



Infrastructure Development under the Jokowi Administration: Progress, Challenges and Policies

Author(s): Wilmar Salim and Siwage Dharma Negara

Source: *Journal of Southeast Asian Economies*, Vol. 35, No. 3, Special Issue: The Indonesian Economy in Transition: Policy Challenges in the Jokowi Era and Beyond (Part II) (December 2018), pp. 386-401

Published by: ISEAS - Yusof Ishak Institute

Stable URL: <https://www.jstor.org/stable/10.2307/26545320>

REFERENCES

Linked references are available on JSTOR for this article:

https://www.jstor.org/stable/10.2307/26545320?seq=1&cid=pdf-reference#references_tab_contents

You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



ISEAS - Yusof Ishak Institute is collaborating with JSTOR to digitize, preserve and extend access to *Journal of Southeast Asian Economies*

JSTOR

Infrastructure Development under the Jokowi Administration Progress, Challenges and Policies

Wilmar Salim and Siwage Dharma Negara

In any emerging nation, efficient infrastructure holds the key to economic and social development. In the case of Indonesia, however, decades of under-investment and poor asset management have left the country with a significant infrastructure deficit. This paper explores the key problems facing infrastructure development in Indonesia since the Yudhoyono era. The current administration aims to tackle this challenge and improve the competitiveness of the Indonesian economy. Compared to the previous administration, the incumbent government has taken a more pragmatic approach to achieve its goals. One major policy has been to shift budget allocations away from fuel subsidies and towards infrastructure development. This has also been accompanied by continued efforts to reform regulatory and institutional frameworks. Despite these measures, the overall progress of Jokowi's infrastructure development has not been as smooth as expected. Limited resources and capacity mean that the administration needs to re-evaluate the number of national strategic initiatives and be more selective in prioritizing infrastructure projects. Moreover, the national strategic projects must be linked to larger development plans with longer time-frame, such as the National Spatial Plan and sectoral master plans in order to achieve integrated regional development.

Keywords: Infrastructure, financing, PPP, SOE, land acquisition, development, Indonesia.

In many ways, the policy and management bottlenecks in the infrastructure sector are a microcosm of the problems of the overall management of government in Indonesia.

Peter McCawley (2016)

Wilmar Salim is Associate Professor at the Department of Regional and City Planning, School of Architecture, Planning and Policy Development, Bandung Institute of Technology, Gedung Labtek IX-A, Jl. Ganesha 10, Bandung 40132, Indonesia; email: wsalim@pl.itb.ac.id

Siwage Dharma Negara is Senior Fellow in the Regional Economic Studies Programme and the Co-coordinator of the Indonesia Studies Programme at the ISEAS – Yusof Ishak Institute, 30 Heng Mui Keng Terrace, Singapore 119614; email: siwage_dharma_negara@iseas.edu.sg

1. Introduction

Infrastructure investment has been identified as one of the key catalysts for unlocking a country's overall economic potential, promoting growth, creating jobs and reducing poverty. Efficient infrastructure is also needed to lower distribution costs, make prices of goods and services more affordable, and improve living standards (ADB 2017). Good infrastructure brings better social and economic mobility, leading to better living conditions. For Indonesia, a country with a large population and an archipelagic territory, developing efficient infrastructure is important for ensuring sustainable and inclusive growth.

Infrastructure investments have been traditionally financed by public funds (OECD 2014). After the 1997–98 Asian Financial Crisis, Indonesia's infrastructure spending fell from around 9 per cent of GDP in the mid-1990s to around 2 per cent in 2001 (OECD 2015). By 2014, infrastructure spending had increased to 3.6 per cent of GDP. This level, however, was relatively low compared to Asia's other high growth economies, which spent around 6 per cent of GDP on this rubric (OECD 2015). The political decision to maintain fuel subsidies in the wake of rising world oil prices had shrunk Indonesia's limited fiscal space, thus preventing the country from adequately funding infrastructure investment. As a result, Indonesia's infrastructure crumbled, leaving much of the population with insufficient access to basic facilities, including electricity, water and sanitation. Lack of quality transport and logistics infrastructure has, in turn, constrained local businesses from competing globally.

Under President Joko "Jokowi" Widodo, Indonesia aims to boost its infrastructure development. Specifically, Jokowi's *Nawacita* (nine priority programmes) prioritizes accelerating infrastructure development to connect the peripheries with growth centres and, promoting connectivity between islands in the archipelago (KSP 2016). Moreover, President Jokowi has created the Committee for the Acceleration of Priority Infrastructure Delivery (KPPID), a special task force that has a mandate to coordinate policies among various stakeholders and to unblock stalled national strategic projects and priority projects. Arguably, Jokowi's development strategy has narrowly focused on building infrastructure and attracting infrastructure investment to address inequality, reduce poverty and promote growth (Warburton 2016).

This paper discusses the progress and challenges facing infrastructure development in Indonesia from the era of Susilo Bambang Yudhoyono until the current administration.¹ The study focuses on this period because there is, in fact, a continuity in the leaders' vision and political commitment to infrastructure investment for accelerating growth. At the same time, there is a continuity of policy and management bottlenecks that make the progress of infrastructure development not as smooth as expected. As McCawley (2015) argues, many of these problems are not new and the central issues are related to a lack of clear strategy, consistent implementation, and strong law enforcement.

This article is organized as follows. The next section discusses the state of infrastructure under President Susilo Bambang Yudhoyono. The third section compares and contrasts Jokowi's infrastructure agenda with that of his predecessor. The fourth section focuses on the structural problems facing the infrastructure sector, including issues related to land acquisition, planning, and financing. This paper also discusses some concerns regarding national priority projects and the state-led approach to promote infrastructure development, and also whether Indonesia should borrow more for its infrastructure investment. The final section provides concluding remarks and some policy recommendations.

2. State of Infrastructure under the Yudhoyono Administration (2004–14)

When Susilo Bambang Yudhoyono became the sixth Indonesian president, the state of the country's infrastructure ranked among the lowest in the region. According to the World Bank (2014), the lack

of infrastructure investment had deterred investors, hence preventing Indonesia's economic growth from reaching its potential. In fact, the World Bank estimated that Indonesia's dilapidated infrastructure contributed to a 1 per cent loss of economic growth each year since 2004 (World Bank 2014).

The Yudhoyono administration had big ambitions to improve the state of infrastructure to boost growth. During Yudhoyono's first term, Indonesia hosted several infrastructure summits to attract investors, both foreign and domestic. In January 2005, the first infrastructure summit was held in Jakarta, and was attended by more than 500 investors from all around the world. The government offered a total of ninety-one public-private partnership (PPP) projects worth US\$22 billion to the private sector. The reaction to these offerings, however, was disappointing (World Bank 2007). This was because there were many policy obstacles to prepare bankable projects, and many projects were not well prepared. A second Infrastructure Summit was held in December 2006, where ten PPP projects valued at US\$14.7 billion were identified to be the focus of efforts to improve the quality of project preparation. But like the first summit, although investors generally showed cautious optimism, most opted for a wait-and-see approach (McCawley 2015).

McCawley (2015) explains the key issues why the summit failed to attract private investors, including: shortage of well-prepared and well-documented projects available for investors to examine; lack of clear regulations that set guidelines for activities within the infrastructure sector; and economic nationalism hindering market access to the sector. Moreover, Article 33 of the Indonesian Constitution stipulates that economic sectors which are important to the state and crucial for public welfare are controlled by the state and must be developed to give the maximum benefit to the people. This article is always used by special interest groups to oppose privatization, liberalization or any reforms that might reduce the state's control in any particular sector (McCawley 2015).

After the failure of the first Infrastructure Summit, the government took some important remedial steps. In 2005, new regulations were put in place requiring competitive bidding of PPPs and appropriate risk management of guarantees for PPPs (World Bank 2007). In 2006, the government prepared a wide-ranging "Infrastructure Policy Package" aimed at: encouraging competition; eliminating discriminatory practices that obstruct the private sector's participation in infrastructure provision; and redefining the government's role (including separating policy-making, regulatory and operational responsibilities) (World Bank 2007). In 2007, the PPP initiatives to boost infrastructure investment were complemented with major increase in budgeted public spending. This was made possible by the government's improved fiscal situation driven by revenue from the commodity boom.

In addition to introducing the new law and regulations, the Yudhoyono administration also set up new institutions to support project preparation. One of the key institutions is the state-owned infrastructure financing company, PT Sarana Multi Infrastruktur (PT SMI), established in early 2009 with 100 per cent shares owned by the government through the Minister of Finance (SMI 2017). The company is assigned to provide financing, advisory services and project preparation plans for various infrastructure projects in conjunction with private and/or multilateral financial institutions within the PPP scheme. The longer term goal is to transform this state-owned company into an Indonesian Development Financing Institution. Through PT SMI, the government can provide Viability Gap Funding support to make returns on investment for the private sector investment become adequately attractive. PT SMI holds 34 per cent of the share of PT Indonesia Infrastructure Finance (PT IIF). The latter is a private non-bank financial institution established under the Ministry of Finance regulation to focus on investing in commercially feasible infrastructure projects. Other shareholders of PT IIF include the Asian Development Bank (ADB), the International Financial Corporation (IFC), the German Development Bank (DEG), and Sumitomo Mitsui Banking Corporation (SMBC).

To provide a stronger legal foundation for private sector participation in infrastructure investment, the Yudhoyono administration passed the Presidential Regulation No. 13/2010 (amended to Presidential

Regulation No. 56/2011) on Public–Private Partnerships (PPP). Then, in 2011, President Yudhoyono launched The Masterplan for the Acceleration and Expansion of Indonesia’s Economic Development Plan (MP3EI 2011–2025). It emphasizes the need for heavy investments in infrastructure and improvement in the investment climate to boost average annual growth to 8–9 per cent between 2015 and 2025. This document was endorsed by the government as a legal document through the Presidential Regulation No. 32/2011 to provide directions on key infrastructure targets, including the estimated financial needs for key infrastructure projects. The document also indicates the government’s intention to encourage more private sector participation in infrastructure development. The MP3EI projected that more than 70 per cent of the US\$468 billion infrastructure investment needs would be contributed by the private sector through public–private partnerships. Considerable time and effort were dedicated to develop and disseminate the MP3EI, but it lacked a coherent strategy for planning and delivery. The MP3EI, however, has been largely forgotten and is rarely referred to by officials under the current government (Ray and Ing 2016).

To achieve the MP3EI goals, the government needs to prepare detailed implementation plans and a supporting legal framework for the execution of various projects. One of the key frameworks is related to land acquisition, which has traditionally been the main stumbling block for infrastructure projects. At the end of 2011, the Yudhoyono government and the parliament approved the new Land Acquisition Law (UU No. 2/2012). This law was an important legal breakthrough aimed at solving common land acquisition problems with regard to infrastructure development. It deals with the revocation of land rights to serve public interest, puts time limits on each procedural phase, and ensures safeguards for land-right holders. With the Presidential Regulation No. 71/2012, Yudhoyono instructed his ministers to expedite the implementation of the law.

Several key infrastructure projects were initiated during the Yudhoyono presidency. For instance, in the power sector, the government initiated two fast-track programmes to develop a number of power plants all over the archipelago. To meet national electricity demand until 2021, Indonesia requires 57 GW of new generating capacity (PLN 2013). The first 10,000 MW fast-track programme (FTP-1) was started in 2006. The Government mandated the state-owned electricity firm, PT Perusahaan Listrik Negara (PLN), to build coal-fired power plants (Pembangkit Listrik Tenaga Uap or PLTU) at forty-two locations in Indonesia. These include ten power plants with an aggregate capacity of 6,900 MW in Java-Bali and thirty-two power plants with an aggregate capacity of 2,252 MW outside Java-Bali. The second fast-track programme (FTP-2) was started in 2012, aimed at accelerating the development of 10,000 MW of new power capacity. Unlike FTP-1, the FTP-2 mainly uses renewable energy, including geothermal- and hydro-energy. The two fast-track programmes could not be completed on schedule because of several issues, including: poor planning; land acquisition problems; poor selection of contractors; and a lengthy process of issuing business permits, among others.²

The Yudhoyono administration also initiated investment in roads, which fell sharply after the crisis in 1997. One of the key road projects started by the administration was the development of the 116-km-long Cikampek–Palimanan, the longest toll road in Indonesia. The Cikampek–Palimanan toll road is expected to reduce traffic distance on Pantura (North Java) highway by about 40 km and save travel time by almost two hours.³ The project cost was estimated to reach Rp13.8 trillion (US\$1.4 billion) and owned by a joint venture company PT Lintas Marga Sedaya (LMS), with 55 per cent of the shares owned by Malaysia Plus Expressways Berhad, and 45 per cent by PT Bhaskara Utama. The construction of the toll road began in early 2013 and was completed in mid-2015. This project is one example of several projects that crossed over two presidencies.

Overall, between 2011 and 2014, the Yudhoyono government spent around US\$73 billion for financing 383 infrastructure projects.⁴ By the end of his presidency, the push towards improving infrastructure in the country had achieved some progress. According to the Global Competitiveness Index 2014–2015,

infrastructure and connectivity in Indonesia have shown improvement. The country managed to move up twenty places since 2011, as a result of improvement in eighteen of the twenty-one indicators. However, the overall quality of infrastructure in Indonesia — such as ports, roads, airports and electricity supply — lags much behind its neighbouring countries (WEF 2014).

Yudhoyono seemed to lose his focus on infrastructure development in the second term of his presidency. He was hesitant to remove the costly fuel subsidies and free the needed fiscal space to increase spending on infrastructure. At the same time, he was also reluctant to fill the financing gap by borrowing loans, as he was concerned about the risk of increasing external debt. Indeed, one of his legacies is that he set a standard for prudent fiscal management. His administration managed to lower the country's external debt to GDP ratio from 54.9 per cent in 2004 to slightly below 33 per cent in 2014 (Bank Indonesia 2017).⁵ His critics, however, felt that he was too occupied with “self” international image correction while neglecting domestic issues. Moreover, some of his political party members were involved in major corruption scandals, further dragging his domestic political image down.

Despite several summits and an ambitious masterplan (MP3EI), infrastructure remained a major area of under performance during the Yudhoyono decade (McCawley 2015; Ray and Yan Ing 2016). Decentralization and the autonomy of local governments and legislative councils have frequently been blamed for complicating the implementation of various infrastructure programmes. Many projects brought in by the central government were stalled as the local institutions either chose to wait-and-see (without offering improved services or facilities), or pursued complicated follow-up measures regarding taxes and land concessions. In addition, Yudhoyono was also perceived as being an extremely cautious leader who seemed reluctant to make any firm decision, including removing fuel subsidies amidst increased burden on the state budget. Also, the meddling parliament deterred private investors. Inter-jurisdictional cooperation, too, was problematic, resulting in an ambiguous role of local governments and complex project execution.

3. Jokowi's Infrastructure Agenda (2014–19)

While Ray and Yan Ing (2016) argue that the MP3EI has been largely forgotten, a number of projects listed in the document have been put under Jokowi's infrastructure agenda. Therefore, it can be argued that Jokowi's infrastructure policy has been a continuation of his predecessor's with some modification. In the national five year plan (RPJMN 2015–2019), the Jokowi administration has pledged to build: 5,000 km of railways; 2,600 km of roads; 1,000 km of toll roads; forty-nine dams; twenty-four seaports; and power plants with a combined capacity of 35,000 megawatts (Bappenas 2014). Therefore, the big infrastructure plan set by the SBY government remains quite relevant. What can differentiate the Jokowi administration from his predecessor is the execution of the plan.

According to RPJMN 2015–2019, there are four key sectors in which the Jokowi administration will invest a significant amount of resources (Bappenas 2014). The first is the maritime sector. Jokowi has stated that Indonesia has been neglecting its maritime potential for decades. Since the Soeharto era, the country's development has primarily focused on economic activities on land. Seeing the maritime potential, Jokowi intends to transform the country into a global maritime axis (*poros maritim*).⁶ One of the key pillars of his plan is to support the maritime economy by improving the country's port infrastructure, shipping industry, and maritime tourism sector. On maritime connectivity, Jokowi has promoted a *tol laut* (sea toll) programme to move cargo from land to sea for more efficient goods movement. Creating a thriving roll-on/roll-off (ro-ro) shipping industry that connects western and eastern parts of Indonesian archipelago is one of the cornerstones of this programme. The sea toll scheme is aimed at improving inter-island connectivity to reduce price disparities and the development gap between the two regions.

In contrast to his predecessor, Jokowi preferred to promote the sea toll programme instead of the US\$20 billion Sunda Strait Bridge.⁷ The latter was designed to connect Java and Sumatra with a land transport road. However, Jokowi saw that the sea toll concept was more attuned with his maritime development plan. It was also expected to generate tangible benefits to the country through a more balanced development approach. In addition, Jokowi has an ambition to cut down dwelling times for cargo vessels from 5.5 days to 4.7 days.⁸ Studies show that the lack of regular inter-island freighter services and inefficient port handling are among the main causes of the high logistics costs in Indonesia (World Bank 2014; Sandee 2016). This is why the government has been emphasizing efforts to improve the performance of ports and shipping infrastructure.

Second, the president has also stated that Indonesia will attain food self-sufficiency (*ketahanan pangan*) within three to five years.⁹ In view of this agenda, the government has been pushing the development of infrastructure to support the agriculture sector. A number of dam projects are listed as the national strategic projects under the Presidential Regulation No. 3/2016. The government has also increased spending to develop rural areas through Village funds (see Gonschorek and Schulze 2018), and to create 9 million hectares of agriculture land.¹⁰

Nevertheless, to achieve food self-sufficiency, Indonesia needs not only improved irrigation but also better and more efficient distribution networks. For example, there are many agricultural commodities that still rely on a multiplicity of transportation methods to be shipped out of the production centres due to poor road networks. As Sandee (2016) argues, an archipelago like Indonesia has to address its geographical challenges (in terms of intra-island connectivity, inter-island connectivity and international connectivity) and deal with the policy challenges.

Third, in view of the need to improve distribution networks and lower logistics costs in the economy, Jokowi has been pushing investment for roads and railways in order to improve inter-regional land connectivity. The Logistics Performance Index of the ASEAN member states in 2016 shows that, in terms of international logistics performance indicators, Indonesia is lagging behind Singapore, Malaysia and Thailand, and is only slightly better than Vietnam. However, in terms of infrastructure quality, Indonesia also ranks lower than Brunei and Vietnam; and on international shipments, Indonesia even ranks lower than Vietnam, Cambodia, and the Philippines. To improve logistics infrastructure, the government has allocated almost 50 per cent of the total transportation expenditure for the railway networks development. In addition, to make the geographic concentration of investment more balanced, 57 per cent of the expenditure will go outside the capital region (Bappenas 2014).

Fourth, Jokowi is also keen to increase energy supply in the country. As the demand for electricity continues to exceed supply, it is estimated that the high-growth regions of Java and Bali will soon face a power crisis (PLN 2016). The state-owned electricity company, PT PLN, has warned that the two islands' electricity reserve margin — the measurement of excess electricity reserves that a system has during peak demand — could fall to 18 per cent, far lower than the ideal level of 30 per cent, within the next five years. Given this risk of an energy deficit, the government has set an ambitious target for the development of 35 GW power stations. There are many doubts regarding this target, including among the cabinet members.¹¹ One of the key concerns is related to PLN's capacity to finance such a large project. However, Jokowi has tried to defend his policy by stating that the country will experience frequent blackouts if investment in the power generation sector is not increased.

Under the Jokowi administration, state spending on infrastructure has increased significantly, especially after the government managed to reduce the fiscal burden from fuel subsidies. In 2016, spending on infrastructure was estimated to have reached Rp317 trillion (15 per cent of total state budget). For 2017, the amount was estimated to have increased to Rp401 trillion (19 per cent of total state budget or 2.8 per cent of GDP). On the contrary, the share of government subsidy for energy (out of total state spending) has been declining, from 15 per cent in 2014 to 4 per cent in 2017 (Figure 1). This is the key

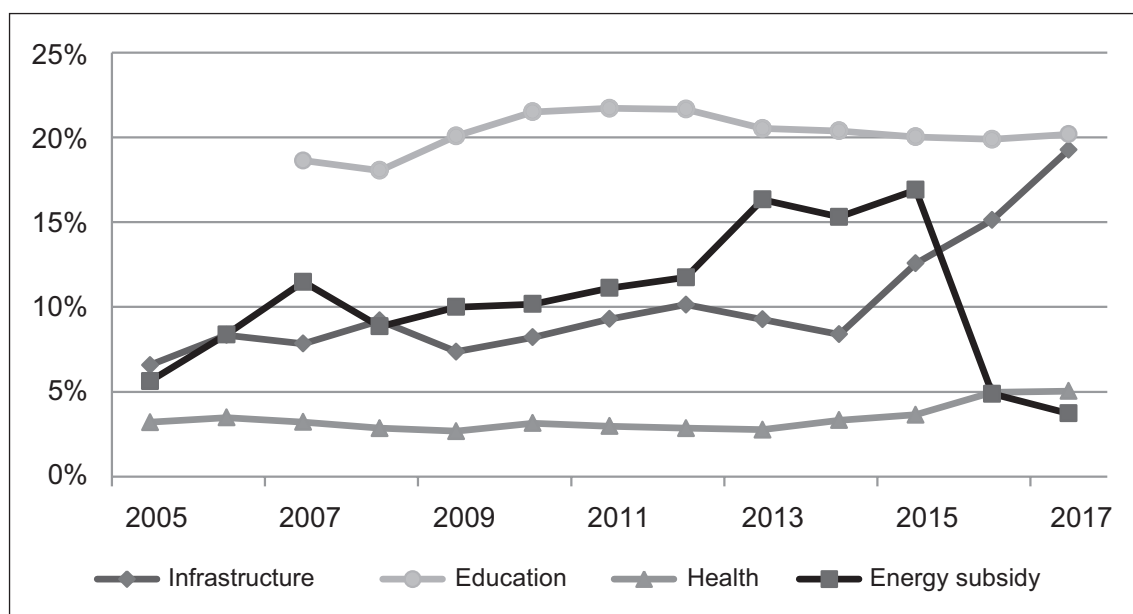
difference between the Jokowi administration and the previous government. In total, by 2017, the Jokowi administration had spent almost Rp1,478.9 trillion from thirty-seven projects and one programme for infrastructure (Utomo 2018).

4. Structural Challenges in Infrastructure Development

Three major challenges to infrastructure development in Indonesia have been identified: land clearance; planning and project preparation; and financing (Utomo 2017). As mentioned before, land acquisition problems traditionally have been the main stumbling block for infrastructure projects in the country. Although the Yudhoyono administration issued several regulations to tackle the issue (starting with Presidential Regulation No. 36/2005 on Land Provision for Development for the Public Interest, which then evolved into Law No. 2/2012 on Land Acquisition with its implementing regulations), land clearance remains the biggest contributor (around 30 per cent) to the problems in infrastructure development (Utomo 2017). Two interrelated issues with land clearance are: lack of compensation fund and the lengthy negotiation process.

Davidson (2016) explains the core of the problem as a mismatch between national and local interests. On one hand, the central government is interested in getting the land cleared as soon as possible so that construction could start for national level projects. On the other hand, if such projects are located in areas where the land belongs to local residents (thus requiring the local government's intervention to negotiate), a significant amount of time goes into dealing with angry residents who have to be relocated with small

FIGURE 1
Budget Allocation for Key Sectors (percentage of Total State Budget)



SOURCE: Ministry of Finance, via CEIC.

compensation fees. This may end up in a vicious cycle. Delaying land acquisition means an increase in land value, which means that more money is needed for compensation — which is not available. There are many infrastructure projects that have been stalled for decades due to delays in land clearance.

Two obstacles to efficient land clearance have stemmed from the broader political environment (Davidson 2016): suspicion among residents; and financial uncertainties. Due to poor practices in the past, people are more suspicious of the “public interest rhetoric” of infrastructure development by the government, which is shadowed by private interests. The suspicion also stems from the lack of trust towards the notoriously corrupt National Land Agency (BPN). Thus, some landowners are not willing to sell their properties even though they are for the public interest. Meanwhile, financial uncertainties of the project have caused hesitation on the part of project holders to appropriate money for land acquisition. The Trans-Java tollway land acquisition process is an example. Uncertainties regarding the ownership of licences made the investor reluctant to pay for land acquisition, which led to uncertainties among landowners and project contractors. Between 2006 and 2014, there were multiple changes in project ownership on several sections of the toll road, before it was finally owned by the state-owned construction company, PT Waskita Karya.

The second challenge in infrastructure is related to planning and project preparation (Utomo 2017). Embedded in this challenge are coordination issues among stakeholders and the quality of the project document. In most cases, infrastructure development involves many stakeholders, which includes central and local governments, village governments and residents, investor and contractors, and so on. Therefore, it is difficult to find a consensus among the competing interests of the stakeholders during project planning.

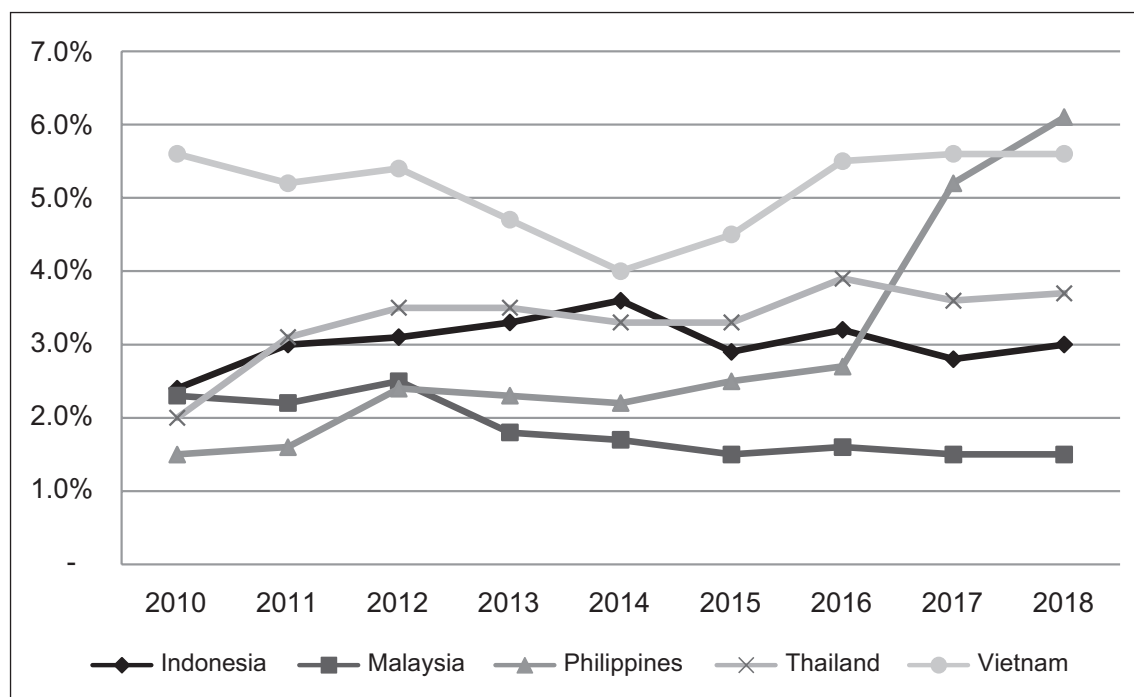
Besides coordination, the quality of project document and design are also important consideration in project preparation. Many investors are not convinced by the project design quality, as it is not made according to international standards (Utomo 2017). Thus, it hinders full participation by the private sector in infrastructure development. The involvement of the private sector is crucial, especially when the government expects a major contribution from them on infrastructure financing needs worth Rp4,000 trillion.

The third challenge is financing. As discussed above, during the Yudhoyono administration, the private investment needed to finance infrastructure development had not materialized even after several summits. According to the RPJMN 2015–2019, around 50 per cent of infrastructure financing is expected to come from the state budget, 30 per cent from the private sector, and 20 per cent from state-owned enterprises. Actually, there are four sources of infrastructure financing that could be administered by the government: the state budget; the state-owned enterprise; the private sector; and partnerships between the government and private entities. The government has tried to venture more into the last scheme, however, during the Yudhoyono presidency, only a few projects were implemented under the PPP scheme.

OECD (2015) mentions several issues with regard to public–private partnerships in infrastructure projects in Indonesia. First, the overlap between economy-wide regulations and sector-specific laws detailing modalities for private investment creates ambiguity for investors and procurement entities embarking on PPPs. Second, restrictions on foreign participation remain high and most of these sectors are regulated by non-independent agencies. Third, since there are no clear PPP regulations, there is little interest from the private sector to take part in infrastructure projects.

Despite an increase in public spending, Indonesia’s infrastructure gap is, by far, the largest in ASEAN (Figure 2).¹² According to Bappenas’ calculation, Indonesia needs Rp4,796 trillion (US\$356 billion) to meet its targets for infrastructure development between 2015 and 2019.¹³ The central and regional government budgets can only cover around 41.3 per cent (or equal to Rp1,482 trillion) of the total investment needs. Funding from state-owned enterprises (SOEs) is expected to contribute around 22.2 per cent (Rp799 trillion). Therefore, the rest, or around 36.5 per cent, of the investment gap is expected to be

FIGURE 2
Infrastructure Spending as a Share of GDP in Select ASEAN Countries (percentage of GDP)



NOTES: 2017 and 2018 figures are forecasted figures. Indonesia figures are budgeted (not realized) data. They include 25 per cent of total regional government allocation for infrastructure.

SOURCE: CEIC, HSBC.

filled by the private sector. Unfortunately, private sector investment has not been strong enough to fill this void. As a result, the overall allocation to infrastructure spending remains low, about 18.5 per cent of the total state budget and 2.8 per cent of the GDP.

Even though most of the infrastructure investment comes from the government budget, the country's tax collection remains weak. Indonesia has the lowest tax to GDP ratio in the region, with only 10.3 per cent of tax/GDP ratio.¹⁴ The tax amnesty programme (from July 2016 until March 2017), dubbed to be the most successful in the world, was a one-off effort to boost tax collection. However, more sustained efforts are needed.

5. Policy Responses by the Jokowi Administration

In order to overcome the abovementioned challenges, the Jokowi administration has taken a number of measures. First of all, a set of regulations was introduced to tackle the challenges of land clearance and financing — both at presidential as well as the ministerial levels. Some of these regulations include: Presidential Regulation No. 30/2015 on Land Acquisition; Presidential Regulation No. 38/2015 on Partnership between Government and Business Entity; Presidential Regulation No. 82/2015 on Direct Lending; Minister of Agraria and Spatial Planning Regulation No. 6/2015 on Land Acquisition; and

Minister of Finance Regulation No. 190/2015 on Availability Payment. These were accompanied by a set of economic policy packages issued in the last quarter of 2015. A total of eight economic policy packages were launched, collectively aimed at: reorganizing regulations that hinder economic growth; restructuring the bureaucracy; and offering incentives to create conducive investment climate and strengthen Indonesia's economy (KPPIP 2018).

Second, several infrastructure projects have been designated as “nationally strategic”. Based on Presidential Regulation No. 3/2016, many infrastructure projects have been listed as strategic nationally — either by the central government, local government and/or business entity — to accelerate their implementation. The regulation stipulates the type of permits and non-permits that can be accelerated by either a minister or head of national agency, or governor, or mayor of district or municipality. It also stipulates among other things: the compliance with spatial plan; land provision; government guarantee; and procurement procedure. In all, there are 225 projects under twenty-three categories plus twenty projects under power infrastructure in a separate list. Dams (sixty projects), toll roads (forty-seven), and special economic/industrial zones (twenty-four) occupy more than half of these projects. A Committee for the Acceleration of Priority Infrastructure Delivery (KPPIP) that was established earlier (by Presidential Regulation No. 75/2014) supports the implementation of this regulation. Its mandate is to assist, facilitate, coordinate, and give recommendations for the revision of or new regulations in order to expedite infrastructure development.

Third, the current administration has established and strengthened several institutions to support infrastructure development throughout the country. The establishment of the public service agency on state asset management (BLU-LMAN) is an example; it is the only government agency dealing with financing land acquisition for national strategic projects. Before this agency existed, land acquisition for infrastructure projects was executed by an ad-hoc team formed by each ministry, for example, the Public Works Ministry. That, however, was far from effective. With BLU-LMAN, land acquisition is more coordinated and time-efficient (Utomo 2017). In addition, the government has also centralized permit procedures under a one-stop permit service, and investment coordination under the Investment Coordination Agency (BKPM). The administration has also provided more capital to Limited Liability Company PT Sarana Multi Infrastruktur (PT SMI) by shifting capital from the Government Investment Centre. PT SMI has now become the centre for infrastructure financing with the capacity to fund infrastructure projects managed by state-owned enterprises (SOEs), regional government-owned enterprises (ROEs), and regional governments (KPPIP 2018).

Fourth, in order to deal with the challenge of planning and project preparation, KPPIP has been mandated to draft the project preparation document according to the international standard, including the pre-feasibility study document, outline business cases, as well as financing scheme appropriation (Utomo 2017). The project preparation document now contains information about: the project; investment value needed; the rate of return of investment; financial benefit, including facilities offered by the government; and investment risk projection. In addition, a Project Development Facility (PDF) is also provided by the Ministry of Finance to help the Government Contracting Agency (GCA) to prepare for a pre-feasibility study and bidding documents, and assist in the PPP project transactions until it reaches financial closure (DJPPR 2017).

Lastly, to deal with the challenge of financing, the government now offers several fiscal instruments to encourage more public private partnerships. A legal base for the PPP scheme has been put in place under Presidential Regulation No. 38/2015 on Partnership between Government and Business Entity. In order to attract private investment, several innovative fiscal policies have been developed by the government, like availability payment, viability gap fund, and government guarantees for direct lending. Availability payment is made to the business entity for the availability of infrastructure that satisfies the quality and criteria set in the PPP contracts. It is expected to increase project feasibility to stimulate

investor interest. The Viability Gap Fund (VGF) is a form of contribution of some of the construction cost, given in cash to a PPP project that is economically viable but not financially feasible. It can be offered when there is no other alternative to make the PPP project financially feasible (DJPPR 2017). Meanwhile, a government guarantee is given if the GCA is obliged to pay compensation to the project company in case of infrastructure risks, as long as those risks are based on risk allocations agreed in the PPP agreement.

Through Presidential Regulation No. 82/2015 (on Central Government Warranty for Infrastructure Finance Using Direct Lending from International Financial Institutions to a State Owned Enterprise), the scope of projects eligible for such a warranty has broadened. This warranty can be provided to an SOE that is entirely owned by the government. The government is also preparing alternative fiscal instruments, such as: government bonds to attract investment from the public at large; non-budgetary infrastructure financing to attract long-term funds (insurance fund, pension fund, tax amnesty fund) and private equity investment; and a Limited Concession Scheme (LCS) based on private funds which are given concession to manage assets owned either by the government or an SOE (Utomo 2017).

With the help of the different types of facilities mentioned above, several toll roads (such as Balikpapan–Samarinda, Manado–Bitung, Panimbang–Serang, and Yogyakarta–Bawen) and Drinking Water Provision System (SPAM) Umbulan in East Java are being developed under the PPP scheme. Similarly, the availability payment scheme has been used in Palapa Ring infrastructure development to expand broadband coverage (Utomo 2017).

6. Some Remaining Concerns

There are several issues that the Jokowi administration continues to face. First is the large number of national strategic projects (225), which is almost too big to handle. As discussed, Presidential Regulation No. 3/2016 has a list of 225 national strategic projects under twenty-three categories, and an additional twenty projects under the power infrastructure category. Although the regulation is accompanied by several economic policy packages and several fiscal instruments, the outcome has not materialized in all infrastructure categories. The ambitious 35 GW electricity power plant programme that was launched in 2015 has seen less than 4 per cent progress. Around 49 per cent continues to remain under construction, 36 per cent has been contracted, and the remaining is still at the procurement and planning stage.¹⁵ The progress is slow because electricity sales are only half of the estimate (of 8 per cent in 2017), forcing the state electricity firm (PLN) to postpone the commercial operation of the programme. This suggests that there was a problem with the demand projection that was used to design the project.

Another slow-progress project is the controversial Jakarta–Bandung high-speed rail. The Minister of State-Owned Enterprises, Rini Soemarno, said in February 2018 that the project will fail to meet its completion target of 2019. Apparently, only 54 per cent of the land needed for the project has been acquired.¹⁶ This shows that land acquisition in Indonesia continues to be a challenge, despite new regulations and institutions. Due to this, the disbursement of project loan from China Development Bank has been repeatedly delayed. Jokowi, who had high expectations regarding the success of the project, has, in fact, called for the project to be re-evaluated.¹⁷ Although it does not involve any state budget, the project is listed as one of the national strategic projects under Presidential Regulation No. 3/2016. The government, through the Minister of State-Owned Enterprises, had also established a consortium of four Indonesian SOEs, i.e. PT Kereta Api Indonesia (KAI), PT Wijaya Karya (WIKA), PT Perkebunan Nusantara VIII, and PT Jasa Marga, that held 60 per cent of the project shares. All of these SOEs have huge financing needs, as they have also been tasked with supporting other infrastructure projects simultaneously.

What the Jokowi administration is doing to accelerate infrastructure development resembles the state-led approach or the statist-nationalist orientation (Warburton 2016). To implement massive infrastructure

projects all over the country, the government has injected large portions of budgetary funds to SOEs. There is now a concern, however, about the possible crowding-out of more efficient private providers (Ray and Ing 2016) — the SOE domination can potentially hinder their market access. The overburden of projects on individual SOEs has also led to many construction accidents in the past couple of years.¹⁸

One of the reasons to boost infrastructure spending is to create a multiplier effect such that many local private providers can also benefit. The investment needs are very large for SOEs to handle everything all by themselves (Gustely 2015; Suzuki 2017). In such a case, the private sector is the natural partner for SOEs that need capital financing, better planning and delivery of infrastructure at a particular scale (Ray and Ing 2016). It can also be argued that the state-led approach, if designed correctly, can lead to downstream spillover for the private sector. The remaining challenge then for the government is how to create institutional and market conditions that are attractive for private capital (OECD 2014). Here, enforcing Law No. 5/1999 to prohibit monopoly and uncompetitive business practices through increasing transparency and accountability is a must. The implementation of e-procurement for government projects is a good example of how the regulation can help.

In order to find alternatives for financing, Jokowi has openly welcomed foreign and multilateral support for infrastructure investment. One potential source for financing is China. In fact, over the last few years, China has become an important source of infrastructure development financing for a number of developing countries in the region. While his predecessor was reluctant, Jokowi made Indonesia join the China-led Asia Infrastructure Investment Bank (AIIB) and become one of its key shareholders. He also attended the Belt and Road Initiative Forum in Beijing in May 2017, and followed up the visit with proposals for cooperation under the BRI framework.¹⁹

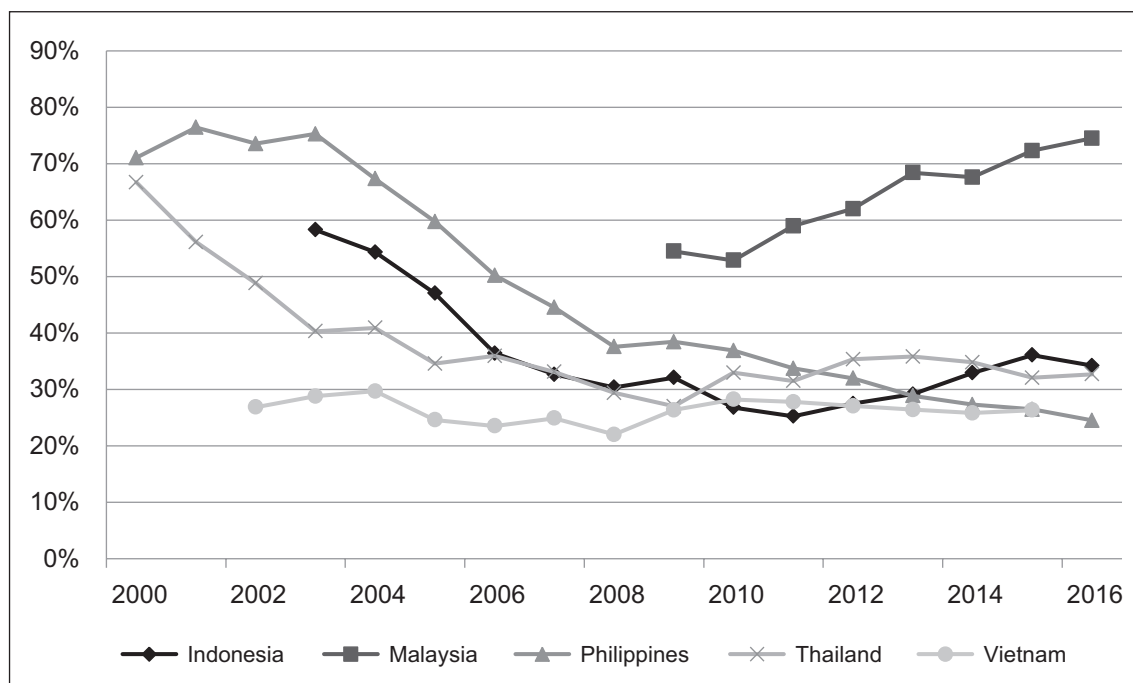
To date, Indonesia has received loans worth US\$2.4 billion from AIIB. Overall, Chinese loans to Indonesia have increased gradually, from around US\$800 million in 2007 to US\$15.7 billion in 2017. It is interesting to note that most of the loans from China go to the private sector (92 per cent), and only a small portion (8 per cent) is diverted to the government.²⁰ Even though loans from China to Indonesia have been increasing, the size is still relatively small compared to those from Japan. In terms of its share to total external debt, Chinese loans have increased from around 0.6 per cent in 2008 to 4.5 per cent of Indonesia's total foreign loans in 2017. In contrast, Japan's share of total external debt in Indonesia has been declining, from 23.5 per cent in 2008 to 8.3 per cent in 2017. Given this trend, one can foresee the share of Chinese loans rapidly growing, especially if some BRI proposed projects are approved.

This leads to the third concern: Indonesia's increasing public debt. As the country has received a favourable investment grade from several key rating agencies,²¹ it has been enjoying the advantage of getting low-interest loans from global investors. While practical, this alternative may have political costs as the Jokowi administration has been criticized as accumulating debt much faster than its predecessor.²² Indonesia's external debt has been increasing significantly from around Rp2,500 trillion in 2014 to Rp4,000 trillion in 2017 — leading the debt to GDP ratio to above 30 per cent. However, compared to other neighbouring countries, Indonesia's external debt to GDP ratio is not worrisome (Figure 3). The ratio is far below the limit set in the law (60 per cent). Nevertheless, it is better to be cautious about how the debt is spent, whether to support infrastructure projects that will contribute to GDP growth or not. Losing the focus on debt management may cost Jokowi's political standing in the 2019 re-election, as the opposition would focus more on the debt figure than the actual ratio.

7. Concluding Remarks

Efficient infrastructure is important to promote economic and social development. Under both the Yudhoyono government as well as the Jokowi administration, Indonesia has taken big steps to revitalize the sector. The ultimate objective is to boost economic growth and improve the competitiveness of

FIGURE 3
External Debt to GDP Ratio in Select ASEAN Countries



SOURCE: CEIC.

the Indonesian economy. Based on this study, it can be argued that Jokowi's infrastructure policy is a continuation of that of his predecessor. While the MP3EI is no longer being used, some of the key infrastructure projects under the masterplan have been retained as Jokowi's national strategic projects. Table 1 summarizes the key differences between the two administrations with regard to infrastructure development.

What differentiates Jokowi's policy from that of Yudhoyono is that the former has taken a more pragmatic approach to push infrastructure development in the country. One of his boldest policies has been to shift budget allocations away from fuel subsidies, and towards infrastructure spending. In fact, under the current administration, Indonesia has experienced significant growth in terms of infrastructure spending, from less than 10 per cent in 2013 to 19 per cent of the total national budget in 2017. In addition, Jokowi has also openly welcomed foreign and multilateral support.

However, Jokowi's infrastructure development has not progressed as smoothly as he had expected. Some projects have seen positive developments (Java toll road, Jakarta MRT, airport train, Jatigede dam, *inter alia*) while others have witnessed poor progress (Jakarta-Bandung High-Speed Rail, 35 GW electricity project, mineral smelters, *inter alia*). Realistically, launching 245 nationally strategic infrastructure projects was unrealistically ambitious to begin with — given the country's limited financing and technological capacity. In order to appease his political supporters, Jokowi needs to find ways to expedite these projects.

This can be done by re-evaluating all projects listed as nationally strategic in nature, and being more selective in prioritizing them. It is important for Jokowi to revisit the *Nawacita* and the RPJMN 2015–

TABLE 1
Key Policies and Strategies on Infrastructure Development

<i>Aspect</i>	<i>S.B. Yudhoyono</i>	<i>Joko Widodo</i>
Legal framework	On land acquisition and PPP	On land acquisition, PPP and financing
Key document	MP3EI	National Strategic Projects (PSN)
Agency created	PT. SMI	BLU-LMAN and KPPIP
Key sectors	Energy, transportation, fuel subsidy	Maritime, agriculture, transportation, energy
Percentage of state budget for infrastructure	6–10 per cent	12–19 per cent
Alternative funding mechanism	PPP scheme	Various schemes: availability payment; viability gap funding; guarantee for direct landing; etc

SOURCE: Authors' summary.

2019. The third point in the *Nawacita* focuses on building Indonesia from the periphery by reinforcing the regions. This priority agenda has been translated into maritime development being the first key sector in RPJMN 2015–2019. However, in the list of national strategic projects, seaport development is of secondary importance. Furthermore, the word periphery is supposed to refer to the islands off-Java, Madura and Bali, which are less populated. Those should be the focus of development and not on Java where most of the projects are concentrated.

Re-evaluation of projects must also include reassessing the assumptions used and projections made in the project proposals. In the time lapsed between the proposal stage and now, a variable like infrastructure demand could have changed due to the changing global economy. The case of much lower electricity sales compared to projections is an example of overestimation of demand.

Lastly, the national strategic projects must be in line with greater national development plans which have a longer time-frame (like the National Spatial Plan; and sectoral master plans such as the Master of Plan of Transportation) in order to achieve integrated regional development, and to really build Indonesia from the periphery as intended in the *Nawacita*.

NOTES

1. See McCawley (2015) for a comprehensive survey of infrastructure policy in Indonesia since 1965 until 2015.
2. <<https://www.merdeka.com/uang/pln-pelajari-kegagalan-sby-bangun-proyek-pembangkit-ftp-1-dan-2.html>> (accessed 2 March 2018).
3. <<http://setkab.go.id/diresmikan-presiden-jokowi-tarif-tol-cikampek-palimanan-rp-96-000/>> (accessed 2 March 2018).
4. See article in *Jakarta Globe*, “SBY Cements Infrastructure Credentials, Advises Jokowi to Build on Momentum” <<http://jakartaglobe.beritasatu.com/economy/sby-cements-infrastructure-credentials-advises-jokowi-build-momentum/>> (accessed 2 March 2018).
5. See “Statistik Utang Luar Negeri Indonesia” <<http://www.bi.go.id/en/iru/economic-data/external-debt/Documents/SULNI-Jan-2018.pdf>> (accessed 2 March 2018).
6. Rendi A. Witular, “Jokowi launches maritime doctrine to the world”, *Jakarta Post*, 13 November 2014

- <<http://www.thejakartapost.com/news/2014/11/13/jokowi-launches-maritime-doctrine-world.html>> (accessed 26 December 2017).
7. See *Kompas*, “Ini Pertimbangan Utama Jokowi Tak Lanjutkan Rencana Jembatan Selat Sunda” [The main reason Jokowi does not continue Sunda-Strait bridge], 1 November 2014 <http://bisniskeuangan.kompas.com/read/2014/11/01/065100626/Ini.Pertimbangan.Utama.Jokowi.Tak.Lanjutkan.Rencana.Jembatan.Selat.Sunda?utm_source=bisniskeuangan&utm_medium=bp-kompas&utm_campaign=related&> (accessed 26 December 2017).
 8. Sabrina Asril, “Jokowi Kecewa ‘Dwelling Time’ di Tanjung Priok Masih 5,5 Hari”, *Kompas*, 17 June 2015 <<http://bisniskeuangan.kompas.com/read/2015/06/17/122153726/Jokowi.Kecewa.Dwelling.Time.di.Tanjung.Priok.Masih.5.5.Hari>> (accessed 26 December 2017).
 9. *Kompas*, “Jokowi: Pemerintah Fokus Benahi Pangan dan Infrastruktur”, 15 September 2015 <<http://ekonomi.kompas.com/read/2015/09/15/093402726/Jokowi.Pemerintah.Fokus.Benahi.Pangan.dan.Infrastruktur>> (accessed 26 December 2017).
 10. Fabian Januarius Kuwado, “Jokowi Resmikan Bendungan Pertama dari 49 yang Direncanakan di Indonesia”, *Kompas*, 9 January 2018 <<http://nasional.kompas.com/read/2018/01/09/16592601/jokowi-resmikan-bendungan-pertama-dari-49-yang-direncanakan-di-indonesia>> (accessed 10 January 2018).
 11. <<https://finance.detik.com/energi/3660193/ramalan-rizal-ramli-soal-proyek-35000-mw-yang-bisa-bikin-pln-bangkruk>> (accessed 2 March 2018).
 12. HSBC, “ASEAN Report”.
 13. *Kompas*, “Bappenas kekurangan proyek”, 9 September 2017 <<https://kompas.id/baca/ekonomi/2017/09/09/bappenas-kekurangan-proyek/>> (accessed 27 December 2017).
 14. Yoga Sukmana, “Rasio Pajak Masih Rendah, Sri Mulyani Heran”, *Kompas*, 12 July 2017 <<http://ekonomi.kompas.com/read/2017/07/12/191629826/rasio-pajak-masih-rendah-sri-mulyani-heran>> (accessed 27 December 2017).
 15. <<http://www.thejakartapost.com/news/2018/03/04/jokowis-35000-mw-program-only-reaches-3-8-percent-progress.html>> (accessed 21 March 2018).
 16. <<http://www.thejakartapost.com/news/2018/02/19/jakarta-bandung-railway-project-wont-meet-target-minister.html>> (accessed 21 March 2018).
 17. *Jakarta Post*, “High-speed rail land acquisition to be settled in March”, 9 February 2018 <<http://www.thejakartapost.com/news/2018/02/09/high-speed-rail-land-acquisition-to-be-settled-in-march.html>> (accessed 21 March 2018).
 18. Winda A. Charmila, “Government halts all elevated projects”, *Jakarta Post*, 20 February 2018 <<http://www.thejakartapost.com/news/2018/02/20/government-halts-all-elevated-projects.html>> (accessed 21 March 2018).
 19. *Jakarta Post*, “Indonesia, China sign \$23.3b in contracts”, 14 April 2018 <<http://www.thejakartapost.com/news/2018/04/14/indonesia-china-sign-23-3b-in-contracts.html>> (accessed 30 April 2018).
 20. Calculated from “Statistik Utang Luar Negeri Indonesia” <<http://www.bi.go.id/en/iru/economic-data/external-debt/Documents/SULNI-Jan-2018.pdf>> (accessed 2 March 2018).
 21. Yudith Ho, “Indonesia wins Fitch Rating upgrade months after S&P move”, *Jakarta Post*, 21 December 2017 <<http://www.thejakartapost.com/news/2017/12/21/indonesia-wins-fitch-rating-upgrade-months-after-sp-move.html>> (accessed 27 December 2017).
 22. “Mabuk Utang”, *Majalah Sindo Weekly* No. 20/VI/2017.

REFERENCES

- ADB. *Meeting Asia's Infrastructure Needs*. Manila: Asian Development Bank, 2017 <<https://www.adb.org/sites/default/files/publication/227496/special-report-infrastructure.pdf>>.
- Bappenas (National Development Planning Agency). *Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2015–2019* [National Medium-Term Development Plan (RPJMN) 2015–2019]. Jakarta: Bappenas, 2014.
- Briiliano, Herfan. “Addressing the Infrastructure Deficit in Indonesia and Beyond”. East Asia Forum, 17 February 2014 <<http://www.eastasiaforum.org/2014/02/17/addressing-the-infrastructure-deficit-in-indonesia-and-beyond/>>.
- Davidson, Jamie S. *Indonesia's Changing Political Economy: Governing the Roads*. Cambridge: Cambridge University Press, 2015.
- . “Eminent Domain and Infrastructure under the Yudhoyono and Widodo Administrations”. In *Land and*

- Development in Indonesia: Searching for the People's Sovereignty*, edited by John McCarthy and Kathryn Robinson. Singapore: ISEAS – Yusof Ishak Institute, 2016.
- DJPPR. “Indonesia PPP Day 2017”. 2017 <<http://www.djppr.kemenkeu.go.id/ppp>>.
- Gonschorek, Gerritt J. and Günther G. Schulze. “Continuity or Change? Indonesia's Intergovernmental Fiscal Transfer System under Jokowi”. *Journal of Southeast Asian Economies* 35, no. 2 (August 2018): 143–64.
- Gustely, Edward. “How Do Foreign Investors Perceive Opportunities in Indonesian Infrastructure?”. *Prakarsa: Journal of the Indonesia Infrastructure Initiative* 22 (October 2015): 6.
- Hamilton-Hart, Natasha and Günther G. Schulze. “Taxing Times in Indonesia: The Challenge of Restoring Competitiveness and the Search for Fiscal Space”. *Bulletin of Indonesian Economic Studies* 52, no. 3 (2016): 265–95.
- Heath, Jared. “Infrastructure in Indonesia: Building the Framework for Effective PPPs”. 19 November 2013 <<http://www.corrs.com.au/thinking/insights/infrastructure-in-indonesia-building-the-framework-for-effective-ppps/>>.
- KPPIP. “Perkembangan Pembangunan Infrastruktur di Indonesia”. 2018 <<https://kppip.go.id/tentang-kppip/perkembangan-pembangunan-infrastruktur-di-indonesia/>>.
- KSP. “2 Tahun Kerja Nyata Jokowi – JK”. 2016 <<https://web.kominfo.go.id/sites/default/files/KSP%202%20Tahun%20Jokowi%20JK.pdf>>.
- Lee, John. “Indonesia's Road Infrastructure: Accelerating the Private Sector Contribution”. *Prakarsa: Journal of the Indonesia Infrastructure Initiative* 22 (October 2015): 22–27.
- McCawley, Peter. “Infrastructure Policy in Indonesia, 1965–2015: A Survey”. *Bulletin of Indonesian Economic Studies* 51, no. 2 (2015): 263–85 <doi: 10.1080/00074918.2015.1061916>.
- Morris, Nicholas and Irene Tsjin. “How to Solve Indonesia's Infrastructure Crisis”. East Asia Forum, 10 June 2015 <<http://www.eastasiaforum.org/2015/06/10/how-to-solve-indonesias-infrastructure-crisis/>>.
- Negara, Siwage Dharma. “Indonesia's Infrastructure Development under the Jokowi Administration”. In *Southeast Asian Affairs 2016*, edited by Malcolm Cook and Daljit Singh. Singapore: ISEAS – Yusof Ishak Institute, 2016.
- OECD. “Private Financing and Government Support to Promote Long-Term Investment in Infrastructure”. 2014.
- . “Investment: Upgrading Indonesia Infrastructure”. *Indonesia Policy Brief*, March 2015.
- PLN. “Power Supply Business Plan (RUPTL) PT PLN (Persero) 2012–2021”. 2013 <<http://energy-indonesia.com/02-electricitylaw/0130213RUPTL.pdf>> (accessed 2 March 2018).
- . “Power Supply Business Plan (RUPTL) PT PLN (Persero) 2016–2025”. 2016. <<http://www.djk.esdm.go.id/pdf/RUPTL/RUPTL%20PLN%202016-2025.pdf>> (accessed 2 March 2018).
- Ray, David, and Lili Yan Ing. “Addressing Indonesia's Infrastructure Deficit”. *Bulletin of Indonesian Economic Studies* 52, no. 1 (2016): 1–25.
- Sandee, Henry. “Improving Connectivity in Indonesia: The Challenges of Better Infrastructure, Better Regulations, and Better Coordination”. *Asian Economic Policy Review* 11 (2016): 222–38.
- SMI. “PT Sarana Multi Infrastruktur (Persero): Company Profile”. 2017 <<https://www.ptsmi.co.id/wp-content/uploads/2017/09/Company-Profile-PT-SMI-July-2017-EN.pdf>> (accessed 2 March 2018).
- Suzuki, Wataru. “Indonesia lives dangerously with \$355bn infrastructure drive”. *Nikkei Asian Review*, 21 November 2017 <<https://asia.nikkei.com/Features/Asia-Insight/Indonesia-lives-dangerously-with-355bn-infrastructure-drive>> (accessed 3 March 2018).
- Utomo, Wahyu. “Tantangan Pembangunan Infrastruktur di Indonesia”. 6 November 2017 <<https://kppip.go.id/opini/tantangan-pembangunan-infrastruktur-indonesia/>>.
- . *Progres dan Prospek Pembangunan Infrastruktur*. 2018.
- Warburton, Eve. “Jokowi and the New Developmentalism”. *Bulletin of Indonesian Economic Studies* 52, no. 3 (2016): 297–320.
- World Economic Forum (WEF). “The Global Competitiveness Report 2014–2015”. 2014 <http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf>.
- World Bank. “Indonesia Infrastructure Development Policy Loan”. Program Information Document (PID)- Appraisal Stage, Report No. AB3407, 2007.
- . “Indonesia: Avoiding the Trap”. *Development Policy Review* 2014.
- . “Indonesia Economic Quarterly: Closing the Gap”. October 2017.