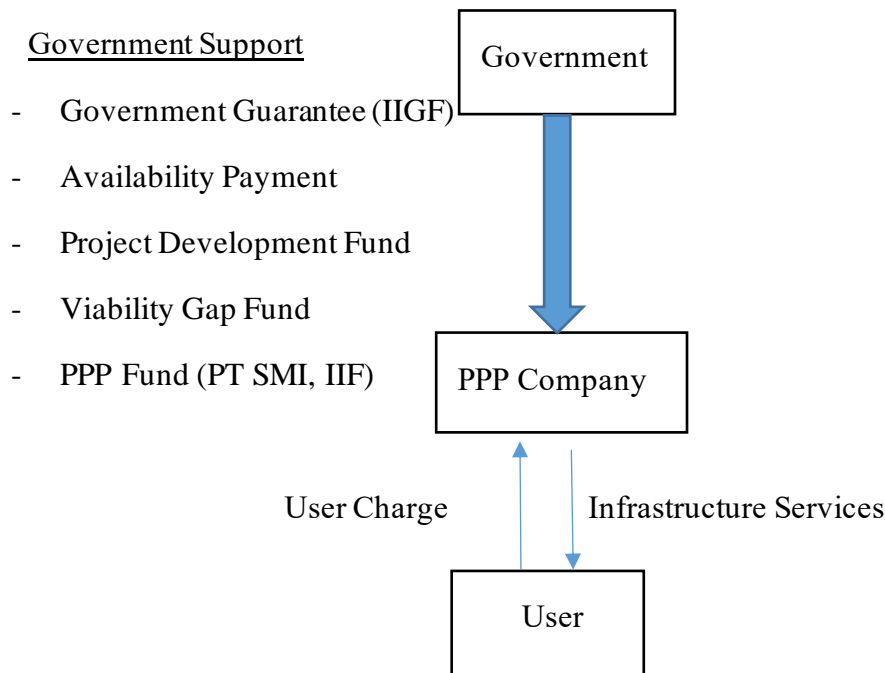
Another issue is that many of the frameworks are not a legal statute but a Presidential Regulation, Government Regulation and Presidential Decree which are at risk of amendment or cancellation, especially when the political administration changes. Accordingly, the private sector is normally concerned with a possible major change in the PPP policy, since this may affect continuity and the smooth flow of business. This is particularly important to PPP, since such projects are long term, sometimes even requiring 20 to 30 years, in a series of processes such as planning, government decision making, construction preparation, actual construction and operation and maintenance. Therefore, it is necessary to pay attention to the risk of policy consistency. 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 any current administration. This is a significant concern with private investors.

Therefore, a consolidated and comprehensive legal framework to cover all sectors, including PPP by local governments should become a new investment environment which is not at risk for drastic and frequent change.

Government Support

The Indonesian government has established several government support systems as discussed in Chapter 6.3 which are summarized in the Figure 6.7.

Figure 6.7 Government support under the PPP financing scheme in Indonesia



Source: author

a) *Guarantee for Contingent Liabilities*

With regard to the contingent liability⁶³, government guarantees have a function to reduce the perception of risk on the side of the private sector and to give incentive to the private sector to participate in PPP. By creating a particular fund for government guarantees such as IIGF, as described in Chapter 6.3, this gives greater assurance to the private sector. This is because it is difficult to grasp the timing and amount of contingent liability in advance, and because the budgeting requires appropriation procedures both by the executive branch and legislative branch. In this sense, there is the likely risk that payments will not be made at the appropriate time or the risk that deliberation at legislative branch may be suspended and payment will not be made. Therefore, establishment of the independent fund, accessible in such times, is preferred from the perspective of private party. The creation of such a fund -- IIGF also provides

⁶³ A contingent liability is a possible liability that may or may not become a liability depending on the outcome of an uncertain future event occurring or not occurring.

a benefit to the government of Indonesia. Having a separate and independent organization being in general responsible to ensure accounts payable, and in this case the Ministry of Finance of Indonesia, it is then able to isolate the risk of the accounts payable exposure to the government.

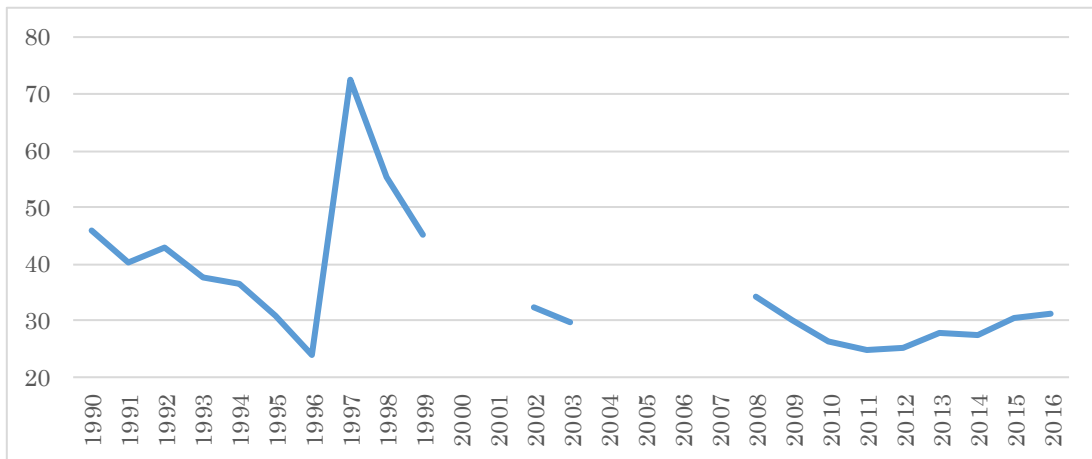
By the end of 2018, IIGF has guaranteed 32.7 trillion Rupiah against 114.1 trillion Rupiah worth of PPP projects. It is expected that IIGF will continue to play an important role. However, strengthening the financial base of the IIGF is necessary for further expansion of the PPP program. In addition, the capacity of the Risk Management Unit of the Ministry of Finance, which evaluates the contingent liability of the government needs to be further enhanced.

b) Availability Payment

The availability payment scheme was enacted by the Presidential Regulation No. 38 of 2015 as discussed earlier. There is high expectation that this scheme will accelerate the expansion of the government's PPP program. However, since this scheme requires the government to assume the demand risk of the PPP project, careful and detailed designing and implementation, both in the scheme itself as well as in project level, is necessary to avoid an excessive government fiscal burden in the future during the contract duration of the PPP project.

Related to the government financial support, the central government debt situation requires continuous monitoring. The debt to the GDP ratio declined from its peak of 72.5% in 1997 to the manageable level of around 30% from 2009. However, Figure 6.8 shows that the ratio is gradually increasing from 25.0% in 2012 to 31.4% in 2016 which is still manageable but requires continuous monitoring.

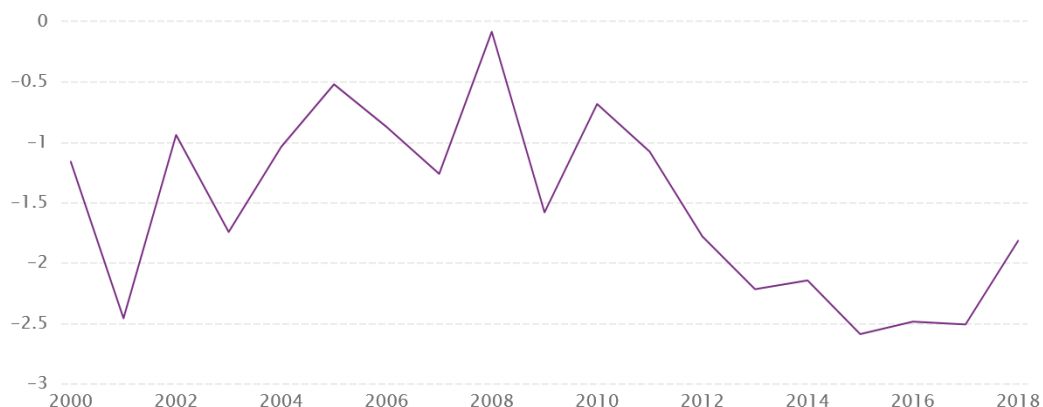
Figure 6.8 Central government debt against GDP (%)⁶⁴



Source: WDI data base

With respect to the government's fiscal balance, the balance against GDP deteriorated from its recent peak of -0.09% in 2008 to -2.6% in 2015 (Figure 6.9). This is close to the legal cap of a deficit at 3.0% of GDP and the lowest in recent years. Although the deficit has improved to -1.8 in 2018, the situation still needs to be monitored.

Figure 6.9 Consolidated fiscal balance against GDP (%)



Source: CEIC data

⁶⁴ The central government debt data for the year 2000, 2001, 2004, 2005, 2006 and 2007 are not available in WDI data base.

With the above situation of debt and fiscal balance considered, the government of Indonesia is not in a condition to generously give financial support to the PPP project by including guarantees for contingent liabilities and availability payments. In this connection, the government of Indonesia should apply these government financial support selectively.

c) Land Acquisition

Land acquisition is perceived as one of the major bottlenecks in development of infrastructure in developing countries and Indonesia is not an exception. The issue often causes project delay. In some cases, the issue prevents achieving a financial close. Responding to demand for swift action from the private sector, a land acquisition scheme for nationally strategic infrastructure PPP projects was launched in 2017 by the Ministry of Finance in Indonesia through the State Asset Management Agency. It is expected that the fund for land acquisition for nationally strategic infrastructure will be provided by the Agency for smooth acquisition of land which promotes PPP schemes. Another important development is the shortening of the maximum time necessary to acquire land from 518 days to 400 days, thus facilitating quicker acquisition of land. However, whether these improvements of rules and regulations of land acquisition actually translate into smooth implementation of acquisition of land remains to be seen, including the valuation of land prices and a resolution to multiple ownership of land.

6.4.2 Institutional framework

Overlapping of Duties

In Indonesia, there are two central government PPP units, unlike other peer countries which has only one, one under BAPPENAS (National Development

Planning Agency) and the other under the Ministry of Finance. In addition of these agencies, there is the responsible line ministries or, in the case of local government PPP projects, the subnational government.

This situation of having more than one dedicated PPP unit to deal with whole PPP program and individual project under the program tends to lead to complexities in handling the PPP due to possible overlap of duties. Also, the decentralization of the government function further creates complexities. This potential overlapping function together with multiple levels of government agencies tend to cause coordination problems resulting in delay, including in decision making during project preparation, bidding, construction and operation/maintenance. KPPIP was established for this purpose as discussed in Chapter 6.3. However, the role and function of PPP related agencies, especially these two PPP units, should be reviewed and streamlined.

Dominant State-Owned Enterprises (SOE)

In Indonesia, SOEs play an important role in developing and managing the public infrastructure. Ray and Ing (2016) suggest that the state-led approach in infrastructure development by President Joko Widodo administration raises concerns about the efficacy of using SOEs to promote infrastructure and about possible crowding out of the private sector. If SOEs are allowed to participate in PPP projects, some of the advantages of PPP, such as introduction of private sector's efficiency and innovation for the development and operation of the infrastructure project, may not be obtained. Therefore, the role and function of SOEs in developing public infrastructure needs to be further reviewed for the purpose of promoting private participation in infrastructure and delivering efficient infrastructure services.

6.4.3 Institutional Capacity

Since the way to handle PPP projects is very different from traditional procurement by public investment, the improvement of the capacity of government agencies not only at central agency level for implementing PPP programs, such as the Ministry of Finance and BAPPENAS, but line ministries/agencies and local governments which handle individual PPP projects is of crucial importance. As discussed in Chapter 6.2, the World Bank (2018) argues that the score for “Maturity”, experiences with PPP, is very low for Indonesia and advises that the government should be capacitated to negotiate and manage PPP contracts. Capacity to prepare a project, execute the bidding process, negotiate the PPP contract, and management of the PPP contract is of particular importance. Capacity for designing, evaluating, and monitoring related with the availability, a payment scheme which was recently introduced needs further development.

6.4.4 Financial Facilities for Infrastructure Development

First, domestic banks of Indonesia do not have adequate capacity to participate in PPP financing. Sato (2016) argues that there is a weakness of the domestic financial sector, particularly the long-term financing as reflected in the financial deepening ratio ($M2/GDP$). The IMF (2019a) informs that total assets of the financial sector stood at 75% of GDP at the end of 2017. This is below emerging market peers; while India, Mexico, and Turkey for example are all above 100%, South Africa and China are nearly 400%. Moreover, bank assets accounts for nearly 70% of the total assets while insurance companies and pension funds accounting for only 8% of assets, showing heavy dependence on the banking sector. IMF (2019a) also argues that outstanding domestic debt securities and stock market capitalization are low in comparison with other peer countries in Asia.

In addition, due to Basel III requirements⁶⁵, increased bank capital and liquidity, restrictions on financing by domestic financial institutions are assumed. With this background, development of local capital market is necessary. In addition, establishing government financial institutions which extends long-term financing for infrastructure development is another option to pursuit for the further development of the financial sector in Indonesia.

Second, the issuance of bonds specialized for specific PPP projects is also a subject for further promotion. In the case of large-scale infrastructure projects, it requires often many years to recover funds, therefore infrastructure project bonds are expected to be issued from the perspective of diversification of fund procurement. A PPP project bond issuance only benefits PPP participating companies -- diversification of means of procuring funds, but also for the provision of long-term financing for PPP participating companies. However, the risk assessment of the PPP project bond is more complicated than ordinary corporate bonds, therefore it is necessary to develop a bond market infrastructure, including appropriate rating of PPP project bonds.

From this point of view, the operations of the Credit Guarantee and Investment Facility (CGIF) is of particular importance. CGIF was established by the ASEAN+3 countries in 2010 to promote financial stability and to boost long-term investment by providing guarantees on local currency denominated by bonds issued by corporations in the region. CGIF facilitates issuance of local project bonds in ASEAN countries including Indonesia.

⁶⁵ The Third Basel Accord is a global regulatory framework on bank's capital adequacy, stress testing, and market liquidity risk. Basel III was agreed upon by the members of the Basel Committee on Banking Supervision in November 2010. The implementation was extended several times and is currently set until 1 January 2022.

In Indonesia, the sovereign sukuk bond⁶⁶, an Islamic bond, has been issued since 2013 for infrastructure projects. To have diversification of financing for PPP projects in Indonesia, this is another opportunity to be further explored.

6.5 Comparison with Philippines' PPP Environment and Implications to the Philippines

This section illustrates comparison in PPP achievements between the case of Indonesia and the Philippines and endeavors to extract implications for the Philippines.

On the achievements of infrastructure development including through PPP, these two countries – Indonesia and the Philippines share some similarities. First, they face the issue of infrastructure deficit. Second, one of the reasons for lower infrastructure development is the low level of government investment on infrastructure for the two countries. Third, on the PPP investment amount, these two countries have two peaks: first in 1997 and second in the latter half of 2010s. The first peak in 1997 can be explained that there was some optimism on PPP in 1990s, but that optimism disappeared by the Asian financial crisis. The second peak can be explained by the policies and policy measures introduced by two governments in 2010s as discussed before.

However, there are differences on PPP achievements of the two countries. The first difference is the existence of local private players for PPP. In the Philippines, among the top ten private sponsors by investment, there are six local private firms. On the other hand, there are only three local private firms in Indonesia on the list of top ten private sponsors by investment. There are several reasons for this difference. First, the

⁶⁶ A sukuk is an Arabic name for financial certificate, similar to a conventional bond that complies with Islamic religious law, Sharia. The traditional bond is not permissible by Sharia because interest payment is not allowed by Sharia. With this background, sukuk was structured by paying profit, not interest, sometimes involving a tangible asset.

existence of local conglomerates in the Philippines. Second, existence of foreign equity investment restriction in the Philippines which is interrelated with the first reason. This will be further discussed in Chapter 8.

Second and the most important difference in PPP achievement in the two countries is financial support by the government for the promotion of PPP. Table 6.7 presents the major government financial support for PPP in the two countries.

Table 6.7 Major government financial support for PPP of the Philippines and Indonesia

PPP Support	Philippines	Indonesia
Government Guarantee	Not enough (fund is not yet established)	Yes: Fund is established as IIGF
Availability Payment	No	Yes
Project Development Fund	Yes	Yes
Viability Gap Fund	No	Yes
PPP Fund	Yes	Yes

Source: author

Above financial support is intended to provide incentives for potential private investors for the PPP project as discussed. Since, one of the reasons for the recent rise of PPP investment in Indonesia can be attributed to these financial supports, introduction of government financial support including establishment of a government guarantee fund and the introduction of the availability payment scheme and viability gap fund shown in table 6.7 should be a priority for the government of the Philippines to further promote PPP.

However, as discussed earlier in this Chapter, since these government financial supports have a fiscal implication to the government, actual application of these financial supports should be on the selective basis.

6.6 Summary

This Chapter discussed the current status of infrastructure development and achievements with PPP in Indonesia, depicted changes in the PPP policy in Indonesia, and argued key issues of PPP infrastructure development in Indonesia including policy recommendations.

Indonesia needs to accelerate its effort to reduce the infrastructure deficit. The country currently enjoys a relative stable fiscal situation, improved domestic resource mobilization and the availability of ODA that can be utilized to address the infrastructure gap. However, with shallow domestic financial markets and a constrained fiscal space, infrastructure programs of the Indonesian government require further inclusion of the PPP program. The scale and urgency of the infrastructure challenge in Indonesia is such that without a significant increase in the participation of the private sector in infrastructure development, the dare will remain a challenge.

One of the immediate studies necessary to conduct is the ex-post evaluation of the “National Development Plan 2015-2019” of Indonesia. This study is especially needed to learn if the source of funds from the private sector worth 19% of the total investment as originally planned was met or not. The study should also examine factors prohibiting PPP in the National Development Plan, if the 19% target was met or not and retrieve lessons learnt in preparation for the next Development Plan, especially if it is not met. Another area for further study is to undertake an ex-post evaluation of the PPP projects implemented since the current PPP framework was established in 2015 to validate any possible gap in the PPP framework for further promotion of PPP in Indonesia.

Chapter 7 Assessment of the Finance Option in the Philippines

The purpose of this Chapter is to assess the finance options for infrastructure development in the Philippines from four viewpoints: policy changes and directions over three decades, fiscal situation including ODA, PPP governance, and PPP environment of the Philippines.

7.1 Assessment of Policy Changes over the Last Five Infrastructure Regimes

Although infrastructure development has always been one of center pillars of the socio-economic development agenda over the time with government's expressed commitment for development of infrastructure, the infrastructure gap in the Philippines has not substantially narrowed over the last five infrastructure regimes. Government spending on infrastructure has been low in comparison to other ASEAN peer countries as discussed in Chapter 4.1. Revenue to GDP and infrastructure spending to GDP ratios have been low in comparison to other ASEAN neighbors. Policy reforms in specific sectors including electric power, water and telecommunications are noteworthy, though as discussed earlier in Chapter 5 reforms have had mixed results.

This situation causes the general government capital stock low as well, discussed in Chapter 4.1. One of the reasons cited in the past by many authors and institutions was limited fiscal space for infrastructure development. Limited fiscal space has always been identified as the main constraint to infrastructure investments but, if past experience is a good basis for assessment, poor infrastructure planning, poor project preparation and execution are also serious factors that hinder greater infrastructure investments.

Policy reforms related to infrastructure have been carried out mainly in four different areas: regulation, institution, finance and specific sectors. With regards to infrastructure financing, there have been two main areas of reform: first, tax reform for improving fiscal space and second, better utilization of private finance.

Faced with a high public debt and low revenues, each administration of the Philippines in the last three decades introduced major fiscal reforms to finance development priorities, including public infrastructure. Thus, fiscal space has expanded under the Aquino III administration, and the Duterte administration has pushed for tax reforms to finance its ambitious Build-Build-Build program. It is noted that the Duterte administration has achieved the first stage of its comprehensive tax reform program. Congress enacted the TRAIN law, as discussed in Chapter 5.3.2, but government and Congress face now the more daunting task of moving to the next stages of the comprehensive tax reform package, e.g., corporate taxation, fiscal incentives, and financial sector taxation. The country has also recently attained an investment grade rating on its public debt and this improved investment grade rating bodes well for mobilizing funds for infrastructure development. The Duterte administration policy reforms have paid off in terms of improvements in the fiscal situation relatively as presented in Figure 6.4; public debt to GDP went down to almost 45%.

PPP, of course, is one way to tap private finance. On utilization of private finance, PPP regulatory and institutional reforms have been introduced as well making the Philippines the best ASEAN environment for PPP. It seems that with these reforms in place, addressing the infrastructure gap is now more about effective project planning, design, procurement, construction and operation/maintenance rather than financing per se.

One of the challenges of infrastructure development in the last three decades is the continuity of policy and priority. The tendency to shift policy without hard evidence favoring the shift further constrains infrastructure development and financing as indicated in the discussion of hybrid PPP in Chapter 5.3.3. Policymakers must remember that it takes more than one presidential term of six years to complete a large infrastructure, considering every step of plan, namely design, finance, procurement and construction. Some larger infrastructure projects may even require a master plan before undertaking a feasibility study. It has often been the case that the lack of a comprehensive and internally consistent master plan for spatial development and public transportation has resulted in failure to improve.

7.2 Assessment of the Fiscal Situation

This section assesses the fiscal situation of the Philippines including ODA.

The Philippine's public debt to GDP has steadily decreased from its recent peak of 74.4% recorded in 2004 as shown in Figure 6.4. The Philippine government has formulated a debt management strategy consisting of "80% domestic and 20% overseas borrowing" in order to ease the influence of external shocks, especially currency movements. Relatively low inflation and fiscal space inherited from the Aquino III administration prompted international credit rating agencies to continue to issue an investment grade rating to government's debt. Due to this relatively stable fiscal situation, the government is in the position to promote large-scale infrastructure projects without depending too much on PPP.

However, there is one new challenge for the fiscal situation and that is the Coronavirus disease 2019 (COVID-19)⁶⁷. This global pandemic is still on-going and

⁶⁷ The COVID-19 pandemic is a global pandemic of the coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2. The outbreak was first identified in Wuhan, China, in December, 2019. The World Health Organization declared the outbreak a Public

therefore the magnitude of damages to the economic and fiscal situation is hard to forecast. One likely scenario includes reduction of tax revenues and an increase in government spending by the so-called economic stimulus packages, public health, social protection, education, and ICT. In any circumstances, it is expected that the fiscal space for infrastructure will be affected, although the magnitude is still yet to be estimated, since it is still an on-going global pandemic.

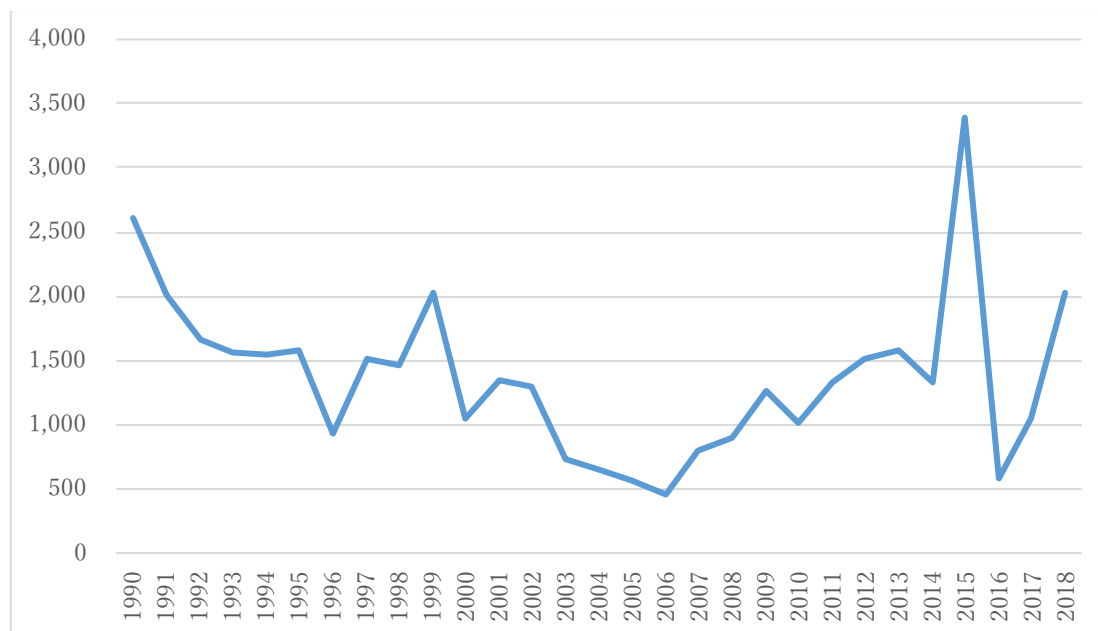
On the case of ODA, under the recent relatively sound fiscal and debt management, the availability of ODA and other financial assistance from multilateral and bilateral agencies provides a critical financing source as bilateral partners and multilateral institutions responded positively to the present administration's Build-Build-Build infrastructure program.

Although ODA commitments have declined since the Ramos administration, reaching the lowest level in recent years in 2006, ODA in the Philippines has generally increased since 2006 as shown in Figure 7.1. On the other hand, ODA net disbursements, which is the total of grants and loans minus repayment, do not show an increase of ODA for the last decade against ODA commitments as shown in Figure 7.2. This condition is mainly due to the two reasons. First, the gross disbursements will be made usually only after the procurement of goods and services and actual implementation of the related project, which usually takes several years after ODA commitments. Second, since the net disbursement is gross disbursement minus repayment from the recipient country to donor, net disbursement will be affected by the repayment. ODA gross disbursements, which is the total of grants and loans, also does not show an increase of ODA for the last decade against ODA commitments as shown in Figure 7.3 for the same reason as the net disbursement on the time required for the procurement of goods and services and actual implementation of the project.

Health Emergency of International Concern on 30 January ,2020 and a on 11 March ,2020 as a pandemic. It is still an on-going global pandemic as of October, 2020.

However, for the Figures 7.1, 7.2, and 7.3, it should be noted that any financial transfer which is outside of the definition of ODA⁶⁸, and any financial assistance from non-OECD countries, such as China, are not reflected.

Figure 7.1 ODA commitments (USD, million)

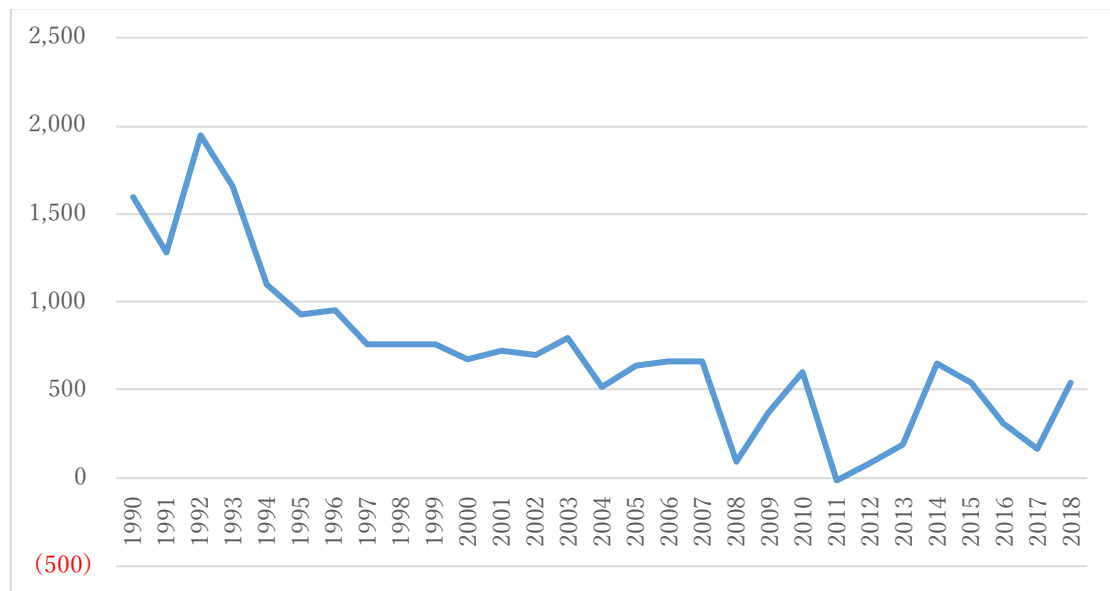


Source: International Development Statistics of OECD

⁶⁸ The Development Assistance Committee (DAC) of OECD defines ODA, up to 2017 data, as those flows to countries and territories on the DAC List of ODA Recipients and to multilateral institutions which are:

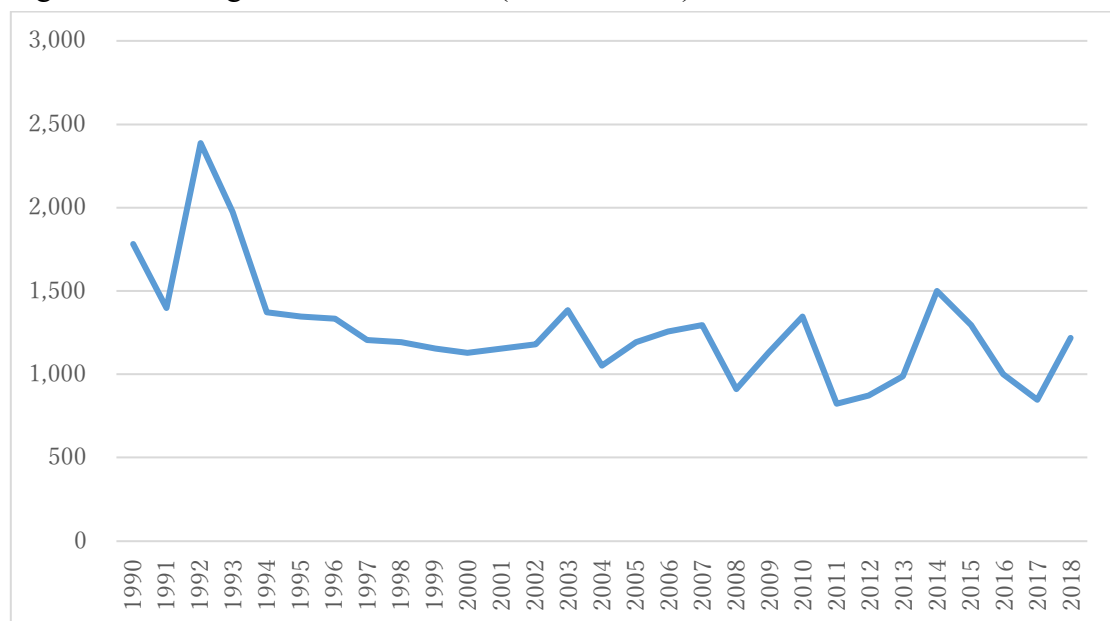
- i. provided by official agencies, including state and local governments, or by their executive agencies; and
- ii. each transaction of which: a. is administered with the promotion of the economic development and welfare of developing countries as its main objective; and b. is concessional in character and conveys a grant element of at least 25% (calculated at a rate of discount of 10%).

Figure 7.2 ODA net disbursements (USD, million)



Source: International Development Statistics of OECD

Figure 7.3 ODA gross disbursements (USD, million)



Source: International Development Statistics of OECD

There is one significant challenge for ODA financing in the future. Many development finance institutions and bilateral donors determine the terms and conditions of ODA lending by the recipient country's income category. Currently, the Philippines is categorized in the "lower-middle income" bracket, since its current GNI

per capita is USD 3,660 by the World Bank Atlas of 2018. However, if GNI per capita surpasses USD 3,896 which is the threshold of “upper-middle income” for “country classifications by income level: 2018-2019” of the World Bank, the terms and conditions of ODA borrowing by the government of the Philippines will be less concessional. In short, borrowing costs will increase as the Philippines attains a much higher income status. In the future the Philippines will have to rely more on public finance tools (taxation, expenditure and debt management) and the private capital markets to continually finance infrastructure needs.

Another possible challenge for ODA in infrastructure development is the negative impact by COVID-19. There could be two scenarios on this matter. First, overall reduction of ODA from donor agencies and countries due to the reduction of fiscal space on the side of donor country due to the introduction of the large-scale economic stimulus packages to revitalization of their own economy. Second, the possibility to change the priority from infrastructure to other priority sectors and areas related to the response to COVID-19 like public health, social protection, education, and ICT.

7.3 Assessment of the PPP Governance

In this section, the decision-making process whether a particular infrastructure project is formulated and reviewed for the public finance or for a PPP scheme by the government of the Philippines will be discussed.

In the Philippines, PPP are governed by the Amended BOT Law (Republic Act No. 7718) and its Implementing Rules and Regulations (IRR), as discussed in Chapter 5.2.1, which is distinct and separate from the Republic Act No. 9184, entitled “An Act Providing for the Modernization, Standardization and Regulation of the Procurement Activities of the Government and for other Purposes,” otherwise known as the Government Procurement Reform Act, which governs non-PPP options.

Implementing agencies of the infrastructure project, such as the Department of Public Works and the Department of Transport, are tasked to undertake the planning and programming of their projects aimed at specific agency targets and priorities. It is in this planning and programming process where identification of the finance option, whether funded by public finance or PPP, is sorted out and determined. This process does not involve any type of test, stipulated in any of the government rules and regulations, whether which finance option, public finance or PPP is appropriate for the project being formulated by the implementing agencies. In case of the unsolicited PPP projects, they are not defined at this stage as unsolicited projects at the initiated by the private sector.

During the review process of the implementing agencies, implementation analysis or viabilities of the said project is the main agenda. Therefore, a finance option test is not undertaken independent on the budgets, financing and/or operational considerations in the current framework.

After project preparation by the implementation agencies, the next step is the review and approval by an inter-agency committee called Investment Coordination Committee (ICC).⁶⁹ However, the finance option of the projects has already been decided by the implementation agency by the time of ICC. Economic and financial evaluation are presented at the review and approving process at ICC on the basis of the finance option already decided by other agencies. Although the review process of ICC can question the finance option selected for the project, the concerned agency will then justify and establish why such is the appropriate option.

⁶⁹ The ICC consists of the Secretary of Finance, as chairman; the NEDA Director-General, as cochairman; and the Executive Secretary, the Secretaries of Agriculture, Trade and Industry, Budget and Management and the Governor of the Central Bank of the Philippines, as members.

Rigorous decision-making process to determine the most suitable finance option for a particular infrastructure project is not stipulated in the existing guidelines and framework for the review and approval process of the Government of the Philippines. Therefore, implementing agencies are not required to carry out a finance option test before finally deciding to take the PPP option or not for each specific project. This is also the same in the review and approval of the ICC. If there is such a mechanism to validate the appropriate finance option of the project being review, failed PPP cases such as MRT 3 as discussed in Chapter 4.3.2 may have been avoided.

It is argued that in the history of public infrastructure development, public finance has been a mainstream option, as discussed in Chapter 5. In the Philippines, PPP is relatively new to many implementing agencies compared to their core competencies on the traditional public finance option, although there is a directive to have PPP units to improve their PPP readiness but it is up to each agency to follow this directive or not. PPP, therefore, is not yet fully integrated into the government process to the same degree as public finance. In this connection, PPP should be integrated into the government process to the same degree as the public finance.

Against this backdrop, the Philippine government, through the PPP Center, has been facilitating the implementing agencies' decision-making process in choosing the PPP option at the planning and programming stages in the forms of capacity building, including training and technical guidance. The Center also developed policy circulars such as multi-criteria analyses which look at the project's initial viability indicators and the agency's readiness to undertake the PPP procurement process.

In addition, the Project Development and Monitoring Facility (PDMF), discussed in Chapter 5.2.4, can be utilized to assist the line agencies for diligent PPP structuring and procurement by providing transaction advisory support.

7.4 Assessment of the PPP Environment

The Economist Intelligence Unit (EIU) (2018) depicts the PPP environment in the Asia-Pacific countries by 23 indicators including the legal framework, government organization, PPP project implementation, investment environment, and finance. The Philippines' score is marked as 81 (full mark is 100.0) which is the second highest of the Asia-Pacific countries as shown in Table 7.1. It is noted that the Philippines' score was 47.1 and 64.6 in 2011 and 2014, respectively and it shows significant improvement in the PPP environment of the Philippines. This reflects various PPP promotion measures implemented during the Aquino III administration (2010-2016), which was discussed in Chapter 5.2.4. Among the five categories⁷⁰, ranking was relatively high for regulations, institutions, and investment and business climate while maturity and financing were relatively low.

Table 7.1 EIU score and ranking⁷¹ in () for PPP in 2011, 2014, and 2018

Country	2011	2014	2018
Philippines	47.1 (8)	64.6 (7)	81.0 (2)
Indonesia	46.1 (9)	53.5 (9)	61.0 (9)
Thailand	45.3 (10)	50.4 (10)	83.0 (1)
Vietnam	26.3 (14)	33.1 (18)	66.0 (7)

Source: compiled by author using data from Economist Intelligence Unit (2015) and (2018) data

In the EIU report, the score was divided into three categories; “Mature” for scores greater than 80, “Developed” for greater than 60, and “Emerging” for greater than 30.

⁷⁰ Regulation, institutions, maturity, investment & business climate, financing

⁷¹ 2018 ranking, in total (19 countries) does not include advanced economies in Asia, such as Australia and Japan unlike for ranking in 2011 and 2014, in total among 21 countries. Therefore, rankings for 2018 and 2011/2014 are not comparable.

The Philippines was in the group of “Emerging” at the time of the 2011 survey, but in 2014, it was raised to the category of “Developed”, which made it the only country in ASEAN in that category. In 2018 it obtained the ranking of “Mature”.

The World Bank (2018) assesses the PPP environment in 135 economies on four different aspects: 1) preparation, 2) procurement, 3) contract management, and 4) the management of unsolicited proposals, with a scoring of 1-100. Table 7.2 shows the scores for these 4 areas for selected countries in Southeast Asia and the average of High-income country group. It is noted that the Philippines’ score is not only the highest of the ASEAN block but its score is higher than the High-income country group although the Philippines belongs to the Lower-middle-income group, which is two income groups lower than the High-income group after the Upper-middle-income group. The score of the Philippines is high especially in “Preparation” and “Contract Management”.

Table 7.2 Score for PPP Regulatory Framework (1-100)

Country	Preparation	Procurement	Contract Management	Unsolicited Proposals
Philippines	85	76	88	83
Thailand	27	45	58	Not regulated
Indonesia	63	74	58	58
Vietnam	77	77	62	25
High-income average	63	77	58	66

Source: author using data from World Bank. 2018. *Procuring infrastructure public-private partnerships report 2018*. Washington DC: World Bank

The ADB (2017) also tracked the development of the PPP business environment as well as the challenges of doing PPPs in nine Asian countries including the Philippines in four different categories: regulatory framework, institutional capacity,

PPP market maturity, and financial facilities. Although the report does not have rankings and scores for comparison, it points out that much has been achieved in PPP framework of the Philippines. It also calls attention to the current limit of 40% of foreign ownership in any PPP infrastructure project where the operation requires a public utility franchise, which is seen as a constraint to participation by foreign investors.

Although the international recognition of the PPP environment of the Philippines is relatively positive, results of some of the PPP projects are mixed. OECD (2016) argues that the Philippine government tended to take excessive risks in past contracts, particularly foreign exchange and demand risks, to extend overly generous guarantees, and to shoulder heavy contingent liabilities. PPP succeeded in introducing electric power generation projects in the 1990s by mobilizing USD 8 billion, resulting in additional 8,000 MW of capacity. On the other hand, in a number of those PPP electric power projects, "take-or-pay"⁷² mode was introduced. In this situation, the private side were able to off load demand risk and, therefore, government took all the demand risk by either buying all the electricity generated by private power producers or paying a penalty to the power producer if the government is not able to purchase the electricity. This is part of the reason that the current Philippine electricity tariff is one of the highest in Asia.

Another example of the government taking a demand risk can be witnessed in the Metro Rail Transit Line 3 project (MRT 3) through a Build-Lease-Transfer (BLT) scheme as discussed in Chapter 4.3.2.

Even the water concession project in Metro Manila discussed in Chapter 5, which is regarded as a successful PPP project globally, has several challenges including

⁷² With the "take-or-pay" contract, one contracting party either takes the product from the other party, supplier, or pays the supplier a penalty. For any products the party takes, they agree to pay the supplier a certain price.

renegotiation of concession contracts and water source development. Therefore, evaluation by the EIU, the World Bank, and ADB on the PPP environment of the Philippines seems too high in considering the mixed cases of PPP projects in the Philippines. In considering MRT3 case, there is an area for improvement in project selection process for PPP mode.

7.5 Summary

Chapter 7 assessed the finance option of infrastructure development in the Philippines. The Chapter assesses policy changes and directions over three decades, fiscal situation including ODA, PPP governance, and PPP environment of the Philippines.

Although infrastructure development has always been one of center pillars of the socio-economic development agenda over time with government's expressed commitment for development of infrastructure, the infrastructure gap in the Philippines has not substantially narrowed over the last five infrastructure regimes. Policy reforms and developments related to infrastructure have been carried out mainly in four different areas: regulation, institution, finance and specific sectors. On infrastructure financing, there have been two main areas of reform: improving fiscal space and better utilization of private finance.

Faced with high public debt and low revenues, each administration in the last three decades introduced major fiscal reforms to finance development priorities, including public infrastructure. Thus, fiscal space has expanded under the Aquino III administration, and the Duterte administration has pushed for tax reforms to finance its ambitious Build-Build-Build program.

While the PPP environment in the Philippines is well recognized globally, PPP governance, the decision-making process for the finance option needs some improvements in order to avoid past mistakes such as those experienced by the MRT 3 project.

Chapter 8 Conclusion and Policy Recommendations

Based on the preceding chapters, Chapter 8 draws a conclusion and then argues policy recommendations aimed squarely at the improvement of the financing aspect of infrastructure governance with a focus on the improvement of PPP governance and its environment.

8.1 Conclusion

First, summary of the dissertation is presented.

Chapter 1 discussed the finance option for infrastructure development, public finance and PPP, and their inherent characteristics. The Chapter also reviewed the definition of PPP. Based on the arguments in this Chapter, it was concluded that both public finance and PPP have advantages and disadvantages. Although there is a high expectation for PPP to fill the infrastructure gap in developing countries, policy makers have to understand that PPP is not a panacea for infrastructure development nor does it offer “free money” for infrastructure development.

Chapter 2 developed a theoretical understanding of PPP including the history of PPP, theoretical framework of PPP from various perspectives of economics, and literature review on PPP. Literature review was undertaken in the key areas of PPP such as the advantage of PPP, success factors of PPP, determinants of PPP and uncovered areas of past research. Based on the nearly thirty years of operation and experience, PPP have been able to gain popularity and trust. However, as discussed in Chapter 1, PPP is shown to have both advantages and disadvantages in the space of infrastructure development in developing countries. Selection criteria for PPP or public finance for a particular infrastructure project was found as one of the uncovered areas

of past studies. Therefore, this dissertation thereby fills this research gap by the discussion of the Philippines' change in infrastructure governance.

Chapter 3 presented overviews of PPP infrastructure development in developing countries including recent trends and key issues which include regulatory framework, government support, institutional framework, and institutional capacity. As discussed in Chapter 2.3, if prepared and managed right, PPP delivers Value for Money (VfM) as well as benefits to users of infrastructure and tax payers. However, it must be noted that PPP is not a panacea for infrastructure development in all circumstances. Chapter 2.3 discussed that not all infrastructure projects are suitable to be implemented by PPP. Therefore, the selection process whether to implement a traditional procurement project or a PPP project for a given infrastructure project is particularly important. Policy recommendations for the promotion of PPP in developing countries include, establishment of an enabling legal and regulatory framework, implementation capacity enhancement of the government of developing countries for PPP, setting up an appropriate institution framework for PPP, including a PPP unit, developing a government support network, financial support especially, and political commitment by the government of developing countries. Political commitment with consistency is of crucial importance too, since the duration of all PPP contract is long term that can blanket over have many election cycles. This will contribute to assure the private party that the PPP policy remains consistent in the long run.

Chapter 4 presented the current status of infrastructure development in the Philippines which lags behind ASEAN peers, and the achievements for PPP, which is relatively positive. As case studies, in order to further discuss the achievements in PPP in the Philippines and advantages and disadvantages of PPP modality in general, two PPP projects were reviewed, one in the water works and another in the railway sectors. In regards to these two case studies, the Water Concession project in Metro Manila has

been regarded as one of the successful PPP projects not only in the Philippines but globally as one of model PPP projects in the water sector. Although the project has delivered benefits to residents of Metro Manila over the years, this dissertation pointed out that there are still some issues including the issue of water source development. Metro Rail Transit Line 3 project, on the other hand, is regarded as failed PPP project that requires continued government subsidies and defects of the railway system. These cases well illustrated both the advantages and disadvantages, complexities, and challenging nature of PPP. The case of MRT 3 also explains that PPP does not bring “free money” as discussed in Chapter 1. The case of MRT3 further suggest that the selection of the finance option, whether public finance or PPP, is of critical importance.

Chapter 5 presented the changes of infrastructure governance over the last five infrastructure regimes, over three decades, in the Philippines with emphasis on the Aquino III and Duterte administrations. Infrastructure governance of the Duterte administration for the second half of this administration since 2019 was particularly focused on. Based on the discussion of Chapter 5, the Chapter analyzed the factors that have shaped infrastructure governance in the Philippine. While infrastructure development has always been one of the center pillars of the socio-economic development agenda, over time with government’s expressed commitment for development of infrastructure, the infrastructure gap in the Philippines has not substantially narrowed over the last five infrastructure regimes. On infrastructure financing, there have been two main areas of reform: 1) improving fiscal space and 2) better utilization of private finance. Faced with high public debt and low revenues, each administration in the last three decades introduced major fiscal reforms to finance development priorities, including public infrastructure. Also, introduction of private finance through PPP has been another major policy measure for development of infrastructure in the Philippines. Developments in the second half of the Duterte administration suggest a partial return of PPP. Although utilization of both the finance

option of public finance and PPP in a more balanced manner is welcome, the dependency on the unsolicited mode of infrastructure development heavily, poses some concern.

Chapter 6 discussed PPP infrastructure development in Indonesia as one of the peer countries of the Philippines for comparison. The Chapter reviewed the issues in promoting PPP in Indonesia including policy recommendations as well as an analyzed comparison with those of the Philippines. Key issues for the further improvement of the PPP environment in Indonesia were discussed in four areas namely: 1) regulatory framework, 2) institutional framework, 3) institutional capacity, and 4) financial facilities. The important lesson of Indonesia for the Philippines's PPP based on comparative analysis is financial support by the government for promotion of PPP. Indonesia already has established a government guarantee fund and an availability payment facility, and viability gap fund which the Philippines yet to introduce. Those financial support services are intended to provide incentives for potential private investor for the PPP project. Since, one of the reasons for the recent rise of PPP investment in Indonesia can be attributed to these financial supports, introduction of government financial support should be the priority for the government of the Philippines to further promote PPP.

Chapter 7 assessed the finance options for infrastructure development in the Philippines from four viewpoints: policy changes and directions over three decades, fiscal situation including ODA, PPP governance, and PPP environment of the Philippines. Faced with a high public debt and low revenues, each administration in the last three decades introduced major fiscal reforms to finance development priorities, including public infrastructure. Thus, fiscal space has expanded under the Aquino III administration, and the Duterte administration has pushed for tax reforms to finance its ambitious "Build-Build-Build" program. While the PPP environment in the

Philippines is globally well recognized, PPP governance, as to the decision-making process for finance option needs some improvements in order to avoid past mistakes such as those experienced by the MRT 3 project.

Based on the above discussion throughout Chapter 1 to 7, research questions discussed in the Introduction can be answered as follows:

a) Is PPP an effective financing and procurement option to develop infrastructure in developing countries?

PPP is generally considered an effective financing and procurement option for developing infrastructure, especially in developing countries, because these countries face budget deficits and accumulation of debt. Since private party will mobilize some or all of the financing required for infrastructure to be developed through PPP, this option is highly expected to be promoted globally. However, PPP is not a panacea for infrastructure development. In order for PPP to be an effective financing and procurement option to develop infrastructure in developing countries, proper allocation of risks among public and private parties is of critical importance.

b) What are the factors behind changes in infrastructure governance in the Philippines, especially the drastic shift during the Aquino III and Duterte administrations?

There are mainly two distinct factors behind changes in infrastructure governance in the Philippines. The first factor is the economic and fiscal situation. The Philippines have been facing fiscal constraints for infrastructure development which results in infrastructure deficit. Therefore, past administrations have attempted undertake fiscal reforms to increase fiscal space for infrastructure development. This also explains the introduction of policies and policy measures to bring private participation into

infrastructure development through PPP in the Philippines. The second factor is the time constraints, especially presidential term which is only one term for six years. There is a tendency to have changes in policy and priority during changes in the administration every six years. Drastic policy shifts in infrastructure development from Arroyo to Aquino III and then to Duterte is a significant example of the challenge to the continuity of policy. This time constraints also relates to the administrations' tendency to complete and deliver infrastructure projects within each presidential term.

c) What are the desirable roles of public finance and PPP in developing infrastructure in developing countries?

On the desirable roles of public finance and PPP in developing infrastructure, there are several criteria for choosing the finance option. These include contractibility of quality of the service to be delivered by the said infrastructure, whether proper allocation of risk between public and private can be coordinated, and if innovation by the private sector can be expected through PPP. If those criteria are met, PPP is regarded as the desirable finance for a particular project. In order to validate these criteria for a particular project, the finance option test should be conducted by Value for Money (VfM) analysis.

Faced with high public debt and low revenues, each administration in the last three decades introduced major fiscal reforms to finance development priorities, including public infrastructure. Thus, fiscal space has expanded under the Aquino III administration, and the Duterte administration has pushed for tax reforms to finance its ambitious Build-Build-Build program. It is noted that the Duterte administration has achieved the first stage of its comprehensive tax reform program.

The Philippines currently enjoys a relative stable fiscal situation, improved domestic resource mobilization and availability of substantial ODA, from international development financial institutions and bilateral donors such as World Bank, ADB, Japan, China, Korea, AIIB that can be utilized to address the infrastructure gap, although the effect and magnitude of COVID-19 on its fiscal situation, availability of ODA, and other financial resource mobilization are needed for further validation. However, the scale and urgency of the infrastructure challenge in the Philippines is such that without a significant increase in private sector participation in infrastructure development, the challenge will remain a challenge.

It is worth noting that the Philippines' PPP environment is relatively well received internationally. The debate on "PPP vs ODA" is a useless distraction. The government needs to strengthen its technical and managerial capacity by using development finance, including PPP, to fund infrastructure development projects. It is an opportune time to move in the direction of complementary use of different financing and procurement options.

One of the challenges of infrastructure development in the last three decades in the Philippines is the continuity of policy and priority. The tendency to shift policy without hard evidence favoring the shift further constrains infrastructure development and financing as indicated in our discussion of the hybrid PPP as discussed in Chapter 5.3.3. Policymakers must constantly remind themselves that it takes more than one presidential term of six years to complete a large infrastructure project, considering every step of plan, design, finance, procurement and construction. Some larger infrastructure projects may even require a master plan before undertaking a feasibility study. It has often been the case that the lack of a comprehensive and internally consistent master plan for spatial development and public transportation has resulted in failure to learn from past experiences.

As we noted in Chapter 2.3, if prepared and managed right, PPP delivers Value for Money (VfM) as well as benefits to users of infrastructure and tax payers. However, it must be noted that PPP is not a panacea for infrastructure development in all circumstances. As discussed in Chapter 2.3, not all infrastructure projects are suitable for PPP implementation. Therefore, the selection process whether to implement a traditional procurement project or a PPP project for a given infrastructure project is of particular importance. For this purpose, the finance option test discussed in Section 2 in this Chapter is important to be introduced. In the test, as discussed earlier in this Chapter, the contractibility of quality is one of the most important factors. If the quality of the services by infrastructure is relatively easy to be defined and monitored, such as a road project, PPP could be a better option. On the other hand, if the services itself is complex and it is difficult to translate the goals of infrastructure into a quantifiable manner, such as education and health, PPP may not be the best option but rather the public finance plan.

Regardless of finance option, the capacity of the government for project preparation and implementation is the key for the success of the project. Even in PPP projects, the government should take the lead in every step of project cycle (planning, design, procurement, construction, operation/maintenance, and evaluation). During the operation phase, government regulations such as price revisions are necessary. As mentioned in Chapter 5.3.1, the delay in the progress of PPP infrastructure development in the Aquino III administration and the delay in public investment in the Duterte administration are partly due to the government's inability to implement projects overall. In order to fill the infrastructure gap that remains in the Philippines, it is extremely important for the government to improve its capacity in every step of project cycle.

In addition, due to the impact of the COVID-19, it is expected that future fiscal space will be limited, therefore the infrastructure development program under the Duterte administration, including the infrastructure flagship project, should be reviewed. From this point of view, it can be observed that the return of the PPP mode of financing may be further promoted, although focus will be on the unsolicited PPP due to government capacity. Furthermore, the term of President Duterte will end in June 2022 and it is expected that the infrastructure governance, policy and priority will be reviewed due to the change, as past experience has shown, of government. In light of these, unfortunately, it can be said that it is difficult to foresee that, at least in the short and medium term, infrastructure development in the Philippines will be accelerated.

Given the change of government expected in June 2022 and the policy changes due to the change of the government are inevitable, it is necessary to introduce an ex-post evaluation of infrastructure governance and an ex-post evaluation of infrastructure projects including PPP to validate results of infrastructure governance and individual projects including PPP whether or not these are able to deliver the originally expected benefits. As discussed earlier in this Chapter, the tendency to shift policy without hard evidence in the Philippines is one of the problems in promoting infrastructure development, everything seems to run on a 6-year policy. Until the Philippines creates the environment of “country implementation” as opposed to “administration-term implementation”, the infrastructure gap may not be narrowed.

On the continuity of policy and priority, which is an issue not only for infrastructure development but other equally important development agendas, there is some hope in "AmBisyon Natin 2040" ("Our Ambition 2040"), the first ever Philippine government's long-term development vision. In the Philippines, a medium-term development plan has been formulated for each term of the president for six years, but a long-term development vision covering the 24 years up to 2040 has been formulated

in 2016. It is expected that over the next 24 years, 4 administrations including the current Duterte administration, will be based on this vision and medium-term development plan of each administration requires to be built on this.

However, this vision is just a vision, not a specific development plan or strategy. In addition, this vision is not legally binding on the future administrations. Therefore, it is possible that future governments will just ignore this vision. Having said this, the fact that this long-term development vision that spans 4 administrations was formulated by the national economic planning office, National Economic Development Agency (NEDA) means that importance of continuity of policy and priority is beginning to be recognized within the Philippine government.

PPP projects developed and approved during the Aquino III and Duterte administration will be completing and entering into the operation and maintenance phase of PPP projects sooner than later. The success and failure of these PPP projects will be determined not only during the construction stage but also during the operation and maintenance stage: whether efficient and effective infrastructure services are provided at an appropriate tariff; if forecast including demand for the various projects is within the range assumed both by the public and private entities; whether risk allocation between public and private agreed at the time of PPP contract are appropriate; whether quality of infrastructure services is able to be monitored, in other words contractibility of quality is confirmed; if innovation by the private sector is introduced into the planning, design, procurement, construction and operation/maintenance of a project; and if public interest is protected. These questions need to be addressed and validated⁷³ as soon as these projects will be completed and entered into the operation and maintenance phase.

⁷³ One of the challenges for these ex-post evaluations of PPP projects is lack of publicly available data related to the project, due to involvement of the private sector. Therefore, cooperation through the public side is important to conduct such studies.

8.2 Policy Recommendations

This section argues policy recommendations in three areas based on earlier discussions. The three areas are policy change between public finance and PPP, PPP governance, and improvement of the PPP environment.

8.2.1 Policy Change between Public Finance and PPP

Chapter 5 stated that there were two major policy shifts in infrastructure development in recent years in the Philippines: first, from public finance to PPP in 2010 and second, from PPP to public finance and ODA in 2017. The latter policy shift triggered a debate on "PPP vs ODA" in the Philippines. The debate is PPP financing or public financing including ODA and which is more appropriate for infrastructure development in the Philippines. The current administration believes that PPP is a much more complex route to take because of the perceived higher financing costs and lengthier time period to complete the project cycle for infrastructure projects. Public finance plus ODA is believed by the Duterte administration to be more manageable and easier to implement because the government controls the pace of infrastructure development.

However, this debate is misleading, if not naive. There could be hitches, delays, corruption issues during project implementation regardless of source of financing. It is true that private finance through PPP is able to overcome short-term constraints on public financing resources. But as discussed in Chapter 1, PPP is not just necessarily about financing. It is also about giving users who pay for infrastructure services provided by project companies with greater efficiencies in services.

In addition, regardless of this debate, it is not realistic to develop all necessary infrastructures in the Philippines, which lags behind ASEAN peer countries, by public

funds alone, even factoring in the further tax reforms and ODA and technical assistance from both multilateral institutions and bilateral development partners. Neither is it realistic to fill-in the infrastructure gap through the success of PPP alone even though the Philippine's PPP environment has been well recognized globally. Public finance and ODA have their merits as well as they generally finance infrastructure projects that are not amenable to the PPP scheme.

Therefore, the debate on "PPP vs ODA" is not valid. More importantly, the main point is how to promote complementary use of public finance and ODA, and PPP that policymakers should consider in infrastructure development. The infrastructure gap requires greater coordination and nuanced thinking on the part of policymakers and stakeholders in infrastructure financing and development. In this regard, policymakers should develop a deeper understanding and eventually likely utilize a blended finance⁷⁴ approach in addressing the infrastructure gap. This is not an easy task but policymakers cannot escape this responsibility. This will require a huge effort on the part of government to make infrastructure financing and development more technocratic, transparent and technology-based while minimizing, if not all together ignoring, political considerations during the different phases of project development, e.g., preference for competitive and transparent bids over opaque unsolicited projects.

8.2.2 Improvement of the Fiscal Situation

Chapter 7.2 discuss the relatively stable fiscal situation of the Philippines in considering the historical trends. However, faced with an infrastructure gap, the fiscal situation should be further improved. The most important action is the enactment of

⁷⁴ "Blended finance" is defined as activities that combine "concessional public finance with non-concessional private finance and expertise from the public and private sector, special-purpose vehicles, non-recourse project financing, risk mitigation instruments and pooled funding structures." (Paragraph 48 of The Addis Ababa Action Agenda of 3rd International Conference on Finance for Development in 2015)

an already prepared series of tax reform package as discussed in Chapter 5 to create additional fiscal space for infrastructure development.

For the medium term, while enjoying relatively high economic growth and low inflation, broadening the tax base and enhancing efficiency should be the goals. These include strengthening the revenue administration at the Bureau of Customs and the Bureau of Internal Revenue, and the reduction of exemptions for wealthier taxpayers.

In this connection, introduction of a fiscal responsibility law which has been introduced to some countries namely to set fiscal rules for debt sustainability and government's primary balance is recommended for the Philippines to strengthening fiscal management with transparency and accountability.

On ODA, ODA remains to be a viable option for financing the infrastructure of the Philippines given the current international environment, including financial assistance not only by the traditional donors like World Bank, ADB, Japan but also emerging donor like AIIB and China. Therefore, the government of the Philippines is encouraged to avail and increase these ODA financing for improvement of infrastructure.

However, there is a challenge. NEDA (2020), as a planning and oversight ministry of the government of the Philippines, shows the following performance of all ODA loans to the government of the Philippines (Table 8.1).

Table 8.1 ODA Loan⁷⁵ Performance for 2019

Indicators	Percentage
Disbursement Rate ⁷⁶	64.28 %
Availment Rate ⁷⁷	72.64 %
Disbursement Ratio ⁷⁸	20.09 %

Source: National Economic and Development Authority. 2020. *ODA Portfolio Review 2019*. Pasig City: National Economic and Development Authority

Disbursement ratio of 20.09 % is not necessarily a poor performance, since large scale infrastructure projects tend to take several years to complete. However, both the disbursement rate and availment rate shows substantial shortfalls in disbursement which is caused by delays in project implementation. Net shortfalls for disbursement rate and availment rate for each implementing department shows that substantial shortfalls by two infrastructure departments: Department of Transport (DOTr) and Department of Public Works and Highways (DPWH) (NEDA (2020)). Shortfalls of these two departments account for 71.5% of disbursement rate and 85.0% of availment rate. Therefore, it is critically important to improve project implementation especially within those two departments. Since one of the major causes for project delay for two departments are related to the land acquisition issue, the two departments are

⁷⁵ In NEDA's definition, ODA loan includes not only ODA loan defined by Development Assistance Committee of OECD as explained in the footnote no. 68 of this dissertation but also non-ODA financial assistance for development purposes which includes loans from the World Bank, ADB, and China.

⁷⁶ Disbursement Rate is defined by NEDA as the actual disbursement level as a percentage of target disbursement for the year.

⁷⁷ Availment Rate is defined by NEDA as the cumulative actual disbursements as a percentage of cumulative scheduled disbursement, both reckoned from the start of implementation up to the reporting period.

⁷⁸ Disbursement Ratio is defined by NEDA as the ratio of actual disbursements for a given year to the loan balance available at the beginning of the year inclusive of newly effective loans.

recommended to commence the land acquisition process from the early stage of the said project.

8.2.3 Improvement of the PPP Governance

Chapter 7.3 argues that the nonexistence of the finance option test during the implementing agencies' decision-making process as well as inter agency decision-making process for the investment project, the ICC is problematic. Implementing agencies formulate and prepare a project on the assumption that the finance option is determined by the same agency, correctly. However, in reality in the Philippines and most of other developing countries including Indonesia, decision-making of the finance option by implementing agencies are influenced by not only the characteristics of the particular project but also budget allocation and other non-technical considerations, including political considerations. This may create a potential distortion in the decision-making on the choice of finance option.

Therefore, it is desirable for not only the implementing agencies but also the government as a whole to be very clear about the best finance option as early as the planning and programming stage. The explicit and diligent process of the finance option test at the entry point of the project formulation is a positive way of helping the concerned agency decide which finance option, public finance or PPP, is more appropriate for the project at hand.

The test to determine the most appropriate finance option should be diligently undertaken, similarly to the other critical viability tests, including financial, economic, and operational. The test should include elements discussed in the economics of PPP and literature review on PPP, especially success factors of PPP, in Chapter 2. Important elements include: a) infrastructure services and outputs of the project and performance

of the private proponent are to be specified and monitored clearly, b) the possibility of the proper allocation of risk between public and private, and c) the possibility of the private sector introducing innovation into the project that will enhance the project objectives. The first element, often called as contractibility of quality is discussed in the concept of the incomplete contract theory of Hart (2003) as discussed in Chapter 2.

Actually, these elements, especially the first one, are major factors for delineating the role of public finance and PPP. As discussed in Chapter 2, if the quality of the services by infrastructure is relatively easy to be defined and monitored, such as a road project, PPP could be a better option. On the other hand, if the services itself is complex and difficult to translate the goals of the infrastructure into a quantifiable manner, such as education, PPP may not be the best option while public finance may. However, as discussed in the literature review in Chapter 2, there are many factors involved in the success of a PPP project. Although contractibility of quality is a fundamental factor in the decision-making process for the finance option, other factors should be considered. These factors include characteristics of a particular project including economic and financial viability, economic environment of the host country, capacity of the implementation agency for the PPP transaction, and possible interests of the private sector, domestic and international, for the PPP project in addition to the above-mentioned elements as proper risk allocation and risk possibility with the introduction of the private sector's innovation into the project under review.

The test may also include conducting a market sounding exercise at the project planning and project structuring stages to gauge the appetite of the private sector for a possible PPP option. If the response is not positive, the implementation agency can either restructure the project as a more suitable PPP scheme or consider public finance option.

With the above consideration, the followings are procedures to be incorporated. First, economic and financial evaluation of the project should be carried out to validate its viability and the necessity of the project. Second, the finance option test will be undertaken to determine the appropriate finance option explicitly. Third, after the appropriate finance option is determined, the implementing agency of the host government will be involved with budgeting and other financing matters. Finally, the inter-agency committee, ICC, will review the project overall and make its recommendations (approve / disapproved; approve with suggested changes, etc.) on the project including the appropriateness of its proposed finance option.

Actually, according to NEDA's website⁷⁹, ICC has the following functions:

- a. Evaluates the fiscal, monetary and balance of payments implications of major national projects, and recommends to the President the timetable of their implementation on a regular basis;
- b. Advises the President on matters related to the domestic and foreign borrowings program; and
- c. Submits a status of the fiscal, monetary and balance of payments implications of major national projects.

Discussion of the appropriateness of the finance option could be a part of the evaluation of “fiscal, monetary and balance of payments implications” of infrastructure project. Therefore, even within the current framework, some improvements could be made without substantially changing the procedures and guidelines.

⁷⁹ <http://www.neda.gov.ph/investment-coordination-committee/> accessed on July 7, 2020.

However, if this finance option test is integrated into the government review and approval system, clearly and transparently, the review of the existing framework of the legal, budgeting and procurement guidelines and regulations is necessary to redesign this decision-making process in a very comprehensive manner. It is of critical importance to introduce a unified system of project planning and approval regardless of the financing mode such as public finance, ODA, or PPP. By doing so, the most appropriate finance option could be clearly recognized and employed.

In addition, although even if investment decision will be unified regardless of finance option, the current legal framework base of each finance option is different: the Amended BOT Law (Republic Act No. 7718) and its Implementing Rules and Regulations (IRR) for PPP and the Government Procurement Reform Act (Republic Act No. 9184) for public finance as discussed in Chapter 7.3. Therefore, unifying those two legal systems into one comprehensive legal framework is recommended.

8.2.4 Improvement of the PPP Environment

The policy recommendations for improvement of the PPP environment have four aspects: 1) regulatory framework, 2) institutional framework, 3) institutional capacity, and 4) financial facilities.

8.2.4.1 Regulatory Framework

The regulatory framework of PPP in the Philippines is relatively well established, basically resulting from efforts carried out under the Aquino III administration. To improve the framework there is a need to revisit and update the policies and the application of government guarantees for contingent liabilities, to deepen the capital

markets, and to relax foreign equity restrictions in the infrastructure facilities categorized as public utility.

Further Amendments to the Present BOT Law

PPP transactions in the Philippines are based on the BOT law (RA 7718) and its Implementing Rules and Regulations (IRR). The latest revised version of IRR was carried out in 2012. In addition to the BOT law and its IRR, several policy measures have been introduced such as the Project Development and Monitoring Fund (PDMF) and Alternative Dispute Resolution (ADR)⁸⁰ to expedite the implementation of PPP.

Llanto (2010) argues that the current BOT law contains both the enabling policy framework and too many details that should have been more properly placed in the IRR. Thus, under the current BOT law, as amended, there is less flexibility to change these details in order to conform to the dynamic factors such as technology changes and/or new developments in the financial markets. There is a need to revisit the current BOT law to strengthen the policy framework by making it more responsive to the changing conditions in the markets and institutions. Detailed implementation procedures are best written into the IRR.

Also, the strengthening government support mechanism including review of risk sharing, prohibition of implementation of PPP projects by regulatory agencies⁸¹, and the establishment of the contingent liability fund, which will be discussed in the next subsection, should be stipulated in the proposed amendments to the BOT law. In

⁸⁰ Since there were several cases wherein PPP projects that were delayed due to disputes that are invariably brought to the judiciary, which further causes delays, Executive Order No. 78 (2012) made it obligatory to stipulate ADR in all PPP contracts. However, there has been so far no case where ADR was actually implemented.

⁸¹ Due to the conflict-of-interest issues, a regulator should not at the same time implement the project being disputed.

consideration of an improved PPP environment, legalization of policy measures⁸² designed to improve PPP in one comprehensive law is essential.

Government Guarantee for Contingent Liabilities

If a 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 (RMP) guarantees payment of the contingent liability (CL). This is stated in the BOT law and its IRR.

The government recognizes and makes a commitment to honor contingent liabilities. However, there is a demand from the private sector to establish a contingent liability fund (CLF) in order to ensure a more secure payment regime from the government. Reasons given are that it is difficult to grasp the timing and amount of contingent liabilities in advance, and because the government budget for the RMP requires appropriation by the legislative branch of government. There is also the risk that payments may not be timely, deliberations in Congress may delay approval of the proposed budget that is to pay contingent liabilities or the request for payment may even be disapproved. Given the above, private parties will derive comfort from a fully funded CLF provided by law as a continuing appropriation. This is one of the financial supports employed by Indonesia as discussed in Chapter 6. As discussed in that Chapter, the government of the Philippines is recommended to learn the good lesson from Indonesia on government guarantee fund.

At the moment, the above-mentioned RMP fund (about P 30 billion, about USD 600 million), which covers not only contingent liabilities but also the risks related to

⁸² An enacted law is stronger and enjoys continuity compared to a mere executive order. For example, the inclusion of ADR in PPP contracts is mandated by Executive Order No. 78.

the PPP project, is established, although it is within the scope of the unprogrammed fund of the budget. Therefore, this is not a contingent liability fund strictly speaking. With regard to the establishment of this fund, discussions among the stakeholders, including Department of Finance, PPP Center, and major private players, are on-going at this writing to include relevant provisions in the PPP Law of the Philippines.

Regarding the identification and calculation of the contingent liability of the PPP project, it is under the jurisdiction of the Philippine's Department of Finance. In this regard, it is important to further strengthen the capacity of the department in identification and appropriate calculation of the contingent liability of each PPP project.

Foreign Equity Investment Restriction

Article 12 of the 1987 Constitution stipulates a restriction on foreign capital ownership of public utilities. The operation of the infrastructure project (if a public utility) is only allowed for Philippine nationals or corporations registered with the Philippines' Securities and Exchange Commission with at least 60% of the shares owned by Philippine nationals. In the Foreign Investment Act of 1991, for industries listed in the "Foreign Investment Negative List", foreign ownership is stipulated up to 40%. PPP projects are included in the current list and, therefore, are subject to the restriction on foreign ownership. In the current negative list of 2015, PPP projects are included and therefore subject to the restriction of foreign ownership. It is based on this condition that there are 6 local conglomerates among the top 10 that are currently sponsors of investment in the Philippine during the term 1990-2019 as mentioned in Chapter 4.2.

As mentioned above, many Philippines' conglomerates operate under a multi sector regime including finance, real estate, construction, communication, and retail. Since some PPP projects have a direct linkage with real estate, retail and construction

business activities, conglomerates actively participate in PPP projects. Therefore, as long as the foreign capital regulation continues, partnerships with local conglomerates are necessary and, although limited, the main realistic option for foreign investors in the Philippines.

It may not always be optimal from the viewpoint of users of infrastructure and taxpayers to only have domestic conglomerates as participants in PPP projects. It is necessary to look into the foreign capital restriction, which constrains the competitive environment for PPP projects in the Philippines. From the viewpoint of reducing the burden on users of infrastructure and improving the quality of infrastructure services, it is important to increase the competition among domestic and foreign companies.

In fact, the Philippine Competition Commission (PCC), newly established in 2015, is strengthening the monitoring of the PPP project. PCC and PPPC signed a Memorandum of Agreement (MOA) for “developing the culture of competition in PPP projects” in July 2018. Actual improvements in competition in PPP based on this MOA yet remains to be seen.

8.2.4.2 Institutional framework

In this area, the establishment and facilitation/monitoring/advisory function of PPPC is regarded as an important improvement in the PPP environment as discussed in the literature review on success factors of PPP as discussed in Chapter 2.3.2.

However, the risk sharing mechanism in the Philippines can be further improved. One of the important factors of private investment decisions in the PPP project is that various risks are shared between the public and private sectors. PPPC issued a comprehensive optimum risk sharing table named 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, the 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 under each PPP contract.

As reviewed below, among the various risks, demand risk, regulatory risk, and changes in law and policy are especially of note.

(a) Demand Risk

There are usually certain demands from foreign investors, such as, that the government should bear the demand risk. Their argument is that since life of the PPP project is relatively long and the project may be affected by change in urban development plans or other related infrastructure developments, these are likely to result in the fluctuation of demand. It is difficult to predict accurate long-term demand and the government is in a better position to control these factors to a certain extent, is the main argument.

On the other hand, by witnessing the case of the government guarantee and subsidy on MRT line 3 discussed in Chapter 4.3.2 and the aforementioned report by OECD (2016) on the electric power purchase agreements in the 1990s, mentioned in Chapter 4.2, taking demand risk by the public side alone may lead to a situation where eventually puts additional burdens on the users by increasing user fees and/or for tax payers to shoulder the subsidy. On the other hand, if demand risk is borne by the private party alone, private party may not participate in such a PPP project or cost of PPP project will be much higher. Since a risk should be shouldered by the party who is the

best able to manage it, who should bear the demand risk should be determined on a project-by-project approach.

(b) Regulatory risk

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

From this point of view, the Republic Act No. 8975 prohibits the issuance of temporary restraint order (TRO) by the lower courts against the 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, TRO from the Supreme Court is not prohibited.

(c) Changes in Law and Policy

The series of steps in PPP projects such as planning, design, procurement, construction and operation/maintenance is a long term process. 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, 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 likely a policy change risk every six years.

In the event of a change in administration, there is the possibility that not only the method of implementation of the project and the fund procurement plan be re-

evaluated, 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 is likely to cause some concerns on private investors. Therefore, it is recommended to enact law to continue and complete on-going high priority infrastructure projects even when a new government takes office.

8.2.4.3 Institutional Capacity

In order to promote PPP projects, it is indispensable to formulate and implement an attractive "bankable" project from the viewpoint of private investors. In the Philippines there has been some challenges in developing and implementing attractive PPP projects due to the following: 1) difficulty of securing the budget to undertake the feasibility study (F/S), 2) lack of government capacity in preparing the F/S as well as making the business plan for the PPP project, and more importantly 3) the lack of government capacity for executing a smooth bidding and carrying out the contract negotiation for PPP project.

The EIU (2018) gave a relatively low score to the Philippines on maturity as shown in Chapter 7.4. EIU (2015) also argues that controversies related to 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.

Moreover, because many government departments and agencies are involved in planning, contracting, and executing large-scale infrastructure projects, there is a challenge to have a smooth coordination across multiple departments and agencies. In response to this, in 2017 a Project Facilitation, Monitoring and Innovation Task Force was established within the NEDA with the purpose of monitoring and the promotion

of implementation of priority projects including PPP projects under the Duterte administration's "Build-Build-Build" program. However, substantial improvements in coordination and implementation of infrastructure projects by this Task Force are yet to be identified.

In addition, with the support of loan from the ADB, the Infrastructure Preparation Innovative Facility (approximately USD 100 million) was approved in 2017. This facility is to finance cost for preparation of F/S and other cost for hiring consultants for project preparation for large infrastructure project including PPP. This adds another support for the enhancement of capacity of implementation agencies.

The PDMF established in 2010 partly covers F/S preparation and advisory services related to PPP business plans and the bidding process, thus improving the PPP environment. For sustainability of the PDMF it may be necessary to constitute it as a revolving fund.

On the other hand, the audit report of the Commission of Audit of the government of the Philippines which audited PDMF, informs that from 2015 to 2017 Philippine Peso 845 million, about USD 17 million, of public funds were disbursed to various national government agencies and government-owned and controlled corporations for PPP projects which were eventually canceled and not yet refunded to PDMF⁸³. National government agencies and government-owned and controlled corporations owe Philippine Peso 845 million to PDMF and this is some concern about the fund's future sustainability if PDMF will or will not be a functional revolving fund as envisioned⁸⁴. Rule and regulation of PDMF for refund is expected to be strictly implemented for preparation of future PPP project and promotion of PPP.

⁸³ "2017 Annual Audit Report for PPP Center"

⁸⁴ These projects may include those that did not result in PPP project due to policy shift by Duterte's economics. This needs to be reviewed further.

8.2.4.4 Financial Facilities

In the area of improvement of financial facilities for PPP environment, as discussed in Chapter 6.5, the government of the Philippines is recommended to introduce further government financial support including establishment of a government guarantee fund and introduction of the availability payment scheme and viability gap fund shown in Table 6.7, since one of the reasons for the recent rise of PPP investment in Indonesia can be attributed to these financial supports. However, since these government financial support have fiscal implication to the government, actual application of these financial support should be on the selective basis.

“Build-Build-Build” program requires massive financing and this has presented a problem to local conglomerates of the Philippines who are affiliated with major local private banks. It is a significant challenge for those local conglomerates to participate in large-scale PPP projects when financing is sourced from their local bank affiliates who are constrained by the single borrower’s limit (defined as 25% of bank’s net worth), especially with the expiration of the additional 25% SBL for PPP projects allowed by the BSP at the end of 2016. Due to Basel III, requirements for increased bank capital and liquidity, restrictions on financing such large-scale infrastructure projects by domestic and overseas financial institutions arise. This points to the need for local capital market widening and deepening in order to make available long-term finance. This also underscores the need to open the infrastructure market to foreign companies to increase competitiveness.

In November 2016, the Philippine Stock Exchange announced a new regulation regarding the listing of companies involved in PPP projects. A private company that is a contracting party to PPP project can be listed in the Philippine Stock Exchange only if the total PPP project cost exceeds Php5 billion (about USD100 million). In addition,

such a company is exempted from the normal requirement of producing a business record over the past three years. This is because PPP companies are usually special purpose vehicles established for the purpose of implementing specific PPP projects. Such companies do not immediately have a year's worth of business records as a company yet. The listing period is the same as the concession period of the PPP project or 15 years, whichever 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. In addition, this is also beneficial for investors because of an increase in investment opportunities and contribution to the development of the Philippine capital market⁸⁵.

It takes a long time to recover funds from large-scale infrastructure projects. On the other hand, the longest maturity for long-term funds provided by local banks including government financial institutions such as Development Bank of the Philippines, is generally 15 years, which creates a mismatch between this type of finance and long-term assets like infrastructure. Issuing bonds specialized for specific PPP projects can address this mismatch. Infrastructure project bonds could be a viable instrument from the perspective of diversification of fund procurement.

Currently, the PPP Center is involved in the development of the project bond market in collaboration with the Philippine Securities and Exchange Commission and other agencies. Under the current plan, companies participating in the existing PPP business will issue PPP project bonds and will list them on the Philippine Dealing and Exchange Corporation. If this plan materializes, PPP participating companies will benefit from the availability of long-term funds and the diversification of means of procuring funds. Infrastructure project bonds that provide long-term financing for PPP projects become feasible because of the recurrent revenue yields from those long-term

⁸⁵ Private companies have yet to avail themselves of this scheme.

investments. In addition to the project bond by the private sector, the government is studying the possibility of issuing PPP project bonds.

Because the risk assessment of PPP infrastructure project bonds is more complicated than ordinary corporate bonds, it is necessary to develop a solid infrastructure for the bond market. This includes appropriate rating of PPP infrastructure project bonds and proper tax treatment to attract long-term funds.

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

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