Diversification of Financing Sources for Transport Development in Vietnam

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Abstract.

Vietnam's transport sector has made good progress over the last decade in responding to the demand of rapid economic growth and the need to connect the most remote communes. The Vietnamese Government has invested 1.8-2.5 percent of GDP in transport development, which was mainly contributed by the state budget and ODA funds. However, the large amount of future expenditure in transport sector and the current budget constraints pose an immediate question about the sustainable financing sources for transport development in the future. This policy paper focuses on the financing policies for transport sector, provides the analyses of future budget needs, estimates the level of budget constrains and suggests the solutions for diversification of the domestic financing sources. It is followed by some recommendations.

Key words: transport sector, expenditure, financing policy, financing sources.

* My deepest gratitude to Professors Fumio Nishino and Professors Morichi Shigeru for helpful discussion. All errors are solely the authors' ones.

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I. Introduction.

Vietnam's transport sector has made good progress over the last decade in responding to the demand of rapid economic growth which is mainly due to the increasingly export orientated, and the need to connect the most remote communes.

Over the last decade, the Vietnamese government has invested around 9-10 percent of GDP for infrastructure development and one fourth of that amount was spent on transport sector. During this period, the GDP growth was 7.2 percent per annum, and hunger and poverty were reduced from 58 percent to 29 percent[1]. These successes were partly contributed by the development of the transport infrastructure system, which is played in role of a basis service for other economic sectors and helped the poor people from access to the health care services, schools, and other social services.

The expenditure in transport was mainly funded by ODA sources and state budget. However, these financing sources are likely inadequate in comparison with the actual future demand. According to the Ministry of Finance, the state budget and ODA covered for 70 percent of investment needs only in 1999-2005 period, while the remaining 30 percent was on outstanding commitment. In the next decade, it is estimated that the Vietnam's investment in infrastructure should need 11-12 percent of GDP, in order to meet the increasing transport demand in the future and to avoid the bottleneck to economic growth[2]. Currently, one of the most concern of the Vietnamese government is the future budget constraint may create the obstacles to transport development. Therefore, the care needs to be taken by the policy-maker in the transport sector is to design the appropriate policy, that ensured to create the

[1] The Government of the Social Republic of Vietnam, The Vietnam Socio-Economic Development Plan 2006-2010, Ministry of Planning and Investment, 2005.
[2] Ibid.

sustainable financing sources to meet the huge expenditure requirements in transport sector in the future.

This paper focuses on the financing policies for transport development with aiming to suggest the measures for diversifying the financing sources and to enhance the efficiency in utilizing the budget for transport development. The first section provides an overview of the public expenditure in transport sector in the last few years. The second section estimates the future financing requirements based on the domestic transport demand, and compares with average expenditure for transport of other East Asian countries. The third section presents the current obstacles in financing scheme for transport development of Vietnam, analyses the financing policies for transport development in Japan, and identifies the appropriate experiences of Japan in order to get useful implication for Vietnam's financing policies for transport. The final section provides the summary of recommendations.

II. Overviews.

II.1. The Current Conditions.

Between 1999 and 2004, the demand for freight transport increased about 11 percent per annum in term of ton-km while the demand for passenger transport growth was 9.4 percent per annum. Comparing the freight transport mode among sub-sectors, road is dominant mode which accounts for nearly 70 percent of tons moved but coastal shipping accounts for 72 percent of ton-km due to its dominance in long-distance transportation mode and remaining 28 percent was shared by railways, aviation and other modes (Table 1).

Table 1. Domestic Volume 1999 – 2004 (Inserted here)

According to the Ministry of Finance (MOF), total nominal public expenditure in transport increased at almost 21 percent per annum between 1999 and 2002 reaching 3.5 percent of GDP in 2002 versus an average of 2 percent in the late 1990s. Table 2 shows the proportion of the state budget directly allocated to the local governments which has increased

significantly from 44 percent in 1999 to 56 percent in 2002 but the recurrent expenditure while having a large increase in 2000 has dropped back close to its 1999 level.

Table 2. Overview of Transport Sector Expenditure (Inserted here)

In the period 1999-2004, the average expenditure per annum in transport was estimated at around 2.2-2.5 percent of GDP which was generally higher than that of other East Asian countries such as 1.9 percent in Malaysia, 1.8 percent in Korea and 1.7 percent in Thailand (Table 3). The reason is that these countries are at more advanced stages of their economic development and they have reached a more developed state of transport infrastructure. Some of these economies such as Indonesia and the Philippines have arguably been under-investment in their transport sector[3].

Table 3. Transport Expenditure Levels as Percentage of GDP of East Asian Countries (Inserted here)

II.2 The Expenditure Plan up to 2020 of the Ministry of Transport (MOT)

The Vietnam Transport Development Plan up to 2020 submitted by the MOT to the Prime Minister on December 2002 estimated the average investment demand between 2002 and 2020 at US $7 billion per year, with almost 60 percent of that budget allocated for rail way and urban transportation. Such an amount is 6 times over the transport expenditures in 2002 and would account for about 14 percent of GDP of the year 2005 (Table 4).

The total expenditure estimated by the MOT is five times higher than the investment requirements proposed by the VITRANSS[4] and includes additional expenditure for urban transport, local transport, expressways and railways. According to the VITRANSS, the total budget investment up to 2010 is estimated about US $ 11.5 billion which excludes the investment for expressways, ports and urban transport.

Table 4. Investment Demand for Transport Infrastructure (Inserted here)

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[3] Vietnam Managing Public Expenditure for Poverty Reduction and Growth, World Bank 2005, p.38.
[4] Vietnam Transport Strategy Studies was conducted by Japan International Cooperation Agency (JICA) in 1999 providing a technical assistance for the Vietnamese Government to establish the National Transport Development Strategy up to 2020 and to design the National Transport Development Master Plan up to 2010.

The MOT's plan seems to be unrealistic and should be reviewed with taking account for the availability of the budget resources. In 5 years from 1997 to 2002, the actual investment amount in transport sector accumulated only Vnd 47,488 billion (US $ 3.013 billion) or equals to 1.8 percent of GDP[5]. In addition, the MOT's annual report of the 2005 shows the total investment in 2005 accounted for Vnd 16,701 billion (US $ 1.057 billion) or equivalent to 2.2 percent of GDP only, although this is the highest level of the public expenditure in transport sector over the whole period in term of absolute amount[6]. The actual expenditure was spent for transport in the past decade, in term of percentage of GDP, shows that it was much lower than that of expenditure proposed by the MOT.

III. The Future Expenditure Requirements in Transport Sectors.

As the foresaid, the annual expenditure in the transport sector was accounted for 1.8-2.5 percent of GDP in the last decade. Although the Ministry of Transport suggests that the future investment need is to be increased to 3.5 percent of GDP but it seems to be unrealistic regarding to the availability of the state budget. This section suggests the possible level of the expenditure in transport with reference to the experiences of other Southeast Asian countries and the current condition of Vietnam.

III.1 Overview of the expenditure in transport sector of the East Asian countries

The experience of the East Asian countries shows that in general the total amount of public investment for infrastructure was 7 or 8 percent of GDP, where the large part of public investment was usually allocated in transport sector. For example, in between 1957 and 1973, the Japanese government accelerated investment in transport infrastructure, quickly exceeding 2 percent of GDP and remaining between 2.0 and 2.5 percent ever since then[7].

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[5] World Bank, Vietnam Managing Public Expenditure for Poverty Reduction and Growth, World Bank and Ministry of Finance, 2005.
[6] Ministry of Transport, Annual Report 2005.
[7] Ashoka Mody, Infrastructure Strategy in East Asia: The Untold Story, World Bank 1997, p.xiii

Korea and Taipei China have also made large investments in infrastructure. Korean's investment in infrastructure rates have been at or above 8 percent in many years in the past few decades while expenditure in transport shared about 2-3 percent of GDP. In Taipei China, the investment rates have been around 3-4 percent, which combines investment in telecommunication and transport[8]. Hong Kong, Malaysia, and Singapore had investment rates in transport at the same scale, which was around 1.5-3 percent of GDP[9].

In period 1999-2005, Vietnam investment rate in transport has been at 1.8-2.5 percent of GDP, which is much similar to Japan's investment rates between 1957 and 1973. Table 5 shows an overall pattern of the expenditure in transport development in East Asian countries. For convenience of comparison, the different periods cross over time were selected in order to ensure that these countries are similar patterns in term of economic development. For example, in the selected period these countries are the same level of growth rates at 6-8 percent per annum and the rates of GDP per capita at US $ 600-1000. In general, Table 5 shows the average investment rates in transport have been at 2-2.5 percent of GDP.

Table 5. Comparison of Transport Expenditure Levels in East Asian Countries

III.2 The Future Expenditure in Transport Sector.

III.2.1 The Budget Constraint for Transport Development.

Investment in transport sector in the last five years was massively contributed by the ODA source. Especially, nearly 70 percent of the expenditure in road sub-sector was funded by ODA[10]. In the future, the financing sources for transport may face to budget constraints because of declining ODA inflows. On one hand, the statistical data show the global trend of ODA has continuously declined over the few decades and that may also influence the Vietnam in the future. On the other hand, it is most likely the case that the donors could not

[8] Ibid, pp.3-11
[9] Thomas R. Leinbach and Chia Lin Sien, Southeast Asian Transport: Issue in Development, Oxford University Press 1998, p.22.
[10] UNDP, Vietnam Development Cooperation Report, UNDP 2005, p.24

provide more ODA to Vietnam in the future because the country shall attain the GDP per capita at US $ 1000 in 2010 and it could not be seen as the underdeveloped country to get the preferential treatment of the donors.

Moreover, the Vietnamese government may not be able to increase the budget on transport because of increasing investment needs in the other sectors. In the period 2006-2010, the average expenditure needs per annum for the electricity, telecommunication and urban infrastructure are required about US $ 3 billion, US $ 2.4 billion and US $ 3 billion, respectively, or equivalent to 12% of GDP[11].

Table 6 shows the availability of ODA sources for infrastructure based on the data from various ministries. The data show that the ODA sources for transport and telecommunication could be attained US $ 4 billion in next five years. If it materializes, the portion of ODA for transport could be US $ 3 billion, thus ODA to be allocated for transport sector is about US $ 700 million per annum or equivalents to 1.2 percent of GDP. So far, ODA's source could fund a haft of transport investment needs only.

As foresaid, the total expenditure was suggested by the MOT[12] seems to be ambitious since it estimated the expenditure per annum at US $ 7 billion or equivalent to 14 percent of GDP of 2005. Though the MOT's plan has listed out all the project needs under the investment program, it needs to consider the availability of financing sources.

Table 6. The Prediction of ODA mobilizing in between 2006-2010 (inserted here)

III.2.2 The Possible Expenditure Requirement in the Future

In this paper, I attempt to suggest three possible scenarios of the expenditure in transport sector up to 2010 for comparison. Suppose that the total investment in transport sector could vary from 1.8 percent to 3 percent of GDP, then three possible scenarios of the expenditure

[11] World Bank, Vietnam's Infrastructure Challenges, World Bank 2006; and The Vietnam Socio-economic Development Plan 2006 – 2010, Ministry of Planning and Investment.
[12] The Vietnam Transport Development Plan up to 2020, Ministry of Transport, 2002.

plan which possibly estimate the annual expenditures at 1.8 percent, 2.5 percent and 3 percent of GDP, respectively, from lowest to highest scenarios. Regarding to the economic growth rate average at 7.2 percent over the decade, it is realistic to assume that, in the next five years, the GDP growth rate should move from 6.5 percent to 8.5 percent, respectively, from low case to high case. Table 7 shows the details.

Table 7. Estimate of the Total Investment for Transport Sectors (inserted here)

Having considered the expenditure trend in transport sector over the last decade, I suggest that the future expenditure should possibly be scenario II, which suggests the annual expenditure at 2.5 percent of GDP. In that case, the total expenditure in the period 2006-2010 equals to US $ 8 billion that is much lower than the amount proposed by the MOT as present in Table 4.

The statistical data indicated that the sate budget allocated for transport sector remains at 0.7~ 1 percent of GDP over the last decade. If state budget could not be increased in the future thus total state budget and ODA account for about 70 percent of investment requirement only (Table 8). In that circumstance, there is about 33 percent of expenditure need is outstanding commitment. Obviously, the Vietnamese government needs to introduce the new financing sources to bridge the budgetary shortage, otherwise budget constraint clearly occurs.

Table 8. The Future Expenditure Requirement in Transport (inserted here)

IV. The Diversification of the Financial Resources for Transport Sector.

The rapid economic growth has generated high rate of traffic demands, urbanization, and the large increase in maintenance cost due to the fast expansion of transport's infrastructure assets. As foresaid, although the expenditure in transport sector was mainly funded by the state budget and ODA in the past, the future investment needs may be an obstacle because of budget constraint. Thus, in order to ensure the sustainable financing sources for transport, the diversification of financing sources is considered as the only countermeasure.

IV.1 Current issues

In order to meet the huge investment needs in the future, the government must make full use of not only the domestic budget but also other funding sources. In addition to ODA sources, mobilization of private financing sources from both overseas and domestic is necessary. There are two remaining issues need to be improved. First is the rigidity of the financing scheme, which prevents the government from expanding its financing sources for transport development. The expenditure in transport infrastructure was mainly funded by the state budget and ODA, which accounted for more than 90 percent of investment requirement, while the remaining fund was provided from other sources such as government bonds and private sector. There is no other financing modality than these ones in transport sector.

The second is the current financing policies in transport sector, which are unfriendly toward the private participation in infrastructure (PPI), particularly in transport sector. There are only two foreign investors operating in port services and four State-owned Enterprises (SOEs) participated in toll roads as Build-Operate-Transfer (BOT) projects. In order to encourage the private sector's capital to participate in transport sector, the incentive policies should be introduced. The next section provides further information related to these issues.

V.1.1 Public Bonds

The government has been issuing bonds with 5 – 10 year maturity to partly finance shortage of budget expenditure. The bonds are part of government's plan aiming to accumulate US $ 4 billion by 2010, mainly funding for infrastructure projects including transport sector. This is the third major financing source following two main sources of state budget and ODA.

These bonds are considered as the off-budget sources to comply with the State Budget Law which set strict limit on the budget deficit including amortization less than 5 percent GDP. Although these bonds are off-budget, the interest payment of these bonds is on-budget.

Bonds of five year maturity have around 8.4 percent of interest. In 2004, the bonds are to sell about VND 8.2 trillion, which is equivalent to US $ 600 billion. The main buyers of government bonds are state-owned commercial banks and Vietnam insurance company. Although the interest rate has been marginally higher than the deposit rates offered by the banks for similar maturities, the government bond was still not appreciated by the private sector and the public. The main reason may stem from its long-term frozen capital and it was viewed as the low liquid asset in capital market.

V.1.2 Private Participation in Infrastructure (PPI)

The government has emphasized the mobilization of the private finance for a number of years. However, there are very few projects funded by the private sector and majority of them were BOT's contracts. Since BOT regulations were enacted, currently referred to Decree 77 of 1997 for domestic investments, and Decree 62 of 1998, as amended by Decree 2 of 1999, for foreign investments, the Ministry of Transport has entered in a few domestic BOTs, contracted out to SOEs under the Ministry. Despite of these projects in the form of BOT, the project costs were mainly funded by the state budget through providing loans for the SOEs.

The PPI has been more proactive in other infrastructure sectors such as electricity, energy and telecommunication than in the transport sector. The low incentives of PPI was mainly stemmed from the projects completed, which have been undertaken on an ad hoc basis, without any clear evidence of a policy designed to encourage the private participation in infrastructure. As such, there are still no replaceable models for PPI projects in Vietnam, which can provide investors the assurances that future transactions can be completed in a transparent and timely manner. The reasons for this are complexity, which varies from sector to sector, but three general points are worth noting.

First, some sectors such as airports, strategic ports, and railways were not encouraged the private sector from participation in investment, operation and management.

Second, there are a number of other restrictions on the ability of non-nationals to invest in the infrastructure sectors. The time consuming tendering procedures for selecting contractors for a BOT project have long been criticized by many foreign investors. As such, with extremely limited financial and technical capacity in the purely domestic private sector, little or no development has taken place.

Third, the general business environment, while slowly improving the infrastructure projects usually required the investment in long-term and the capital investment in infrastructure are highly risky for both private sponsors and lenders. For example, foreign investors often complain about the difficulty of negotiating projects with multiple layers of Vietnamese bureaucracy and the unnecessary expenditure of time and money dealing with different authority Departments.

IV.2 The Financing Policies for Transport: The Japan's Experiences.

Infrastructure development in East Asia has critically contributed to economic growth, which is, obviously, led by the crucial role of the government. Reflecting their heavy involvement in infrastructure development, the governments of the East Asian countries have promoted many creative plan centres on its financing issues. Direct funding from government budgets has played a determinant role but the governments have also established mechanisms for bringing commercial discipline to the financing and operations of infrastructure. There are many different measures to diversify of the financing sources have also been introduced such as establishing the special accounts, charging service fees, introducing taxes for the restricted overused. This section focuses on the Japan's experiences of diversification financing sources in transport sector, in order to get useful implication for Vietnam.

IV.2.1 The Diversification of Funding Sources.

In order to fully mobilize domestic sources for infrastructure, Japanese government has diversified configuration of financing sources of the central government, the local

governments and public corporations. To alleviate the burden on general tax revenues, the Japanese government has introduced several measures such as public bonds issued by both central and local governments, created public corporations that charged user fees and issued corporate bonds, and established several special accounts for major infrastructure projects that were financed by user fees and earmarked taxes. The diversification of financing allowed the Japanese government to play a pivotal role in infrastructure development to support Japan's economic growth at higher rates from the 1950s through the 1980s.

The Fiscal Investment and Loan Program (FLIP) has been a major role device for financing Japanese infrastructure development. The program takes fund from the postal saving and social security pensions, and funnels them to public corporations and private sector investment as interest bearing loan. By introducing this program, the Japanese government has been able to stimulate investment in infrastructure without directly increasing taxes and to provide the incentives to private sector to expand its capital investment through government financial institutions.

The Japanese government's bonds were also one of the important financing sources in early development stage of 1950s. The fiscal discipline is expressed in the public finance law, which was set limits on the issuance of government bonds in order to ensure without hyperinflation and the rapid accumulation of government debt[13]. For decades after the start of economic expansion in 1955, the government was able to avoid issuing deficit financing bonds. However, under the pressure of public investment needs in 1960s, the Japanese government has urged the Japanese Diet enacted Exceptional Law on bond issue each year. By doing so, the government was permitted to promote the issuance of deficit financing bonds. Although such kind of law was meant to be temporary, financing by this method become an important channel to finance for infrastructure, which reached Yen 14,170 billion

[13] Ashoka Mody, Infrastructure Strategy in East Asia: the Untold Story, World Bank 1997, p.85

per annum by 1980[14]. The Japanese experiences showed that the issuance of deficit financing bonds has not caused serious economic problem if there is high level of saving in the private sectors. Table 9 shows the mechanism of Japanese financing sources in comparison with those of the Vietnam.

Table 9. The comparison of diversification of funding Sources between Japan and Vietnam (inserted here)

IV.2.2 Special Accounts for Transport Sector.

The Japanese government established the special accounts for infrastructure from 1950s including special accounts for transport development such as road improvement in 1958, and harbor improvement in 1961[15]. These special accounts effectively enabled the government to set fees and taxes at major projects. For example, the major sources of revenue earmarked for road expenditures include gasoline tax for road improvement and three-quarters share of an automobile weight tax for road construction, these two categories make up more than 90 percent of national budget for the road sector[16]. User fees are also used for the construction and maintenance of certain infrastructure facilities. Moreover, imposing fees on consumer is an important measure of deterring over use.

Japan has successfully used the special accounts for infrastructure investment, using the public corporations, financed in the early stage by the government bonds and later on by the revenues from fuel tax and user fees from the early projects. It would be worth for Vietnam to consider similar models, which would be the most appropriate to the country's conditions.

In context of Vietnam, the special account could be introduced for the roads as the first priority. The reason is that, firstly, expenditure in road would be accounted for the largest portion of the total expenditure in the transport sector and, secondly, road sector is able to

[14] Ashoka Mody, Infrastructure Strategies in East Asian: the Untold Story, World Bank 1997, pp.85-86
[15] Yuzo Akatsuka and Tsuneaki Yoshida, System for Infrastructure Development: Japan's Experiences, Japan International Cooperation Publishing, 1999. pp.106-10, website of Ministry of Land, Infrastructure and Transport http://www.mlit.go.jp
[16] Ashoka Mody, Infrastructure Strategies in East Asia: The Untold Story, World Bank 1997, p.85

create the pay back through collecting user fees and gasoline tax. Since the Vietnam Road Administration, an official agency, is responsible for operation and maintenance of the national highway network, it could be the most appropriate agency for management of the road special account.

The user fees and gasoline tax could be the possible financing sources to bridge the inadequate financing sources. According to the Ministry of Finance of Vietnam, the state revenue from gasoline taxes and user fees in 2003-2005 is stable at one percent of the national GDP. If the license tax is included, the total of this revenue could be reached 1.3-1.5 percent of GDP. Table 10 shows that there are US $ 3.2 billion could be mobilized from gasoline tax and user fees.

Table 10. The Possibility Revenue Sources (inserted here)

Obviously, if the revenue from gasoline and user fees could be specifically allocated in a special account for transport, then total revenue from the state budget, ODA funds and the special account can meet the demand of expenditure (Table 11). The second best case is that the government should review the priority list of projects and the second priority projects should be eliminated from the public investment plan. Doing so, these revenues can be shifted to invest in the other infrastructure sectors such as electricity, telecommunication and urban infrastructure.

Table 11. Suggestion of Financing Sources for Transport Infrastructure 2006-2010 (inserted here)

IV.2.3 The Public Corporations.

To alleviate the burden on state budget facing to the central and local governments, Japan established public corporations to assume some of the burden for financing and constructing infrastructure. The early public corporations included The Japan Highway Public Corporation (nihon dōro kōdan) established in 1956 and Tokyo Expressway Public Corporation in 1959. Public corporations could issue their own bonds and borrow from the private sector. Under the guidance and supervision of the state, these special corporations

implement activities in pursuit of the policy objectives set down by the central government. As needed, they receive the financial support and loans under preferential conditions.

In order to enhance the efficiency of utilizing budget in transport, the Japanese government has introduced incentives to the public corporations. Because the Japanese public corporations could attain loans from the government and have to repay the loan with interest, they are forced to pursue profitability. In contra, the Vietnamese SOEs are tightly managed by the Ministry of Transport. They have rarely taken their own autonomous responsibilities and accountabilities because they are fully sponsored by the MOT. Hence, the SOEs have low incentives in promoting their own business and pursuing profit. Some Japanese public corporations have failed to meet their accountabilities because of unprofitable projects, however, by introducing public corporations scheme, the Japanese government can improve the efficiency of budget usage.

It is suggested that the MOT should establish some public corporations, initially, in road sector. In 2006, the Vietnamese government launched the National Expressways Development Program, which includes many potential profitable projects. These projects should be considered to convert to the public corporations as the pilot projects.

IV.2.4 The Public-Private Financing Partnerships.

There are two infrastructure projects, the Trans-Tokyo Bay highway and the Kansai International Airport, which are the examples of the willingness of Japanese government to combine the public and private resources in financing for the huge infrastructure projects. The construction of the Trans-Tokyo Bay Highway is a prime example of how private and public entities can together develop social capital for development of the huge infrastructure. In 1986 the Trans-Tokyo Bay Highway Corporation (TTB) was established as a joint stock company consisting of government capital (from Japan Highway Corporation), local government and private corporations. In order to collect the extremely huge construction cost

of about Yen 1,428.4 billion, more than 80 percent of the financing source has been mobilized through bonds, loans from the central government, and a part from private financial institutions. Upon completion, the TTB will turn over the asset to the Japan Highway Corporation, which is responsible for managing major toll road in Japan, while the TTB will engage in maintenance activity. Despite ~~of~~ the project failure because of financial debt, the project's financing scheme should be viewed as the lesson learned in introducing the form of the Public-Private Financing Partnerships.

There are some key points, which are worth noting as follow.

First, the huge financing source requirements for transport sector could not be satisfied with budget from the public sector only. In order to create the sustainable financing sources for transport infrastructure, attracting the private capital to co-sponsor the large expenditure's projects is necessary. Despite Japan's economy had very high saving ratio, the expenditure in transport could not be funded by the public budget itself.

Second, introducing the friendly business climate is a necessary measure to attract private sector to invest in transport sector. There is also need to develop other funding modalities and/or concession of public infrastructure assets. It is recommended that the MOT and related agencies take action to address some key issues of legal and regulatory framework, which may inhibit the private sector from participating in the transport sector.

For example, the Decree 77 of 1997 for domestic investments in the public infrastructure requires that the private partner must provide at least 30 percent of a project cost as the qualification for bidding the BOT contract. As a huge cost is required in many transport projects, this regulation seems to become a barrier to prevent the private sector from participating in the sector. In that case, it is suggested that the flexible financing scheme could be an appropriate solution, where the financing shares bearing by the private sector should be considered case by case through the negotiation process.

Last but not the least, the Public-Private risk sharing is one of the most serious concerns of both foreign and domestic private partners since the experience showed that the risk normally rests with the private sector. The MOT is under process to amend the Decree 77 and it is recommended that the risk-sharing principles need for serious attention.

V. Conclusions

The investment needs in the transport sector will require a large amount in the future, which is estimated about 2.5 percent of GDP. The expenditure needs could be even larger than that amount if the maintenance cost for the existing assets, investment in transport means and services and expenditure for urban transportation are fully accumulated.

The existing estimation of the future expenditure needs in transport sector could be met only by a combination of public and private finance. The previous estimation of future expenditure requirements in the National Transport Development Plan produced by the MOT in 2002 should be re-assessed due to its ambitious expenditure requirements. The MOT's plan should be based on a stronger forward realistic planning framework, which addresses budget and recurrent expenditure requirement in line with the Vietnam Socio-economic Development Plan and consistent with a sustainable budget constraint.

The diversification of financing sources for transport sector should be considered as an only possible solution to fill a gap between the state budget constraint and the large expenditure requirements.

It is necessary to establish the special account for transport sector. Particularly, the MOT should implement a pilot project in road sector. The budget for the highway special account could be made as loans from state budget and government bonds. The future revenue from user fees and facilities charges could be used as pay back sources to highway special account.

Enhancement of the effectiveness of using investment sources in transport is necessary as an immediate measure. It is suggested that the MOT should establish a public corporation that is responsible for each special sub-sector such as expressways, highways, railways, shipping and ports and so forth. The public corporation should borrow a loan from special account or private sector and it will pay back with interest. Under the pressure of profit driving forces, the public corporation has a vehicle for monitoring the quality and efficiency of using budget.

As foresaid, it is clear that the transport sector needs to attract financing from private sector to expand the existing budget constraint. The Vietnamese government should consider opening up the barrier that inhibited private sector investment such as airports, railways and ports. It is also important to provide government support measures to private sector such as to ease the administration procedures in concession process and to establish clear risk-sharing principles.

Considering the limitation of financing sources of the domestic capital market, the government should repeal the clause that required private has to share at least 30 percent of total investment cost in BOT contract. Moreover, the government should encourage foreign investor participation by creating transparent and consistent PPI policy.

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Appendix A: Tables

Table 1. Domestic Volume 1999 – 2004

Mode	1999				2004				Annual increase ton-km %
Freight Transport	1000 ton	%	mil ton-Km	%	1000 tons	%	mil ton-Km	%	
Railways	5,146.0	2.7	1,445.5	3.6	8,829.4	3.1	2,790.8	4.1	14.1
Roads	132,137.3	69.4	7,159.8	17.8	192,562.5	67.6	10,305.5	15.3	7.6
Inland-water ways	39,887.2	21.0	3,967.8	9.8	59,071.4	20.7	5,591.8	8.3	7.1
Maritime	13,006.1	6.8	27,619.6	68.5	24,363.6	8.6	48,335.9	71.9	11.8
Aviation	42.5	0.02	105.5	0.3	102.5	0.0	237.9	0.4	17.7
Total	190,219.1	100.0	40,298.2	100.0	284,929.4	100.0	67,261.9	100.0	10.8
Passenger Transport	mil. Pass	%	mil pass-km	%	mil pass	%	mil pass-km	%	Annual increase pass-km %
Railways	9.3	1.3	2,722.0	8.8	12.8	1.1	4,378.0	9.0	10.0
Roads	588.4	81.0	22,053.3	71.3	999.7	84.4	31,730.7	65.4	7.5
Inland-water ways	125.7	17.3	2,109.7	6.8	166.2	14.0	3,440.0	7.1	10.3
Aviation	2.7	0.4	4,042.0	13.1	5.6	0.5	8,948.0	18.5	17.2
Total	726.1	100.0	30,927.0	100.0	1,184.3	100.0	48,496.7	100.0	9.4

Source: Government Statistical Office (www.gso.gov.vn)

Table 2. Overview of Transport Sector Expenditure (Nominal Figure)

(Billion VND unless otherwise indicated)

	1999	2000	2001	2002	Growth per annum %
Total Transport Expenditure	10,616	11,375	14,985	18,721	20.8
- Total Exp. by Central Gov.	5,901	6,391	6,582	8,305	12.1
- Total Exp. by Local Gov.	4,715	4,984	8,403	10,416	30.2
Transport Exp. as % of GDP	2.7	2.6	3.1	3.5	
Transport Exp. as % of Total Public Exp.	12.5	11	12.5	13.8	
Local Exp. as % of Total Transport Exp.	44.4	43.8	56.1	55.6	
Total Recurrent Expenditures	723	1,319	1,404	1,331	22.6
- Total Central Recurrent Exp.	331	792	799	580	20.6
- Total Local Recurrent Exp.	392	527	605	751	24.2
Recurrent Exp. As % of Total Exp.	6.8	11.6	9.4	7.1	

Source: Ministry of Finance

Table 3. Transport Expenditure Levels as Percentage of GDP of East Asian Countries

Country	Transport Investment at % of GDP	Annual Economic Growth Rate % (2000-2005)
Malaysia	1.9	4.3
Korea	1.8	6.3
Thailand	1.7	4.1
Singapore	1.3	3.1
Vietnam	2.2	7.5

Source: Ministry of Transport, IMF statistics

Table 4. Investment Demand for Transport Infrastructure ($US Million)

	2002 - 2010 period		2011 - 2020 period		Total period 2002-2020		Annual average
Total	50,125	100.00%	84,352	100.00%	134,477	100.00%	7,078
Road (in which:)	15,609	31.14%	20,846	24.71%	36,454	27.11%	1,919
Expressway	*3,589*	*7.16%*	*10,059*	*11.93%*	*13,648*	*10.15%*	718
National Highways	*8,846*	*17.65%*	*7,931*	*9.40%*	*16,778*	*12.48%*	883
Provicial Road	*3,173*	*6.33%*	*2,855*	*3.39%*	*6,028*	*4.48%*	317
Rural Transport	5,489	10.95%	4,940	5.86%	10,428	7.75%	549
Railway (in which:)	13,874	27.68%	24,973	29.61%	38,848	28.89%	2,045
Express Railway	*12,944*	*25.82%*	*22,938*	*27.19%*	*35,882*	*26.68%*	1,889
Normal Railway	*930*	*1.86%*	*2,035*	*2.41%*	*2,966*	*2.21%*	156
Maritime	1,294	2.58%	4,124	4.89%	5,418	4.03%	285
Inland Waterways	297	0.59%	286	0.34%	582	0.43%	31
Civil Aviation	1,135	2.26%	2,305	2.73%	3,440	2.56%	181
Urban Transport (Hanoi & Hochiminh City)	12,429	24.80%	26,878	31.86%	39,307	29.23%	2,069

Source: Vietnam Transport Development Strategy up to 2020 (Ministry of Transport, 2002)

Table 5. Comparison of Transport Expenditure Levels in East Asian Countries.

Country (period)	Transport Investment as % of GDP	Total Public Investment in Infrastructure (% GDP)
Japan (1957-1973)	2.0-2.5	6.0-8.0
Korea (1983-1991)	2.1-3.0	5.3-8.2
Taipei China (1970-1992)*	2.1-4.0*	8.1-13
Malaysia (1973-1983)*	6*	7.3
Thailand (1973-1983)*	6-7*	6.9
Vietnam	**1.8-2.5**	**7.5**

Source: World Bank 1994a, World Bank 1996, MoF Vietnam.
** Investment in both Transportation and Telecommunication*

Table 6. The Prediction of ODA mobilizing in between 2006-2010

Sectors	Amount of ODA as the agreements (2001-2005)		Estimate the total amount of ODA will be signed under agreements		Estimate the ODA committed (2005-2010)
	$US billions	% allocation	$US billions	% allocation	$US billions
Agriculture and Poverty reduction	1,6	14,6%	2,2-2,5	18%	2,9-3,3
Industry and Energy	2,1	18,7%	1,9-2,2	16%	2,6-2,9
Transport, Telecommunication and Urban Infrastructure	2,9	26,3%	3,6-4,1	30%	**4,8-5,5**
Health, Education and Social infrastructure	4,5	40,4%	4,3-4,9	36%	5,8-6,6
Total	11,1	100%	12,0-13,6	100%	16,0-18,2

Source: The data summarized by author based on resources from Ministry of Agriculture and Rural Development, Ministry of Energy, Ministry of Transport and Ministry of Planning and Investment.

Table 7. Estimate of the Total Investment for Transport Sectors

	Total Investment in Transport Sector ($US billion) in 2006-10		Average Investment per Annum ($US billion)	
	Low	High	Low	High
Total GDP 2006-10	311.36	315.72		
Scenario I (1.8% GDP)	5.60	5.68	1.12	1.14
Scenario II (2.5% GDP)	7.78	7.89	1.56	1.58
Scenario III (3% GDP)	9.34	9.47	1.87	1.89

Source: Estimated by author
- GDP in 2005 is about $US 50.6 billion
- Low (GDP growth at 7%); High (GDP growth at 8.5%)

Table 8. The Future Expenditure Requirement in Transport ($US billion)

	1999	2000	2001	2002	2003	2004	2005	Total 1999-2005	% of total exp.	2006-2010*	
										Low	High
Total GDP	25.38	28.02	30.54	34.00	38.92	45.25	51.72	253.82		311.36	315.72
Total exp.	0.51	0.53	0.74	0.86	0.92	0.97	1.08	5.60	100.0	7.78	7.89
- State budget	0.15	0.18	0.15	0.29	0.33	0.30	0.37	1.76	31.4	2.18	2.21
- ODA	0.22	0.23	0.27	0.24	0.35	0.39	0.42	2.12	37.8	3.00	3.00
Outstanding commitment	0.14	0.13	0.32	0.33	0.25	0.28	0.29	1.73	30.8	**2.60**	**2.68**

Source: Ministry of Finance, Government Statistical Office
** Estimated by the author*

Table 9. The comparison of diversification of funding Sources between Japan and Vietnam.

Entity	Sources	
	Japan	Vietnam
National Government	General account	Yes
	Special account (user fees and earmarked taxes, transfer from several accounts)	No
	National bonds	Yes. (but it was not appreciated by private sector)
	FLIP	No
	Other (Public stocks sales)	No
Local government and private financial institutions	National government	Yes
	Local bonds (FLIP)	It was promoted as a pilot project for urban transport development in Hochiminh City.
	Local taxes (general account and earmarked taxes)	No. The local investment usually funded through state budget.
Public corporation	General account	Yes. The Vietnam Expressways Corporation established in 2004, how ever stills heavy dependence to the MOT.
	Corporate bonds	No
	FLIP	No
	Bonds and loans from private financial institutions	No

Table 10. The Possibility Revenue Sources **($US billion)**

Revenues	2003	2004	2005	2006 – 2010 *	
				Low	High
Gasoline tax	0.204	0.230	0.271	1.61	1.63
Fees and Charges	0.209	0.205	0.268	1.56	1.58
Sub total (1)	*0.413*	*0.435*	*0.539*	***3.17***	***3.21***
License tax	0.116	0.166	0.182	1.03	1.04
Sub total (2)	*0.529*	*0.601*	*0.712*	*4.19*	*4.25*

*Source: Ministry of Finance; * estimated by the author.*

Table 11. Possible Financing Sources for Transport Infrastructure 2006-2010 ($ Billion)

	2006 – 2010 *	
	Low	High
Total Expenditure needs	**7.78**	**7.89**
Total possible financing sources		
- State Budget	2.18	2.21
- ODA sources	3.00	3.00
Sub total (1)	***5.18***	***5.21***
The Possible revenue from gasoline tax and user fees (Special Account)	3.17	3.21
Sub total (2)	**8.35**	**8.42**

Source: Estimated by the author; Ministry of Finance;