INTRODUCTION

1. Necessity of the thesis

The infrastructure (or infrastructure structure) is the foundation for the socioeconomic development and people's living in every locality and country. Infrastructure has the properties of public goods and services which are very essential to the development of economic sectors and social life. Infrastructure is an important part and is the "hardware" of the infrastructure system.

Many countries in the world have determined that infrastructure is an inevitable investment if they want to develop the country's economy.

The theory and practice on the market economy development shows that in the infrastructure investment, there are some difficulties which often appear when there are interventions from the State or: *Firstly*, the investment into infrastructure requires huge resources regarding finance (initial investment) that not any private entity can implement. *Secondly*, most private enterprises have the purpose for investment as profit, but the investment into infrastructure is long with low or none-profit. *Thirdly*, there will be exclusivity when the infrastructure is privatized. *Fourthly*, the power of investment resource of the State is easily eroded because the structure of squeezing and corruption of the public assets.

No economy can operate and work effectively without the appropriate role of the State and even when such role is at the minimum level, it is still very great. The role of the state in the infrastructure development is the manager and investor (public investor), public service provider and the controller.

Regarding Ho Chi Minh City, Ho Chi Minh City is a big economic, cultural, educational & training, scientific & technological center and is the focal point for international exchange and integration, is the locomotive and the driving force which has the strong attractiveness and spreading capacity in the Southern key economic zone and plays an important political role ò the country. However, in Ho Chi Minh City at present: "The infrastructure is weak, overloaded, insufficient and hinders the realization of the economic growth target and improvement of the people's life. The planning and urban management has not kept up with the development speed. The traffic congestion, flooding and environment pollution is still serious and tends to become more and more severe".

To overcome the above shortcomings and to realize the general targets to 2020 and vision to 2030: Build Ho Chi Minh City into a city with good living standard, civilization and modernness, with the role as a special city which takes the lead and is the driving force for the country's industrialization and modernization and soon becomes a big economic, financial, commercial, scientific and technological center of the Southeast Asia, etc. To implement this breakthrough dream, it is required to attract and promote all the resources of the society, enhance the role of the Central Government and the local authorities for the investment in infrastructure in Ho Chi Minh City.

For such regions, the researcher has selected the topic: "The State's role in the technical infrastructure development investment in Ho Chi Minh City".

2. Purposes and significations of thesis research

The research purpose of the thesis is to clarify the scientific bases for the development investment of infrastructure in Ho Chi Minh City to contribute to providing the scientific foundations for the completion of the incentive investment policy and mobilization of all the resources for concentrating in the infrastructure investment in Ho Chi Minh City to create a breakthrough in the infrastructure development in the City.

The research of the thesis plays an important role to the country as a whole and contributes to realize the strategic breakthroughs to construct modern infrastructure in Ho Chi Minh City - the biggest city in Vietnam; contributes to clarifying the scientific basis for public investment into infrastructure development. On such basis, the thesis proposes to the Government to amend and supplement regimes and policies which are no longer suitable and propose to Ho Chi Minh City's authority to have regimes and policies to enhance the role of the local authority in the infrastructure development investment in the City.

3. Structure of thesis

In addition to the introduction, conclusion, reference and appendix, the thesis is structured into 4 chapters, including:

Chapter 1: Overview of researches related to the State's role in the technical infrastructure development investment

Chapter 2: Theoretical background of the State's role in the technical infrastructure development investment in a provincial-level city

Chapter 3: The State's current role in the infrastructure development investment in Ho Chi Minh City

Chapter 4: Solutions for improving the State's role in the technical infrastructure development investment in Ho Chi Minh City.

CHAPTER 1: OVERVIEW OF RESEARCHES RELATED TO THE STATE'S ROLE IN THE TECHNICAL INFRASTRUCTURE DEVELOPMENT INVESTMENT

1.1 Overview of published researches related to the State's role in the technical infrastructure development investment

1.1.1 Overview of published researches overseas related to the State's role in the technical infrastructure development investment

There have been many published researches overseas related to the State's role in the technical infrastructure development investment, including: New neoliberal theory and school of modern monetarism (represented by Friedman); Theory of social market economy (German former Prime Minister Ludwig Wilhelm Erhard); the theory of mixed economy of Paul Anthony Samuelson; Adam Smith (1776) "The prosperity of nations"; J.B. Nugent (1991) "Development theory and solutions in the market economy"; Muhammad Shahid Alam (1993), "Government and the market in the economic development strategy"; Joyce Kolko (1991), "Structural reform of the world economy"; E. Anderson (2006), "The role of pubic Investment in poverty reduction: Theories, evidence and method"; Zhang (2011), the research on multi-sectoral endogenous growth model; Harold Lever and Christopher Huhne (1985), "Loans and threats"; Bruce and Turnovsky (1999), Groneck (2010), Bruckner and Tuladhar (2010) on "public debt spiral".

Although the approaches and arguments are different, all the researches generally define that: The technical infrastructure is a type of public goods; recognizes that the State's role is very important and indispensable in the technical infrastructure development investment and socio-economic development of a country.

1.1.2 Overview of published researches in Vietnam related to the State's role in the technical infrastructure development investment

including: Bui Tat Thang (chairman) (2000), "State's role and market in Vietnam's economy"; Nguyen Thi Canh (2004), "Influence of budget investment to attraction of private investment flows and economic growth in Ho Chi Minh City"; Tran Kim Chung (2013-2014), "Public investment as part of Vietnam's growth model renovation". The above researches have proved that the State's role in the social capital attraction for the technical infrastructure development investment is very crucial and will help develop other economies and thus develop the country's economy as a whole.

Some researches share the technical infrastructure development experience of Korea Republic such as: Beom Jung Kim, Hyong Mo Jeon and Nguyen Van Vinh (2011), "Modern seaport development in Vietnam: Sharing Korea Republic's experience"; Yeong Heok Lee (2011), "Modern airport development in Vietnam: Sharing Korea Republic's experience". Besides, there are also researches right in Ho Chi Minh City, including: "Transferring internal structure of economic sectors in Southern Key Economic zone" of Institute For Economic Research HCMC (2015); "Some particular financial and budget regimes for Ho Chi Minh City" of the Ministry of Finance (2004); "Irrigation planning to avoid flood in Ho Chi Minh City" of Ministry of Agriculture and Rural Development in coordination with Ho Chi Minh City People's Committee (2008); "Adjusting general planning on Ho Chi Minh City's construction by 2025" of Ministry of Construction in coordination with Ho Chi Minh City People's Committee (2010); "Developing the master planning for socio-economic development of Ho Chi Minh City by 2020, with vision to 2025" of Ho Chi Minh City People's Committee (2013). These researches has figured out basic issues regarding the technical infrastructure facing Ho Chi Minh City and needing to be addressed, as well as the tasks to be done in the future.

1.1.3 Issues in the thesis having not been addressed by the published works (knowledge gap)

- The rationale and theoretical framework for assessing the role of the State to the technical infrastructure development investment in the province and city level in general and the country level in particular.

- The current status of the government's role (the Central) and Ho Chi Minh City's authority to the technical infrastructure development investment in Ho Chi Minh City, limitations, weaknesses and causes; current problems needing to be solved in the coming time to serve the technical infrastructure development investment in Ho Chi Minh City.

- Ho Chi Minh City's local authority has performed its role to the technical infrastructure development investment, the management, use and operation of technical infrastructure in the locality.

- The guiding guideline, strategic orientation, macro and medium solutions (at the provincial level) which need to be implemented; methods to be applied to promote the technical infrastructure development investment in Ho Chi Minh City I 2020, with vision to 2030, etc.

1.2 Orientation for solving the research matters of the thesis

1.2.1 Research objective of the thesis

* *General objective:* Explain the theoretical and scientific background of proposing the orientation for the technical infrastructure development investment and solutions for improving the State's role to the technical infrastructure development investment in Ho Chi Minh City by 2020, with vision to 2030.

* Specific objectives:

- Develop a theoretical framework for analyzing and assessing the State's role in the technical infrastructure development investment in a provincial-level city.

- Give an objective assessment the State's role in the technical infrastructure development investment in Ho Chi Minh City, detect the limitations, weaknesses, causes and problems needing to be tackled in the coming stage.

- Determine the investment demand, strategic development orientation for technical infrastructure in Ho Chi Minh City and propose solutions to improve the State's role in the technical infrastructure development investment in Ho Chi Minh City by 2020, with vision to 2030.

1.2.2 Research objects and limitations on research scope of the thesis * Research objects of the thesis

The research object of the thesis is the State's role in the technical infrastructure development investment in Ho Chi Minh City

* Limit on research scope of the thesis

- *Regarding content:* The thesis focuses on conducting a deep research on technical infrastructure development, the technical infrastructure development investment and the role of the State, the Government (the Central) and the City (Ho Chi Minh City) in the technical infrastructure development investment in Ho Chi Minh City. In which, it is required to define the theoretical and practical bases about the State's role in attracting, mobilizing and using financial resources to serve the technical infrastructure development investment in Ho Chi Minh City; study the State's role in the technical infrastructure development investment in Ho Chi Minh City; study the State's role in the technical infrastructure development investment in Ho Chi Minh City on 4 aspects: Manager, Investor, Public Service Provider, and Supervisor of the technical infrastructure development investment by studying the role of the Central State and the role of the City's authority.

The thesis does not study the State's role in the district/urban district, commune/ward level and also does not study in depth the management on the use, operation and exploitation of technical infrastructure works; does not study in depth other resources such as human resource, land and technical infrastructure development investment in the City.

- *Regarding the space:* Ho Chi Minh City with relevance to the Southern Key Economic Zone and the countrywide in the context of the regional and global integration of Vietnam.

- *Regarding the time:* Analyze and assess the current status of the research object in 2006-2015 period; propose the orientation and solution for 2016-2020 period, with vision to 2030.

1.2.3 Approach to research object and research method of the thesis Approach to the research object of the thesis. - From the perspective of the economic management in which the management subjects are the Central State and Ho Chi Minh City's authority and the management objective is the technical infrastructure development investment in Ho Chi Minh City; the role of the Central State and the local authority to the technical infrastructure development investment in Ho Chi Minh City is studied in the following perspectives: Manager, Investor, Public Service Provider, and the Supervisor.

- The theoretical background of the State's role in the modern market economy, determination of the State's role on the technical infrastructure development investment with the characteristic as a type of public good, public service and the State directly uses the budget capital and other mobilized capital sources for the technical infrastructure development investment of the economy (public investment).

- The approach to the technical infrastructure development investment in a provincial-level city, mainly from the perspectives of economic institution, economic coordination between the State and the private sector, regional connection and international economic connection to attract, mobile and effectively use capital sources.

Research methods of the thesis

Use the generalization and synthesis method in studying and developing a theoretical background for the analysis and assessment of the State's role. Use analysis, demonstration, statistics-comparison to compare and assess the current status of the technical infrastructure development investment and the current status of the State's role. Use the statistical data to analyze and prove judgement and assessment on the current status and set the basis for the forecasts on the technical infrastructure development, the technical infrastructure development investment in Ho Chi Minh City. Use the interpolation method combined with deductive method to propose the solution to enhance the State's role in the technical infrastructure development investment in Ho Chi Minh City by 2020, with vision to 2030.

CHAPTER 2: THEORETICAL BACKGROUND OF THE STATE'S ROLE IN THE TECHNICAL INFRASTRUCTURE DEVELOPMENT INVESTMENT IN A PROVINCIAL-LEVEL CITY

2.1 Technical infrastructure and technical infrastructure development investment in a provincial-level city

2.1.1 Technical infrastructure in a provincial-level city

The infrastructure is a collective of a complicated and uninterrupted system of technical works to serve the economic and civil activities. It is often divided into two main parts, including technical infrastructure and social infrastructure. The technical infrastructure system includes transport works; information and telecommunication works; water supply-drainage; waste and sewage treatment; dike works to cope with the climate change and protect the environment. The technical infrastructure is mainly public goods; public services are activities and behaviors of the State in providing the public goods to the people.

"Centrally-run provinces and cities" are generally referred to as the provincial level. Ho Chi Minh City is a provincial-level administrative unit with special form. The technical infrastructure system in the provincial-level city is diverse, has many levels and particularities compared to the technical infrastructure in provincially-run cities. Regarding the particularities, they are often categorized into particularities regarding scape and spatial organization of the technical infrastructure development; particularities regarding functional sections in the development organization of a provincial-level modern city.

2.1.2 Technical infrastructure investment and the technical infrastructure development investment in a in a provincial-level city

The technical infrastructure investment is the activity of using capital into the technical infrastructure development. The capital sources for investment include three types, regarding investment of the State (public investment), private investment and combination between the State investment and public investment in the investment (public-private cooperation).

Public investment in the investment of the State. The investment capital includes capital from the State budget, the official development assistance (ODA) and the capital of the foreign donors; loans under every form of development investment of the Central and local governments; capital from all sources of collection for investment, but have not been balanced into the State budget. The public investment projects are investment projects which use the whole or a part of the public investment capital. The public investment includes preparation, appraisal, determination on the public investment program, project; preparation, appraisal, determination, handover and deployment of the public investment project; manage and use the public investment; supervisions, assessment, checking and inspection on the public investment programs, plans and projects.

Basic factors which have direct influence on the technical infrastructure development investment are capital sources, people (human resource), scientific and technological potentiality, law, investment policy and especially enterprises – economic institutions – including both the public and private sectors.

* Contents of the technical infrastructure development investment of a provincial-level city: (1) Formulate and complete technical infrastructure investment institution; (2) Determine and classify technical infrastructure investment areas in the provincial-level city to orient the invested-capital attraction; (3) Define the demand and implement projects to attract and mobilize capita;' create a reasonable invested capital structure in accordance with the

specific conditions of the city in each historical period; (4) Deploy the implementation of technical infrastructure development investment activities in the city.

* Form of the technical infrastructure development investment of the provincial-level city.

(1) Groups of investment forms for technical infrastructure investment in the provincial-level city:(i) group of investment forms of which the investment guideline and decision are set out by the Central Government; (ii) group of competent state agencies in the localities.

(2) group of technical infrastructure investment forms by public-private forms (PPP) such as BOT, BTO, BT, BOO, etc.

2.1.3 Role of the technical infrastructure development investment in the provincial-level city

The technical infrastructure helps boost the development investment of other industries in the strongest manner. The infrastructure development helps improve the quality of the living environment and quality for the people, improve the people's health; minimize expenses for enterprises; reduce the time for activities which do not generate value and raise the values generated by laborers. As the technical infrastructure brings in the low financial efficiency, so the State's role is to provide and invest on the infrastructure.

2.1.4 Theories related to the technical infrastructure development investment

* Theory of "stakeholders"

The definition "Stakeholder is any group or individual who has influence or is affected by the achievement of the organization's objectives". In the technical infrastructure investment, there are three main stakeholders, including the group providing finance, the group providing specialized technical services and the group of buyers. The group of buyers can be divided into 2 groups - the community or the payers to be benefited from the services, public assets and the government that acts as both the representative of the community to "buy" and also the coordinator of the relations among parties.

* Theory of Public Private partnership - PPP.

The public private partnership is the relation between the State and one or more partners in the private sector to coordinate and share the risk to implement the infrastructure development projects, provide public services based on the public private partnership contracts (such as BOT, BTO, BOO, BT...)

2.2 State's role in the technical infrastructure development investment in the provincial-level city

2.2.1 General rationale on the State's role in the technical infrastructure development activities in the economy

* Role of a manager

The State has influence on an organized manner and via the jurisdiction of the State on the technical infrastructure investment to best use domestic and oversea resources, possible opportunities to obtain the set development investment targets. The State plays the role of the subject in charge of the macro-management (manager) for the technical infrastructure development investment of the national economy with the management contents regarding the technical infrastructure development investment uses the specific management instruments to achieve the management objectives in each stage (such as legal instruments, national assets, organizations or technical instruments).

* Role of an investor

The role as the main owner, the owner of the national assets and the public assets under the public ownership represented and managed by the Stage. With this role, the State is also a technical infrastructure investor. All the modern states serve as the biggest investor in the technical infrastructure system of the national economy.

* Role of a public service provider

The public service state is the one who considers the management is serving and taking the public products that the private sector or the society does not supply or is incapable of supplying as the main functions. The State provides technical infrastructure services through one or two orientations: (1) Provide directly through state-owned enterprises or the non-business units of the State; (2) The State creates favorable conditions for encourage the private sector in providing the technical infrastructure services — through the investment preferential policies and assurance of benefits for enterprises which provide the public services.

* Role of a supervisor

Check, control and supervise on the four main aspects: (1) The implementation of the law on investment and relevant law to the technical infrastructure investment; (2) Financial activities for implementing technical infrastructure programs and projects; (3) Internal control in the system of State Agency with the state management function on the technical infrastructure investment; (4) Check and control the State owner for the state-invested capital in the technical infrastructure and state-owned enterprises that directly participate in the implementation of the technical infrastructure projects.

2.2.2 Determination of the state's role at the central level and the role of the local authority to the technical infrastructure development investment in the provincial-level city

The role of the competent State agencies at the central level and the role of the local authority in the technical infrastructure development investment in the provincial-level city are showed on all the four main aspects: The role of a manager, the role of an investor (the public investor), the role of the Public Service Provider and the role of the Supervisor in the technical infrastructure investment. In which, the clarification on the functions, missions, rights and decentralization in accordance with the provisions in the constitution and the law between the legislative bodies, law enforcement bodies and the judiciary bodies at the central level; as well as there must be the clarification on the functions, missions, rights and decentralization in accordance with the laws of the city's authority.

2.3 Experiences of some countries on the State's role in the technical infrastructure development investment and lessons for Ho Chi Minh City

2.3.1 Experiences of some countries on the State's role in the technical infrastructure development investment

The thesis has studied the experiences of 05 countries in the region: Philippines, Thailand, China, Korea Republic and Singapore.

2.3.2 Lessons for Vietnam and Ho Chi Minh City from the experiences of foreign countries

Through the experience study of the five above-mentioned countries, we can draw our the lessons of experience for Vietnam and Ho Chi Minh City as follows:

(1) The State's role in socio-economic development and technical infrastructure development is the core of any issue; (2) The State needs to map out the correct socio-economic development strategy and plan so as to make flexible and suitable investment policies to be the premise for the attraction and use of all the capital sources into the technical infrastructure development; (3) The State needs to have a consistent policy perspective in making use of the funded capital for technical infrastructure development investment; (4) Vietnam needs to develop flexible and competitive foreign investment attraction policies and place them in the context of the general socio-economic development of the country; (5) The investment policy must use comprehensive management instruments and do not pay too much attention on the investment preferences; (6) If there is any instability in the politics and economic management, it will be very difficult for making investment at a high speed; (7) It is possible to reduce the investment cost through the fact that the State is the investor on the technical infrastructure by itself; (8) The State needs to use the market regime in the technical infrastructure development investment; (9) Although the investment policy is planned correctly, it is crucial to have an effective state management apparatus with impartial dedicated and highly-responsible public servants; (10) Investment policies, especially policies on the foreign investment encouragement into the technical infrastructure and have a close relation to the foreign relations of a country with other countries.

CHAPTER 3: CURRENT STATUS OF THE STATE'S ROLE IN THE TECHNICAL INFRASTRUCTURE DEVELOPMENT INVESTMENT IN HO CHI MINH CITY

3.1 Current status of technical infrastructure development investment in Ho Chi Minh City

3.1.1 Overview of the development investment in Chi Minh City in 2001-2015 period

In 2001-2010 period, the average growth rate of the city's GDP increases by over 11%/year. In 2011 - 2015 period, the GDP of the city grew by 9.6%/year on average, 1.66 times higher than the GDP growth rate of the whole country (up by 5.78%). This is the signal that the economic growth decreases and the average GDP is lower than in the previous stages (because the world economy severely and lingeringly receded in this period, with a slow recovery capacity; and the internal weaknesses of the country had not been solved from the roots, etc.). However, the economic growth quality of Ho Chi Minh City has been step by step improved when the ICOR tended to decrease.

Table 3. 1: Investment over GDP ratio and ICOR of Ho Chi Minh City's
economy in 2001-2005, 2006-2010 and 2011-2015

Year	2001	2002	2003	2004	2005	2001-2005
GDP growth rate	10	10	11	12	12	11
Investment/DGP ratio	33.6	33.6	32.8	33.1	32.2	33
ICOR	3.52	3.30	2.87	2.83	2.64	3
Year	2006	2007	2008	2009	2010	2006-2010
GDP growth rate	12.2	12.6	10.7	8.6	11.8	11.2
Investment/DGP ratio	35.7	42.7	42.1	43.0	41.9	41.5
ICOR	2.81	2.93	3.72	5.44	4.49	3.88
Year	2011	2012	2013	2014	2015	2011-2015
GDP growth rate	10.3	9.2	9.3	9.6	9.9	9.6
Investment/DGP ratio	40.3	36.6	30.4	29.5	29.8	33.3
ICOR	3.64	3.87	3.61	3.45	3.31	3.58

Unit: Ratio %

Source: Calculation of the thesis's author and data from Ho Chi Minh City's Department of Statistics

* The investment structure has been developed and changed. The oversea capital continues to increase by 50% to 60% and the investment from the state budget decreases - which shows that the invested capital in the city is less dependent on the state budget and the state-owned enterprises.

Table 3. 2: Scale and structure of development investment capital in HoChi Minh City in 2001-2015

Invested capital	2001-2005		2006-	2010	2011-2015		
source	Capital	Rate	Capital	Rate	Capital	Rate	
Budget capital	73.800	36	193.321	32	238.000	20	
Non-state capital	106.600	52	302.064	50	737.800	62	
Foreign capital	45.100	22	108.743	18	214.200	18	
Total invested capital	205.000		604.128		1,190,000		

Unit: Capital: trillion Vietnam dong; rate: %

Source: Calculation of the thesis's author and data from Ho Chi Minh City's Department of Statistics

* Regarding the resource mobilization for development investment in 2011 -2015 period

Ho Chi Minh City is the locality that ensures the highest balance between the state budget and the regulation ration on the collection and payment to the central budget among 63 provinces and cities, but the regulation rate of the collected amount for the locality is prescribed at 33% (2004), but the actual figure is just 23% (2011-2016). With the regulation rate of 23% at present, every year, the City encounters a lot of difficulties in the budget balancing.

* Some specific results:

(1) Regarding domestic and foreign loan capital (ODA).

Table 3. 3: Results of loan capital mobilization in domestic and foreignmarkets for the development investment of Ho Chi Minh City in 2011-2015Unit: VND billion

Content	2011	2012	2013	2014	2015	Total
Total mobilized capital	2,600	11,723	8,148	11,580	6,925	40,976
- Loan from State treasury	-	2,700	-	2,000	-	4,700
- Issue of local authority's bond	-	3,310	3,000	3,000	3,000	12,310
- Value of reimbursements from ODA projects	2,600	5,713	5,148	6,580	3,925	23,966

Source: The author of the thesis has summarized data from Ho Chi Minh City Department of Planning and Investment (2) The processing and rearrangement of residual houses and lands belonging to the State's ownership are:

Ho Chi Minh City is the first locality that tests the processing and rearrangement of residual houses and lands of the State. The processing results of residual houses and lands from 12,921 addresses including recovery 259 addresses with the total land area of 878,936m2. The collected amount is VND 18,889.082 billion.

(3) Auction of land use right. The City has successfully organized and auctioned 18 land plots, with the total value of over VND 5,000 billion, contributing to the development investment of the key works and projects in the city.

(4) Implement the capital mobilization well, diversify the social resources for the technical infrastructure development investment.

3.1.2 Current status of capital sources for technical infrastructure development investment in Ho Chi Minh City in 2006-2015 period

* Regarding the capital mobilization

(1) Capital mobilization from the public sector

- The total ODA in 2006-2015 period is VND 73,776 billion.

- The total state budget capital used as the counterpart capital for ODA project in 2006-2015 period is VND 22,784.2 billion.

- The total local budget capital for capital construction in 2010-2013 period was VND 63,424.2 billion.

- The total capital mobilized from the local authority's bond issuance for the technical infrastructure investment in 2011-2015 period was nearly VND 12,610 billion.

(2) The capital mobilization for the technical infrastructure construction projects under PPP form in the city:

In 2004-2012 period, 25 investment projects in BOT, BOO and BT forms were deployed with the total estimated invested capital of VND 74,096 billion. Some typical projects have been completed including: Phu My Bridge (BOT), Thu Duc Water Plant (BOO). After the Decree No. 15/2015/ND-CP dated February 14, 2015 on public-private partnership took effect on April 10, 2015, as of quarter II of 2016, the City appealed for the investment on a total of 19 projects under PPP form (BOT, BT, BTO, BOO contract forms, etc.) with the total invested capital of about VND 34,847 billion.

(3) The capital mobilization for the construction of commercial and public service infrastructure:

The total invested capital is estimated at US\$ 2,531 million. Besides, the City also attracted a part of the remittances (about US\$ 24.3 billion in 2011-2015 period) for investing in commercial infrastructure in the locality.

* Regarding the use of technical infrastructure development investment in 2011-2015 period

In 2011-2015 period, the total invested capital for construction in the four basic infrastructure sectors (including electricity, water, waste treatment, transport & warehouse and information & telecommunication) was VND 253,154 billion, accounting for 21.22% in the total development investment capital in the City and being equal to about 7% of the City's GDP in the same period.

The data on the current investment and capital use status in the technical infrastructure sector over the past five years still had some limitations: The invested capital scale for technical infrastructure development is still very small; the structure of using invested capital into the technical infrastructure sector is slowly transshipped toward the modernization orientation; the growth of invested capital from the City's budget for the development in general and the investment in the technical infrastructure in particular is generally very low.

3.1.3 Current status of technical infrastructure development in Ho Chi Minh City

1. Urban traffic technical infrastructure development

Over the past 10 years, Ho Chi Minh City has quickly developed the urban transport network and the urban transport has developed vividly from roadway, railway, river way transport, waterway transport and seaway transport in which the roadway transport can't help being mentioned.

2. Communication-telecommunication technical infrastructure development

Compared to other localities nationwide, Ho Chi Minh City has quite developed information technology-telecommunication infrastructure which makes considerable contribution to the socio-economic development of the City. With the existing information technology foundation of the city, the development planning of Ho Chi Minh City into a "smart city" has been thought about.

3. Power sector technical infrastructure development

Over the past time, the power sector has been able to implemented many basic tasks: invest in the construction of power networks 220kV, 110kV, construct the power network underground, reduce the power loss, combine to create the aesthetics in the city as well as save the power effectively. Through that the power output has increased constantly year by year.

4. Water supply-drainage and treat sewage & waste treatment system

(1) Water supply technical infrastructure:

The current water supply capacity is stable and the water quality is always assured. As of late 2015, the average water supply capacity is estimated at 2.120 million m3/day ad night; the proportion of the urban households who have been

supplied with the clean water is 98.5%; The suburb area has exploited 123 concentrated water supply stations to serve the life of 352,328 households.

(2) Water drainage technical infrastructure:

Although the city has implemented many urban drainage works such as: Improve the water drainage system; dredge canals; repair man holes; use tide prevention measures..., but the current status of solving the water drainage problem continues, but still persists. Many places in the inner city are still flooded due to rain and flood tide.

(3) Waste and sewage treatment technical infrastructure:

The investment in the waste treatment in the locality has been basically implemented well from the gathering, transportation and treatment of domestic wastes, hazardous wastes and medical wastes. Similarly, the medical waste treatment and industrial waste treatment works have been also controlled and improved.

3.2 Analysis and assessment on the State's role for the technical infrastructure development investment in Ho Chi Minh City

3.2.1 Current status with the role of a manager of the State for the technical infrastructure development investment in Ho Chi Minh City

With the role as the manager, the City has determined the strategic goal, the planning and the plan of the technical infrastructure development investment; established the legal framework; created an environment for technical infrastructure investment; supported the development, construction; and constantly develop the technical infrastructure and the social security.

3.2.2 Current status with the role of an investor of the State for the technical infrastructure development investment in Ho Chi Minh City

Hochiminh City Finance and Investment State-owned Company (HFIC) is a typical investor of the State. The Company uses the capital granted by the State to be the "seed capital" for implementing the investment along with capital contributors as non-state economic-financial-credit organizations.

Besides, along with the capital from the state budget, the investment and capital mobilization from economic sectors under various forms such as BOT, BT, BTO, BOO and public-private partnership (PPP) have increased considerably.

3.2.3 Current status with the role of a public service provider of the State for the technical infrastructure development investment in Ho Chi Minh City

The public services have been directly provided through 100% State-owned enterprises that provide technical infrastructure services of the City. The private sector has been encouraged to provide technical infrastructure services through the investment preferential policies and assure the benefits for enterprises engaging in supplying technical infrastructure services. 3.2.4 Current status with the role of a supervisor of the State for the technical infrastructure development investment in Ho Chi Minh City

The system of its management apparatus such as departments and branches (Department of Finance, Department of Planning and Investment, Department of Architecture Planning, etc.), along with the system of people's committees in 24 districts and urban districts in the City, etc.

3.3 Assessment on shortcomings regarding the State's role in technical infrastructure investment in Ho Chi Minh City

3.3.1 Main shortcomings regarding the State's role in the technical infrastructure development investment in Ho Chi Minh City and causes

(1) The vision and quality of the urban planning has not been high, synchronous and there is a lack of region-sector-field coherence.

(2) The organization and management of the technical infrastructure investment development in Ho Chi Minh City still contains a lot of shortcomings.

(3) The role of Ho Chi Minh City's authority in actively leading and promoting the regional linkage to serve the technical infrastructure development investment remains glimpse.

3.3.2 Some problems needing to be solved in the coming time to enhance the State's role in the technical infrastructure development investment in Ho Chi Minh City

1. Some problems for the Central State to mobilize resources from the private sectors to serve the technical infrastructure development investment.

(i) The investment in PPP form is subject to the governing of various laws, including the law on investment, the law on public investment, the law on state budget, the law on land, the law on construction, the law on enterprises, etc. and the law on specialized sector management, etc.

(ii) Foreign investors have paid attention to the guarantee support policies of the government, have been willing to share the risks with the government regarding exchange rate, foreign currencies conversion, etc.

(iii) The approval for Ho Chi Minh City to apply the form of appointing investors for projects which need to be deployed quickly such as project on improving and constructing new downgraded apartment buildings, transport infrastructure in some areas where traffic accidents often happen, etc.

2. Some problems facing Ho Chi Minh City's authority

(i) Problems related to the State management capacity.

(ii) Problems related to the State resources for technical infrastructure development investment: problem o adjusting the regulating proportion from the total budget income of the City to the local budget is too low; regarding the income from auction of land use right; payment for investment in accordance with the public private partnership form; the budget deficit and the lending outstanding balance for technical infrastructure investment; land funds of units that need to be dislocated; sales of right to collect fee in transport infrastructure works.

(iii) Build a smart city by 2025.

CHAPTER 4: SOLUTIONS FOR IMPROVING THE STATE'S ROLE IN THE TECHNICAL INFRASTRUCTURE DEVELOPMENT INVESTMENT IN HO CHI MINH CITY

4.1 Orientation on technical infrastructure investment development in Ho Chi Minh City by 2020, with vision to 2030

4.1.1 Objective on technical infrastructure development to serve socioeconomic development of Ho Chi Minh City

Complete and improve the quality of the planning and well manage the planning implementation. Create a breakthrough in the construction of synchronous and modern infrastructure; connect provinces and cities in the region; concentrate all the resources into works and projects to implement the breakthrough works of the city to basically solve the problems of traffic jams, flood, environmental pollution and infrastructure in the key technical infrastructure sectors to target to smart and ecologic city. Attract and effectively use the invested capital sources to serve the infrastructure development. Promote the appeal and focus on implement the investment project in publicprivate partnership (PPP) form. Continue to study and complete the preferential regime and policy for investment, mobilize all resources to concentrate on accelerating the key technical infrastructure projects. Improve the state management efficiency, complete policies to quickly socialize the environment protection; drastically classify wastes at source; transport, process and recycle wastes.

* Key development criteria for Ho Chi Minh City by 2020

1. The total annual domestic product growth of the City (GRDP) increased by 8% - 8.5% (1.5 times higher than the GDP growth rate of the country as a whole).

2. The total social invested capital accounts for about 30% of the GRDP.

3. The average GRDP per capital is US\$ 9,800.

4. The proportion of trained laborers makes up 85% in the total working laborers.

5. The unemployment rate in the urban area is lower than 4.5%.

6. The clean water supply is assured for 100% of households.

7. The total new house constructed area is 40 million m2 and the average house area per capital is 19.8 m2/person.

8. By the end of 2020, the proportion of doctor per person is 20 doctors/10,000 people; 42 sickbeds/10,000 people.

9. The treatment of medical and industrial waste treatment reaches 100%.

10. Regarding the management capacity of the city's authority, Ho Chi Minh City is included in the top 5 leading localities nationwide regarding the Provincial Governance and Public Administration Performance Index (PAPI), the Provincial Competitiveness Index (PCI), and Public Administration Reform Index(PAR-index).

4.1.2 Orientation on technical infrastructure development in Ho Chi Minh City by 2020, with vision to 2030

1. The urban space development orientation must comply with the master construction planning for Ho Chi Minh City.

The city's development model is oriented to be developed in accordance with the centralized - multi-polar model, the center is the inner city with the radius of 15 km and 4 development poles; 4 city-level centers in four development directions and two sub-directions: North-west and West, West-South. Do not develop the urban areas in Can Gio Biosphere Reserve and special-use and protective forests in Cu Chi and Binh Chanh districts.

2. Orient the transport technical infrastructure development

The transport network is focused to be developed to connect new urban areas, satellite urban areas, industrial parks and inter-regional transport hubs, strongly connecting with provinces in Ho Chi Minh City's urban area (the Southern Key Economic Zone) to support the synchronous socio-economic development of the whole region.

3. Orient the technical infrastructure development for power supply

- The power capacity has increased by 7-8.5 %/year, and will reach about 33-35.4 billion Kwh by 2020 and about 48.5 - 50 billion Kwh per year by 2030.

- The maximum power capacity at present is 3,800 - 4,000 MW, and will be about 6,100 - 6,500 MW by 2020 and about 9,000 MW by 2025.

4. Orient the technical infrastructure development for information technology and telecommunication: (i) Step by step cover broadband mobile information to 100% of households; (ii) Develop modern telecommunication infrastructure connecting with the information superhighway in Vietnam and overseas. Build and develop the e-government; by 2020, build Ho Chi Minh City into a smart city; (iii) Develop the information and network security. Build key hi-tech industrial parks and software parks, etc.

5. Orient the technical infrastructure development for water supply, drainage, waste and sewage treatment, etc.

* Develop the water supply technical infrastructure

Assure the total capacity from the main water supply system from 2,510,000 m3/days and nights in 2015 and 3,700,000 m3/days and nights by

2025; reduce the clean water loss rate from 32% in 2015 to 25% by 2025; assure that 100% of the population in the old internal city and 98% of the population in the new inner city and the suburb can use clean water and reach 100% by 2025.

* Develop the technical infrastructure for water drainage

Build a water drainage system based on the harmonization with the nature. Develop a water drainage system in accordance with the development of the city and assure the synchronous development among regions.

* Develop the technical infrastructure for waste, sewage treatment and sanitation of the City

Control, prevent and minimize the air pollution, noise, water surface, underground water, normal solid wastes and hazardous wastes, at the same time, overcome serious pollution to satisfy standards and national technical standards on environment; strive to build an ecological city.

4.1.3 Orientation on mobilizing capital resources for technical infrastructure development in Ho Chi Minh City in 2016-2020 period

It is expected that the total social invested capital of the City in 2016-2020 period is about VND 1,829,385 billion (up by 8.4% per year on average), accounting for about 30% in the gross domestic product (GRDP) of the City and up by 53.3% compared to 2011-2015 period, in which:

+ Invested capital from the State sector is expected at VND 367,221 billion.

+ Invested capital from non-state sector is expected at VND 1,120,598 billion.

+ Foreign direct investment (FDI) is expected at VND 332,567 billion.

The investment on transport infrastructure and warehouse continues to be prioritized. The city plans to use VND 272,368 billion for this sector, accounting for 14.9% in the total social invested capital, including the capital from the state budget, ODA, mobilized capital from the private sector and FDI.

4.2 Main solutions for improving the State's role in the technical infrastructure development investment in Ho Chi Minh City in the coming time

4.2.1 Group of solutions for enhancing the role as a manager of the State for the technical infrastructure development investment in Ho Chi Minh City

1. Solutions on the technical infrastructure development investment planning in Ho Chi Minh City

2. Solution to smart city development planning by 2025

3. Solution to assessment on efficiency assessment of technical infrastructure investment in Ho Chi Minh City

4. Solution to technical infrastructure work construction investment management regime in Ho Chi Minh City

5. Solution to site clearance to serve the technical infrastructure work construction in Ho Chi Minh City

6. Solution to technical infrastructure exploitation business management

7. Solution to improvement of public investment in technical infrastructure development in Ho Chi Minh City

8. Completion of policy to attract invested capital for technical infrastructure in Ho Chi Minh City

9. Completion of mechanism, policy and state management on human resource development

10. Completion of the system on organization and relevant policies related to environment protection and water resource protection, etc.

11. Utilization of international integration for scientific-technological development regarding technical infrastructure and protection of environment, water resource and response to climate change and rising sea level, etc.

4.2.2 Group of solutions for enhancing the role as an investor of the State for the technical infrastructure development investment in Ho Chi Minh City

1. Continuity on adjusting the capital distribution for technical infrastructure development investment in Ho Chi Minh City.

2. Solution to use of state budget as seed capital for counterpart capital to participate in technical infrastructure investment projects in Ho Chi Minh City.

3. Solution to effective management of loan capital for technical infrastructure investment in Ho Chi Minh City

4. Enhancement of human resource development investment in Ho Chi Minh City

5. Enhancement of science and technology potentiality development in Ho Chi Minh City.

4.2.3 Group of solutions for enhancing the role as a public service provider of the State for the technical infrastructure development investment in Ho Chi Minh City

1. Promotion of the handover and delegation to the public sector to provide the public services in Ho Chi Minh City.

2. Solution to use capital for overhauling and maintenance of technical infrastructure works in Ho Chi Minh City.

3. Enhancement of the quality management in the public service provision

4.2.4 Group of solutions for enhancing the role as a supervisor of the State for the technical infrastructure development investment in Ho Chi Minh City

1. Solution to the checking and supervision of the drafting of legal documents of the sector and locality regarding the charter, regulation, rule, procedure, etc. in technical infrastructure work construction investment in Ho Chi Minh City.

2. Solution to the enhancement of the system for checking and supervising the technical infrastructure work construction investment in Ho Chi Minh City.

3. Enhancement of the checking, inspection, drastic treatment and settlement of environmental cases and violations on the environment protection law.

4. Association of the checking and supervision with the awareness raising on the environment protection.

CONCLUSION AND RECOMMENDATIONS

From the results of the Thesis, some conclusions are as follows:

1. The no.1 role of the State in the market economy is to ensure public goods, infrastructure for the socio-economic development.

2. In terms of economic nature, the technical infrastructure is a type of public goods and services. The market rule requires the involvement of many providers of public goods with good quality and reasonable costs.

3. The success in the development of infrastructure is due to the key role of the state budget combined with the involvement of the private sector to invest in the infrastructure. The socialization of investment allowing the private sector to participate in the process of providing public goods not only helps the people enjoy the public services with good quality and reasonable costs but also reduces the budget burden, minimizing the public debt, reducing opportunities for corruption of the state management agencies, reducing the State's responsibility for providing public services and spending more time to focus on the state management functions.

4. Technical infrastructure investment is an activity of using the funds to build and develop the transport system works, IT and postal-telecommunication works, manufacturing and supplying electricity, water drainage-supply system and urban sanitation, etc. for the socio-economic development. In order to sustain the technical infrastructure development investment in the provinciallevel city, major contents are as follows: Develop and finalize the technical infrastructure investment institution; identify and classify technical infrastructure investment fields in the city to orient to attract the investment funds; identify the needs and implement the programs and projects to attract and mobilize the fund for the synchronous development of the entire urban technical infrastructure system in the city; create the reasonable investment capital structure in accordance with the specific conditions of the city in every period; implement the technical infrastructure development investment in the city. Major forms of the public investment in the technical infrastructure development in the provincial-level city are as follows: Firstly, the group of investment proposed and decided to invest by central-level competent state

agencies and the group of investment proposed and decided to invest by local competent state agencies. Secondly, the group of investment forms to built the specific technical infrastructure in the form of public-private partnerships (PPP), including BOT, BTO, BT, BOO, BLT, BTL, O&M, etc.

5. The State carries out the functions and plays the role of the state management entity in the technical infrastructure investment in which there are major contents as follows: public investment management, private investment management of the technical infrastructure development, perform the function of the state management of technical infrastructure investment. The State plays the roles of a Manager, an Investor, a Public Service Provider and a Supervisor of the technical infrastructure investment.

6. The role of central-level state agencies and the role of local governments in the technical infrastructure development investment in the province-level city are shown on all 4 major aspects: The role of a manager, the role of an investor (the public investor), the role of the Public Service Provider and the role of the Supervisor in the technical infrastructure investment. In particular, there is a clear distinction in functions, duties, powers and decentralization as stipulated by the Constitution and the Law between legislative agencies, law enforcement agencies and the judicial authorities at central level; as well as clear distinction in functions, duties, powers and decentralization in accordance with the law of the City government.

7. The experience of some countries in the region with many similarities with Vietnam such as the Philippines, Thailand, China, Korea (Republic) and Singapore shows that the State's role in economic development and technical infrastructure development is very important and is the core of all problems. With the right strategic planning on the socio-economic development, the investment policies are planned and implemented flexibly which is the solution for the technical infrastructure development in particular and the economy in general. The State should use the market mechanism for the technical infrastructure investment. The State should take administration reform and have apparatus to manage the effectiveness and performance of the technical infrastructure investment in association with the development of civil servants who are fair, dedicated, highly responsible and professional in the management of the technical infrastructure investment.

8. Ho Chi Minh City, a big special provincial-level city, is an economic center of the country with the rapid economic development speed. The economic development of the City has a high requirement on the technical infrastructure development. Technical infrastructure investment requires large capital and long-term investment. The pressure on technical infrastructure development in the city has created a huge financial pressure for the City government. In recent years, the City government has made efforts on the urban technical infrastructure development but these efforts have yet met the requirements of the economic development because of the limited financial resources. One of the important reasons is the share of the local budget allocated from the City's total revenues was low and fell sharply from 33% in 2003 to just 23% in the 2011-2015 period. Moreover, the share of the development investment out of the total local budget expenditure of Ho Chi Minh City also decreased from 40% in 2011 to 38% in 2015. Meanwhile, the attraction of the capital from the private sector in the PPP projects in the City is limited. This reflects that the Central government has paid no proper attention to the regulation of the state budget for the technical infrastructure development investment in Ho Chi Minh City. At the same time, the indicators of the share of the development investment capital in 4 basic technical infrastructure fields out of the total investment in the social development of Ho Chi Minh City in 2011-2015 was only 21.2% and equal to just 7% of the City's GDP, lower than the national average (23% and 7.1%) which also partly reflecting that the City government has not invested properly in the technical infrastructure development investment in the City.

9. Besides the achievements, the major shortcomings on the State's role in the technical infrastructure development investment in Ho Chi Minh City are: Vision and urban planning quality are not high, not synchronized, lacking of cohesion among regions - industries - sectors; the management organization of the technical infrastructure development investment of the Ho Chi Minh City authority is inadequate, limited and slow to be overcome; the role of Ho Chi Minh City authority in actively leading and promoting regional links to the technical infrastructure development investment is fuzzy, etc., This situation has raised many problems for the central-level role of the State and Ho Chi Minh City authority needs to continue solving them to improve the role of the State.

10. In the next 10 years, the Party and the Government of Ho Chi Minh City have set strategic goals that is to create a strategic breakthrough in the construction of modern and synchronized technical infrastructure, connecting the infrastructure among provinces in the region; focusing on solving the traffic congestion, flooding, environmental pollution, etc. and build a smart city, etc. To achieve the strategic goals, Ho Chi Minh City needs to mobilize a total investment fund of nearly VND 2 million billion for the 2016-2020 period and about over 30% of which is for the technical infrastructure development investment. This is a major challenge for Ho Chi Minh City authority.

11. In order to improve the State's role in the technical infrastructure development investment in Ho Chi Minh City in the coming time, the city government needs to implement synchronously the solutions groups: improve the quality of planning of the technical infrastructure development investment; planning to develop a smart city; evaluate the effectiveness of technical

infrastructure investment projects; adjust and finalize the mechanism on management of the investment in the technical infrastructure works; complete the mechanism on management, business and exploitation of the technical infrastructure works; improve the effectiveness of the public investment and public service provision; strengthen the inspection and supervision system of the construction investment in the technical infrastructure works, especially the public investment. The technical infrastructure is highly multidisciplinary and interdisciplinary, therefore, it is required to enhance the State's role in the development of science and technology and human resources for the technical infrastructure development in Ho Chi Minh City. Moreover, it is also required to continuously strengthen the inspection and supervision of the environmental protection, protection of water resources and coping with climate change, etc.

12. For the mobilization and use of funds for the technical infrastructure development investment, it is recommended to continue developing and finalizing policies to attract both home and abroad private capitals; allocating reasonably the funds for the technical infrastructure development investment; efficiently using the counterpart funds of the State in the PPP projects and efficiently using the funds for the maintenance on the technical infrastructure works in the city.

* Propose further researches after the Thesis:

- Conduct a further study of the role of the Government and Ho Chi Minh City People's Committee in the technical infrastructure development investment in Ho Chi Minh City, a key economic region in the Southern region, Southeastern region.

- Conduct a further study of the role of local authorities at the district-level and communal level in the technical infrastructure development investment in Ho Chi Minh City.