Chapter 10

Vietnam Country Report

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CHAPTER 10

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Introduction

Viet Nam has a population of 88.8 million people in 2013 and GDP of US$355 billion (0.38% of global GDP). It has a factor-driven economy in the process of industrialisation and is transitioning to an economic structure that is more reliant on efficiency drivers (World Economic Forum, 2012). Agriculture accounts for 19.7 percent of GDP (38.7% in 1990); industry, 38.6 percent (22.7%); and services, 41.7 percent (38.6%). Its GDP per capita stands at US$3,998 in 2013 (GNI per capita: US$1,400) (Asian Development Bank, 2013). The change in its industry's structure is reflected in the greater urbanisation, with the proportion of population residing in towns and cities growing from 19.5 percent to 31.9 percent between 1990 and 2013.

Net private capital from all sources between 2007-2011 was US$52.8 billion, a significant increase over the US$9.2 billion of the preceding five years. Foreign direct investment (FDI) averaged US$7,862 million annually between 1997 and 2011, which is 7.6 percent of GDP on average.

Viet Nam's real economic growth has averaged 6.1 percent in the last 10 years until 2011 (see Table 10.1), and data confirm a correlation between economic growth and investment in infrastructure. The country was adversely impacted by the global economic crisis in 2008 as both economic growth and private investment slowed down during the period and then recovered by 2010-2011.

Inflation averaged 13.2 percent over the period of 2007-2011, which is higher than that of other ASEAN countries and Viet Nam's major trading partners (Asian Development Bank, 2013).

Viet Nam is committed to expanding its infrastructure so as to meet the strong demand for services. In particular, more investments in energy and roads address its growing urbanisation and support industrial development. Substantial investment has been made over the past decade on the nation's airports and national airlines, ports and major road links to China, Lao PDR, Cambodia, and Thailand. Guidelines introduced by the Ministry of Planning and Infrastructure in 2013 (MPI, 2013) directed government agencies to integrate investment and planning strategies in 2014-2015 so as to fast-track investment in economic and social infrastructure.

Electricity services 96 percent of households (compared to 78% in 1997). In 2010, consumption of energy increased from 98 kWh (1990 figure) to 1,035 kWh. Viet Nam is a net exporter of energy and the largest foreign investor in Lao PDR. The sources of energy include natural gas (46%), hydro (29%), and coal (20.7%).

For 12 years up until 2012, fixed telephone lines increased from 2.5 million to 10.2 million while mobile telephones grew from less than a million to 134 million.

The nation's investment in roads is not yet in pace with its real economic growth. The national road network increased 64 percent between 1990 and 2011 but its rail network lost 25.3 percent of its route kilometres between 2000 and 2011 (Asian Development Bank, 2013).

Table 10.1: Viet Nam's Investment/GDP Ratio and GDP Growth Rate

Period	GDP Growth Rate %	Investment/GDP %
1991-1995	8.20	28.20
1996-2000	7.00	33.30
2001-2005	7.51	39.10
2006-2010	7.00	42.70

Source: Ministry of Finance (MOF), Ministry of Planning and Investment (MPI), GSO of Viet Nam.

Table 10.2: Viet Nam's Economic Development

	2006	2007	2008	2009	2010	2011	2012
GDP (US$ billion)	60.9	71.0	91.1	97.2	106.4	123.6	136.0
Total investment/GDP (%)	41.5	46.5	41.3	42.8	41.9	34.6	33.5
GDP growth rate (%)	8.2	8.5	6.3	5.3	6.8	5.9	5.0
Inflation rate (%)	7.5	12.6	19.9	6.5	11.8	18.6	6.8

Source: MOF, MPI, GSO of Viet Nam.

1. Fiscal Policy

Viet Nam's national revenue is relatively stable, averaging 25 percent of GDP in five years until 2012. Fiscal balance over the same period averaged 2.4 percent of GDP, and total government expenditure was 28.3 percent of GDP, the highest in the ASEAN. State budget revenues from oil and other exports contributed to a current account balance of 5.8 percent in 2012.

Starting 2009, total state budget outlays decreased as a result of austerity measures undertaken to stabilise the economy following the global economic crises. Even though the percentage of national spending to nominal GDP is relative stable but high inflation has decreased the real value of it. Its operational expenditures increased while investment for development declined, suggesting inefficiencies in the operation of government business enterprises, government spending, and budget management.

Vietnam’s investment rate is high relative to growth, with the rate appears to be on the increase. Vietnam’s ICOR averaged 4.8 during 2000-2008 and 5.4 for the period 2006-2008. It is much higher than that of NICs during the transition period from 1961-1980 such as Taiwan (2.7), South Korea (3) or some countries in the region like Thailand (4.1 from 1981-1995) and China (4 from 2001-2006). (WDI calculated by Asia Competitiveness Institute, 2010)[1].

[1] Source: World Development Indicators and Economist Intelligence Unit 2010; calculations by ACI.

Table 10.3: Government Finances (GDP % at Current Prices)

	2006	2007	2008	2009	2010	2011
Total revenue	28.9	28.9	28.6	27.6	28.0	26.4
Taxes	24.3	23.5	24.4	22.5	24.3	23.1
Total expenditure	27.5	29.4	27.7	30.6	30.7	28.0
Budget Surplus/Deficit	1.3	-1.0	0.7	-3.9	-4.5	-2.5

Source: MOF.

2. Public Debt

According to calculation from the Economic Committee of the National Assembly and UNDP in Vietnam (2013), total public debt at the end of 2011 was around 55 percent of GDP, of which 31 percent is foreign debt and 24 percent is domestic. To put this statistics in context, note that the maximum level of public debt for developing countries such as Viet Nam is recommended at 64 percent (Caner, Grennes and Koehler-Geib, 2010). Adjusting public debt for off-balance sheet items such as government business enterprises, whose debt accounts for around 55 percent of GDP, would take Viet Nam well past this suggested threshold. Thus, the government should exercise caution in the management of public debt if it wants to preserve its present credit rating and to continue attracting foreign direct investment (FDI). An additional consideration here is that public debt is principally denominated in yen, US dollars and Euro currencies, which tend to appreciate quickly during recovery from international recession, thus creating an exchange rate risk in the future. Viet Nam currently has a sovereign credit rating of B+ stable (Standard and Poor's, 2013) and has a process in place to adopt the International Public Sector Accounting Standards with the International Monetary Fund and World Bank's support[2].

3. Vietnam's Capital Market

Vietnam's stock market was created in 2003 and was valued at US$33 billion in 2012 (21% of GDP). Meanwhile, its bond market is experiencing strong growth with the highest growth rate of 14.8%, reaching US$29 billion as of the fourth quarter of 2013. Treasury bills, central bank bonds, and government business enterprise debt securities account for 97 percent of bond market

[2] http://www.mof.gov.vn/portal/page/portal/mof_en/odapp/25419463/25421473?pers_id=25427174&item_id=93570841&p_details=1

instruments being traded. Private bonds have a minor and a diminishing share of the domestic bond market.

4. Infrastructure Metrics

Infrastructure is important to Viet Nam's economic development, and evidence points to a correlation between the quality of a nation's infrastructure and its international competitiveness. For instance, the present poor condition of Viet Nam's transport infrastructure adds to transaction costs, constrains better productivity and adversely affects the country's competitiveness in export markets.

Figure 10.1: Growth of Viet Nam's GDP and Infrastructure Investment

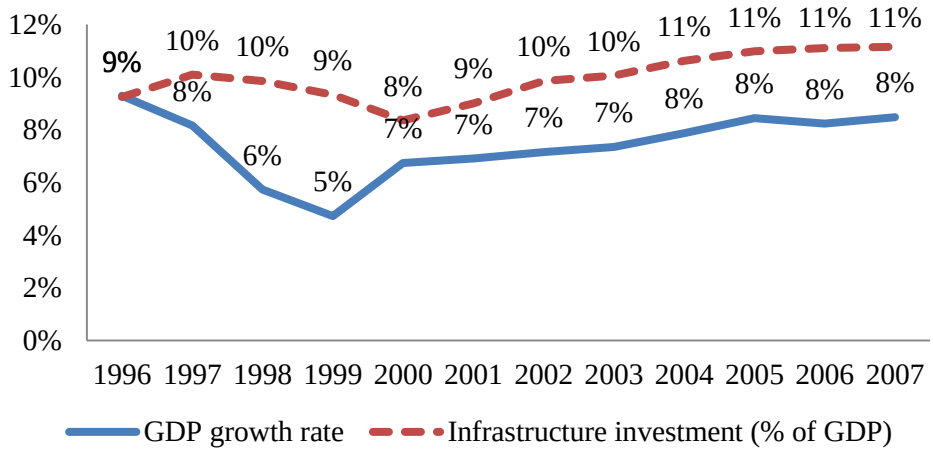


Table 10.4: ASEAN Infrastructure and Competitiveness

Countries	Overall Index	Basic Requirements	Infrastructure
Malaysia	25	27	32
Thailand	38	45	46
Indonesia	50	58	78
Philippines	65	80	98
Viet Nam	75	91	95
Cambodia	85	97	104

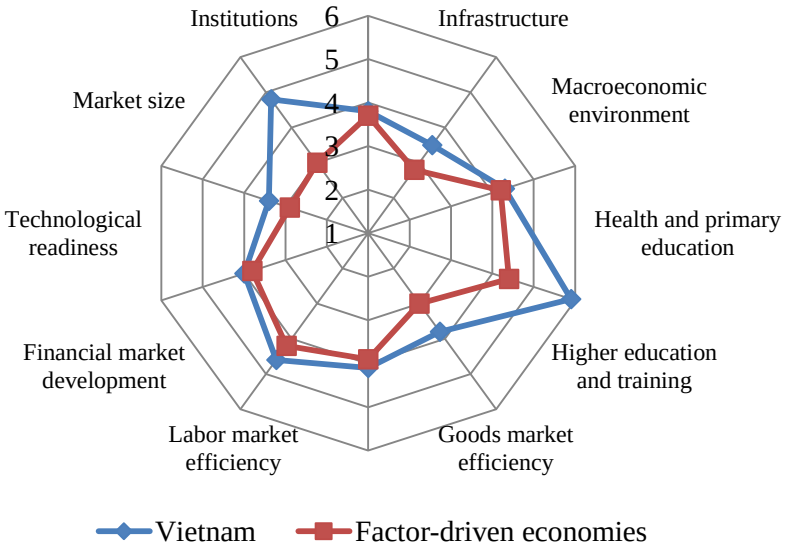
Source: World Economic Forum
Note: Lower value indicates improved adequacy over higher number.

Table 10.5: Infrastructure Adequacy, Viet Nam

	Mean	Median
Basic Infrastructure (electricity, energy, land, etc.)	6.5	7
Transport infrastructure (roads, airports, etc.)	5.0	5
Communications Infrastructure	4.5	5
Financing constraints	7.0	8
Labour Force	5.5	5
Skilled Labour, Technical Know-How	6.3	6

Source: Central Institute for Economic Management (CIEM), Viet Nam.

Figure 10.2: Development Status Viet Nam, Factor-Driven Economies (WEF 2012)



Overview of Viet Nam's Infrastructure

1. Roads and Highways

Asian Development Bank data indicate that Viet Nam has 256,000 km of roads, of which around 17,000 km are national highways and 23,000 km are main roads. Local and paved roads account for around 85 percent of the network, up from 47.6 percent in 2007 and 23.5 percent in the early 1990s (ADB, 2013; JICA, 2009).

About 43 percent of the road network is in good condition, 37 percent is in average condition, and 20 percent is in poor to very poor state. Provincial and local roads are narrow and unpaved, and vulnerable to adverse weather conditions, local flooding and landslides. Vietnam's national road strategy has prioritised secondary roads for rehabilitation, repair and maintenance over the local roads. However, as local roads carry greater traffic volume, congestion imposes time and cost penalties on provincial businesses, especially the low load factors for local producers and traders.

Road construction is costly, and limited budgets constrains Viet Nam's opportunities to improve land bridge freight connections to China, Thailand, Cambodia, and Lao PDR. Aside from the cost, the country has to contend with poor road conditions, inexperienced project managers, time and cost overruns, the country's long eastern seaboard, difficult subsoil conditions, and the need for higher vehicle clearances. All these impose high logistics costs, which account for up to 25 percent of GDP gross value added in 2012.

Table 10.6: Comparison of Costs for Constructing Expressways

	Hanoi-Vinh	Beijing-Shanghai	Shanghai-Tibet
Length (km)	334	1,318	1,142
Speed (km/h)	200	300-350	120
Time (hour)	1.5	5.0	n/a
Costs (US$ billion)	12.9	22.6	3.7
Costs per km (US$ billion)	38.6	17.1	3.2

Source: Modified from Nguyen Xuan Thanh (2009).

2. Railways

Viet Nam has made significant investment since 2000 in its national railway network, mainly in upgrades, repairs and maintenance of permanent way and rolling stock although the total of 3,142 route kilometres in 2000 fell to 2,347 route kilometres by 2011 and no new routes were opened (Asian Development Bank, 2013; Ministry of Transport, 2010 and 2014). The railway network is operated and maintained by Viet Nam National Railways, a government business enterprise.

In August 2010, the Strategic Framework for Connecting Greater Mekong Subregion (GMS) Railways was endorsed at the GMS Ministerial Conference.

Part of the plan involves a new high-speed rail network in Vietnam with an expected funding gap of up to US$64 billion. As a Government Business Enterprise (GBE), funding of its gap will be the government's task, and assistance will be sought from multilateral agencies and the private sector.

While the railway master plan has identified the investment priorities, Viet Nam still has to increase the pace of the structural reforms in the rail sector to be able to attract external funding and reduce the financing burden on the government.

The railway network in Viet Nam is not adequately utilised and has limited operational capacity. However, because of the growing demand over the years, there is an urgency to improve the urban mass transit services in the country's two largest urban areas Hanoi and Ho Chi Minh City.

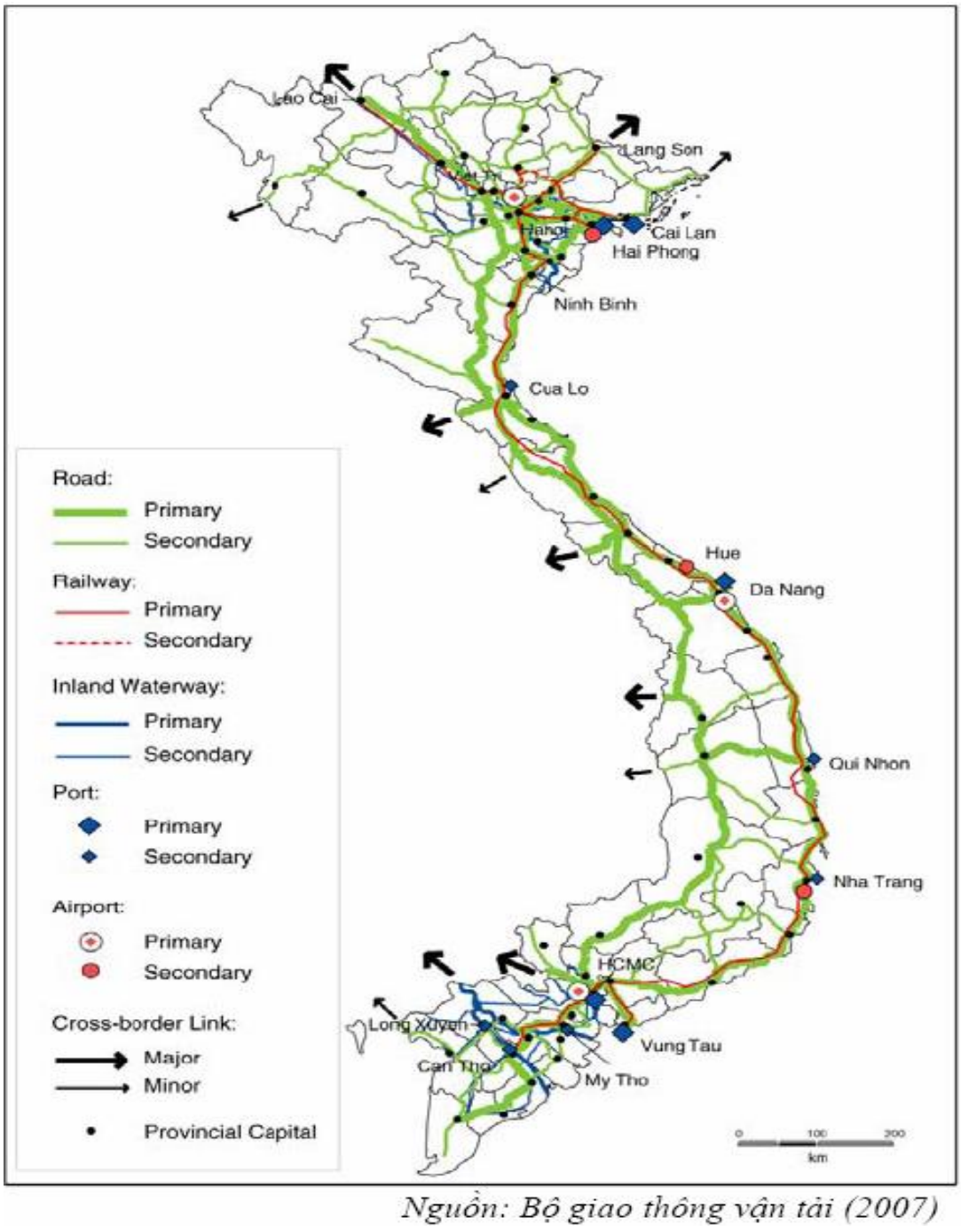
3. Ports

Viet Nam has three gateway ports: Hai Phong, Cai Lan, and Ho Chi Minh City (MOT, 2013). Eighty small ports in coastal provinces service inter-provincial trade and the fishing industry. Viet Nam has no deep-water port and exports are transshipped to Hong Kong or Singapore before these are dispatched to foreign markets. Transshipment imposes transaction costs on both exporters and importers of about US$400 per container (or US$1.7 billion annually). The country's infrastructure plans now include looking into the feasibility of having a deep-water port.

4. Airports

Viet Nam has international airports at Noi Bai, Da Nang, and Tan Son Nhat, while domestic aviation is served by over 30 regional airports. The international airports are being upgraded and a new airport is under construction at Dong Nai to replace the international traffic at Tan Son Nhat. Upgrading Viet Nam's major airports is necessary if the nation is to compete with rival destination cities in the ASEAN region and to maintain its growth in international tourism.

Figure 10.3: Map of Viet Nam Connectivity



Source: Ministry of Transport (MOT), 2007.

5. Power

Viet Nam's rapid industrialisation and the electrification of households contributed to an increase in energy consumption from 98 KWh to 1,035 KWh per capita between 1990 and 2010. The main sources of power are natural gas

(46%), hydropower (29%), coal (21%), and oil (4.2%) (Asian Development Bank, 2013).

Viet Nam has invested significant capital in energy generation infrastructure in its attempt to keep up with the increasing demand in energy. The demand, in fact, is running at around 15 percent annually, which brings many challenges on the supply side. Electricity Corporation of Viet Nam (EVN), a government business enterprise that manages the energy network, has relied on Build-Operate-Transfer (BOT) arrangements to attract private investment, technology, and management expertise. However, power blackouts and insufficient energy supply during periods of peak load are expected to increase as a result of the anticipated gap between demand and supply in 2015 and onwards.

The energy network's potential for future expansion is constrained by limited hydro capacity due to recent protracted dry seasons as well as other changing climatic conditions. Support for the new coal-fired facilities has also proven challenging as private investors favored cogeneration and gas-fired technologies that need to be located close to gas fields and are connected to distribution networks.

Table 10.7: Power Sector Demand Growth, 2004-2020

	2004	2010	2015	2020	2004-2010 Growth Rate % pa
Fifth Power Master Plan					
Total sales (TWh)	39.7	81.2	113.8		12.7
Generation requirement (TWh)	46.2	98.0	129.8		12.4
Capacity requirement (MW)	11,197	20,636	30,892		10.7
Updated EVN Estimates (2004)					
Generation requirement (TWh)	46.2	98.0	138.4	228.0	13.4
Capacity requirement (MW)	11,197	24,447	34,250	42,000	13.9

Source: Decision110/2007/QD-TTg, 18/07/2007 on Power Investment Plan 2007-2015.

6. Priority Sectors

The *2012 Global Competitiveness Report* gave Viet Nam a poor rating for its infrastructure, particularly for the quality of road and port facilities (World Economic Forum, 2012). The early priorities of the government are thus on improving road, port, and energy infrastructure services. Its major challenge

revolves around how it can improve the quality and cost-effectiveness of infrastructure services so as to reduce transaction costs, improve productivity, and improve trade competitiveness.

7. National Development Plan for Infrastructure

In 2011, the government adopted a five-year Socio-Economic Development Plan where increased investment in infrastructure is a central initiative. The plan designed strategies on how to sustain future economic growth and accelerate Viet Nam's social and industrial development through infrastructure spending in the transport, energy, irrigation, and information and communications technology services. Other strategic priorities include urban development, industrial and commercial infrastructure, and services in education, health and cultural activities. Around US$16 billion annually is needed for these objectives, but the available capital only meets 55 percent of that requirement.

In the transport sector in particular, the demand for freight and passenger demand, according to the Ministry of Transport, are expected to respectively increase by 7.3 percent and 12 percent annually during 1990 to 2030 (Ministry of Transport, 2007). The plan includes the construction of two subway systems in Hanoi and Ho Chi Minh City at a cost of US$15 billion.

8. Transport Infrastructure

Among the major regional economies in Viet Nam, demand for transport services is highest in the Mekong Delta (22%), the Red River Delta (18%), the Northeast (18%), Central Highlands (14%), North Central (9%), South Central Coast (7%), Southeast (6%), and the Northwest (6%). Roads draw majority of the investment (88%), followed by ports (6%), rail (3%), and airports (2%).

The investment gap in the urban transport sector is significant. For Hanoi, total investment needed is US$12.7 billion, which consists of the road's share of US$6.8 billion (54%) and urban transit's share of US$5.4 billion (43%). For Ho Chi Minh City, the road's share and the urban transit's share are US$11.2 billion (51%) and US$9.8 billion (42%), respectively. These costs are too large to be borne by the cities alone and will require additional capital from the national government, multilateral development agencies, and the private sector.

9. Energy Infrastructure

Energy consumption in Viet Nam has increased at an average 13.5 percent over the past 10 years, significantly higher than the country's real rate of economic growth. Demand is expected to reach 257,000 GWh in 2020, an increase from 46,000 GWh in 2005, with Viet Nam to become a net energy-importing country around 2015. So as to achieve long-term sustainable economic growth, new energy sources and further development of transmission and distribution infrastructure are necessary. It would also require diversifying the sources of energy and implementing energy savings measures, including demand management. The capital necessary to meet energy demand growth for the period 2006-2015 under the Power Development National Plan is estimated at US$75 million.

Financing Viet Nam's Future Infrastructure

Viet Nam faces certain challenges in getting the capital needed to increase infrastructure spending in the transport and communications sectors. Infrastructure capital is drawn from three sources:

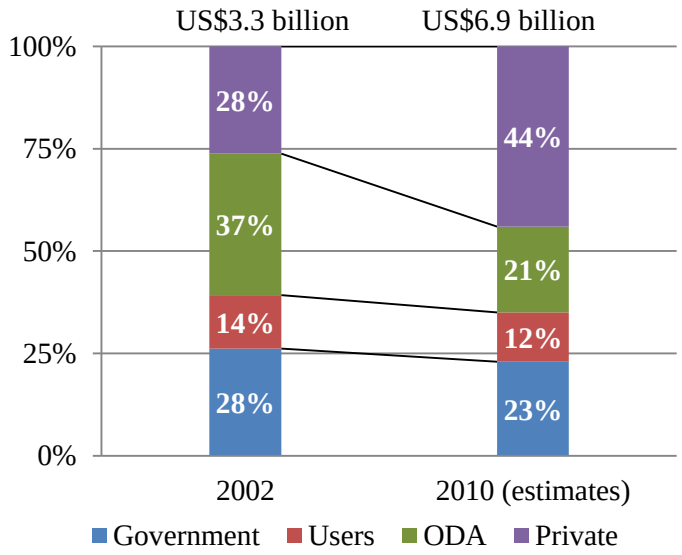
- Government investment from consolidated revenue and debt (28%)
- Domestic and foreign private investment and user charges (35%)
- Loans and grants from overseas development assistance agencies (37%).

The contribution from each source of financing changes over time. Recent data show that financing from the government and overseas development agencies has declined, while investment from the private sector has increased. Private investment has been generated due to the wider use of Public-Private Partnership (PPP) transactions in the energy sector.

10. Transport Investment

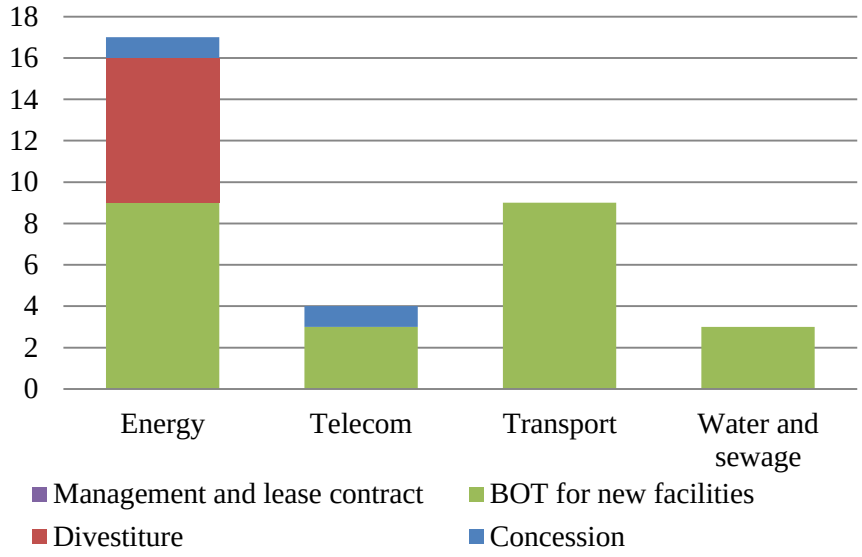
Transport projects are mainly funded by the state budget and overseas development assistance (ODA) and implemented by state-owned business enterprises. Implementation problems with subnational government agencies and government business enterprises pertain to budgetary and time management, capital allocation issues, and payment delays leading to slippage in construction schedules. These problems have contributed to a decline in bank-financed amount in transport infrastructure in recent years to less than 12 percent of project funding (see Figure 10.4).

Figure 10.4: Infrastructure Financing for Viet Nam



Note: ODA = Official Development Assistance.
Source: Reproduced from Viet Nam's Infrastructure Challenge: Infrastructure Strategy - Cross Sectoral Issues, 2006, World Bank.

Figure 10.5: Type of Private Investment Projects in Viet Nam (1994-2010)



Source: WB PPI Database.

In the past 10 years, BOT transactions have made a significant contribution to investment in the energy and telecommunications sectors. There is a small number of transport projects that have been undertaken under the BOT scheme around Ho Chi Minh City and neighbouring provinces, the most important of which is the Nguyen Van Linh Boulevard. This US$100 million project is a 17.8-km toll road connecting Highway 1 and Tan Thuan Export Processing Zone in the south of the city. It is a joint venture of the Taiwanese CT&D Company and Tan Thuan Industrial Promotion (IPC). The project requires significant government financial assistance as toll fees are insufficient to cover the maintenance costs.

Another private sector-delivered BOT project was the 13.4-km road connecting Tan Son Nhat Airport to the ring road of Ho Chi Minh City. This US$340 million project was designed, delivered and completed by the South Korean company GS E&C in 2008. Government assistance to this project took the form of a grant of land to the company for future real estate development.

Table 10.8: BOT Projects in Transportation Sector

	BOT Projects in Operation	BOT Projects in Implementation	BOT Projects in Planning
Capital	Approx. US$350m	Approx. US$5,000m	Approx. US$8,600m
Typical projects	Yen Lenh Bridge, Hanoi-Cau Gie Highway, Nguyen Van Linh Highway	Cau Gie-Ninh Binh Highway, Lang-Hoa Lac Highway, Trung Luong-Can Tho Highway, Long Thanh-Dau Giay Highway	Hanoi-Lang Son Highway, Hanoi-Halong Highway, Dai Giay-Nha Trang Highway, Bien Hoa-Vung Tau Highway

Source: Ministry of Planning and Infrastructure, 2012.

11. Port Investment

Two port projects in the south of the country have been completed with foreign investment at Beria Serece (bulk cargo port) in Ba Ria Vung Tau province (containers port). A proposal to develop a strategic port at Cai Mep Thi Vai failed because of lack of project support. Negotiations are under way to get the Ministry of Transport to undertake the project with ODA from Asian Development Bank.

12. Power Investment

Recent years saw government business enterprises such as Petro Viet Nam (PVN) and Viet Nam Coal and Mineral Corporation, Vinacomin invest in coal and gas-fired generation facilities. Also, a number of energy projects with BOT arrangements have been delivered (Cooper, 2004) although the government does not pay capacity charges or enter into take-or-pay power purchase agreements with private investors. However, if the country is to meet the required generating capacity in the future, infrastructure projects must be attractive enough to lure more investments from the private sector. Thus, these capacity charges or take-or-pay arrangements may now have to be considered for projects that require higher base load output rates.

Most independent power producers buy gas from state-owned gas companies and sell electricity to state-owned transmission and distribution companies. These transactions require some certainty over future prices to avoid a mismatch between input and output costs. Multilateral development institutions, therefore, can provide energy projects in Viet Nam some help on

political or currency risk insurance or guarantees, aside from assistance with subordinated debt and mezzanine financing.

13. Viet Nam and ASEAN Connectivity

The ASEAN Connectivity initiative is particularly important for Viet Nam's economic and social development as it promotes the nation's potential as a gateway between mainland China's Yunnan Province and Lao PDR as well as to the island countries of the ASEAN via the South China Sea. Viet Nam is also strategically located between South East Asia and the southern and western provinces of China.

Without the ASEAN connectivity, Viet Nam lacks land transport links to Myanmar and has restricted transport links to Lao PDR and Thailand. Its lack of a deep-water port also limits its sea transport links to ASEAN member countries.

Because of the potential benefits from greater connectivity within ASEAN, Viet Nam has committed to support projects that improve connectivity and facilitate greater regional trade and commerce. This includes one-stop border processing of customs and immigration services and participation in specific multilateral initiatives such as the East West Economic Corridor programme. Viet Nam has also aligned its national infrastructure development strategy with the ASEAN Connectivity programme so as to facilitate trade with Lao PDR, Cambodia, and Thailand; and with ASEAN member countries and China.

Specific projects include the economic corridor between Viet Nam and China that encompass Kunming, Lao Cai, Hanoi, Hai Phong, and Quang Ninh. This corridor is an important part of the free trade zone between China and ASEAN and the shortest path connecting the western provinces of China with the ASEAN through Hai Phong Port. Recent projects that are nearing completion include the transnational Hai Phong, Hanoi, Lao Cai, Hekou and Kunming freight and passenger railway service and the 264-km Trans-Asia Highway AH14 that connects Hanoi and Lao Cai. This road provides a key link in the Kunming-Quang Ninh economic corridor and is one of the largest and most expensive road construction projects undertaken in South East Asia.

Plans are in place for a 3,262-km north-south high-speed motorway to connect with the North-South, East-West and the South Economic Corridors; and a

1,099-km highway system in the north of the country with radial routes connecting Hanoi and the northern provinces with cross-border links to China. The project has seven roads:

- Lang Son, Bac Giang and Bac Ninh section (130 km);
- Hanoi to Hai Phong section (105 km);
- Hanoi, Viet Nam Tri and Lao Cai section (264 km);
- Noi Bai, Ha Long to Mong Cai section (294 km);
- Hanoi, Thai Nguyen to New Market (Bac Kan) road (90 km);
- Lang, Hoa Lac to Hoa Binh section (56 km); and
- Ninh Binh, Hai Phong to Quang Ninh section (160 km).

The road from Thailand to the port of Da Nang opened in 2009 and National Roads 6, 7, 8, and 9 connecting to the border with Lao PDR have priority upgrade works in progress. National Road 9 from Quang Tri City to Lao Bao Economic Zone on the border with Lao PDR is also being upgraded.

With the help of ADB, Viet Nam has rehabilitated and expanded roads, bridges, ports, and airport infrastructure from the Lao Bao border gate to the port of Da Nang, Hue, Quang Binh, and Ha Tinh. Viet Nam also has special economic zones in Lao Bao (Quang Tri) and Vung Ang (Ha Tinh) that will benefit from improved road transport to neighbouring countries. The Highway Master Development Plan includes construction of two highways to Lao PDR, the 34-km Hong Linh (Ha Linh) to Huong Son (Ha Tinh) road, and the 70-km Cam Lo (Quang Tri) to Lao Bao (Quang Tri) road.

Railway services to Lao PDR are also under evaluation. The proposed Vung Ang, Tan Ap to Mu Gia section is under pre-feasibility study with technical assistance provided by the South Korean government.

The ongoing evaluation also extends to ports and how they contribute to intra-ASEAN connectivity. The deep-water port of Vung Ang-Son Duong is the shortest route to the sea for Lao PDR and the northeastern provinces of Thailand and Myanmar. Currently, the Vung Ang Port has facilities for vessels

of up to 5,000 tonnes, and the Son Duong deep-water port is expanding its capacity to accommodate vessels of 30,000 tonnes.

Enhancing the country's connectivity to Cambodia are highway projects from the border to Ho Chi Minh City. There is also a 128-km railway project—part of the Singapore-Kunming Rail Link (the Ho Chi Minh City-Loc Ninh Railway Project) —whose feasibility study was completed in 2012 and includes 12 stations between Di An Station in Binh Duong province and the terminus station Hoa Lu on the border of Binh Phuoc province. Total investment is expected to be US$438 million but sourcing capital for the project is difficult and progress is slow. Viet Nam has then prioritised construction of a new border rail project at Hoa Lu in Binh Phuoc province that is scheduled for delivery between 2016 and 2020.

Some road connections to Cambodia are either in the planning phase or have commenced construction. These include National Highway 13 from Ho Chi Minh City to Binh Phuoc at the Hoa Lu border crossing, and rehabilitation and upgrade works on National Highway 22 from Ho Chi Minh City to Moc Bai (Tay Ninh).

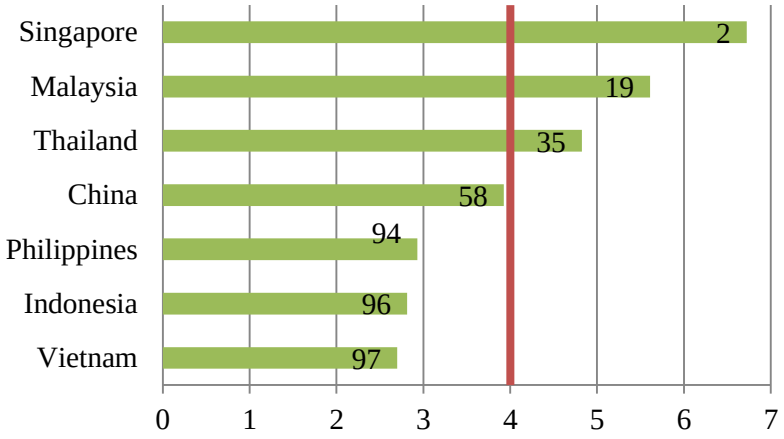
Other projects include the upgrade of existing border roads and construction of a concrete all-weather highway that connects Ho Chi Minh City to Ca Mau and include the following stages: 69-km Thu Dau Mot (Binh Duong) to Chon Thanh (Binh Phuoc) section; 55-km Ho Chi Minh City-Moc Bai (Tay Ninh) section; 160-km Quy Nhon (Binh Dinh) to Pleiku (Gia Lai) section; 200-km Chau Doc (An Giang), Can Tho to Soc Trang section; the 225-km Ha Tien, Rach Gia (Kien Giang) to Bac Lieu province; and the 150-km Ca Tho to Ca Mau section. All border gates are being progressively upgraded until 2020.

Connectivity in the energy sector is another priority area. Viet Nam in fact was part of the working groups at the 28th ASEAN Energy Ministers Meeting. Here, it took an active part in helping develop the ASEAN energy cooperation framework for the ASEAN grid planned for 2020.

Viet Nam is also investing and providing technical assistance for the hydroelectric projects in Cambodia and Lao PDR. In the past 10 years, Viet Nam had constructed new transmission lines to Lao PDR. Plans for new lines to Thailand and Myanmar and eventually to other ASEAN countries are under way.

Viet Nam's plans on new capital spending to improve its connectivity with ASEAN countries are not without challenges. First, the capital outlay increases external debt and consequently limits its fiscal options. Second, Vietnamese social and business communities have limited awareness about the ASEAN, which may need to be addressed with an information dissemination programme on or before 2015.

Figure 10.6: Overall Ranking Infrastructure Quality of Asian Countries



Note: Scoring range 1 to 7. Overall ranking 1-134.
Source: Global Competitiveness Report 2008-2009.

Private Sector Participation

The telecommunications sector of Viet Nam gets the biggest slice of private infrastructure investment, accounting for 33 percent of the total investment and leading other sectors such as electricity (25%), natural gas (19%), ports (16%) and waste management (5%). The most common form of private investment is the BOT contract.

14. Types of PPP Projects in Viet Nam

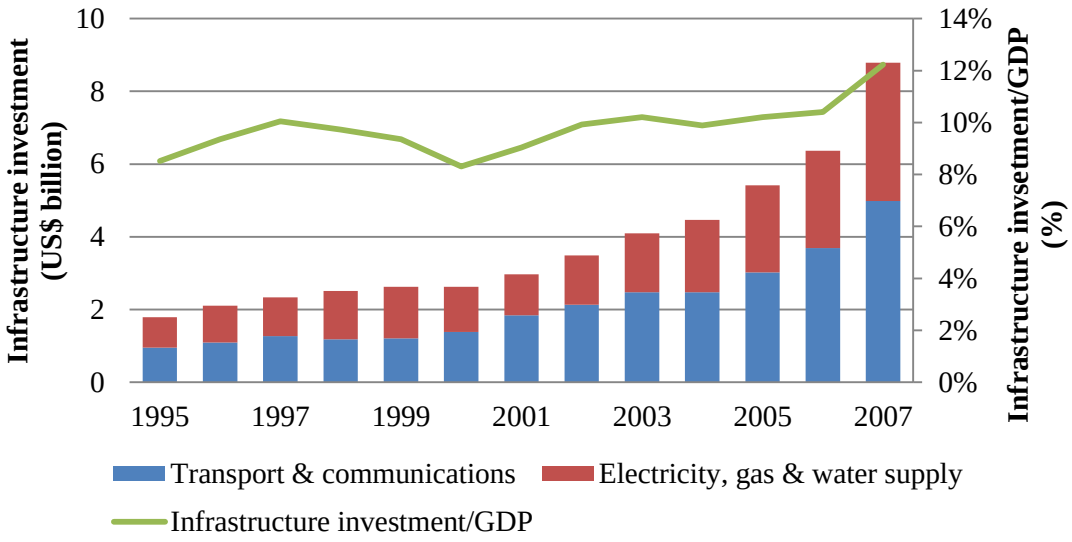
Build-Operate-Transfer projects*:* Private contractors design, build, finance and operate a unit of infrastructure, which delivers specified services to, or on behalf of, the government. The private party derives revenues from user charges or an availability payment made by the state. On expiry of the contract

term, the assets are transferred to the state. The BOT arrangement includes outsourcing contracts, concessions, franchises, and sale and leaseback transactions.

Build-Transfer projects*:* Private contractors design and build infrastructure and transfer it to the state. Build-Transfer transactions may also use a stapled long-term service contract.

Outsourcing contracts*:* Private parties bid for the rights to operate a state asset for a period of time and recover their investment via user charges.

Figure 10.7: Infrastructure Investment in Viet Nam



Source: GSO.

Land-for-infrastructure projects*:* The state offers in-kind grants such as land and development rights to a private party in exchange for the provision of a unit of infrastructure.

People participation projects*:* A method that permits local investors, communities, and industry associations to engage in a contract with local authorities in the design, building and operation of local facilities such as produce and goods markets, meeting and conference rooms, water supplies, playing fields, and buildings for sporting or recreational use. Public-private partnership projects implemented since the 1990s include the Phu My 3 power

project, the Co May Bridge, and several Build-Operate-Own (BOO) independent power projects. The private sector participated in 82 PPP projects between 1990 and 2013, of which 78 percent were in energy sector and 87 percent were greenfield BOT transactions (World Bank, 2014)[3].

15. Legal Framework for PPP

The legal framework for PPP transactions is set out in Decision 71/2010/QD-TTg, which authorises private participation in infrastructure provision and management subject to minimum equity contribution requirements. The PPPs may be negotiated by national, provincial and local governments. The government of Viet Nam does not provide direct guarantees to private investors although it may provide support to multilateral agencies that, in turn, furnish guarantees to private lenders in the form of political or currency risk insurance. The PPP procurement carries incentive to the private party whenever the latter can deliver a project on time and within budget, and manage service delivery efficiently and at least cost. The PPPs involve significant transfer of risk to the private party, including design, construction and life cycle cost risks.

However, PPPs are not suitable for all projects. They are generally complex and require innovation so as to deliver the best value for money outcomes for the government. A lesson learnt from other industrialising nations is not to use PPPs as a substitute for public capital or for projects that are otherwise too difficult for government to deliver as traditional procurement initiatives. Excessively complex or difficult projects will attract a substantial risk premium from private parties, thereby reducing the value for money outcome to the government.

Changes to the PPP policy in 2012 (Decision No. 1624/QD-TTg) set state participation at 30 percent of a project's capital requirement. Investors argue that the new rules are not enough to support bankable roads projects, and recent data indeed indicate that PPP projects are presently running at a lower rate than prior years.

[3] http://ppi.worldbank.org/explore/ppi_exploreCountry.aspx?countryID=67

In future PPP rollouts, regulators should aim for the following:

- To improve project planning and preparation,
- To apply a scientific approach to project selection criteria; and
- To solicit better funding for detailed project evaluation works.

As the complexity of PPP transactions increases with wider application, national and subnational governments will need to develop the necessary processes and protocols to develop adequate deal flow and to attract private investment.

16. About FDI

The current FDI in Viet Nam's priority transport sector is mainly directed towards port infrastructure projects. Viet Nam has nine joint venture FDI projects in the port sector worth US$1.7 billion.

Table 10.9: Registered FDI to Viet Nam (1988-2010)

Period	Project Number (New License)	Registered Capital (US$ billion)
1988-1990	211	1.60
1991-1996	1,781	27.83
1997-2000	1,352	16.09
2001-2005	3,935	20.72
2006-2010	5,411	132.58

Table 10.10: Registered FDI to Viet Nam by Sector (1988-2010)

Sector	Project Number (Valid)	%	Registered Capital (US$ billion)	%	Realised Capital (US$ billion)	%
Industry-Construction	8,375	61.8	119.5	56.1	20	68.0
Service	4,420	32.6	93.5	43.9	7.4	25.1
Agriculture-Forestry	749	5.6	4.4	0.2	2.3	6.9
Total	13,544	100.0	217.4	100.0	29.7	100.0

Table 10.11: FDI to Viet Nam by Sector at 31 December 2012

No	Sectors	Number of Projects	Registered Capital (US$ billion)	Charter Capital (US$ billion)
1	Manufacturing Industry	8,072	105.9	38.4
2	Real Estate Business	338	49.8	12.7
3	Accommodation and Food	331	10.6	2.8
4	Construction	936	10.1	3.6
5	Electricity, Gas, Water	87	7.5	1.7
6	Information & Communications	828	3.9	2.2
7	Art and Entertainment	137	3.6	1.1
8	Transport, Storage	350	3.5	1.1

Table 10.12: FDI Projects by Method at 31 December 2012

No	Investment Form	Number of Projects	Registered Invested Capital (US$ billion)	Charter Capital (US$ billion)
1	100% foreign-invested capital	11,499	141.4	46.9
2	Venture	2,597	53.3	18.0
3	BOT, BT, BTO contracts	14	5.9	1.4
4	Business cooperation contracts	217	5.1	4.3
5	Stock company	194	4.7	1.4
6	Conglomerate company	1	98.0	0.1

Table 10.13: FDI to Viet Nam by Partners at 31 December 2012

No	Investment Partners	Number of Projects	Registered Invested Capital (US$ billion)	Charter Capital (US$ billion)
1	Japan	1,849	28.7	8.1
2	Taiwan	2,234	27.1	10.9
3	Singapore	1,119	24.9	7.1
4	South Korea	3,197	24.8	8.6
5	British Virgin Islands	510	15.4	5.3
6	Hong Kong	705	12.0	3.9
7	United States of America	648	10.5	2.5
8	Malaysia	435	10.2	3.6
9	Cayman Islands	54	7.5	1.6
10	Thailand	298	6.1	2.7
11	Netherlands	177	5.9	2.5
12	Brunei	131	4.8	1.0
13	China	893	4.7	2.4

Multilateral Development Agencies

17. Asian Development Bank (ADB)

A decade after ADB resumed operations in Viet Nam in 1993, the primary development challenge lay in the country's ability to restore the basic infrastructure damaged by a protracted civil war. In more recent years, the focus has been on sustainable economic growth and development, and improvement in the country's regional and global competitiveness. The ADB has helped improve national and regional connections mainly by supporting projects on the GMS corridors, national highways, and rural road networks. Its Strategy 2020 (ADB, 2008) and Sustainable Transport Initiative (ADB, 2010) call for more active involvement in urban transit and railway subsectors.

Since 1993, ADB's support for road projects began by extending loans for the rehabilitation of National Highway 1 (NH1). More recently, its support has taken the form of technical assistance for highways, main roads, and railway upgrade projects. The first of a series of loans for the improvement of provincial and district roads in the northern region was completed in 2009, and a second loan—this time, for roads improvement in the central region—was completed in 2010.

In 2007, loans were arranged for the GMS Southern Corridor (Phnom Penh–Ho Chi Minh City Highway) Project, the GMS East-West Corridor Project, the GMS Northern Corridor (Noi Bai–Lao Cai Highway) Project and the GMS Southern Coastal Corridor Project. A loan was also advanced to deal with capacity constraints at Ho Chi Minh City Port. In the railway subsector, one loan was approved in 2006 to address improvements to the Yen Vien-Lao Cai Railway in the GMS Northern Corridor. In the urban transit subsector, project development assistance was provided for the Hanoi and Ho Chi Minh City railway systems.

18. The World Bank (WB)

The World Bank provides development assistance in various forms to 209 projects, of which 41 projects are for rural services and infrastructure, 29 are infrastructure services for private sector development, and 81 are active multi-

sector projects. The 209 projects have an approved capital spend of US$914 million.

19. Japan International Cooperation Agency (JICA)

Japan International Cooperation Agency (JICA) is a major bilateral development agency supporting policy and infrastructure development in Viet Nam's transport and energy sectors. It provided assistance to 30 projects under the Stable Energy Supply Programme, xxx road, port, rail and airport projects under the Transportation System for Strategic Development Plan, and 17 rail and road projects under the Development of Urban Transportation Network.
The agency also co-financed a number of projects with other agencies, including ADB for the Ho Chi Minh-Long Than-Dau Giay Expressway and the GMS Ben Luc-Long Thanh Expressway. Its list of completed and ongoing transport projects include the Hanoi City Urban Railway Construction Project (Line 1), the Integrated Urban Mass Rapid Transit and Urban Development for Hanoi City, Northern Viet Nam National Roads Traffic Safety Improvement Project, and the Hanoi Transport Infrastructure Development Project.

20. Other International Agency Assistance

The government of France and the French Development Agency (AFD) have approved loans to Viet Nam of €8 million and non-refundable aid of €600,000 as support for the US$30-million PPP projects jointly sponsored with ADB. International agencies are supporting feasibility studies for 16 projects that focus on transport infrastructure and waste management services.

Major Challenges

The global economic crises have reduced infrastructure spending by both the public and private sectors as can be seen from the slowdown in the flow of PPP projects. Other systematic risk challenges in the next decade and beyond include the adverse impacts of climate change on rainfall, a rising sea level, and flooding in coastal communities. For Viet Nam, there are a number of unsystematic risks that will also affect the rollout of infrastructure and PPP projects. These risks include:

- Macroeconomic volatility, particularly in important economic indicators such as inflation, interest rates, M2 money supply, official exchange rates, foreign direct investment, external debt, and the current account balance;

- Delay in the corporatisation of government business enterprises;
- The introduction of a comprehensive PPP policy framework, supporting institutional reforms, and implementation of a programme of ministry capacity building for project selection and implementation;
- Low productivity, poor coordination between agencies and inefficiency in public institutions, all contributing to low productivity, time and cost overruns and delays in project implementation;
- Acute shortages in trade skills and in graduates of applied technology courses;
- High foreign debt and tight fiscal policy.

The challenges facing Viet Nam are no different from those of other ASEAN and Asian countries that are attempting to move from a factor-driven to an efficiency-driven economic base. The solutions to many of the challenges facing Viet Nam are institutional and can be addressed by improving efficiency, removing red tape, reducing bureaucratic delays, and creating a favourable environment for domestic savings and FDI in the infrastructure sector.

Conclusion and Recommendations

The creation of an ASEAN PPP policy framework to drive connectivity and greater regional infrastructure cooperation among member countries presents opportunities to Vietnam. The growth of infrastructure investment in Viet Nam has increased faster than its GDP growth in nominal terms. Over the past 20 years, much has been achieved in terms of the foundation for Viet Nam’s economic infrastructure and progress over new investments in the nation's roads, energy resources, ports, aviation, and railway and urban transport industries. Nevertheless, there persist institutional, structural and investment challenges. Chief among these is the need to raise the level of private sector participation in the infrastructure sector.

There is the likelihood that ODA levels will decline as the nation's economy grows and the GDP per capita increases. New sources of long-term finance will, thus, need to be identified and encouraged so as to lessen reliance on public sector funding.

The key question for Viet Nam is not just how to bring in investments into infrastructure projects so as to spur economic growth, but how to ensure that such infrastructure projects are delivered as efficiently and cost effectively as possible as well. To sustain the country's economic and social development in the future, this study recommends the following reforms:

- The nation’s macroeconomic management should focus more on improving the country's regional competitiveness and on upgrading its sovereign credit rating to investment grade for domestic currency issues so as to reduce the cost of capital for government, and domestic and foreign investors;
- Practice inflation targeting and tighter monetary policy to improve the business environment and maintain the confidence of the business community;
- Improve transactional accountability and transparency (including in the operations of government business enterprises), particularly in the project and bidder selection processes to improve efficiency and develop greater cooperation between public and private sector managers;
- Raise the skill levels in government agencies through capacity building programmes designed specifically for delivery of complex projects;
- Amend and continuously improve the PPP policy, including allowing viability gap funding without minimum private equity subscription for priority government projects;
- Create a dedicated PPP Unit within the Ministry of Finance or another central government agency; revise regulations so as to better deal with pilot PPP investments that expand the field of infrastructure investment under the PPP model; strengthen interdisciplinary working group assistance to state agencies with PPP projects;
- Forge greater planning and coordination between government ministries, and between the public and private sectors; and improve mechanisms for monitoring and reporting government investment projects.

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