

Chapter 7

Infrastructure connectivity in Viet Nam

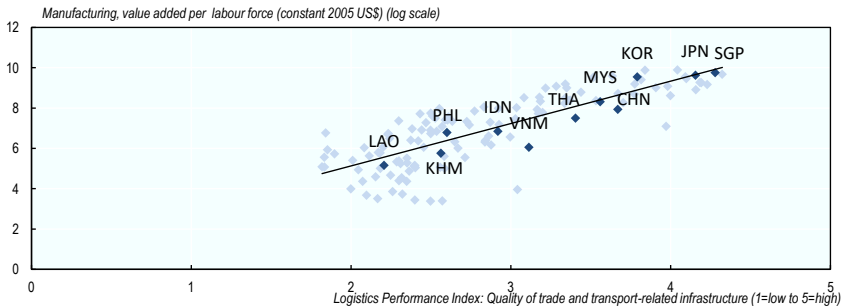
This chapter examines the current context of infrastructure development in Viet Nam. It reviews connectivity challenges and recent reforms to boost infrastructure investment, including private participation in infrastructure through public-private partnerships. It also proposes recommendations to overcoming the remaining obstacles to improving the legal and institutional framework for private investment in infrastructure.

Viet Nam has been one of the world's fastest growing economies over more than two decades, resulting in significant economic transformations and social progress. Greater integration with the world economy and expanding production networks in the region and domestically have played an important role in this process. But rapid industrialisation and urbanisation are putting a strain on Viet Nam's infrastructure. Demand for new and improved infrastructure and related services will require investments estimated by the government at around USD 170 billion in 2011-20, on top of investment in cross-border infrastructure projects. Mobilising the required resources to implement the governments' ambitious infrastructure plan and meet Viet Nam's infrastructure needs is a challenge, but the payoff from successfully improving infrastructure connectivity can be large.

Infrastructure connectivity will be key to support Viet Nam's economic development strategy of raising industrial productivity and is crucial to raise the access of rural populations to social and economic opportunities. According to the Vietnamese Academy of Social Sciences (2006), an increase in spending in infrastructure by an additional 1% of GDP is associated with a reduction in the poverty rate by 0.5%, with the impact being larger in poorer provinces. Viet Nam is also becoming more manufacturing-intensive and is trading and consuming products with higher value-added content, which are more sensitive to infrastructure connectivity shortcomings (World Bank, 2014).

Better logistics systems would, therefore, help Viet Nam to continue moving into higher-value added industries due to increased competitiveness and greater investment and trade opportunities and can have important long-term effects in terms of access to technology and know-how associated with these flows (Figure 7.1) (WEF, 2008). Improved infrastructure connectivity may also help maximise the benefits of Viet Nam's increased participation in global value chains (GVCs). Recent OECD research shows that GVCs are much more sensitive to infrastructure bottlenecks than overall trade. Poor infrastructure systems are a major determinant of overall logistics costs, which in turn are among the primary causes of trade costs. In Viet Nam, Portugal-Perez and Wilson (2010) estimate that improving physical infrastructure to the level of Malaysia could boost exports by almost 30%, which would be equivalent to 20% reduction in the value of tariffs on goods. The impact of improved regional road connectivity and trade facilitation, for instance, is estimated to boost Viet Nam's GDP by 3.6%, notably due to improvements in its links with China (Stone *et al.*, 2012).

Figure 7.1. **Manufacturing value added per worker**
(constant 2005 USD, log scale)



Source: World Bank Development Indicators.

Investment in infrastructure quality has not kept pace with the growth in exports and the current infrastructure shortcomings of the main economic corridors constitute an important barrier for connecting Viet Nam into higher-value added GVCs, which require faster and more reliable logistics environments. Road expansion is still needed to ease congestion on the main corridors in some cases, but the condition of existing roads should not be neglected as a large part of the road network remains substandard and needs upgrading. There is evidence that the limited quality of infrastructure networks is holding back investment and economic growth (World Bank, 2014).

As elsewhere in the region, Viet Nam increased investment in infrastructure following the 2008 financial crisis as part of economic stimulus packages (Abidin, 2010), but large investments are still needed. The government estimates that about 50% of the financing for infrastructure investment needs between 2010 and 2020 will have to come from the private sector. To support greater private sector participation in infrastructure, the government implemented a new public-private partnership (PPP) regulatory framework in 2015 which, together with the new 2014 *Law on Public Investment*, brings some important regulatory and institutional mechanisms to improve Viet Nam's infrastructure delivery capacity. Some important challenges remain, however, to mobilising investments, not least the government's relatively limited experience with PPPs. The effectiveness of the government's strategic orientation will depend greatly on the appropriate implementation of the new framework. Notably, government efforts are needed to clarify in upcoming rules and guidelines some specific issues of concern for investors in the new regulatory framework (*e.g.* the conditions for government guarantees, and the rules for project termination, the standard guidance for risk allocation, among other).

Efforts are also required to improve the broader framework for investments in infrastructure so as to secure value for money in infrastructure delivery. Integrated multi-modal infrastructure planning and a robust value-for-money assessment process are needed for projects to be appropriately prioritised according to their socio-economic and sustainability characteristics, and to ensure that the choice of infrastructure delivery mode is not biased by fiscal motivations. In the past, some infrastructure projects were poorly prioritised, implemented in a un-coordinated fashion and with questionable economic benefits to society (World Bank, 2014). The government needs also to continue its efforts to bring prices to cost-reflective levels in infrastructure markets, notably in the electricity sector, and to move forward with the SOE reform programme to ensure a level playing field for investors in infrastructure sectors. The high number of SOEs in transport infrastructure and power generation sectors, and their relatively weak corporate governance practices (see Chapter 4), are likely to constitute a further barrier for private investments in infrastructure.

Policy recommendations

- Implement integrated multi-modal infrastructure planning to stimulate project complementarities and facilitate a more coherent and welfare-enhancing infrastructure development programme. Strengthen efforts to build capacity in designing a clear and coherent strategic vision for infrastructure.
- Continue to improve the assessment and prioritisation of infrastructure projects so as to secure value for money in infrastructure delivery, including to better balance the need of expanding infrastructure networks and maintaining the quality of existing assets. In the past, some infrastructure projects have been implemented in a un-coordinated fashion and with limited benefits. The new Law on Public Investment and the new framework for PPPs should help address such shortcomings: it establishes a more robust value-for-money assessment process and allows for the government to draw on the recently created project development facility to structure project proposals.
- Ensure that the choice of delivery mode is grounded on a robust value-for-money analysis not biased by fiscal motivations. Under adequate competition and an appropriate regulatory environment, private investment can help to enhance the efficiency of infrastructure, but it should not be used to escape budgetary discipline, notably when the government still bears significant risks and faces potentially large fiscal costs.

- Ensure that upcoming regulations and guidance address specific concerns of investors in the new regulatory framework, such as the scope and conditions of government guarantees, rules for project termination and standard guidance for risk allocation.
- Continue the reform efforts to bring prices to cost-reflective levels in infrastructure markets and to move forward with the SOE reform programme to ensure a level playing field for investors in infrastructure sectors. Removing Viet Nam Electricity's (EVN) cross-ownership of the single buyer and power generation companies, for instance, should facilitate the establishment of the competitive wholesale power market under the 7th Power Development Master Plan and help to secure investments into power generation in the longer run.

Viet Nam's infrastructure connectivity development strategy

The Socio-Economic Development Strategy 2011-20 and the Master Plan on Economic Restructuring

Infrastructure development is high on Viet Nam's agenda. In its ten-year Socio-Economic Development Strategy (SEDS) 2011-2020, infrastructure development was one of three priority areas to achieve its development objectives, alongside developing human resources and skills to support the development of a modern industry and innovation and improving market institutions to maximise the positive effects of planned structural reforms. The five-year Socio-Economic Development Plan 2011-2015 further elaborates the planned reforms for the first five years of the SEDS 2011-2020, including, *inter alia*, to strengthen environmental protection and mitigate and prevent adverse impacts of climate change (see Chapter 8 for Viet Nam's strategy on Green Growth).

The Master Plan on Economic Restructuring for 2013-2020 reinforces the SEDS' focus on improving infrastructure development and identifies the need to create economic conditions for the private sector, including foreign investment, to develop infrastructure. Among other measures, it establishes the need to review and modernise the regulatory framework for private participation in infrastructure, bringing infrastructure prices to cost recovery levels, and explicitly tasks the Ministry of Planning and Investment (MPI), in coordination with other ministries, to identify and publish the list of feasible projects in which invested capital can be recovered to facilitate mobilising private sources of capital. It also stresses the need to promote a level playing field between private and state-owned enterprises; including

by further opening monopoly markets or those in which state-owned groups hold a dominant position.

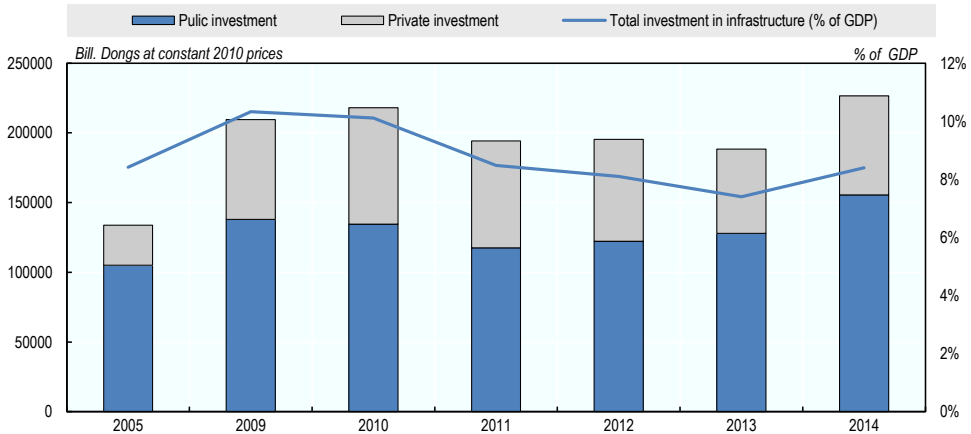
Sectoral strategies and programmes also allude, among the several measures identified, to the need of raising capital for improving infrastructure connectivity. In the case of transport, for instance, the Prime Minister's Decision No. 355/QĐ-TTg adjusting the Strategy on Development of Viet Nam's Transport through 2020, with a vision toward to 2030, lists the issue as one of the ten priority policies needed to implement the strategy successfully.

Estimated infrastructure investment needs amount to 10-11% of GDP

Historically, infrastructure investment in Viet Nam has essentially been state-led, with levels particularly high as a percentage of GDP by international standards (World Bank, 2012). Total state investment has been above 10% of GDP in the last 10 years according to the General Statistics Office data, of which 50% or more came increasingly from local authorities. Total investment in economic infrastructure assets has been around 7-10% of GDP in most recent periods, with state investment accounting for the largest share (about 60-80% of total investment) (Figure 7.2).

Despite the many attempts to boost private participation in infrastructure, it seems that relatively little private investment has gone into infrastructure so far according to one measure compiled by the World Bank (Figure 7.3a). Private investments in infrastructure seem also to have disproportionately gone into electricity generation both in value and number terms (Figure 7.3b). From 2000 to 2014, the World Bank reports 65 projects reaching financial closure in the electricity sector, against only two projects in roads, five in seaports, three in telecoms and three in water and sewage infrastructure.

Government statistics, however, show that private participation may actually be greater than what is reported by the World Bank. According to the authorities, the number of transport projects with private participation is much higher. The Ministry of Transport alone, by 2015, reported 80 projects with the total expenses reaching approximately 10 billion USD. As such, authorities suggest that overtime more and more private investment is likely to be channelled to sectors other than power generation, pointing out to 19 build-operate-transfer (BOT) and 2 build-transfer projects completed or under operation in the transport sectors, for instance.

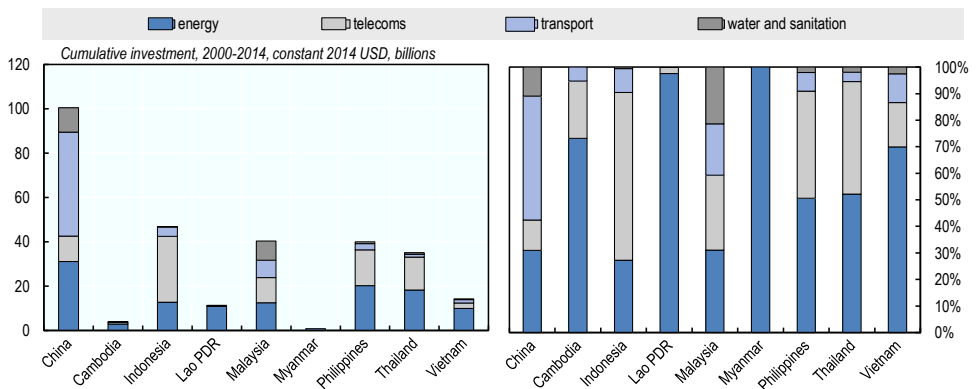
Figure 7.2. **Private and public investment in economic infrastructure assets**

Notes: (1) Economic infrastructure covers investments classified in the national account under “Electricity, gas, steam and air conditioning supply”, “Water supply, sewerage, waste management and remediation activities”, “Information and communication” and “Transportation and Storage”.

Source: General Statistics Office database.

Figure 7.3. **Private participation in infrastructure in Viet Nam and regional peers, 2000-14**

(2014 USD billion, percentage)



Dollar amounts are in 2014 USD. Nominal figures have been deflated using the U.S. consumer price index.

Source: World Development Indicators database.

In the past, private investors, notably foreign ones, may have shied away from projects in sectors other than power due to their relatively greater risks. Power BOT projects present lower risks for investors and lenders because the off-take contract with the single-buyer company, Electricity of Viet Nam (EVN), partly isolates them from demand risk in comparison to user-fee based projects. The risk depends essentially on the extent to which the off-taker is financially capable of meeting its obligations under the off-take contract. And in this case, the Vietnamese government sometimes provided guarantees against such risk, as well as against the risks of early-on project termination. Foreign-owned BOT projects, for instance, were guaranteed to sell all their output to EVN (ERIA, 2014). Other investments by domestic independent power producers (IPPs) under the form of joint-stock companies have not benefited from such extensive guarantees, but often involved state-owned companies (ADB, 2015b).

These arrangements may partly explain the relatively greater success in attracting investments into power generation in the past as suggested by the World Bank data. Since 2009, investments in the power sector have also benefited from increasing adjustments to retail electricity prices. Although these remain relatively low compared to other countries in the region (Table 7.1), these adjustments contribute to the financial sustainability of the entire power sector and helps to instil greater investor confidence.

The Ministry of Planning and Investment (MPI) officially estimates that, during 2011-20, approximately USD 170 billion is needed in infrastructure investment to develop essential infrastructure in Viet Nam, such as electricity, water supply and sewerage and transport (ADB, 2014a). Independent estimates of Viet Nam's infrastructure investment needs to satisfy consumer and producer's demand for infrastructure services, assuming specific economic and demographic growth rates, suggested that Viet Nam needed to invest nearly USD 110 billion in infrastructure between 2011 and 2020 (Battacharaya, 2010). This is equivalent to over 8% of the estimated GDP for 2010-20. Around 53% of this is estimated to be needed to build new infrastructure capacity and 47% to maintain existing capacity. Regional infrastructure projects to which Viet Nam is a party would require additional investments.

More recent estimates suggest even higher levels of investment needed. The World Bank (2013) estimates that Viet Nam needs to invest about 10-11% of its GDP in order to implement the SEDP 2011-2020 successfully and maintain its average growth rate of 8% per year with a target to reach a GDP of USD 300 billion by 2020. From 2016 to 2020, the World Bank (2013) estimates that roughly USD 167-172 billion is needed in economic infrastructure investment: 61-63% in transport, 15% in electricity, 6% in ICT and 5% in water & sanitation. With regards to transport infrastructure,

the government adjusted in 2013 its strategy to develop its transport infrastructure through 2020, with a vision toward 2030 (Decision No 355/QĐ-TTg). Among other measures to improve the efficiency of investments in transport infrastructure, ameliorate the development of transport services and ensure more sustainable transport systems development, the government proposes to increase annual investments in transport infrastructure from the state budget and government bonds to reach 3.5–4.5% of GDP.

Private participation in infrastructure is expected to meet nearly half of the needed investments...

The government estimates that capital from the state budget, state-owned enterprises, official development assistance, and government bonds can meet only half of the required investments in infrastructure without compromising the public debt limit stipulated by the National Assembly at 65%.¹ The government's capital spending is currently constricted by a persistent fiscal deficit, which averaged 5% of GDP in 2010–13 (ADB, 2014a). The rest of the financing is expected to come from the private sector, of which an important share is likely to have to come from foreign sponsors and lenders due to the limited depth of the domestic financial market. The government has ambitious expectations that PPPs will effectively mobilise the necessary resources and expertise from the private sector to deliver on infrastructure investment needs. In April 2014, the Prime Minister issued a list of 127 projects to be developed by 2020 with foreign investment support, 41 of which are expected to be developed under BOT or PPP contracts according to the authorities.

...but this should not be grounded on a fiscal motivation

The apparent fiscal motivation behind such policy orientation towards fostering greater use of PPPs may prove costly to Viet Nam in the long-term if it prevails over proper value for money assessments. PPPs *per se* do not expand available resources for funding infrastructure investments, and therefore do not expand the number of projects that a government can undertake. Instead, while the government saves on investment outlays upfront, it relinquishes future user-fee revenue (if the PPP is financed with user fees) or future tax revenues (if financed with budget payments) which should be equivalent in present value terms (Engel *et al.*, 2007).²

Moreover, it is rather unlikely, if not undesirable, that Viet Nam will be able to mobilise the needed additional resources from private commercial sources without any government financial involvement. In most PPP projects, the optimal risk allocation requires the government to bear the risks for which it is better placed to manage, mitigate and absorb it (OECD, 2007,

OECD, 2012). Excessively transferring these risks to the private sector will likely erode part of the potential benefits of using PPPs in the first place due to the high risk premiums involved.

The case for PPP should rely on its ability to generate greater value for money than the public provision alternative based on its capacity to generate productive, allocative and dynamic efficiency gains (Engel *et al.*, 2007). The use of PPPs as a vehicle for escaping budgetary discipline by having financial commitments off public sector balance sheets often leads to problems. Contingent liabilities and other fiscal risks associated with PPPs can sometimes be significant. It is internationally recognised that any fiscal implication of infrastructure projects should be reflected in public sector budgets unless all relevant risks truly reside with the private sector. If risks are mitigated by public guarantees, placing them off budget becomes even more questionable (OECD, 2007, OECD, 2012).

Key infrastructure bottlenecks for Viet Nam's enhanced competitiveness

The extent to which countries can provide the necessary conditions for global production networks to operate efficiently is a key determinant of their success in exploiting the channels of productivity gains associated with global value chains. Location decisions of multinational enterprises have become more influenced by their need and ability to ensure predictable and reliable supply-chains, capable of delivering effectively on each stage of the chain (Taglioni and Winkler, 2014). The costs of delays, for instance, can be substantial for the more time-sensitive product categories, such as coffee, fruits and vegetables, telecommunications equipment and road vehicles (a tariff equivalent of 1% or more). In Viet Nam, the tariff equivalent of the time to export associated with inland transport is estimated at an *ad valorem* rate of 0.7 (Hummels, 2007).

Improving infrastructure connectivity is thus necessary to enhance Viet Nam's competitiveness and development opportunities. Rapid economic growth has increasingly put existing infrastructure at strain. Partly as a result, the contribution of productivity to growth has continuously declined over the last decade (World Bank, 2012). Better – instead of more – infrastructure is needed to make the most efficient use of the relatively large amount of investments that Viet Nam dedicates to infrastructure and to support greater productivity gains.

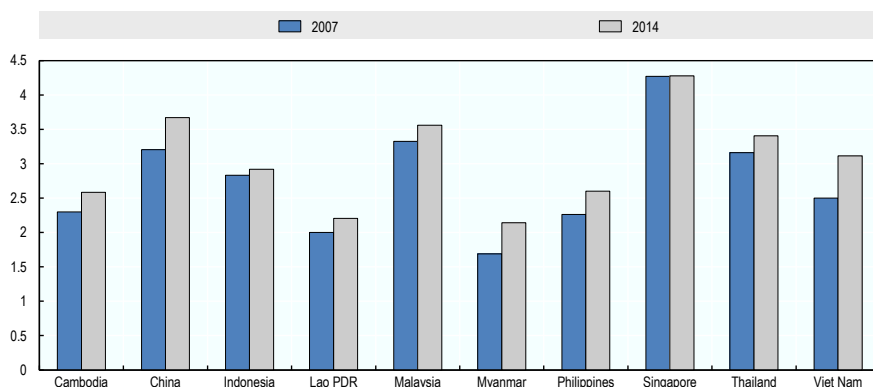
Viet Nam has progressed greatly in terms of infrastructure network roll out...

Viet Nam has significantly improved its performance under the indicator of “quality of trade and infrastructure” (e.g. ports, roads, airports, information technology) of the World Bank’s *Logistic Performance Index* between 2007 and 2014 (Figure 7.4). It made great strides between 2007 and 2014, where its scores improved by 16%, from 2.68 to 3.11 on a scale from 1 (worst) to 5 (best), moving up in the worldwide ranking from the 72nd position in 2007 to the 44th position in 2014. But despite the significant progress achieved in the past two decades, Viet Nam still faces some important infrastructure shortcomings as reflected in a number of infrastructure stock indicators and perception assessments (Table 7.1).

...but quality improvements are sometimes lagging behind

Nonetheless, in comparison to its ASEAN peers in the infrastructure component, it still falls behind of Singapore, Malaysia and Thailand. China also compares more favourably than Viet Nam in this regard. The logistic firms and practitioners respondents to the *Logistics Performance Index* survey identified significant quality differences across the different connectivity infrastructure sectors. For instance, while only 15% responded that the quality of telecommunications infrastructure was low or very low, roughly 72% of the respondents answered that rail and road infrastructure were of low or very low quality and almost 58% and 43% felt the same way of Viet Nam’s port and airport infrastructure, respectively.

Figure 7.4. **The World Bank's Logistic Performance Index, Infrastructure Indicator**
(score from 1 to 5 (best))



Source: World Bank Logistics Performance Index database.

Table 7.1. Selected infrastructure indicators across ASEAN countries and China

	BRN	CHN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM
Electricity											
<i>Access to electricity (% of population) 2014</i>	100	100	56.1	97	78.1	100	52	89.1	100	100	99.2
<i>Electric power transmission and distribution losses (% of output) 2014</i>	6.4	5.5	23.4	9.4	..	5.8	20.5	9.4	2	6.1	9.2
<i>Access to non-solid fuel (% of population) 2014</i>	100	57.2	13.4	56.6	4.6	100	9.1	44.8	100	75.9	50.9
<i>Quality of port infrastructure, 1-7 (best), WEF' 2015</i>		5.34	3.11	4.13	4.71	5.78	2.72	4.03	6.74	5.22	4.11
ICT											
<i>Mobile cellular subscriptions (per 100 people) 2015</i>	108.1	92.2	133	132.3	53.1	143.9	75.7	115.8	146.5	152.7	130.6
<i>Individuals using the internet (% of population) 2015</i>	71.2	50.3	19	22	18.2	71.1	21.8	40.7	82.1	39.3	52.7
<i>Fixed broadband subscriptions (per 100 people) 2014-15</i>	8	19.8	0.5	1.1	0.5	10	0.1	4.8	26.4	9.2	8.1
Transport											
<i>Ratio of paved roads to total road length (%) 2012-14</i>	93	-	11	57	16	79	52	86	100	83	66
<i>Asian highway, Primary and Class I as a share of total Asian highway (%) 2012</i>	-	70	-	25	-	51	6	0.5	100	63	13
<i>Quality of roads, 1-7 (best), WEF' 2015</i>		4.6	3.3	3.7	3.6	5.7	2.3	3.3	6.2	4.4	3.3
<i>Liner shipping connectivity index (maximum value in 2004 = 100)³ 2016</i>	3.9	167.5	5.6	27.2	..	106.8	6.4	17.8	122.7	44.3	62.8
<i>Quality of port infrastructure, 1-7 (best), WEF' 2015</i>		4.5	3.7	3.8	2.2	5.6	2.6	3.2	6.7	4.5	3.9
<i>Growth of Container port traffic (TEU: 20 foot equival. unit, CAGR, %) 2008-14</i>	5.1	7	1	6.5	-	4.9	4.4	4.6	1.4	2.3	10.8
<i>Quality of air transport infrastructure, 1-7 (best), WEF' 2015</i>		4.8	3.7	4.4	3.8	5.7	2.6	3.7	6.8	5.1	4.2

Source: World Bank World Development Indicators database, UNESCAP online statistical database, ASEAN-Japan Transport Statistics database and WEF (2015).

The limited quality of road infrastructure is particularly important because around 76% of transported goods freight on a tonnage basis is carried over Viet Nam's road infrastructure according to the General Statistics Office 2014 data.³ Inland-waterways are also important, accounting for another 17%. Maritime transport accounted for another 5% (but coastal shipping is much more significant on a ton-km basis as it generally handles longer haul traffic) and rail for the remaining.

The World Economic Forum's (2015) *Global Competitiveness Report* also attests to the improvements made in Viet Nam's infrastructure network since 2006 (the first year for which data are available), but also points to significant differences in firms' perception of the quality of Viet Nam's infrastructure systems compared to some regional competitors, as well as across infrastructure sectors within Viet Nam (Table 7.1).

Differences in perception in the quality of connectivity infrastructure in Viet Nam reflect to some extent shortcomings in the stock of infrastructure, which in turn reflect past investment priorities and some of the limitations of policies adopted in the past. While Viet Nam has progressed greatly in terms of infrastructure network roll out, the quality of the infrastructure network has not always improved commensurately.

Transport connectivity

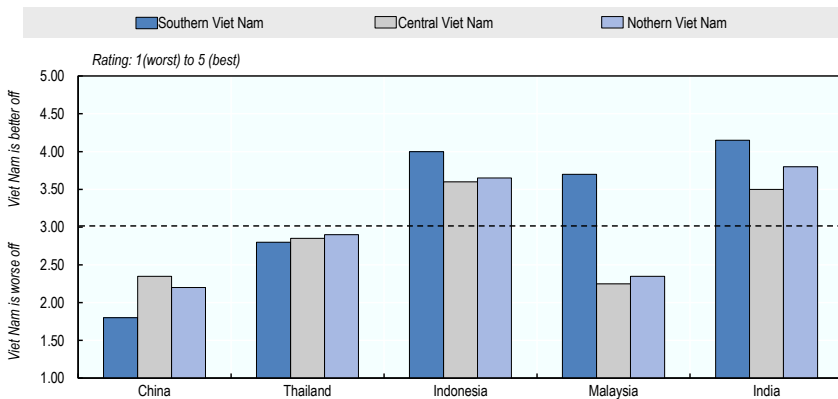
Limited road capacity and poor transport planning have led to significant congestion and delays

Road transport infrastructure still lags behind some of the more advanced regional competitors, such as Malaysia and Thailand. Viet Nam's total road network consists of 200 000km, of which only about 65% are paved, compared to above 77% in its peers. In addition, only roughly 14% of Viet Nam's Asian Highway route network – which provides the backbone national road links to neighbouring countries and within Viet Nam – conform to Class I or above standards (*i.e.* access-controlled or four lanes or more highways).⁴ Nearly 93% of national roads are only two lanes wide (including for the most part the NH 1, the main national road linking Hanoi and Ho Chi Minh City (HCMC)), and more than 63% of the entire 256 000 kilometres network has fewer than two lanes (ADB, 2012).

Limited road network capacity is aggravated further by inadequate highway and road intersections and some incomplete sections in key economic corridors, resulting in significant congestion and increasing both delays and the cost of transport (intercity truck speeds in Vietnam average 35 km per hour). The overall economic cost of congestion is estimated to be around USD 1.7 billion on the Vietnamese economy. Most highways intersect with

other highways at traffic circles instead of through overpasses or flyovers, which allow traffic in one highway system to merge with another highway system while maintaining traffic flow. Access roads mostly use traffic lights instead of ramps, which further impedes regular traffic flow (World Bank, 2014). Viet Nam's expressway network needs also to be further developed. Recent estimates show that 7% of Viet Nam's planned expressway network has been built; roughly 15% is under construction and another 8% is at the detailed design stage (Le Thi Lan, 2012). Viet Nam's road infrastructure shortcomings are reflected in the relatively high level of highway congestion perceived by regional and international logistics companies operating in Viet Nam (Figure 7.5). Meanwhile, the authorities note that some roads have very low utility rates, such as Ho Chi Minh highway and provincial highways in the Northwest and Central Highland regions. Improving resource allocation is, therefore, needed to enhance highway and road capacity. This is critical in the rapidly growing HCMC and Hanoi area in order to enhance Viet Nam's relative competitiveness vis-à-vis other regional peers and to maximise the benefits of increased economic integration.

Figure 7.5. **Logistics companies' perception of the level of highway congestion in Viet Nam relative to regional peers**



Source: World Bank (2014).

The rail sector is not competitive. Limited investment in the past in maintaining and upgrading the existing railway network has left the network in poor condition

Despite a long north-south railway network, the railway sector remains small compared to other transport modes. The sector accounted for only 6% of passenger transport and 2% of total freight movements in 2014,

constantly declining since the mid-2000s. The railway network length also declined 25% between 2000 and 2011 (ADB, 2015a). Despite being internationally recognised as a relatively less expensive transport mode for shipping products over long distances, limited investment in the past in the maintenance and upgrading of the existing railway network has left the network in poor condition relative to alternative transport modes, such as roads and coastal shipping, which provide greater flexibility and faster transport. Currently, the average speed of freight trains is estimated at 15 to 20 km/hour (Banomyong *et al.*, 2015), which is roughly 43-57% lower than the average inter-city truck speeds (World Bank, 2014). Vietnam's railway network uses mostly meter gauge (85% of the network), instead of standard gauge (1.435m), which does not support high-speed, high-stability, or double-stacked container trains. The conversion to standard gauge would require significant investment (UMIASIA, 2014). Most of the existing network is also below international standards; rolling stock is relatively old (average of 20 years) and carrying capacity is limited, both in terms of wagon capacity (which is even more limited for containers – only 10% of the wagons are designed for container carriage) and train length and traction power (Banomyong *et al.*, 2015). This likely represents a sizeable cost for Viet Nam given its distribution of economic activity spread over HCMC in the south (where the majority of non-imported consumer goods are grown or manufactured), the central region and Hanoi in the north, which is 1 137 km from HCMC (World Bank, 2014).

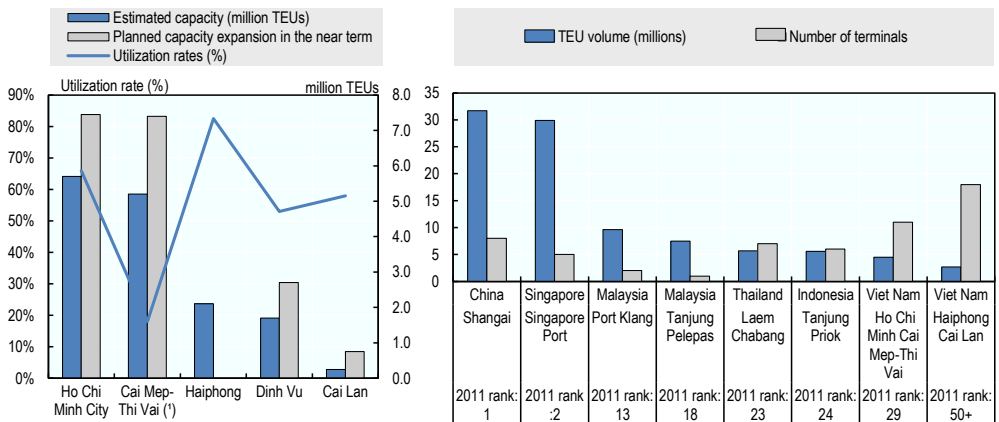
Port capacity expansion has taken place in an un-co-ordinated fashion, resulting in a fragmented port and maritime terminal system with considerable excess capacity

In contrast to railroads, port infrastructure has received considerable attention and funds from the government in the past decade. But the lack of a co-ordinated port (and multimodal) transport planning and development strategy has led to an excessive focus on expanding capacity rather than on improving the quality of existing port infrastructure, resulting in a fragmented port and maritime terminal system with considerable excess capacity even in some key economic regions, such as the Southern region (World Bank, 2014).

Port infrastructure in Viet Nam currently consists of 228 port terminals (Viet Nam's Maritime Administration, 2016), which are geographically distributed across six groups of ports covering the entire territory. Most of the activity takes place in two of those groups, notably the northern (Haiphong, Dinh Vu and Cai Lan) and southern (HCMC and Cai Mep-Thi Vai) ports, which accounted for roughly 29% and 58% of total cargo throughput in 2014 and 26% and 70% of total container throughput in 2014, respectively (Viet Nam's

Seaport Association, 2016). Aside from the Haiphong port which is operating at almost full capacity, overcapacity is currently a problem for most of the other major ports and this problem is expected to continue or increase in the medium to long-term if already planned capacity expansion materialises (Figure 7.6a). Illustrative of Viet Nam's port system fragmentation is the high number of terminals at the most important ports compared to some of the world's major container ports in the region, even though Vietnamese ports handle much lower volumes (Figure 7.6b).

Figure 7.6. **Port utilisation rates¹, current and planned capacity² and number of terminals³**



1. Data for utilisation rates and estimated capacity as of September 2012.
2. Data for planned capacity estimated at the time for 2013-2014. Two more terminals (SSIT and CMICT-ODA) are due to open in 2013, which will bring a further 2.2 million TEUs of capacity to Cai Mep-Thi Vai in the very short term.
3. Data for the number of terminals as of 2011.

Source: World Bank (2014).

The lack of an integrated multimodal planning only exacerbates such problems as in some cases road connections to ports have deteriorated and become congested, hindering port competitiveness. This is particularly a challenge for some of the newer ports, such as Cai Mep-Thi Vai, which are relatively further away from the major industrial zones. Their associated higher inland transport costs diminish their potential competitiveness vis-à-vis other ports, even in the case of Cai Mep-Thi Vai, which has the capacity to receive larger container vessels and can potentially provide more reliable services. In the northern region too, there is a need to increase ports' channel depth to allow for larger containerships to berth. Most of the other ports in Viet Nam have insufficient water depth for larger modern vessels and have

outdated container-handling facilities. Therefore, container services are mostly served by feeder vessels and then transhipped to larger mother vessels at major deep-sea ports in the region (e.g. Singapore, Malaysia and Hong Kong, China), which may lead to additional delays. Cai Mep-Thi Vai has partially managed to divert the more time-sensitive, higher-value consumer goods cargo, but most of containers handled at Cai Mep-Thi Vai are barged to or from HCMC (World Bank, 2014).

Inland waterways are another particularly important transport mode in Viet Nam, accounting for 17% of transported goods freight on a tonnage basis in 2014 according to General Statistics Office data. There are around 109 inland waterways ports with 3 111 landing points throughout the country, which are often used to move container and foreign trade cargo before the main sea transport leg. Trade with Phnom Penh, Cambodia, for instance, is largely carried by this mode of transport using barges. However, limited investment has been allocated to the development and maintenance of inland waterways, which are seldom regularly dredged and navigable all year round (only about 40% of the inland waterways are) (Banomyong *et al.*, 2015). The need for improved inland waterway infrastructure will only mount with the expected increase in container trade flows in Viet Nam, and will require investments to allow larger ships to navigate in the network to reduce transport costs and delays. Current expenditure in maintenance is estimated to cover only 50% of the costs of proper channel maintenance (World Bank, 2013).

Power and ICT connectivity

Electricity prices have been kept at historically low levels, affecting the industry's capacity to upgrade and maintain the existing electricity system

Access to electricity has become almost universal in Viet Nam, but limited funding has been directed in the past towards upgrading and maintaining existing electricity systems. As a consequence, the system suffers from important electric power transmission and distribution losses, which amount to over 10% of total electricity output. Power shortages are notably an issue during the dry season due to the water shortages for hydroelectric projects. The price of obtaining an electricity connection for businesses is also relatively more expensive in Viet Nam than in some of its peers in the region, which imposes a burden particularly for new Vietnamese SMEs. For instance, the price of electricity per kWh as a share of income per capita is more than 4 times higher in Viet Nam than in Malaysia, 2 times higher than in Thailand, 1.6 times higher than in Indonesia, and 3 times higher than in China.

The commencement of operations of the Mong Duong II coal-fired thermal plant, the largest private sector power project in Viet Nam, and the Song Hau I power plant in 2015 is expected to ease some of these shortcomings in power infrastructure in the country, most notably power shortages in the south (ASEAN, 2015). The rapid increase in demand for electricity has outpaced production, diminishing Viet Nam's energy self-sufficiency (JICA, 2014). However, attracting further investments to enhance the quality and capacity of Viet Nam's electricity network will require addressing the historical low level of electricity prices, which have undermined the industry financial sustainability and capacity to meet increasing investment requirements. Electricity prices remain among the lowest in the region (Table 7.2) and exert considerable pressure on the governments' fiscal stance, which has to compensate for Viet Nam's financial losses. The state-owned company holds the monopoly over transmission and distribution, besides being responsible for about two-thirds of Viet Nam's electricity generation market (ADB, 2015b).

Table 7.2. **Electricity tariffs in Viet Nam and ASEAN, USD¢/kWh, 2014**

	Residential		Commercial		Industrial	
	Low	High	Low	High	Low	High
Brunei	3.82	19.11	3.82	15.29	3.82	3.82
Cambodia	8.54	15.85	11.71	15.85	11.71	14.63
Indonesia	4.6	14.74	5.93	12.19	5.38	10.14
Lao PDR	3.34	9.59	8.8	10.36	6.23	7.34
Malaysia	7.26	11.46	9.67	11.1	7.83	10.88
Myanmar	3.09	3.09	6.17	6.17	6.17	6.17
Philippines	21.1	24.83	19.93	22.94	18.15	19.37
Singapore	19.76	19.76	10.95	18.05	10.95	18.05
Thailand	5.98	9.9	5.55	5.75	8.67	9.43
Viet Nam	2.91	9.17	4.38	15.49	2.3	8.32

Source: JICA (2014)

Moving forward with planned reforms under the 7th National Power Development Plan, which aims at allowing electricity tariffs to move towards cost-recovery and market-based pricing by 2020 is thus critical to enhancing Viet Nam's power-generating capacity and the industry ability to support industrial development. Access to reliable and affordable electricity is a key criterion for investors in higher-value added industries where electricity is a major component of their cost structures. Power shortages require companies to rely more often on costly generators and increase the risk of damage to electronic equipment.

ICT infrastructure has expanded rapidly since its liberalisation in 2002. Investments are now required to further expand broadband access in the country

The telecommunication network expanded rapidly after Viet Nam ratified its bilateral trade agreement with the United States in November 2011. The agreement triggered the start of gradual liberalisation in 2002 and set a framework for future reforms with a view of establishing a competitive regulatory framework for the sector in light of Viet Nam's accession to the WTO. The reforms that followed improved the sector's institutional and regulatory environment, contributing to the entry of new players, reduction in prices and increased investment in the development of the network (Chun Lee, 2011). But significant investments are still required to expand broadband access. Roughly 7 people in every 100 have fixed broadband internet subscriptions, which is about 20% and 35% less than in Thailand and Malaysia, respectively, although still higher than other CLMV countries. Mobile broadband services, however, is likely to provide some alternative to achieving a widespread access to faster internet speeds, notably into the less economical areas and market segments. The penetration of mobile broadband services has grown much faster than fixed broadband. By 2013, 19 people in every 100 had a mobile broadband subscription, which is almost 3 times higher than the penetration of fixed broadband services (ITU, 2013).

The framework for private investments in infrastructure

The government's goal of making infrastructure networks attractive for private participation is made easier when infrastructure policy priorities are fully embedded in the country's economic development strategies and are supported by a clear regulatory and institutional environment. This helps to secure greater policy co-ordination and alignment across levels of government and to assure investors of the long-term political commitment to infrastructure development.

The regulatory environment

Following the SEDP 2011-20 policy orientation to enhance private sector participation in infrastructure, the MPI was tasked to revise and modernise the regulatory framework for investment in infrastructure projects. The government seeks to build a credible environment for PPPs and has passed a number of reforms in recent years to create a more competitive and transparent legal PPP regime to attract qualified international and domestic investors.

The previous framework for private investment in infrastructure lacked clarity on key regulatory issues

The previous regulatory framework consisted mainly of Decree 108 of 2009, as amended in 2011, and the Decision 71 of 2010. Decree 108 (the BOT Decree) regulated investments into Build-Operate-Transfer, Build-Transfer-Operate and Build-Transfer projects. Decision No. 71 on Pilot Investment in the form of Public-Private Partnership and its implementing regulation represented, as the name suggests, a pilot attempt by the government to attract private investments in other forms of PPP contracts than the ones governed by Decree 108, which provided only for projects that allowed investors to charge off-takers or end-users for the goods or services provided.

Viet Nam's BOT regulation dates back to the early 1990s and has governed most of the infrastructure projects that have taken place so far. But despite the relatively more established framework, only a few projects have actually reached financial closure as mentioned above. The number of projects which have attracted qualified foreign investors interest is even more modest. This is an important shortcoming since qualified international and domestic investors are likely to deploy more efficient technologies and management practices, which can potentially translate into efficiency gains and long-term cost reductions. In addition, most of the infrastructure projects undertaken to this point have not been subject to competitive tendering (EUROCHAM, 2014), increasing the risks of poor outcomes.

Decree 108, as amended in 2011, marked the government's renewed attempt to mobilise private investment for infrastructure projects and, despite some regulatory shortcomings, provided for an improved BOT framework than under the previous BOT regime.⁵ Partly as a result, it successfully attracted two new power projects involving foreign investors, most notably the Mong Duong II coal-power plant in 2011 and the Vinh Tan I Coal Plant in 2014, which are the two largest BOT projects to reach financial closure in Viet Nam according to World Bank Private Participation in Infrastructure database. Important improvements brought by Decree 108 were, *inter alia*, the establishment of an open tendering process as the general rule for selecting investors in infrastructure projects⁶; the more transparent and detailed procedures for formulating and reviewing project proposals and feasibility reports; the lower minimum equity requirement imposed on the private concessionaire⁷; the increased limit on state participation⁸ and the removal of the previous prime ministerial approval requirement for granting guarantees to projects before contract negotiation, which prevented the government from indicating up-front in the project documentation the guarantees to which the project was entitled (ADB, 2012).

Several key issues remained unaddressed, however. Foreign lenders to PPP projects continued to be restrained from mortgaging a project's land use right as foreign established enterprises were not entitled to land use rights in Viet Nam. In addition, the legislation remained unclear to what extent investors in BOT projects were entitled to full currency convertibility. The Prime Minister's Official Letter 1604 of September 2011, limited foreign exchange guarantees to 30% for BOT power projects. Decree 108 also continued to impose a 10%-15% minimum equity requirement without any consideration for projects' different financial feasibility levels. It also required that all the conditions, procedures and contents of the step-in-rights exercised by lenders be approved by the state authority, but provided no guidance on the conditions and procedures for such approval.

Decision 71 complemented Viet Nam's PPP framework. It constituted a pilot regulatory framework for developing PPPs beyond BOT-type projects, but it suffered from many of the same regulatory uncertainties observed in Decree 108/2009/ND-CP (BOT Decree), besides constituting a newer and less established legal regime for investors and state agencies. As a consequence, the pilot PPP programme failed to attract private investors. Only one of the five project proposals (a waste treatment plant in An Nghiep industrial zone, Soc Trang province) approved by the Prime Minister out of the 24 preliminary PPP projects identified under the pilot PPP programme took off according to the authorities. The regulation provided for only a basic PPP framework, failing to address with clarity some important issues, such as: currency convertibility, the application of foreign governing law and the availability of government support and guarantees, among other things (EUROCHAM, 2014). In comparison with the BOT decree, it provided for more stringent conditions in some cases, such as with regards to state participation which was limited to 30% of total investment regardless of differences in projects risks and financial viability. The framework also imposed a 30% minimum equity requirement on the private concessionaire, which was higher than in the BOT regime and limited investors' ability to adjust the project's financial structure to changing risks and financial needs over its lifetime.

The new framework for private investment in infrastructure brings some important improvements compared to the previous regime...

In February 2015, the government issued Decree 15/2015/ND-CP establishing Viet Nam's new PPP framework. The new decree replaced both Decree 108 and Decision 71, providing for a unified regulatory regime for investments in infrastructure, and ending an important source of uncertainty for investors. On March 2015, the government also issued Decree 30/2015/ND-CP (the Investor Selection decree) providing guidance for

implementing provisions in the *Law on Public Procurement*, which was amended in 2013 to provide for the procurement of PPP projects in addition to the procurement of goods and traditional construction services. Other relevant legislation include: the new *Law on Public Investment* of 2014, which unified the previous scattered regime for public investments and provided clearer guidance for its implementation; the *Law on Construction*, which was amended in 2014 to better align with the new *Law on Public Investment*; the new *Law on Investment* and the *Law on Land* (ERIA, 2015). The framework is complemented by a number of guiding documents issued in 2015 and early 2016.⁹ This new PPP framework brings about many important improvements to Viet Nam's regulatory framework for investment in infrastructure.

Expanded contract type and sector coverage. The new framework provides for both availability-payment and user-fee type PPPs, and expands the types of contracts previously permitted under the former BOT Decree to include investments in Build-Own-Operate, Build-Transfer-Lease, Build-Lease-Transfer and Operate-Manage contracts. Decree 15 also expands the sectors where PPPs are allowed, now encompassing a broader set of economic and social infrastructure and agricultural infrastructure facilities. It does not expressly provide for PPPs in some other traditional sectors, such as oil and gas and mining, but it allows PPPs in these and any other sectors to be decided by the Prime Minister.

Clearer project formulation and implementation procedures. The new framework establishes a clearer and more predictable process for preparing and implementing PPP projects. It introduces a PPP project life-cycle approach and provides guidance in each step, including on the institutional role of each state agency involved, ranging from the conditions, content and procedures for identifying, preparing and approving project proposals and feasibility studies, passing through project procurement and negotiation of the investment agreement and project contract, issuance of investment certification and incorporation of the project company, and finally the implementation and transfer of the project facility at the end of the contractual term.

All projects proposed under the PPP framework must be implemented in accordance with the above procedures, with the exception of projects classified under group "C". Project classification is aligned with the classification under the *Law on Public Investment*, which categorises projects into those of national importance or pertaining to group "A", "B" or "C". Smaller-sized projects, notably those under group "C", are subject to simplified procedures. There is no requirement for establishing a project company, nor is a feasibility study needed. Only the project proposal, which serves as a pre-feasibility study, is required to be approved by the relevant

ministry or the People's Committee. Feasibility studies of "A" and "B" projects (except for projects using ODA or concessional loans in security, national defence and religion-related activities) need the approval of Ministers, head of Ministerial-level agencies and the Chairman of Provincial People's Committees, while those projects of national importance need the approval of the Prime Minister.

The decree also establishes guidance for which projects are eligible for PPPs, notably those (i) conforming to master plans, plans for development of the sectors and regions and the socio-economic development plans of the localities; (ii) those in the investment sectors where PPPs are allowed as set out in the decree; (iii) those capable of attracting commercial financing, technology and experienced investors; (iv) those capable of steadily and continuously providing products and services which satisfy the quality standards and meet demands of the users; and those (v) where the total investment capital is equal to or above VND 20 billion, except for operate and manage-type projects and those in agricultural sectors. Furthermore, the decree also establishes that projects which are potentially more capable of recovering capital from the business activities shall be prioritised. Unsolicited project proposals which do not conform to sector and regional or local development plans may also be allowed upon approval by the competent authority, following the procedures established in the legislation.

State capital contribution allowed with more flexibility. One of the characteristics of the previous PPP framework was its limit on state participation up to 30% of the total investment costs of a project regardless of the project's risk profile. The new framework now allows the level of state participation to vary depending on the project's financial viability. State participation is to be pre-approved at the project proposal phase in accordance with the regulations on public investment, and the amount of viability gap funding allocated to the project is to be determined during the feasibility study phase on a case-by-case basis. Adequate value for money assessments will therefore be crucial for an efficient use of public money. Viability gap funding is allowed in the form of (i) capital support to the construction of infrastructure facilities in the case of user-fee PPPs which do not generate sufficient revenues to recover invested capital, (ii) availability-payments to the project company, (iii) and support for the construction of ancillary facilities, to organise compensation, land clearance and resettlement. Unsolicited project proposals are not entitled to state support in the first two forms, except when the proposed project involves ODA sources and concessional loans of foreign donors.

The new framework demonstrates the government's increased commitment to provide funding to PPP projects that have strong economic returns but may not be commercially viable. Greater clarity is needed on the rules

governing the allocation of public support to those projects in order to support appropriate project proposals and ensure value for money. The government may also wish to set up a dedicated fund to help assure PPP investors of its capacity to meet its commitments beyond the budget cycle and enhance the transparency and management of associated fiscal obligations. Discussions in this regard have taken place. JICA has provided technical assistance for studying the potential establishment of a Viability Gap Fund. But, according to the authorities, at this stage the government will not address this issue. As such, the general rules on the use and management of state capital contribution to PPP projects remains those provided in Circular No. 55/2016/TT-BTC of 10 March 2016. In this context, while the introduced flexibility in the use of state capital to support PPPs is welcome, it is critical that commitments be also thoroughly monitored, potentially with limits on the overall accumulation of PPP liabilities to minimise fiscal risks (IMF, 2015).

A new project development facility introduced. These funds will assist the Authorised State Agencies (*i.e.* the contracting agencies to PPP projects) in identifying and preparing bankable project proposals and feasibility studies and supporting competitive tender processes. They can be used to cover the costs involved in these activities, including the costs of hiring external consultants to support their implementation under the supervision and responsibility of the relevant authority. An initial USD 30 million project development facility is expected to be created for this purpose with the assistance of partner development agencies, notably the Asian Development Bank and the *Agence Française de Développement*. The legislation provides for winning bidders to reimburse the costs incurred in project preparation, which will be made available up-front in the tender documentation and will be included in the total project investment.

The role of this new project facility is crucial to help build a credible pipeline of projects. Legal practitioners have called attention to the difficulties and length of negotiations in the past for projects proposed for tender. Often the negotiations blocked on determining key commercial variables such as pricing and, consequently, on the required level of state capital support. If appropriate feasibility studies are prepared, these decisions should likely be made easier. Establishing a credible pipeline of projects is an important step towards attracting investors and facilitating competition for the market. It allows potential investors to build their strategies upon a sizeable portfolio of opportunities rather than on a project-by-project basis, thereby allowing the amortisation of some of the costs associated with assessing infrastructure opportunities in Viet Nam.

Improved framework for unsolicited proposals. The new framework provides a more detailed framework for preparing and implementing

unsolicited proposals, aligned with the one for projects identified and published by the competent authorities. Projects requiring state capital contribution for the construction of infrastructure facilities or in the form of availability-payment are not permitted to be developed through unsolicited project proposals. The cost of preparing an unsolicited proposal shall be borne by the proponent investor. If the project proposal is approved, the proponent may be assigned by the competent authority to undertake a feasibility study upon agreement. Such written agreements must provide for the purposes, requirements, costs for formulating the feasibility study report, and the costs for hiring independent consultants for the appraisal of the feasibility study and the principle for handling the case where another investor is selected to implement the project. Costs may be recovered from the winning bidder if different from the proponent or from the project development facility in case the project is not approved. The proponent investor is also entitled to a 5% preference over other bidders' proposals during the tender process in accordance with the *Law on Public Procurement* and Decree No. 30 on Investor Selection.

International competitive bidding as the general rule. The new framework provides for the selection of investors through open bidding or direct appointment, in accordance with the *Law on Public Procurement*. The general rule is the application of international competitive bidding for investor selection in PPP projects on the basis of the approved feasibility study. Previously, under the BOT Decree, international bidding was only applicable to projects in which no domestic investor registered to participate or for which a domestic bidding process had been organised but no investor had been selected. In practice, most of the projects undertaken under the previous BOT framework were directly negotiated often with state-owned enterprises. Under the new framework, domestic bidding is constrained only to those cases where (i) foreign investment is restricted by law or international agreements to which Viet Nam is a signatory; (ii) foreign investors do not participate in or fail the pre-qualification stage; and (iii) group "C" (small-scale) projects, but domestic investors can partner with foreign investors where advanced technologies or international management experience is needed.

Direct appointment is reserved only for those cases where a single investor registers and satisfies the requirements for pre-qualification or is capable of executing the project due to intellectual property, commercial secret or funding arrangements, or when an unsolicited proposal is considered feasible and most efficient following the Prime Minister's consideration and decision. In this respect, the law establishes that these projects must have their feasibility study reports (for PPP projects) or project proposals (for PPP projects of Group C) approved and that the service prices, state

contribution, social benefits, or state interests proposed by the investors is reasonable. No guidance is provided on the criteria for determining such reasonable levels, and it remains to be seen how the new framework will be applied in this respect.

These established procedures follow general international best practices, including a pre-qualification phase where investors are shortlisted based on eligibility, capacity and experience and the assessment of the financial proposals only of those pre-qualified bidders whose technical proposals satisfy the technical requirements established in the tender documentation (Gide Loyerrete Nouel, 2015).

The government has also worked to issue guidelines and standardised documentation to reduce the transaction costs of competitive bidding in comparison to direct negotiations.¹⁰ Tenders are normally burdensome on the government capacity, requiring it to address the many enquiries from potential bidders and lenders about project documents' contents. Investors need some clarity on the conditions and government preferences which a project may be subject to. Detailed guidelines help to ensure the quality of bidding documentation for investors and to limit to a reasonable level the issues open for negotiation. Otherwise these issues may undermine the potential for competitive tendering to deliver greater value for money.

Minimum equity requirement at lower levels. The new framework now aligns the minimum required equity from investors into PPP projects with the levels previously applied to projects under the BOT Decree. A project with total investment below or equal to VND 1 500 billion, the investor(s) must contribute at least 15% as equity. For larger projects, the equity contribution must comprise 15% of VND 1 500 billion plus 10% of the amount in excess of VND 1 500 billion. Under the previous PPP pilot regulation, a 30% minimum equity requirement applied regardless of the projects financial characteristics and risks. This imposed a burden on project sponsors and increased the financing costs of such projects. PPP projects are typically highly leveraged and their financial structure is often adjusted to accommodate greater debt levels after the construction phase, at the moment when the project risk is normally reduced. The legislation now brings the requirements closer to equity levels normally observed in PPP projects.

Improved lenders rights. PPP projects are normally large and highly leveraged. Lenders to PPP projects seek, therefore, to ensure that the project revenue stream is protected and that the project company continues to meet its financial obligations. Step-in-rights is one important mechanism which allows lenders to take full control of the PPP project company when it is not performing, putting at risk its capacity to meet its debt service obligations. Most notably, in such situations, lenders would like to appoint a third entity

to take over the project company (Gatti, 2013). Under the previous PPP framework, this was not permitted. Lenders were required to take over the project themselves and such step-in rights had to be approved by the state authority. The new framework finally allows them to mandate another entity to take over the project in such situations and removes the approval requirement. However, the triggering conditions and timing for the exercise of step-in-rights is subject to an agreement between the lender and the authorised state agency responsible for the project. In addition, lenders are now allowed to take security over the project company's right to commercially operate the project facility, in addition to land use rights and other assets of the project. This was not permitted under the previous framework (Mayer Brown, 2015).

Clearer dispute settlement provision. The new framework provides greater clarity on the rules governing dispute settlements involving foreign investors. It sets out clearly that any dispute arising between the authorised state agency and a foreign investor or the project enterprise established by a foreign investor, during the implementation of the project contract and the guarantee agreements, can be settled by arbitration or by local courts or by an arbitral tribunal established on the basis of an agreement between the parties. It establishes that disputes to be settled by arbitration as agreed under the project contract and other relevant contracts are commercial disputes, and recognises that awards of foreign arbitrations shall be recognised and enforced in accordance with the laws on recognition and enforcement of foreign arbitral awards. Legal practitioners have welcomed this development since it addresses an important area of concern under the previous regime. In some situations, under the previous framework, Vietnamese courts interpreted that disputes did not constitute a “commercial dispute”, which sometimes made the recognition and enforcement of foreign arbitral awards difficult (Gide Loyrette Nouel, 2015; Duane Morris, 2015).

But some remaining challenges might still deter qualified private investors

Most of the remaining concerns for investors are not new. To begin with, some concerns remain about the nature of the legal framework regulating PPPs. PPP implementation is regulated at the Decree level only, and being still subject to some overlapping laws and regulation according to the authorities, which leads to difficulties in implementation. There are also some more specific concerns that need to be addressed in upcoming regulations and guidelines. Some of these issues are discussed below, but do not represent an exhaustive list. While the government is right to accord certain flexibility to the negotiation of many of these issues under project

contracts, the framework would benefit from more transparent guidance on the broad conditions and rules the government seeks to implement.

Risk allocation is insufficiently addressed. Risk allocation is a key aspect in ensuring value for money and risk allocation principles give visibility to investors on the government's standard approach to risk sharing, notably with regard to the risks which it is likely to retain itself (*e.g.* political and regulatory risks), risks which are expected to be shared by the parties and those which the private investors are expected to assume (OECD, 2012). The new framework is relatively silent on risk allocation guidelines. It requires that project proposals identify the risks foreseen during project implementation, and propose their allocation between the authorised state agency and the investor, but no guidance to support such risk allocation has been developed (Frasers, 2015).

Inappropriate risk sharing imposed on the private sector raises project costs, potentially rendering a project un-bankable or reducing its potential value for money. Risk allocation guidelines can support authorised contracting state agencies in developing bankable PPP projects, as well as enhancing transparency for investors and lenders, allowing them to better harness investment opportunities. In addition, while the new PPP framework provides that contract negotiations after the bidding award should not fundamentally change the bidding offer and previously agreed contractual contents, it lacks sufficient clarity with regards to the potential items which can be subject to negotiation to ensure this does not affect the projects' value for money potential. Risk allocation guidelines would likely help to limit such risks. In either case, all short and long-term fiscal risks shouldered by the government, including contingent liabilities, should feature in the cost-benefit analysis and should be managed transparently in the budget process (OECD, 2012). The authorities are aware of the need of appropriately addressing risk allocation. A recent circular providing guidance for preparation of PPP contracts should help in this regard.¹¹

Currency convertibility remains a concern. Viet Nam's financial sector capacity is still relatively underdeveloped to finance large and long-term PPP infrastructure projects (ADB, 2012). For large PPP projects, investors may still have to recourse to foreign bank loans denominated in foreign currency, which exposes them to important currency risks since projects' revenues are normally denominated in Vietnamese Dong. Investors and lenders, therefore, seek government guarantees against limitations on currency convertibility and remittance. Investors may also seek protection against exchange rate fluctuations because of limited hedging options available in the market.

The new framework lacks clarity on the right and extent to which projects will be entitled to “foreign currency balance guarantees” (Fraser, 2015). Uncertainty also arises with regards to the powers of the authorised agency to issue government guarantees for PPPs, which is not delineated in the current legislation (Freshfields Bruckhaus Deringer, 2015). Together these may prove an important impediment to the development of PPPs in Viet Nam. Development agencies and export credit agencies may play a key role in supporting PPP projects in Viet Nam in this regard.

The framework establishes that only those projects requiring National Assembly approve-in-principal, infrastructure construction projects within the government investment programme and other important projects as decided by the Prime Minister shall be considered for satisfying their needs of foreign currency. The Prime Minister shall decide on and appoint an agency to be responsible for providing the foreign currency convertibility guarantee for the project. In the past, as mentioned in the previous section, foreign currency convertibility guarantees had been limited to 30% of revenues in the case of BOT power projects in accordance with the Prime Minister’s Official Letter 1604 of September 2011. The new legal framework does not follow this practice. No statutory limit on currency convertibility guarantees has been set.

While the approach of limiting the government’s guarantees to PPP projects is a valid one, as full guarantees may create perverse incentives to the detriment of value for money, this approach needs to be balanced against the different types of risks involved. In principle, risks should be allocated to the party best capable of managing, mitigating and absorbing them in order to deliver the best value for money from the project (OECD, 2012). Currency convertibility is unlikely to be a risk that the private sector can efficiently manage, and therefore transferring such risk to the private party will entail a high premium without much compensating efficiency gains. At the same time, a currency convertibility and transferability guarantee for an infrastructure project by the government cannot prevent the country from running out of foreign exchange, and its efficacy depends upon the government not having too great a share of its foreign currency supply subject to guarantees (Matsukawa *et al.*, 2003). Bilateral and multilateral agencies could play an important role in this case by backing the undertakings of the government.

Therefore, the government may wish to maintain a certain policy space in this respect, but the new framework could establish better guidance on the conditions for guarantees to be provided on currency convertibility and transferability. This would enhance the transparency of Viet Nam’s PPP framework and help minimise the costs of transferring too much risk to the private party. The government may also consider establishing a dedicated

fund to support government guarantees, such as the Indonesia Infrastructure Guarantees Fund, which operates as a commercial entity to structure and provide government guarantees for PPPs (World Bank, 2013).

Lengthy land clearance and compensation processes. In Viet Nam, the Provincial People's Committees are responsible for carrying out the site clearance and completing the procedures for land allocation and lease to carry out the project according to the laws on land, project contracts and relevant contracts. The authorised state agency counterpart to the PPP project shall co-operate with provincial People's Committees in this respect. The government may also contribute to a PPP project by paying for land compensation and resettlement costs. The new PPP framework also provides for a guarantee against changes in land use purpose during the entire execution of the project period, even when the project lender exercises the right to take over the project. Nonetheless, site clearance and compensation processes have been notably lengthy in the past, taking between four and five years for investors in BOT projects to complete such procedures (Fraser, 2012). Obtaining land-planning and environmental permits and obtaining compulsory land expropriation clearance from the responsible judicial and administrative authorities before calls for tender are made would likely help to mobilise the private sector investment more effectively by diminishing uncertainty and negotiation delays. The government should also engage early in consultations with any affected party to mitigate any adverse social impact associated with land requirements by PPP projects (OECD, 2009, 2012).

Land use rights limit foreign lenders financing. In Viet Nam, land is property of the state. Private investors are entitled to land use rights and credit institutions, including foreign bank branches, can take security over land-use rights and assets attached to it, but land-use rights cannot be mortgaged to foreign institutions without a local presence. Notably in the case of PPP projects, which are particularly large and may likely require the involvement of foreign financial institutions, this can be a deterrent to reaching financial closure.

Lack of guidance on project termination and renegotiations. The long life-span of infrastructure assets normally surpasses the contract duration, imposing an additional constraint for investors to recover their capital during the contract period depending on the regulatory regime. The mechanisms for early-on project termination and residual value repayment at end of concession if any, as well as the ability to solve any disputes arising throughout the concession period in a timely and impartial manner, are thus critical for investors and may work to attenuate their propensity to underinvest in some cases (World Bank, 2015b). Viet Nam's new framework remains basic with regards to the rules governing the termination

of PPP projects by any of the contracting parties to a PPP project contract. The framework only establishes that the contracting authority and the private party to the project shall agree on the conditions and procedures for handling the termination of the project contract, but no guidance is provided to support the conduct and determination of termination compensation. The lack of clarity in this regard raises uncertainty for investors on the extent to which they will be able to recover their capital and reimburse all outstanding debt and financial costs incurred by the project, and may lead to lengthy project negotiations.

The new PPP framework also provides only limited guidance on the circumstances and the extent to which renegotiations are permitted, leaving a large scope for these issues to be negotiated and stipulated by the parties in the contractual agreements. While it is good practice to incorporate explicitly in contracts the conditions under which they may be reconsidered or renegotiated, the lack of appropriate initial guidance to support such agreements may increase the risks of opportunistic renegotiations by the parties. Renegotiations have been common for PPP projects worldwide, often shortly after contracts are signed and to the detriment of initial value for money assessments, commonly resulting in greater direct and contingent liabilities for the government and lower efficiency and quality for users. Most have been initiated by the private sector, and only a minority have been commonly agreed or initiated by the government (Guasch *et al.*, 2014). Contracts renegotiations will occasionally be necessary in long-term infrastructure projects, but it is important that the outcomes of any renegotiation do not substantially modify the project's original risk allocation and jeopardise value for money. Ideally it should have no impact on the net present value of the project's benefits (Guasch *et al.*, 2014).

Political commitment and institutional delivery capacity

The government is seeking to build credibility with the private sector and has set up a number of institutional mechanisms to ensure an adequate framework is in place for developing and implementing PPP projects. A PPP steering committee – currently chaired by the Deputy Prime Minister Trinh Dinh Dung and including representatives from the relevant Ministries and regulatory bodies – has been established to supervise the implementation of PPP policy and projects on a national basis.¹² In late 2016, the government further issued Decision No. 2048/QĐ-TTg and regulations updating its functions to reinforce the work of the Steering Committee on PPP.

The MPI has been tasked to co-ordinate and assist the PPP steering committee and has created a dedicated PPP unit to act as the government central PPP unit. It shall assist Ministries, branches and provincial People's Committees in identifying, structuring, procuring and monitoring PPP

projects. It is also tasked to be the main government interface for investors. Ministries, ministerial-level agencies and the provincial people's committee have been tasked to assign a subordinate unit to be their focal point on PPP depending on their needs and management conditions. According to the authorities, about 51 PPP focal points have already been established or assigned by both Ministries and provinces, such as the Ministry of Transport, Ministry of Agriculture and Rural Development and Ho Chi Minh City People's Committee.

The MPI is also responsible for managing the recently created Project Development Facility fund, which serves to fund the expenses of formulating, evaluating and approving project proposals and feasibility study reports, and the expenses incurred during investor selection processes. Authorised state agencies are allowed to draw on the project development fund, including hiring specialised consulting firms to assist them in these activities. It is expected that these resources will help to overcome some of the capacity shortcomings within Ministries, agencies and provincial Peoples' Committees. In the past, limited delivery capacity of state agencies, both in terms of dedicated staff and sufficient budget for PPP preparation, contributed to some extent to the limited number of bankable project proposals and internationally competitive tenders for infrastructure projects in Viet Nam. Most of the PPP projects developed so far have been directly negotiated, failing to benefit from enhanced value-for-money arising from greater competition (World Bank, 2013).

The government has invested in capacity building by establishing a PPP capacity building programme (Decision 1086/QĐ-BKHDT, dated 14 August 2014) and has organised, with the support of donor agencies, a series of technical workshops to train government officials and raise overall awareness on PPPs. Over 600 public officials have received training under the programme (Frontier Law & Advisory, 2016). It has also engaged in enhancing the transparency and communication with regards to PPPs and is developing a PPP portal which will concentrate relevant information on Viet Nam's PPP programme, including a database of PPP projects and relevant regulations.

Infrastructure planning and project prioritisation and monitoring capacity

Viet Nam's limited efficiency in infrastructure investments arises partly from the lack of an integrated infrastructure planning process across sectors and levels of government. The observed overcapacity in the ports sector is a clear example of the shortcomings of a fragmented and decentralised planning, budgeting and investment process (World Bank, 2014). The Transport Master Plan to 2020 is also weakly articulated with the industrial

development plan and trade competitiveness strategy. The necessary investments in transport infrastructure to improve the main economic corridors' access to their trade gateways, for instance, have lagged behind the growth in demand, while investments have been channelled to other infrastructure projects with relatively limited socio-economic impact. The lack of a multi-modal approach to infrastructure planning within the Ministry of Transport and the poor co-ordination with the relevant provincial governmental agencies has also resulted in complementary infrastructure projects being developed in a time-inconsistent fashion, undermining their potential economic impact (World Bank, 2014).

Poor project prioritisation also leads to investment in infrastructure projects with relatively low economic returns. An example was the priority focus of the Master Plan for the Development of Viet Nam's Seaport System through 2020, with orientation towards 2030, to develop the Van Phong international trans-shipment port in central Viet Nam, despite limited demand for such a port. The government finally stopped its construction in 2012, in part because of the financial difficulties of the SOE involved (Vinalines), but the government seems still to be pursuing the idea of developing the transshipment port at Van Phong (World Bank, 2014). According to the authorities, the government decided to continue with the construction of Van Phong in 2016.

An integrated planning and decision-making framework should help to better prioritise investments according to their socio-economic importance, environmental sustainability and financial feasibility. In this respect, the 2014 Law on Public Investment and the 2015 Decree on Public-Private Partnerships may address many of the earlier challenges leading to inefficiencies in public investment, including through PPPs. The procedures for selecting, approving, budgeting, implementing, monitoring and evaluating projects have been clearly stipulated in these laws. The planning for state capital investments, as per the revised *Law on State Budget*, has also been adjusted from an annual approach to a five years cycle to align with the 5-year national Socio-Economic Development Plan. The budgeting constraints have also been more firmly incorporated in project selection and prioritisation, with the Ministry of Planning and Investment required to cooperate with the Ministry of Finance to appraise the investment portfolio and the capability of projects under MPI responsibility to be financed through the state budget or other forms of funds. A similar process also applies to projects under the responsibility of the provincial People's Committee (*i.e.* those classified into Group B and C as per the *Law on Public Investment*). It remains to be seen how effective these co-ordination efforts will be in ensuring projects' alignment with national priorities.

The government also needs to strengthen its value for money framework. In the past, infrastructure projects have been prioritised and structured around weak feasibility assessments (e.g. Cai Mep-Thi Vai port) and were also rarely put to competitive pressures through international tendering. The new regulatory framework will help in this regard. The *Law on Public Investment* specifically establishes that infrastructure projects should be selected and prioritised based on their financial efficiency and social and environmental sustainability. The new *Decree on Public-Private Partnerships* further establishes a common framework for PPP project proposals and feasibility studies, which will facilitate project comparison and prioritisation. It requires that project proposals justify the need for the investment, the advantages of the PPP in comparison with other forms of investment and the proposed type of project contract. Nonetheless, more detailed guidelines and standards are needed to ensure project proposals and feasibility studies' quality and comparability, and that the selection of projects and of their delivery mode – either through traditional public procurement or PPP – are grounded in reliable value for money analysis by the responsible government agencies.

The government needs to ensure that any fiscal motivation for mobilising private investment into infrastructure does not bias the results of such assessments. This may be a challenge as the Socio-Economic Development Plan 2011-20 emphasises creating the conditions for private investment in infrastructure and the government expects that half of the financing for infrastructure investments shall come from the private sector due to fiscal constraints. But the selection of infrastructure projects and the choice between public and private provision should be guided by an impartial assessment of what best serves the public interest. This is best achieved through full cost-benefit analysis taking into account the entire project lifetime, all alternative modes of delivery and affordability to ensure value for money. All relevant aspects of sustainable development should also be taken into account, including through environmental and social impact assessments, and incorporating climate resilience considerations. Private participation should also not be used as a vehicle for escaping budgetary discipline, and any direct or contingent budgetary implication of such projects should be appropriately scrutinised and transparently treated in the budgetary process (OECD, 2007, 2012). This was not the case under the previous *Law on State Budget* in Viet Nam (World Bank, 2014b).

Furthermore, PPPs also require active monitoring of their implementation, which implies additional co-ordination needs by involved authorities and relevant agencies. In this respect, implementing effective internal control and monitoring procedures by authorised state agencies and other relevant authorities is important and should facilitate the monitoring of projects'

budgetary implications by the Ministry of Finance, as well as the *ex post* evaluation of infrastructure projects' performance, finance and compliance by the State Audit Office of Viet Nam as foreseen in the new *Law on Public Investment* and *Law on State Audit*.

Price regulation

Recent regulatory reforms and institutional commitments represent an important step forward in building the government's credibility to deliver on infrastructure PPP projects, but other important complementary issues need also to be addressed. For instance, there had been an impression that some toll road PPP projects had been proposed with too low toll rates, making returns feasible only over an excessively long-term period from investor and lender perspectives, rendering these projects un-bankable (Thanh Nien News, 2015). According to the authorities, however, an investigation by an inspection committee has found that in many PPP road projects the opposite was true. This misperception may be due to the lack of transparency with PPP projects and the fact that prices are set in these contracts. Whichever the case, infrastructure prices need to be set at cost reflective levels for projects to be bankable and attractive to private investment, and greater transparency helps to ensure that this occurs in practice.

In the electricity sector, the government will need to sustain its commitment to bring tariffs to cost-recovery levels to mobilise the estimated needed investments. In the past, the government has been reluctant to do so. Electricity prices have long been kept at low levels, undermining the industry financial sustainability and capacity to meet investment requirements. Despite an increase in the average retail tariff by 79% in nominal terms during 2007–13, it has decreased by 15% in real terms. As of August 2014, the average electricity price was USD 0.0714 kWh, much lower than its estimated long run marginal cost of USD 0.08-0.09 kWh (ADB, 2014b). Gradual tariff increases are required to ensure the long-term financial sustainability of the power sector. Low prices exert considerable pressure on Viet Nam Electricity's (EVN) financial position, and therefore on its capacity to invest in new generation capacity and in the transmission and distribution network (ADB, 2015b).

It also affects the market for private investment into electricity generation. Independent power producers need to be assured that EVN's single buyer subsidiary – the Electricity Power Trading Company – has the capacity to buy the produced electricity at generation cost-recovery levels. But with such low prices, investors' returns may be excessively pressured downwards. To date, most of the power generation capacity has been developed by EVN's generation subsidiaries and other state-owned companies, such as Vinacomim and PetroVietnam. Private domestic and

foreign-owned investors are limited to only 16% of the installed capacity (ADB, 2015b). Foreign investment in the sector has only taken place through full government guarantee of EVN's off-taker commitments under the purchase power agreements (ERIA, 2014).

Since 2009, however, the government has been promoting price reforms to mobilise investment and instigate a more efficient use of power to keep up with rampant demand. Electricity prices have been adjusted in accordance with the government's price reform (established by Decision No. 21/2009/QD-TTg) to allow tariffs to reflect changes in costs, following a more transparent process, while recognising the need for social protection schemes for the poor. In 2011, the Decision No. 24/2011/QD-TTg dated 15 April 2011 clarified that electricity retail prices would be adjusted in accordance with changes in its fundamental costs, such as fuel costs, exchange rate fluctuations, and generation capacity charges. Increases in excess of 5% would require the endorsement of the Ministry of Industry and Trade and the approval of the Prime Minister. Another important government commitment came with 7th National Power Development Master Plan, which expressed the government commitment to allow electricity prices to gradually increase to cover the long run marginal cost of the electricity system by 2020 amounting to USD 0.08-0.09 kWh (ADB, 2015b). Such tariff reforms are need to provide generation investors with reasonable comfort that EVN as the single-buyer will be able to pay generators in the competitive market and BOT investors (World Bank, 2012).

In preparing for the competitive generation market established in 2012, the government implemented reforms to enhance the transparency and competitiveness of the power generation sector. In 2010, Circular No. 41/2010/TT-BCT dated 14 December established the method and procedures for determining power generation prices under new standard power purchase agreement (PPA) contracts and for the conversion of existing PPA contracts. Accordingly, the Electricity Regulatory Authority of Viet Nam, which is an entity under MOIT, shall set annually price brackets to be used in negotiating PPA contracts based on benchmarked costs for each type of power plant according to fuel, technology, and size of plant, and following a standard regulated return on equity (10% for the state capital contribution share and a 5-year Government bond yield average over the previous five years plus 3% for private investors' equity stake). Before, prices were freely negotiated between parties without any standard guidance and transparency. BOT and small power plants are not required to participate in the competitive market and are exempted from the application of Circular No 41. BOT investors continue to sell all their output to the

single buyer at prices set in their PPAs negotiated directly with the MOIT (ADB, 2015b).

Since the competitive generation market became operational in 2012, power plants have been able to sell their electricity to EVN on the basis of competitive bids in the market. So far, for prudential reasons, the Electricity Regulatory Authority has allowed only 10%-15% of the total generated power to be traded at spot market prices. The rest of purchases by EVN are still covered by the PPA contract prices. The establishment of the standard PPA contract with a standard pricing methodology was intended to increase the transparency of power generation price formulation and help to ensure a similar treatment for generation investors independent of ownership. The regulated price caps by type of power plant based on benchmark costs also helps to ensure that bidding prices reflect actual costs, and stability in the spot market is further assured by contracts for difference between the power plant and the single buyer, which compensates for differences in the market and PPA contract price and volume (World Bank, 2012).

Level playing field between state-owned and private enterprises, and statutory barriers to foreign investment in infrastructure sectors

Where privately-owned infrastructure providers coexist with state-owned incumbents, particular measures to maintain a level playing field are needed to safeguard a healthy competitive environment and reduce concerns over regulatory discretion and risks, including corruption. Adopting strong corporate governance standards for state-owned enterprises also helps to ensure they operate on an equal footing with the private sector (OECD, 2015).

State-owned enterprises play a dominant role in Viet Nam's infrastructure markets, especially in strategic and capital-intensive industries. In the transport sector, for instance, there are still 37 SOEs under the auspices of the Ministry of Transport, despite the government SOE equitisation programme underway (MOT, 2016). There are also SOEs under the responsibility of provincial authorities. In the power generation sector, the three large SOE groups, namely EVN's three subsidiaries, PetroVietnam and Vinacomin, dominate more than 75% of total electricity output. The three fully-owned subsidiaries of EVN are responsible for roughly two-thirds of the installed capacity. They are expected to be fully separated from EVN once the wholesale competitive market initiates, which is expected in 2017. EVN is also the owner of the National Power Transmission Company, the single-buyer of electricity in the country, and of five other power distribution companies (ADB, 2015b).

Reforming the SOE sector is necessary for Viet Nam to improve the efficiency of infrastructure investments and, where appropriate, generate

space and confidence for greater private sector participation. Many of Viet Nam's SOEs are less productive than their private counterparts. On several occasions they have ventured outside their core business, with investments backed by subsidised credit (World Bank, 2012, 2014; Matheson, 2013). Overinvestment in the past resulted in low capital productivity of SOEs in many sectors, including ports, where overcapacity has been particularly acute. In airports too, it seems that both SOE-managed cargo terminals in HCMC and Hanoi airports could be operated with much greater levels of efficiency and contribute to important logistics and operating costs gains (World Bank, 2014).

Moreover, the dominance of SOEs in many infrastructure sectors crowds out private investment in these sectors and the weak governance structures of SOEs only compound private investors' concerns over the lack of level playing field (World Bank, 2014). In the electricity sector, for instance, private investors have major concerns over the extensive role played by EVN. While it has gone through structural reforms – the company was legally unbundled and ceased to exist as a vertically integrated utility in 2009 – it remains present in all stages of the power sector value chain through its various subsidiaries and owns the national transmission company (ADB, 2015b). This current cross-ownership integrated structure does not assure investors of a fair, efficient and non-discriminatory trading environment and access to the grid. In the past, independent power producers complained that EVN refused to buy their electricity despite power shortages, or only accepted to buy at very low prices. They found themselves at important disadvantages vis-à-vis EVN-owned power plants which have already recovered their capital and can thus offer more competitive prices (UNDP, 2012).

The government's gradual approach to reforming the company's structure, allowing it to retain cross-ownership over these core business assets, may have posed only a limited challenge during the development of the competitive generation market, as the priority rested in moving forward with price reforms (World Bank, 2012). But it will become increasingly more of an issue for the government to attract new investment into the power generation market in the future. To some extent, price reforms were also a priority to move forward with the full separation of EVN's power generation companies, because the equitisation of EVN's generation companies would only likely be attractive once the industry's financial prospects recovered. But removing EVN's cross-ownership of the single buyer and power generation companies will become indispensable for the government to successfully implement the planned competitive wholesale power market as indicated in the 7th Power Development Master Plan and attract more IPPs and BOTs into power generation in the longer run.

Improving the governance of Viet Nam's SOEs along the lines established in the OECD *Guidelines on Corporate Governance of State-Owned Enterprises* would go a long way in achieving a level playing field for investors (see Chapter 4 on Corporate Governance). As identified in the 2012 SOE reform plan, shortcomings in the governance of Vietnamese SOEs relate to the limited disclosure of financial information, the lack of transparency with regard to the state's ownership and regulation responsibilities, inadequate oversight of SOE management and investment plans, and unclear lines of state authority (Matheson, 2013). The government's plan to reform the SOE sector is in line with international standards and includes the objective of further separating the state regulatory functions from the exercise of state ownership, improving SOE management practices and board professionalism, and separating SOE commercial objectives from their social obligations. The government also plans to step up the pace of the SOE equitisation programme (partial privatisation), which has been lagging behind targets in recent years (World Bank, 2015a).

Continued progress in implementing these reforms will be crucial to improve the productivity of infrastructure providers and enhance private participation where appropriate. In this regard, it is a welcoming development that, under the Decree No. 15/2015/ND-CP on PPPs, SOEs have now been requested to partner with a private enterprise to be eligible to propose PPP projects.

Going forward, the government may also wish to reassess if the current regulatory restrictions to foreign investment in infrastructure sectors continue to serve the broader public interest. Statutory barriers to foreign investment exist in the railway and port sectors, and on all transport services and services auxiliary to all modes of transport (excluded services provided at airports), as well as on non-facilities based telecommunications (see Chapter 2). In these sectors, foreign investors are not allowed majority ownership, considerably diminishing their interest in these assets and potentially limiting foreign investors' incentives to deploy newer technologies and modern management and organisational practices. Allowing majority-owned foreign investment could also enhance their participation in the government's SOE equitisation programme and help to secure greater value for money of infrastructure PPP projects by exposing such projects to greater competition during the bidding stages. Taken together, these measures can be important contributors to improve the efficiency of infrastructure investments and services in Viet Nam.

Notes

1. Resolution No. 10/2011/QH-13 of the National Assembly on the 2011-2015 Socio-Economic Development Plan; World Bank (2013).
2. Investment in infrastructure projects is a matter of project cash-flow, *i.e.* the capacity to generate risk-adjusted returns through user fees or taxes, regardless of how it is financed. In the case of availability-payment PPPs, in which private investors “lend” capital to the state, they will only do so if the state has the ability to repay them, in which case the state is not fully credit-constrained and public provision is potentially an option (although statutory limitations on public debt may impede such investments). But even in the case of PPPs funded partially or totally by user-fees, if the government can protect the project’s revenue stream from other uses, these revenues could likewise be used to repay the project’s debt under public provision as well. The perceived financial benefit of PPPs happens only because accounting rules have allowed PPPs to go off the balance sheet, allowing governments to anticipate spending and sidestep normal budgetary processes since future obligations associated with PPPs do not have to be recorded on the public accounts (Engel *et al.*, 2007).
3. Data is accessible through the GSO website: [https://www.gso.gov.vn/default_en.aspx?tabid=781].
4. “The Asian Highway network consists of highway routes of international importance within Asia, including highway routes substantially crossing more than one sub-region; highway routes within sub-regions that connected neighbouring sub-regions; and highway routes located within member States that provide access to: (a) capital cities; (b) main industrial and agricultural centres; (c) major air, sea and river ports; (d) major container terminals and depots; and (e) major tourist attractions. The total Asian Highway network is divided into five major classes (primary, I, II, III, below III) that conform with road design standards. Primary class refers to access-controlled highways, which are used exclusively by automobiles. Access to the access-controlled highways is at grade-separated interchanges only. Mopeds, bicycles and pedestrians should not be allowed to enter the access-controlled highway in order to ensure traffic safety and the high running speed of automobiles. Class I refers to asphalt, cement or concrete roads with four or more lanes. Class II refers to double bituminous roads with two lanes. Class III is also regarded as the minimum desirable standard. Roads classified below class III are road sections below the minimum desirable standard” (UNESCAP, 2015).
5. Decree 108 replaced Decree 78 of 2007 (the previous BOT decree), which failed to address several key regulatory issues for private infrastructure delivery. Among other issues, for instance, it did not provide for adequate

guidelines for project preparation and tendering processes; lacked clear provisions regulating the use and extent of government guarantees; imposed high minimum equity requirements on concessionaires without any consideration for differences in projects risks and returns; failed to provide a sound basis for tariff setting and adjustment; and did not provide for other forms of PPPs such as performance-based contracts, leases, and concessions (ADB, 2012).

6. Before, any approved unsolicited proposal was directly negotiated with the proposing investor without the need to publicise it and tender it for other potentially interested investors.
7. Despite it remained an important barrier for investment, as a minimum equity requirement is not reflective of projects' different risk profiles, Decree 108 reduced the minimum required equity from private investors from 20%-30% under the previous regime to 10%-15% of the total investment capital expenditure of the project.
8. State participation was enhanced from the previous limit of 49% of the project company's equity to 49% of total investment capital for the project.
9. Decision No. 23/2015/QĐ-TTg dated 26/6/2015 providing the mechanism whereby the state uses land to make payments to investors implementing construction investment projects in the form of BT; Circular No. 38/2015/TT-BCT dated 30/10/2015 providing detailed guidance on some contents of investment in the form of PPP projects under management of Ministry of Industry and Trade; Circular No. 86/2015/TT-BGTVT dated 31/12/2015 providing detailed guidance on sector and contents of feasibility study of transport PPP Projects; Circular No. 02/2016/TT-BKHĐT dated 01/3/2016 on screening, preparation, appraisal and approval of PPP project proposal and feasibility study; Circular No. 55/2016/TT-BTC dated 23/3/2016 on financial management and costs for investor selection of PPP Projects; Circular No. 06/2016/TT-BKHDT dated 28/6/2016 providing detailed guidance for some articles of Decree No. 15/2015/ND-CP on investments under PPP form; and finally Circular No. 15/2016/TT-BKHDT dated 29/9/2016 on standardised request for qualification and request for proposal for investor selection for PPP projects.
10. For example Circular No. 15/2016/TT-BKHDT dated 29/9/2016 on standardised request for qualification and request for proposal for investor selection for PPP projects.
11. Circular No. 06/2016/TT-BKHDT of 28 June 2016.
12. Decision of the Prime Minister 1624/QĐ-TTg dated October 29, 2012.

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