UNITED NATIONS UNIVERSITY
UNU-WIDER

WIDER Working Paper 2019/87

De-industrialization, re-industrialization, and the resurgence of state capitalism

The case of Indonesia

Kyunghoon Kim and Andy Sumner*

November 2019

United Nations University World Institute for Development Economics Research
wider.unu.edu

Abstract: Discussions on the developing world's industrial policies have largely neglected the role of state-owned entities. This paper argues that the resurgence of state capitalism has been, in part, the response of developing countries to the recent pattern of structural transformation involving weak manufacturing. Using the case of Indonesia, this paper demonstrates that many middle-income countries have large and diverse state-owned entities in their development policy toolbox and have begun to experiment with these tools in order to change the pace and characteristics of structural transformation. Considering these trends, there is a need to reconsider or 'normalize' the debate on the positive role that state-owned entities can play in stimulating structural transformation and on the institutional and policy design that can foster that role.

Key words: Indonesia, industrialization, industrial policy, infrastructure, state-owned enterprises

JEL classification: G20, H70, L52, O14

Acknowledgements: Earlier versions of this paper were presented at a workshop, Rethinking the State in the 21st Century, organized by the Institute for New Economic Thinking (INET) Young Scholars Initiative (YSI) and the University College London (UCL) Institute for Innovation and Public Purpose (IIPP), at the 2019 International Initiative for Promoting Political Economy Annual Conference (State Capitalism Redux session), and at the 2019 UNU-WIDER Development Conference (Structural Transformation session). The authors thank the organizers, speakers, and audience for their valuable comments.

* Both authors: Department of International Development, King's College London, London, United Kingdom. Corresponding author: kyunghoon.kim@kcl.ac.uk.

This study has been prepared within the UNU-WIDER project Developer's dilemma – structural transformation, inequality dynamics, and inclusive growth.

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9256-723-1

https://doi.org/10.35188/UNU-WIDER/2019/723-1

Typescript prepared by Luke Finley.

The United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland, Sweden, and the United Kingdom as well as earmarked contributions for specific projects from a variety of donors.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

1 Introduction

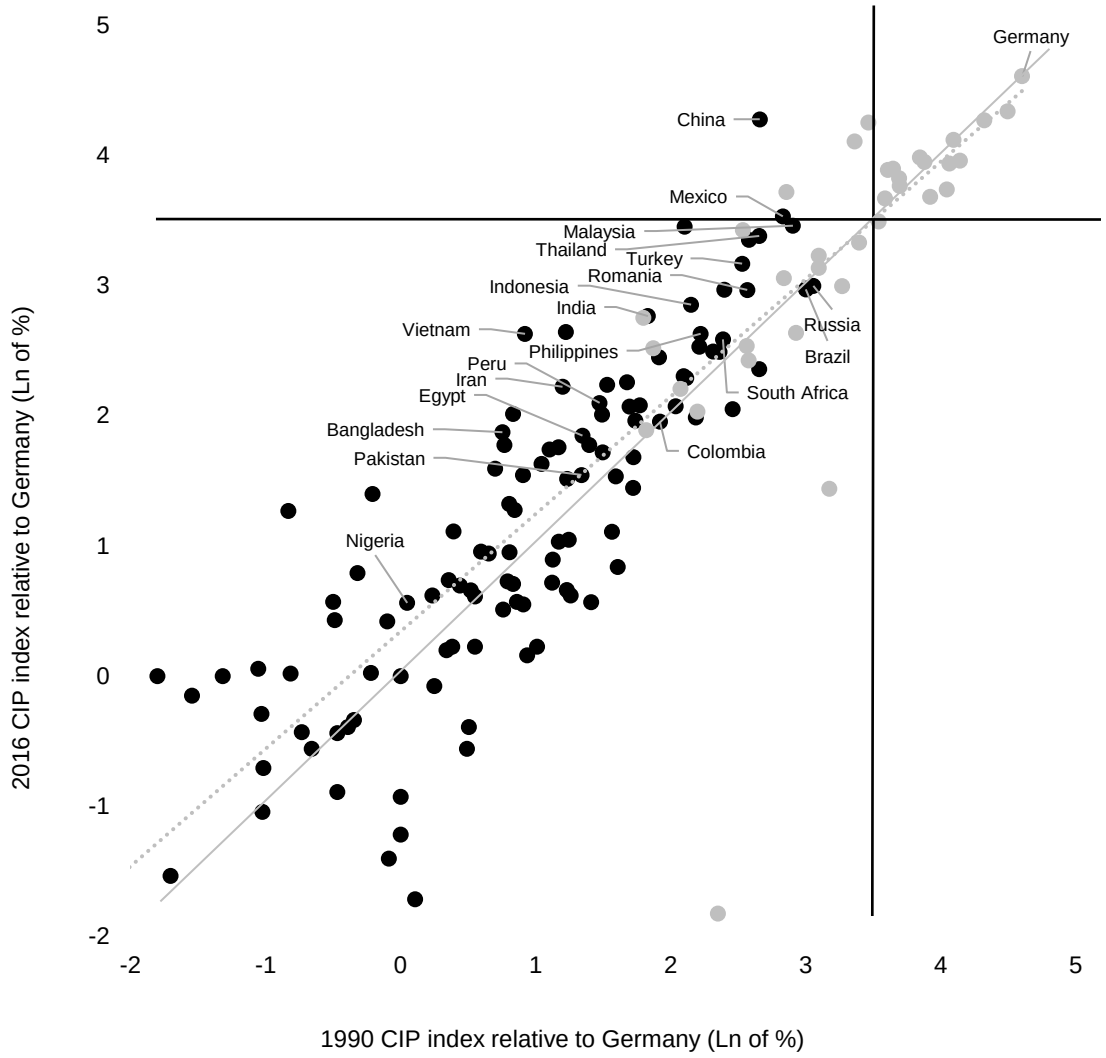
This paper argues that two contemporary phenomena—namely, de-industrialization and the resurgence of state capitalism—are connected causally. We focus on the ways in which developing countries' governments use state-owned entities in national development strategies with the aim of stimulating structural transformation. We make use of the case of Indonesia, a large middle-income country that has been struggling to keep pace with East Asian countries. We analyse the Joko Widodo government's re-industrialization strategy during the second half of the 2010s, which deeply involved state-owned entities.

The paper is organized as follows. The second section discusses the manufacturing competitiveness gap between advanced and developing countries. The third section argues that 'state capitalist policy tools' have largely been left out of the process of 'normalizing' debates on industrial policies. The section discusses how state-owned entities, in various organizational forms with different characteristics, remain important policy tools for developing countries seeking to stimulate structural transformation. The section also compares the size of major developing countries' state enterprises by analysing the presence of listed state enterprises. By using this measure as a proxy, this section identifies a subset of major developing countries that have substantial state capitalist policy tools and are facing the challenge of stimulating industrialization. This section situates Indonesia among this group of countries. The fourth section investigates how state-owned entities were deployed by the Indonesian government with the aim of reviving industrialization during the second half of the 2010s. The paper demonstrates that the Indonesian government has begun to actively mobilize state-owned entities to (i) improve the country's connectivity, (ii) strengthen downstream resource industries, and (iii) foster high value-added manufacturing industries. The final section concludes by suggesting future research areas.

2 Manufacturing competitiveness gap and return of industrial policy

The fear of slowing economic structural transformation is widespread in the developing world. For developing countries, structural transformation, defined as movement of resources from less productive sectors to more productive sectors, is important in closing the large productivity gaps across economic sectors and in stimulating overall economic growth. McMillan et al. (2014) argue that a significant part of the gap in economic growth across different developing regions can be explained by the direction in which labour has moved between sectors. Focusing on intersectoral labour movement, McMillan et al. find that Asia experienced growth-enhancing structural transformation whereas Latin America and Africa experienced growth-reducing structural transformation during 1990–2005. Rodrik (2016) links this finding with the phenomenon of 'premature de-industrialisation'. Rodrik posits that countries that experienced de-industrialization—defined as a declining share of manufacturing in a country's value added or employment—during 1990–2012 had lower income levels compared with countries that experienced de-industrialization during 1960–90. Rodrik's study further posits that the peak manufacturing share from which the downward trend begins has become lower in the post-1990 period. Premature de-industrialization poses a serious challenge to the developing world because it undermines manufacturing, a sector that exhibits strong unconditional convergence in labour productivity and that can be an important driver of employment generation in developing countries. One consequence, as already found in parts of Latin America and Africa, is the shift of workers into lower-productivity and informal services.

Figure 1: Competitive Industrial Performance index



Notes: (i) Advanced economies and developing economies, per the International Monetary Fund's definition, are marked with grey and black dots, respectively; (ii) black lines indicate one-third of Germany's Competitive Industrial Performance (CIP) index in each year; (iii) the solid grey line is a 45-degree line; (iv) the dotted grey line is the trendline; (v) Germany and the 20 largest middle-income countries are labelled.

Source: Authors' construction using data from United Nations Industrial Development Organization (UNIDO) CIP database.

Compared with advanced countries, developing countries have struggled to strengthen the competitiveness of their manufacturing sector. Figure 1 presents the United Nations Industrial Development Organization Competitive Industrial Performance (CIP) index for 1990 and 2016 (UNIDO 2019). The index is calculated using eight indicators that cover three dimensions: the manufacturing production and export capacity, the technological capacity, and the share in the world's manufacturing.[1] Numerous countries, both developed and developing, hover around the

[1] The eight indicators are (i) manufacturing value added per capita; (ii) manufacturing exports per capita; (iii) share of medium-high- and high-tech manufacturing value added in total manufacturing value added; (iv) share of manufacturing value added in total gross domestic product; (v) share of medium-high- and high-tech manufactured exports in total manufactured exports; (vi) share of manufactured exports in total exports; (vii) a country's share in world manufacturing value added; and (viii) a country's share in world manufactured exports.

45-degree line, and most of the developing countries (black dots in Figure 1) fall lower than the advanced countries (grey dots) in both years. The CIP index also shows that many developing countries have struggled to strengthen their manufacturing competitiveness relative to the level of Germany, the leader in manufacturing, over the past quarter of a century. While some large emerging countries such as Vietnam, India, and Bangladesh have seen their competitiveness strengthen significantly, their gap with Germany remains large. Only a handful of countries have seen their manufacturing sectors develop fast enough to enter the group of the world's leading manufacturers, defined as countries with a CIP index value above one-third of Germany's. Since 1990, just five countries—South Korea, Ireland, the Czech Republic, Mexico, and China—have newly entered this group. Between 1990 and 2016, only one country, Denmark, lost its position in the group. While many advanced countries are said to have transformed into post-industrial economies, the relative manufacturing competitiveness of advanced countries remains strong compared with that of most developing countries.

Driven in part by rising concerns regarding the patterns of economic structural change, scholarly inquiry into industrial policies has enjoyed something of a renaissance in the past decade (Andreoni et al. 2019; Cherif and Hasanov 2019; Felipe 2015; Noman and Stiglitz 2017; Page and Tarp 2017; Rodrik 2008; Salazar-Xirinachs et al. 2014; Warwick 2013).[2] This phenomenon can be attributed to a number of factors. The end of the 2000s commodities boom meant that many developing countries that depended heavily on the natural resources sector had to find the next growth driver. In this situation, the rapid and sustained ascendance of economies with a strong activist state, such as China, has been exemplary. Moreover, the diversification of finance sources to support development and the weakening faith in liberalization since the global financial crisis have provided a conducive environment for developing countries to experiment with different growth models and policy tools (Grabel 2017; Wade 2012).

Both developing and advanced countries have adopted industrial policies with zeal in the past decade. During the process of reviving the economy after the global financial crisis, the influence of the 'hidden developmental states' of advanced countries became more apparent and explicit, first through stimulus packages, followed by various growth and innovation strategies under the banner of 'green growth', 'smart cities', and 'Industry 4.0' (Block 2008; Evenett and Fritz 2018a; Mazzucato 2013; Meckling and Nahm 2018; Naqvi et al. 2018; Steenblik 2009; Weiss 2010). This trend not only legitimized the use of industrial policies to a certain extent but also pressured developing countries' governments to strengthen activism to stimulate economic catch-up with advanced countries that were trying to stride further ahead. This activism is evidenced by the rapid replication, and sometimes almost simultaneous adoption, of these new growth strategies in the developing world (UNCTAD 2018: chapter 4).

3 Bringing state-owned entities back into the industrial policy debate

3.1 Varieties of state capitalist policy tools

Analyses of the resurgence of industrial policies in the developing world have often focused on cross-border trade and investment measures, as highlighted in Table 1. While these measures are crudely divided into 'trade' and 'investment' instruments depending on the primary effect, most of them simultaneously affect both trade flows and investment decisions. These measures have aimed

[2] This paper does not discuss the historical accounts and the theoretical rationale for and against using industrial policies, as there exists a vast literature, including the works cited in this section, that discusses these issues in detail.

either to protect local companies by controlling the level of competition in the domestic economy or to apply conditionality with the aim of increasing socioeconomic benefits. Despite a notable shrinking of the developing world's policy space along with economic liberalization during the 1980s and the 1990s (Chang 2002; Wade 2003), the recent literature on industrial policies has shown that a diverse set of cross-border measures remains available for stimulating industrialization.[3] In other words, the industrial policy literature has begun to see the glass as half full rather than half empty.

Table 1: Major types of cross-border industrial policy

Trade	Import tariff
	Sanitary and phytosanitary measures
	Technical barriers to trade
	Pre-shipment inspection and other formalities
	Contingent trade-protective measures
	Licensing, quotas, prohibitions, and quantity-control measures
	Price-control measures
	Finance measures
	Restrictions on distribution and post-sales services
	Government procurement restrictions
	Intellectual property
	Rules of origin
	Export-related measures
	Exchange rate devaluation
Investment	Entry, ownership, and control limits
	Screening and approval
	Operational conditions and restrictions

Source: Authors' construction based on Evenett and Fritz (2018b), Kalinova et al. (2010), and UNCTAD (2015a, b).

Non-tariff barriers have often been designed and implemented just shy of directly and explicitly violating World Trade Organization (WTO) obligations. Many advanced and developing countries have taken advantage of regulatory arbitrariness and loopholes or 'legitimate discretion' to discriminate against imports and foreign investment and to place domestic companies in advantageous positions (Baldwin and Evenett 2009: 4). Such measures aim to benefit the domestic companies disproportionately, yet proving this discrimination against foreign companies is not necessarily easy. Such policies are usually framed to avoid the impression that they are discriminatory (Aggarwal and Evenett 2010). Further, when complaints are made at the multilateral stage, governments often provide rationale based on the need to protect the environment and human health, avoid critical shortage of essential products, or strengthen national security. Even if countries use measures prohibited by WTO rules, the cases are not always challenged in a dispute settlement process because the procedure is 'long and tedious' and 'cumbersome and costly' (Singh

[3] For a detailed analysis of the trade and investment policy tools available to developing countries, see Thrasher and Gallagher (2008).

2016: 22; Wade 2016: 476). Relatively immediate retaliatory actions such as anti-dumping and countervailing measures are more widely used (Singh and Jose 2016), but the implementation of these instruments involves a complex calculation due to the globalized supply chain and potential counter-retaliation. The recent literature on industrial policies demonstrates that these factors are the reason that cross-border measures, including more constrained policy instruments under WTO rules such as the local content requirements, have proliferated in the past decade in countries aiming to stimulate structural transformation.

In comparison, far less attention has been given to the government's tools for more directly participating in the promotion of structural transformation via state-owned entities. Analysis of the recent resurgence of state capitalism has been extensive, stemming from an array of viewpoints. State capitalism literature has focused on the new characteristics of state-owned entities around the world. In particular, state-owned entities' rapid growth and internationalization (Cuervo-Cazurra 2018; Gu et al. 2016; Johan et al. 2013; Liang et al. 2015; Megginson et al. 2013) and changing ownership structure and corporate governance (Bruton et al. 2015; Megginson and Fotak 2015; Musacchio and Lazzarini 2014; Nem Singh and Chen 2018) have attracted much academic attention. On a broader level, the effects of the resurgence of state capitalism on the free market model and the democratic political system have also been discussed (Bremmer 2010; Carney 2018; Chua 2016; Kurlantzick 2016). In terms of country coverage, literature on state capitalism has focused on countries with rapid economic growth or with a large natural resource sector, both of which have provided financial resources to expanding state-owned entities.

However, relatively less emphasis has been given to how the resurgence of state capitalism fits within emerging countries' national development strategies, which aim to solve domestic economic challenges and find the next growth engine. While the literature discusses the industrial motivations behind deploying state-owned entities, it emphasizes theories of corporate inefficiency or government failures, highlighting state-owned entities' weak financial performance or rent-seeking political 'intervention'. Policy recommendations regarding state-owned entities have somewhat moved away from the blanket 'privatization' of the past, but the recent emphasis in the literature on 'rationalization' continues to downplay the potential developmental role of state-owned entities. Similarly, Nem Singh and Chen (2018) and Rowden (2018) find that recent 'developmental state' literature pays limited attention to the important role that state-owned entities play in the development process.[4] This paper aims to fill this gap by linking developing countries' efforts to stimulate structural transformation and the revival of state capitalism.

The 'state capitalist policy tools' often go further than the measures for 'nudging' and 'prodding' the economic actors that have been the focus of much of the recent literature on industrial policies (Storm 2015: 688). In analysing the industrial policies behind East Asia's rapid growth, Wade (1990b: 234) describes the government role of supporting profit-seeking companies in carrying out intended investment and production through policy assistance and the provision of marginal resources as a 'following the market' policy. In comparison, when the government injects significant resources and creates new opportunities for producing something that firms would not have produced in response to price signals, 'leading the market' industrial policies are at work. Many of these 'leading the market' measures aim to make producers deviate substantially from a country's comparative advantage at a given point in time (Lin and Chang 2009). State-owned entities have often been pivotal actors when governments have tried to promote high value-adding and technologically demanding sectors but the country lacked private capitalists willing to take the

4 Although the major focus was on trade, investment, and financial policies, the literature on 'original' developmental states discusses the important role that SOEs played during industrialization in East Asia. See Amsden (1989: 91–92, 291–318) on South Korea, Wade (1990a: 110–111, 176–180) on Taiwan, and Chua (2016) on Singapore.

risks given the high levels of uncertainty. In such situations, deploying state enterprises may be 'the only solution' (Andreoni and Chang 2016: 498). State-owned entities are policy vehicles in which governments' financial and physical assets, and public technology, skills, and knowledge, can be and already are accumulated. Efficiency problems and corruption notwithstanding, successful late-developing countries have effectively mobilized state-owned entities to stimulate structural transformation to varying degrees (Chang 2007; OECD 2015; UNCTAD 2016).

Corporate management literature (Bruton et al. 2015; Musacchio and Lazzarini 2014) has shown the diversity of state-owned entities, or 'varieties of state capitalism', by comparing different ownership and governance structures. This section takes a close look at how developing countries may use different forms of state-owned entities as policy tools for economic development. The 'state capitalist policy tools' that developing countries can draw upon to stimulate structural transformation can be grouped into four types of approach, with each approach suitable for fixing different types of market failure and capturing different economic opportunities (Table 2).

Table 2: Development goals, challenges, and state-owned entities

Goals	Key challenges	Leading state-owned entities
Value-adding and technological upgrading	Knowledge externalities	State enterprises in strategic industries
Development financing	Capital market imperfections	State financial institutions
Infrastructure provision	'Weak' investment environment	State infrastructure companies, science and research institutions
Investment co-ordination	Co-ordination failure	State holding companies, state financial institutions

Source: Authors' construction.

First, governments can use the numerous state-owned enterprises (SOEs) in strategic industries to stimulate structural transformation. Investing in these sectors tends to entail high risks due to the sectors' externalities and low initial technological capacity. SOE presence in strategic industries differs across countries and tends to be broader in emerging economies. Many governments own firms in the natural resources sector, and government-owned firms in the mining and energy sectors may contribute to industrialization by moving up the value chain from upstream to downstream operations. Some governments also continue to own important manufacturers in basic industries such as the cement and steel sectors. There are also state-owned producers in industries at the higher end of the value-adding spectrum, such as sectors related to chemicals, machinery, electrical and transport equipment, and defence manufacturing (Kowalski et al. 2013; OECD 2017). Governments have substantial policy space to use SOEs in the manufacturing sector. WTO rules are ownership-neutral in general. The definitions of SOEs are ambiguous, and the few rules that apply precisely to SOEs are vague, generally requiring them to behave on a level playing field and on a competitive basis. Many state enterprises continue to receive financial and regulatory privileges, but practical and political difficulties exist for SOEs' trading partners and their companies in challenging these policies. Raising protests regarding unfair competition with SOEs within the SOEs' countries is difficult, especially when those SOEs' activities are domestically oriented. Recently, concerns have increased regarding SOEs' internationalization and the negative effects of this on the competitive conditions in the global market. However, as the active cross-border activities of Chinese SOEs have proven, the WTO disciplines and the dispute settlement mechanism have posed a limited threat to the ascendance of SOEs (Kowalski and Perepechay 2015; Kowalski et al. 2013; Singh and Jose 2016; Willemyns 2016).

Second, governments can stimulate structural transformation by providing financial support to companies in economic sectors that they aim to promote. This approach is important where the

financial market is underdeveloped and where, as a result, significant capital market failure exists. Some WTO rules do address government subsidies; however, as with other industrial policies, proving that certain financial support is discriminatory is often difficult. Again, the criteria for providing financial subsidies can be carefully designed in order to stay within the multilateral rules while emphasizing the urgent socioeconomic challenges a country faces (Aggarwal and Evenett 2010; Singh and Jose 2016). Financial support extends beyond governments providing grant or monetary assistance through the fiscal budget or tax relief. It takes various other forms, such as insurance, guarantees, and patient financing through loans and equity participation. Financial support is provided by a diverse set of state-owned financial institutions that have grown rapidly since the 2000s, such as state-owned commercial banks, development financial institutions, and sovereign investment funds (Alhashel 2015; De Luna-Martinez et al. 2017; Grabel 2017; Kring and Gallagher 2019).

Third, governments can use state-owned entities to provide hard and soft infrastructure to enhance a country's connectivity and strengthen technological capacity. Many developing countries suffer from weak infrastructure investment because their regulatory environment is not 'business-friendly' enough. Governments can be more deeply involved in infrastructure provision than 'just' financing projects through the fiscal budget. State enterprises continue to dominate the utility sector as investors and operators, and state-owned construction companies, though not as widespread, play an important role in funding and conducting physical infrastructure projects (OECD 2017). Many special economic zones, incubators, and scientific research and skills development centres are directly or indirectly operated by governments (Mazzucato 2013). State-owned financial institutions are also key financiers of physical infrastructure and research programmes. There are weak external constraints on governments investing in or subsidizing infrastructure development, although these so-called 'horizontal' measures are usually designed to benefit targeted firms, sectors, or geographical areas. Furthermore, government services are carved out from the General Agreement on Trade in Services, and less than a third of WTO members are participants in the Government Procurement Agreement (Singh and Jose 2016; WTO 2019). These factors offer developing countries substantial policy space in which to use state-owned entities to provide vital infrastructure for stimulating structural transformation.

Lastly, on top of their primary role of conducting and financing development projects, state-owned entities can also play a co-ordinating role in national development strategy. Andreoni and Chang (2019) argue that a key determinant of successful industrial policy implementation is the state's capacity to organize and co-ordinate various policy tools and institutions across industrial sectors. This capacity is necessary as structural tensions, complex interdependencies, and conflicting interests are inherent in the processes of industrial transformation and can evolve in unexpected ways. From this perspective, state-owned entities have the potential to play an important role in managing sectoral interaction and policy complementarity, as these entities—which are present in a wide range of sectors—are linked with each other and with private companies through financial channels and value chains. Also, some state-owned entities such as state holding companies, state investment funds, and development financial institutions have explicit missions of strategic co-ordination, as these entities have diversified investment and lending portfolios. Even though these state-owned entities tend to be lower in the ranks of bureaucracy, they can offer important financial resources and on-the-ground expertise that can contribute to governments' industrial policy design and implementation.

This section has demonstrated that significant policy space exists for using state-owned entities to stimulate structural transformation. However, the existence of this policy space does not necessarily mean that all developing countries have state capitalist policy tools available to influence the pace and direction of structural transformation. The following section measures the

importance of SOEs in large middle-income countries, and assesses these countries' levels of industrial development.

3.2 Availability of state capitalist policy tools in lagging industrializers

Some observers have pointed to advanced countries' large fiscal spending, which is related to significant government expenditure on social protection and health in ageing societies, and have stated that 'we are all state capitalists now' (Ferguson 2012). However, the size of fiscal spending alone is not helpful for analysing a government's ability and willingness to stimulate economic structural transformation. Countries with a significant presence of state capitalist instruments are characterized by a diverse set of influential state-owned entities capable of participating in productive investment on the expenditure side as well as contributing to value creation on the production side.[5] Surveys have been conducted on various types of state-owned entities (De Luna-Martinez et al. 2017; Kowalski et al. 2013; OECD 2017; Pellizzola 2017), but direct comparison of major developing countries is often difficult due to partial country coverage and varying national definitions.

To deal with these limitations, this section analyses the listed companies of the 20 largest middle-income countries by the size of gross domestic product (GDP). The 'SOE share' of these middle-income countries is calculated by averaging the SOEs' share in the assets, operating revenue, and net income of each country's 100 publicly listed companies with the largest assets. SOEs are defined as companies whose ultimate owner type is 'public authority, state, or government' in the Osiris database.[6] The ultimate owner of an SOE is defined as the company's largest shareholder with at least 25.01 per cent of ownership at every step of the ownership path. This indicator has shortfalls as it fails to cover some state-owned entities, such as fully state-owned enterprises which are not listed on the stock exchange, state investment funds, and development financial institutions. However, considering data availability and the fact that modern state capitalism is characterized by state-owned entities that are embedded in the corporate sector and the financial market, this indicator can be an important proxy for measuring the extent to which the state is present in the economy. Rather than serving as a stepping stone towards full privatization, partial privatization by listing shares on the stock exchange has been a major pathway to expanding SOEs that has been taken by many countries with significant state capitalist instruments. Increasing equity and leverage and embracing market forces via listing shares have been key drivers of the rapid growth of the SOE sector in many emerging economies. Furthermore, historical accounts show that listed SOEs and other state-owned entities often grow in tandem during phases of state economic activism (Bruton et al. 2015; Musacchio and Lazzarini 2014; OECD 2016).

Using the 'SOE share' (Table 3), this paper defines developing countries that have an SOE share larger than the 20 largest middle-income country average as economies with strong state capitalist policy tools. This definition does not mean that countries with a below-average SOE share lack important state-owned entities that can contribute to stimulating structural transformation; however, in such countries these entities are likely to have a relatively smaller presence in the overall national economy. Per that definition, nine middle-income countries are identified as having strong state capitalist instruments. Five (China, India, Brazil, Russia, and Indonesia) out of

[5] The term 'state capitalist countries' is purposely not used so as to avoid giving the impression that countries can be divided dichotomously into market economies and state capitalist economies. While the debate continues on whether to grant 'Market Economy Status' to certain countries for trade defence purposes, it is adequate in this paper to categorise major developing countries as market economies with either stronger or weaker state capitalist policy tools.

[6] Available (registration required) at: https://osiris.bvdinfo.com/version-20191113/home.serv?product=OsirisNeo (accessed 29 January 2019).

the six largest middle-income countries have higher-than-average SOE shares. Other countries with large state capitalist instruments include three countries in South-East Asia (Thailand, Malaysia, and Vietnam) and one in the Middle East (Iran). At the other end of the spectrum, South Africa, Mexico, Nigeria, and the Philippines have a small SOE share of less than 1 per cent.

Table 3: Large middle-income countries' GDP and SOE share

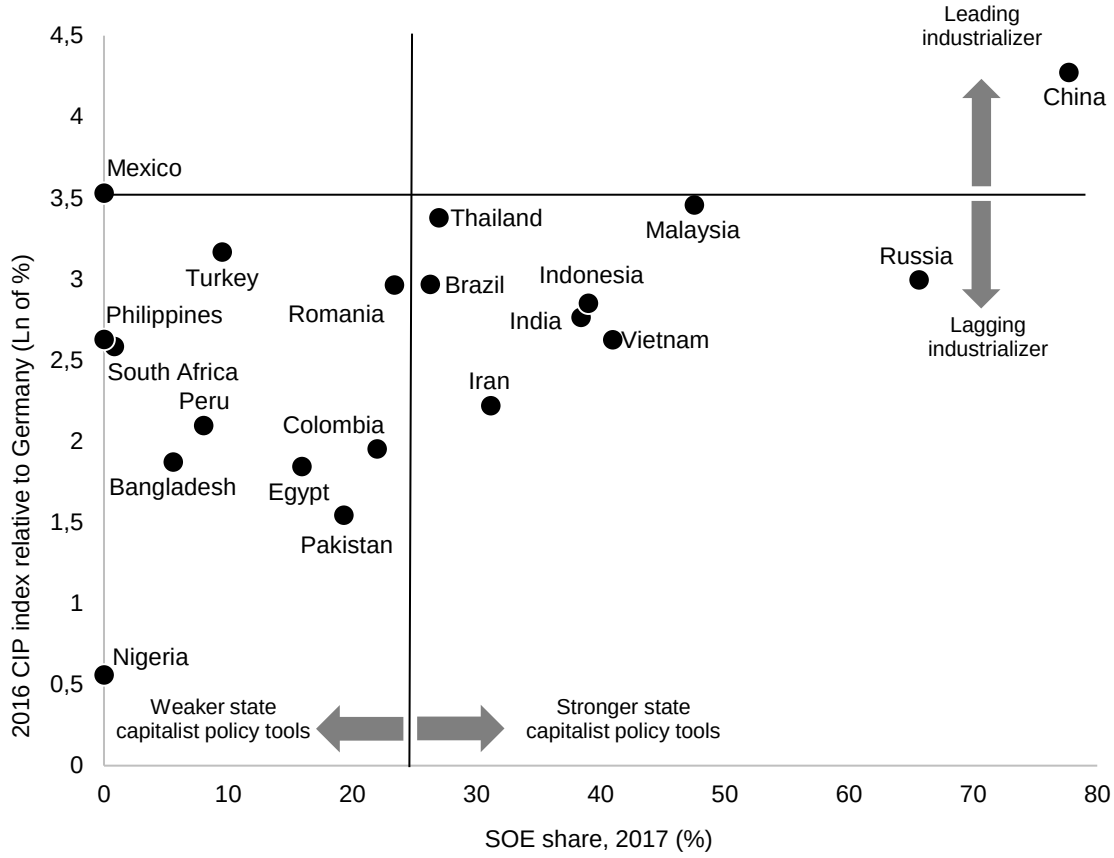
		SOE share, 2017 (%)			
	GDP, 2017 (billion dollars)	Asset	Operating revenue	Net income	Average
China	12.24	74.7	83.5	74.9	77.7
India	2.60	57.1	45.1	13.1	38.4
Brazil	2.06	32.8	27.5	18.6	26.3
Russia	1.58	77.4	59.4	60.1	65.6
Mexico	1.15	0.0	0.0	0.0	0.0
Indonesia	1.02	47.5	32.1	37.4	39.0
Turkey	0.85	16.3	2.9	9.3	9.5
Thailand	0.46	14.5	37.6	28.9	27.0
Iran	0.44	14.2	26.7	52.5	31.1
Nigeria	0.38	0.0	0.0	0.0	0.0
South Africa	0.35	0.4	1.3	0.7	0.8
Malaysia	0.31	49.0	45.7	47.9	47.5
Philippines	0.31	0.0	0.0	0.0	0.0
Colombia	0.31	12.9	21.3	31.8	22.0
Pakistan	0.30	19.9	13.7	24.2	19.3
Bangladesh	0.25	7.8	4.4	4.5	5.6
Egypt	0.24	13.7	14.2	19.9	15.9
Vietnam	0.22	40.9	41.8	40.2	41.0
Romania	0.21	16.8	26.2	27.2	23.4
Peru	0.21	6.9	9.7	7.4	8.0
Average	-	25.1	24.7	24.9	24.9

Note: Osiris has data for only 69 publicly listed companies for Colombia.

Source: Authors' construction based on the Osiris database.

Out of the 20 largest middle-income countries, only two—China and Mexico—are categorized as leading manufacturers, defined as countries with a CIP index value of above one-third of Germany's (Figure 2). The rest of the 20 countries continue to be in the category of lagging industrializers, although Malaysia and Thailand have made impressive progress in the past two decades and are close to joining the group of leading manufacturers. Of the 18 lagging manufacturers, eight countries have large state capitalist instruments. Many of these developing countries are expected to adopt some level of state economic activism by using various instruments, including state capitalist policy tools, to stimulate industrialization. These countries would be characterized by national development policy packages that treat state-owned entities as important drivers of structural transformation.

Figure 2: Large middle-income countries' SOE share and Competitiveness Industrial Performance index

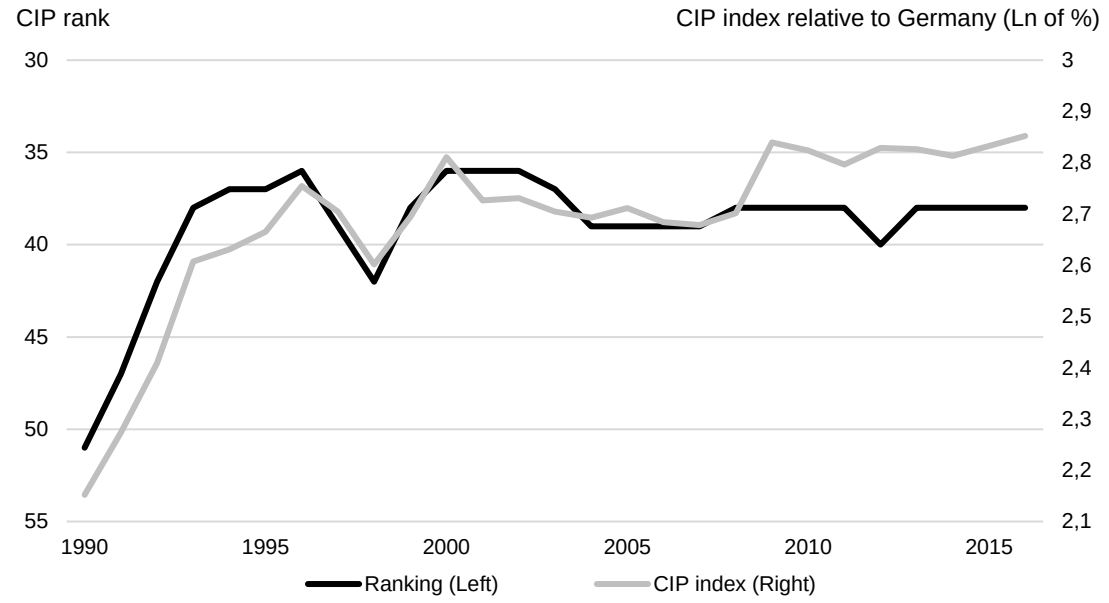


Source: Authors' construction based on the Osiris database and UNIDO (2019).

The rest of this paper investigates how Indonesia, a country that is included in the group of lagging industrializers with strong state capitalist policy tools, has begun to mobilize state-owned entities to revive industrialization during the second half of the 2010s. Indonesia made some improvement on the CIP index during the first half of the 1990s. It rapidly rose in the world ranking in the CIP index, climbing from 51st in 1990 to 36th in 1996 (Figure 3). However, its ranking has stalled since the late 1990s, when the country experienced the Asian financial crisis. Indonesia ranked 38th in 2016. Its CIP index value relative to Germany's has also shown little movement since 2000.

During the 2000s, Indonesia's manufacturing share in value added and employment stagnated, and structural transformation lost its dynamism. Considering that manufacturing was an important driver of employment and productivity growth during the 1980s and 1990s, the trends during the 2000s raised concerns that Indonesia might begin to experience 'premature de-industrialization'; these concerns deepened when the commodity boom came to an end in the early 2010s (Kim et al. 2019).

Figure 3: Indonesia's Competitiveness Industrial Performance index



Source: Authors' construction based on UNIDO (2019).

Under these circumstances, the Indonesian government sought ways to revive industrialization during the 2010s. From the start of the decade, the government increasingly used trade and investment measures to strengthen the domestic production capacity. For example, the 2009 Mining Law required domestic and foreign mining companies to expand investment in domestic resource processing, and the 2014 Industrial Law allowed the Ministry of Industry to set local content rules in selected industries (Tijaja and Faisal 2014). During the second half of the 2010s, another dramatic policy change took place with the government's adoption of the strategy of actively mobilizing state-owned entities. The Joko Widodo government (2014–19) energetically used state-owned entities to push forward its plan to 're-industrialize', and provided various support measures.

The next section takes a close look at how state-owned entities in diverse forms and sectors were deployed in Indonesia's national development strategy to stimulate industrialization.

4 State capitalism for stimulating industrialization: The case of Indonesia

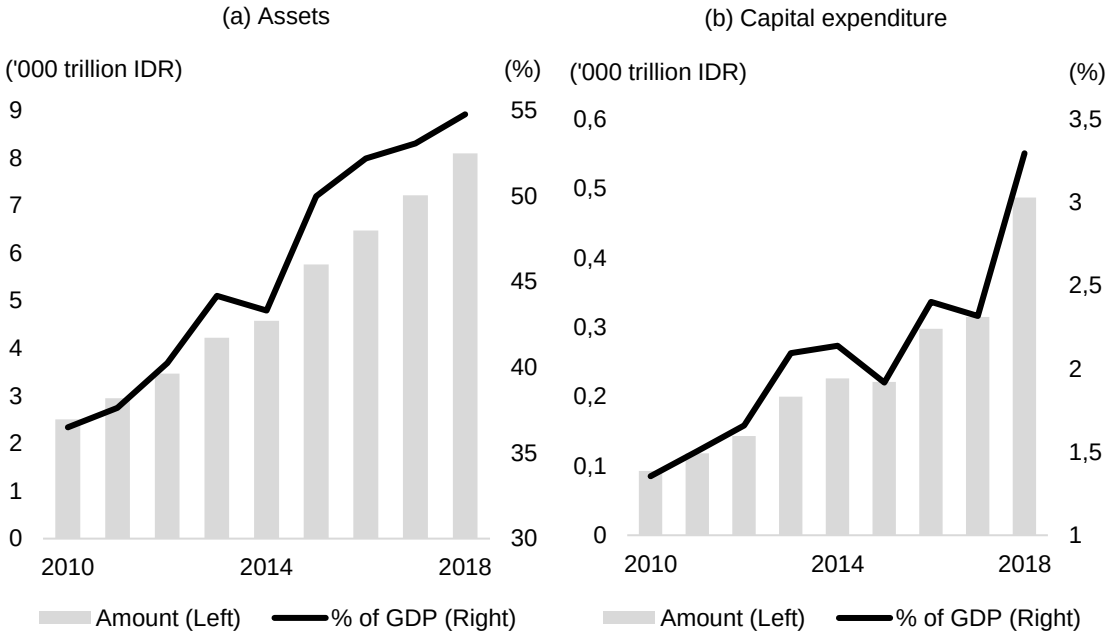
4.1 Resurgence of state capitalism

When Joko Widodo (Jokowi) came to power in 2014, the government began to regard state-owned entities as vital actors in the national development strategy. Past attempts at attracting private investments had resulted in limited progress in stimulating industrialization, and therefore the new administration perceived that the economy needed the government to play a more active role. As of 2016, Indonesia had 118 SOEs, or companies in which the Ministry of SOEs held ownership stakes larger than 51 per cent. Many of these SOEs are among the largest companies in the country. SOEs are leading companies in various economic sectors, including energy, transportation, telecommunication, construction, manufacturing, mining, and banking (Kim 2019c). Given these policy tools, the government decided to make SOEs lead projects aimed at reviving

industrialization. The rest of this section provides an understanding of this strategy from a developmentalist perspective.[7]

While many SOEs were already sizeable, the government had to seek methods of strengthening their financial position and productive capabilities in order to prepare them to participate in development projects. The Jokowi government implemented a range of policy measures including (i) state capital injection, (ii) state-directed loans, (iii) lower dividend ratios, and (iv) tax incentives for asset revaluation (Kim 2019a). The government also encouraged SOEs' collaborative operation and investment and established state-owned holding companies. With these government measures, SOEs grew rapidly under the Jokowi government. Figure 4(a) shows that SOEs' assets as a share of GDP increased from 43.3 per cent in 2014 to 54.8 per cent in 2018. SOEs' capital expenditure also increased rapidly under the Jokowi government, as shown in Figure 4(b).

Figure 4: Indonesian SOEs' assets and capital expenditure



Sources: Authors' construction based on Kementerian Badan Usaha Milik Negara (2018, 2019) and Yasin (2013).

A major goal of the Jokowi government's active mobilization of state-owned entities was to revive Indonesia's industrialization. The government strategy had a path-dependent nature, meaning that the sectors in which state capitalism strengthened were sectors in which notable state-owned entities had already existed. In other words, the strategy was highly targeted given the available policy tools and development challenges, rather than being 'blanket' state capitalism aimed at strengthening the government's role in the economy. The rest of this section demonstrates how the government deployed state-owned entities with aims of (i) strengthening infrastructure, (ii) adding value to natural resources, and (iii) developing high-technology manufacturing.

4.2 Strengthening infrastructure

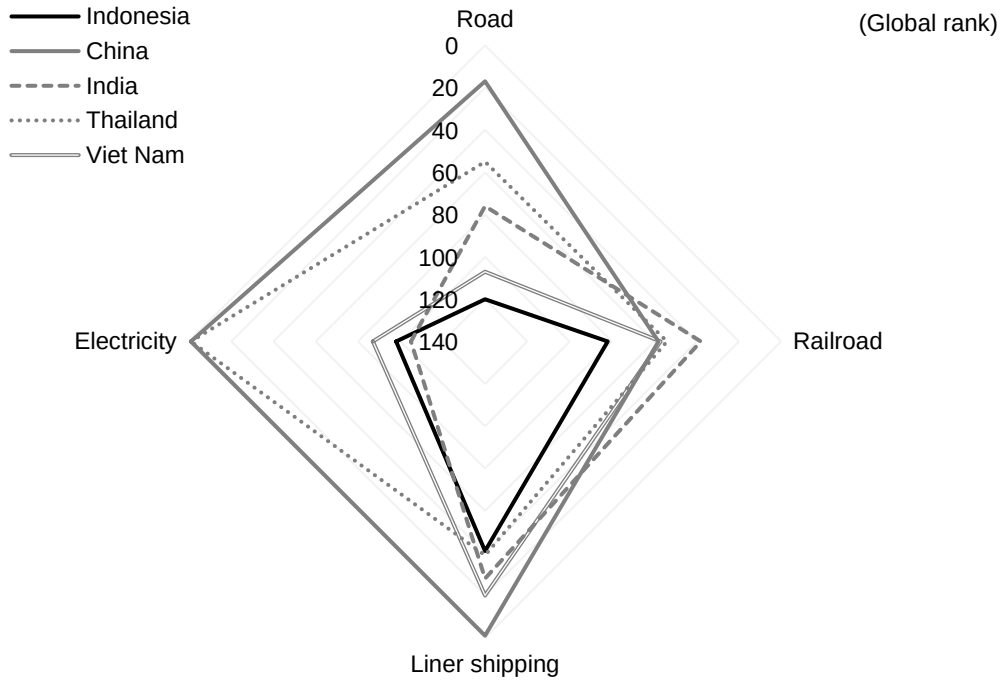
The Jokowi government repeatedly identified infrastructure development as its most important development goal. The pace of infrastructure development had slowed after the Asian financial

[7] For political analyses of Indonesia's state economic activism, see Aspinall (2016) and Warburton (2017).

crisis struck in 1997 (McCawley 2015; Resosudarmo and Yusuf 2009). The post-crisis administration had attempted to overcome the infrastructure shortfall by attracting private investment and focusing on regulatory reform; however, the reform had proceeded only gradually, and private sector participation in infrastructure projects was limited (Davidson 2015; Jarvis 2012). During this period, the government had weak capacity to conduct infrastructure investment by itself as it struggled to find fiscal room for discretionary spending. Fuel subsidies had bloated with high international energy prices, and the demand for social spending had been strong (Chelminski 2018; Garnaut 2015; Hill 2015). As a result, the public (central and regional governments, and SOEs) infrastructure investment–GDP ratio during the 2000s was less than half of that in 1995–97 (World Bank 2013, 2014).

Thus, by the time the Jokowi government came to power in 2014, Indonesia's physical infrastructure was lagging behind that of many regional competitors. Figure 5 compares the competitiveness of physical infrastructure across Asia's major developing countries during the initial years of the Jokowi administration. Out of the five countries, Indonesia performs the worst for road, railroad, and shipping and the second-worst for electricity. It is worth noting that Indonesia performs worse in all the indicators than Vietnam, an emerging global manufacturing hub with lower GDP per capita than Indonesia. Since the Asian financial crisis, Indonesia's weak physical infrastructure had been referred to as one of the most severe problems reducing the country's attractiveness to global manufacturing firms and slowing industrialization (Aswicahyono et al. 2013; Narjoko 2014).

Figure 5: Infrastructure status in major Asian developing countries



Notes: (i) Road (2016): Road Connectivity Index or average speed and straightness of a driving itinerary connecting the ten or more largest cities that together account for at least 15 per cent of the economy's total population; (ii) railroad (2016): railroad density or kilometres of railroad per 100 square kilometres of land; (iii) liner shipping (2017): Liner Shipping Connectivity Index based on five components of the maritime transport sector (the number of ships, their container-carrying capacity, the maximum vessel size, the number of services, and the number of companies that deploy container ships in a country's ports); (iv) electricity (2016): electrification rate.

Sources: Authors' construction based on data from International Air Transport Association, International Energy Agency, World Bank, and World Economic Forum; see World Economic Forum (2019).

Recognizing this problem, the Jokowi government announced an ambitious plan at the beginning of the administration. The government set development targets of, for example, 35 gigawatts of additional electricity production capacity, 1,000 kilometres of new toll roads, 3,258 kilometres of new railways, and 24 seaports (Republik Indonesia 2014). Of course, ambitious infrastructure goals and a long list of planned projects were nothing new. Yet two key differences in Jokowi's infrastructure development strategy set it apart from the past strategies of previous governments.

First, Jokowi's strategy significantly expanded state investment in infrastructure using the fiscal space attained after reducing fuel subsidies. Jokowi's pledge to remove fuel subsidies during the presidential campaign was met with scepticism. Considering the political difficulties that previous administrations had faced in trying to reduce fuel subsidies, there was uncertainty as to whether this policy could be successfully implemented. However, the Jokowi government indeed adopted this policy in January 2015 with the help of conducive economic circumstances, namely the rapid decline in international oil prices. The amount of fuel subsidies declined from IDR240 trillion in 2014 to IDR41 trillion in 2017. Using this fiscal space, the government could increase infrastructure investment from IDR155 trillion in 2014 to IDR390 trillion in 2017. This expansion of infrastructure investment translated into an annual increase of 36.0 per cent, which is more than three times greater than the annual increase of 10.7 per cent during 2011–14 (Gunawan 2019; Sekretariat Kabinet Republik Indonesia 2018).

Second, Jokowi's strategy took into account that increasing investment through budgetary measures alone would be insufficient, given the limitations on fiscal spending and also the difficulty of attracting private interest in development projects. Therefore, it adopted state enterprises as tools to drive infrastructure development in order to achieve the government's goals within the administrative term. The government's fiscal and financial support to state-owned entities was unambiguously focused on those participating in infrastructure projects. On top of mobilizing SOEs in the utility sector, the government also actively used SOEs in the construction sector. Also, Indonesia's infrastructure development bank and the land bank played a pivotal role in providing funding to SOEs along with the country's major commercial banks under government ownership (Kim 2019b). Key infrastructure projects conducted by SOEs during the Jokowi government included the trans-Java toll road, trans-Sumatra toll road, Palembang and Greater Jakarta light rail transit (LRT), and Jakarta–Bandung high-speed railway (Kementerian Badan Usaha Milik Negara 2017).

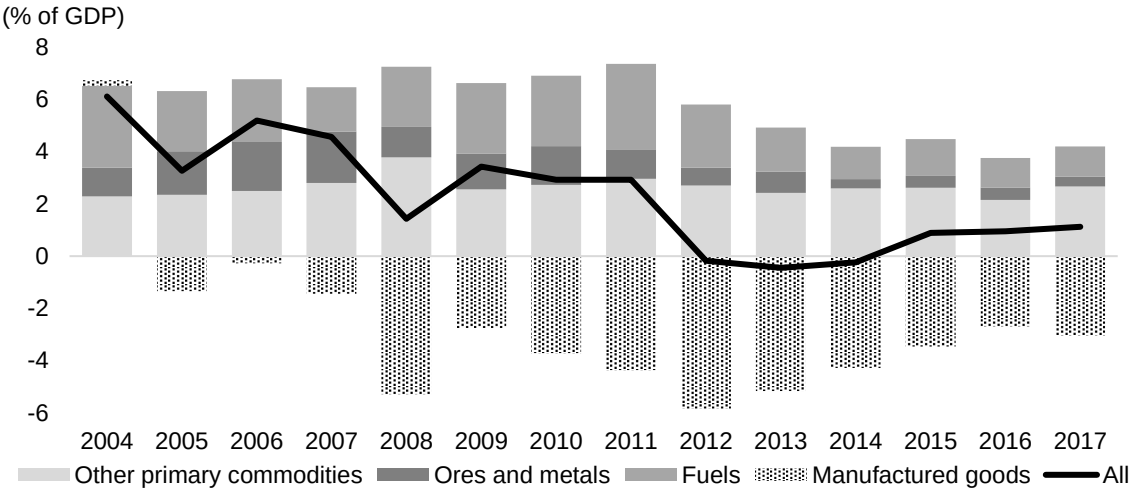
Though not without delays in several projects, the performance of the SOE-led infrastructure development strategy was remarkable during the Jokowi administration (McCawley 2019; Tang 2019). On top of a large increase in government infrastructure investment, SOEs' capital expenditure on infrastructure expanded from IDR144 trillion in 2015 to IDR268 trillion in 2017, then to IDR379 trillion in 2018. With this increase in investment, SOEs produced some notable outcomes. Under the SOE-led infrastructure development strategy, 782 km of new toll roads were constructed during 2015–18; this distance of toll roads is longer than the distance built during all four decades preceding 2014. Twenty-seven new ports were constructed, with container capacity increasing from 21.9 million twenty-foot equivalent unit (TEU) in 2015 to 28.8 million TEU in 2018. Forty-five rail stations were repaired, and 394.6 kilometres and 178.8 kilometres of rail tracks were rehabilitated and reactivated, respectively. The electrification ratio rose from 86.2 per cent in 2015 to 97.2 per cent in 2018 (Kementerian Badan Usaha Milik Negara 2019).

4.3 Adding value to natural resources

Indonesia's trade balance deteriorated rapidly in the early 2010s (Figure 6). Despite an increase in trade deficits on manufactured goods in the second half of the 2000s, Indonesia's overall trade balance recorded a surplus due to a large trade surplus on primary commodities. However, with a

decline in international natural resource prices, the primary commodities trade surplus shrank markedly from 6.9 per cent of GDP in 2006–11 to 4.6 per cent in 2012–17. This shrinking was driven by changes in fuels, ores, and metals, with their trade surplus declining from 4.0 per cent of GDP in 2006–11 to 2.0 per cent in 2012–17. These trends contributed to Indonesia's overall trade balance turning negative during 2012–14. In the second half of 2010s the overall trade balance returned to surplus, but this shift was mainly due to a decline in trade deficits on manufactured goods; the trade surplus on fuels, ores, and metals has yet to recover. The weak trade balance left Indonesia's financial market vulnerable. The country experienced a notable financial outflow during the mid-2010s as global investors withdrew from countries with current account deficits when signs of monetary contraction emerged in the advanced world (Basri 2017).

Figure 6: Indonesia's trade balance



Source: Authors' construction based on UNCTAD (n.d.).

Indonesia perceived that one solution to the deteriorating trade deficits was to add value to natural resources through developing downstream industries. The government therefore aimed to add value to natural resource exports and reduce processed and refined natural resource imports. While this approach took advantage of Indonesia's comparative advantage, the shift to downstream industries required large-scale investment in capital- and technology-intensive activities. To pursue this strategy, the Indonesian government implemented a series of regulations. In January 2014, it banned the export of certain raw mineral ores and encouraged miners to build smelters. Considering the disruption this regulation caused, the Indonesian government relaxed the ban in January 2017 and allowed miners that had shown progress in building smelters to continue exporting some raw minerals. This relaxation of the export ban is temporary and is expected to end in 2022, by which time the government expects the miners to have completed construction of processing and refining facilities (PwC Indonesia 2018).

Under these regulations, state-owned nickel and bauxite producer Aneka Tambang (Antam) is directing a large amount of resources to building smelters. Antam has begun to implement a plant expansion project that would increase production capacity from 18,000–20,000 tons of pure nickel equivalent (TNi) to 27,000–30,000 TNi per annum, and to construct a new plant with a capacity of 13,500 TNi per annum. Antam has begun an alumina refinery plant construction project through a joint venture with Indonesia Asashan Aluminium (Inalum), a state-owned aluminium producer. When completed, this plant will have a production capacity of 1 million tons of smelter-

grade alumina per annum.[8] Despite financial difficulties and uncertainties in conducting investment, these projects are being implemented to achieve the government's goal of strengthening Indonesia's downstream industries (Azly 2019; Sulaiman 2019).

Another central role was assigned to SOEs in the mining sector during the nationalization process of Freeport Indonesia. Freeport Indonesia, which was originally owned by US-based Freeport McMoRan, was nationalized in December 2018. Therefore, the government has become the majority owner of one of the world's largest copper and gold producers. After two years of negotiation, Inalum, which was made a state-owned holding company in the mining sector in 2017 (Kim 2018), became the largest shareholder of Freeport Indonesia, controlling 51.2 per cent of shares. Since nationalization, Freeport Indonesia has been implementing a development project for a copper smelter with a production capacity of 2–2.6 million tons (Inalum 2019).

SOE-led projects aiming to contribute to Indonesia's industrialization were also implemented in the fuel sector. Compared with the rapid increase in fuel consumption in Indonesia, the country's oil refining capacity halted at the end of the 1990s (Vahn et al. 2019). Indonesia's oil refining capacity increased rapidly from 0.4 million in 1980 to 0.8 million in 1990 to 1.0 million barrels a day in 1997. However, investment in this sector has been limited since the Asian financial crisis. In 1998–2014, the refining capacity was 1.0–1.1 million barrels a day (BP 2019). As fuel imports burdened the trade balance, the Jokowi government began to pursue a strategy of expanding oil refining capacity. The government strengthened the investment capacity of Pertamina, a state-owned energy company, by making it a holding company in 2018. Pertamina plans to increase investment to achieve the goal of increasing its refining capacity to 2 million barrels a day by 2025 (Sulaiman 2018).

4.4 Developing high-technology manufacturing

The Asian financial crisis halted the government's efforts to upgrade the manufacturing sector. In the 1980s the Indonesian government had pursued an SOE-centred plan to foster high-technology manufacturing. Despite the difficult fiscal situation after the oil boom, the government supported SOEs in the high-technology sectors. It perceived the development of these sectors as an important step in technological catch-up (McKendrick 1992). However, after the Asian financial crisis most of the development projects in high-technology manufacturing sectors stopped due to the government's limited financing capacity, followed by a resource boom that diverted the government's attention away from invigorating the manufacturing sector (Garnaut 2015; Hill 2015).

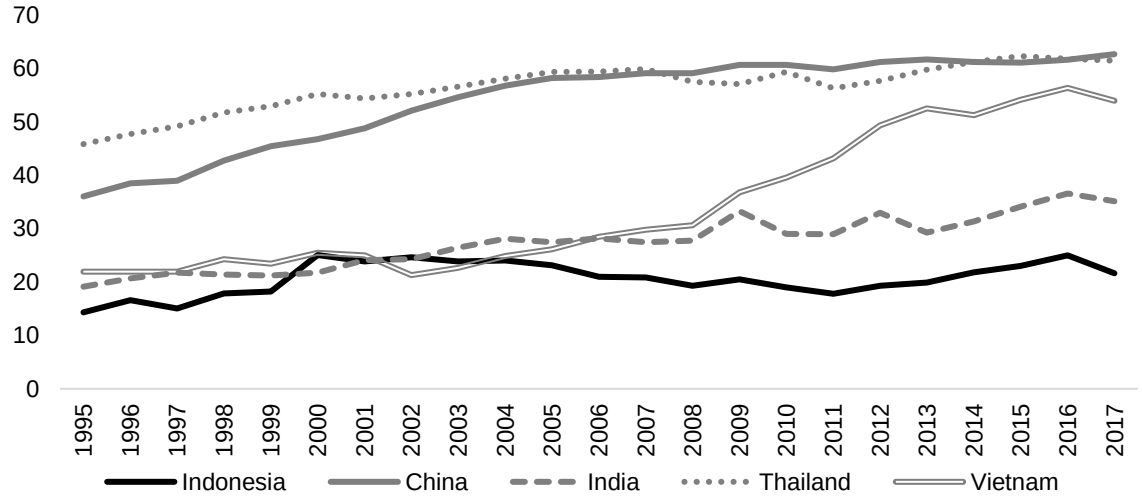
Currently, Indonesia lags substantially behind its developing-country peers in the competitiveness of high-technology industry. Figure 7 shows the share of high-/medium-skill and technology-intensive manufactures exports in total exports of selected Asian economies up to 2017. This share was just 21.6 per cent in Indonesia in 2017, which was only around a third of the share in China and Thailand. Indonesia even had a lower share than India and Vietnam—countries with a GDP per capita that is only around half of Indonesia's.

Facing this situation, the Jokowi government sought ways to invigorate manufacturing activities requiring a relatively high technology level. This decision was partially structural for the Indonesian government, which aimed to directly stimulate the manufacturing sector. While the government no longer owned sizeable firms in labour-intensive manufacturing sectors, it did own notable manufacturing companies in high-technology industries. For example, the government owned

[8] See www.antam.com.

SOEs that were producing aeroplanes, ships, railway rolling stock, weapons, and medicines. These SOEs required capacities beyond Indonesia's current comparative advantage, and investment in these SOEs involved significant risks. The government pursued the following strategies by providing various financial and regulatory support to these SOEs.

Figure 7: High-/medium-skill and technology-intensive manufactures exports in major Asian developing countries (% of total exports)



Source: Authors' construction based on UNCTAD (n.d.).

First, the government saw an opportunity in the substantial demand created by the country's infrastructure boom. As many SOEs in the manufacturing sector produce transportation equipment, the government believed that procurement related to infrastructure projects could provide valuable experience to these SOEs.[9] A key beneficiary of the infrastructure boom was Industri Kereta Api, or INKA, which produced trains for the LRT projects in Palembang and Greater Jakarta (Jakarta Post 2018b). Second, the government realized that increasing the local content of complex manufacturing products was key in upgrading the industry. Therefore, it emphasized the importance of SOEs in the manufacturing sector sourcing components from domestic producers (Kementerian Perindustrian 2017). The government perceived that increasing the local content of these products would strengthen the spillover effects and contribute to the development of private manufacturing firms. Third, the government pressured SOEs in the manufacturing sector to increase their exports. These SOEs targeted exporting to 'non-traditional' markets or relatively under-explored developing countries with the help of the Indonesian export–import bank (Indonesia Eximbank 2019; Jakarta Post 2018a). As of 2019, Dirgantara Indonesia planned to triple aircraft production by 2024 and to export half of its first domestically developed aeroplanes, which were close to obtaining certification (Suhartono and Dahrul 2019).

5 Conclusion

This paper argues that the slowdown in productivity-enhancing structural transformation is an important contributor to the recent spread of state capitalism in the developing world. Insufficient attention has been afforded to the link between the recent resurgence of state capitalism and

[9] The infrastructure construction boom also created demand for state enterprises that manufacture basic inputs such as cement and steel.

emerging economies' development challenges. This paper argues that issues related to premature de-industrialization are leading many developing countries to consider placing state-owned entities at the centre of national development strategies.

The paper has demonstrated that the Indonesian government has begun to actively mobilize diverse state-owned entities, with the aim of reviving industrialization (Table 4). The Indonesian government has focused on constructing infrastructure, invigorating downstream in the resource sector, and stimulating high-technology manufacturing sectors. This paper has not discussed the development impact of this strategy in detail, as many of the SOE-led projects are long term in nature—which is precisely why private investment has been subdued in these areas throughout the previous decade. Considering the many institutional and technical challenges entailed in implementing these projects, further research could focus on the effects of the SOE-led strategy on Indonesia's development and, more precisely, on the country's re-industrialization. An analysis of how monitoring mechanisms and performance conditionalities affect Indonesia's state-owned entities would also support analysis of the strategy's effectiveness. Such research may require integrating the theories that support the reduction of the state's economic role; these theories include principal–agent problems, free-rider problems, soft-budget constraint, and crowding-out effects. However, the analysis could take an approach that is more balanced compared with approaches taken in the past; namely, the analysis could weigh the positive and negative aspects of state-owned entities and also consider what institutional and policy designs are appropriate to overcome the challenges that these theories highlight (Musacchio et al. 2015).

Table 4: Indonesia's state-owned entity-centred re-industrialization strategy

	State enterprises in strategic industries	State financial institutions	State infrastructure companies	State co-ordinators
Infrastructure provision		Infrastructure bank, land bank, commercial banks	Utilities, infrastructure operators, construction firms	Infrastructure bank
Downstream production	Mining, oil, and gas companies	Commercial banks		Holding companies in mining and energy sectors
High-technology manufacturing	Transportation equipment manufacturers	Export–import bank, commercial banks	Infrastructure operators (creates demand)	

Source: Authors' construction.

While policy incoherence and implementation difficulties are expected and require attention, observers should be cautious in quickly concluding that the SOE-centred strategy is an outright failure when these features become apparent. Trial-and-error processes and experimentalism are important features of successful state economic activism. These features have also been found in advanced countries in their attempts to stimulate sectoral growth and technology advancement. It is important to note that the success of this strategy also needs to be judged in terms of the capacity-building and spillover effects of state-owned entities, and not just based on the outcomes of specific projects. Explicit acknowledgement of these issues, and suggestions for innovative ways to measure diverse goals, should be reflected in research on projects led by state-owned entities (Klingler-Vidra 2018; Mazzucato 2014; Weiss 2014).

This paper argues that state-owned entities could be important policy tools for developing countries aiming to revive industrialization.[10] Of course, it does not argue that the mobilization of state-owned entities is the only way to solve some of the market failures and capture economic opportunities, but rather that state-owned entities can play an important role in countries where the private sector and the financial market are underdeveloped and risk-averse. Compared with certain trade and investment regulations, significant policy space is available to use state-owned entities for stimulating structural transformation. Although the availability of capable state-owned entities and the government's ability to explore the policy space differ considerably across developing countries, the state capitalist policy tools should be considered seriously when formulating national development strategies. Related to this point, comparative studies on the political settlements that enable the developmental use of state-owned entities and bureaucratic risk-taking would allow researchers to strengthen understanding of the relationship between the resurgence of state capitalism and the challenges of stimulating structural transformation.

References

Aggarwal, V., and S. Evenett (2010). 'Financial Crisis, "New" Industrial Policy, and the Bite of Multilateral Trade Rules'. *Asian Economic Policy Review*, 5(2): 221–44. http://dx.doi.org/10.1111.

Alhashel, B. (2015). 'Sovereign Wealth Funds: A Literature Review'. *Journal of Economics and Business*, 78: 1–13. DOI: 10.1016/j.jeconbus.2014.10.001.

Amsden, A. (1989). *Asia's Next Giant: South Korea and Late Industrialization*. New York: Oxford University Press.

Andreoni, A., and H. Chang (2016). 'Industrial Policy and the Future of Manufacturing'. *Economia e Politica Industriale*, 43(4): 491–502. http://dx.doi.org/10.1007/s40812-016-0057-2.

Andreoni, A., and H. Chang (2019). 'The Political Economy of Industrial Policy: Structural Interdependencies, Policy Alignment and Conflict Management'. *Structural Change and Economic Dynamics*, 48: 136–50. https://doi.org/10.1016/j.strueco.2018.10.007.

Andreoni, A., H. Chang, and R. Scazzieri (2019). 'Industrial Policy in Context: Building Blocks for an Integrated and Comparative Political Economy Agenda'. *Structural Change and Economic Dynamics*, 48: 1–6. https://doi.org/10.1016/j.strueco.2018.11.003.

Aspinall, E. (2016) 'New Nationalism in Indonesia'. *Asia & the Pacific Policy Studies*, 3(1): 72–82. https://doi.org/10.1002/app5.111.

Aswicahyono, H., H. Hill, and D. Narjoko (2013) 'Indonesian Industrialization: A Latecomer Adjusting to Crises'. In A. Szirmai, W. Naudé, and L. Alcorta (eds), *Pathways to Industrialization in the Twenty-First Century: New Challenges and Emerging Paradigms*. Oxford: Oxford University Press. https://doi.org/10.1080/00220380903318087.

Azly, E. (2019). 'PT Inalum Constructing Alumina Refinery Plant in West Kalimantan'. *Antara*, 18 May.

[10] In the case of Indonesia, the ability to *directly* expand manufacturing employment is expected to be limited, as most manufacturing SOEs are in capital-intensive sectors. It remains to be seen how the SOE-led infrastructure development and state-directed financing may *indirectly* contribute to manufacturing employment.

Baldwin, R., and S. Evenett (2009). 'Introduction and Recommendations for the G20'. In R. Baldwin, and S. Evenett (eds), *The Collapse of Global Trade, Murky Protectionism and the Crisis: Recommendations for the G20*. London: VoxEU.org.

Basri, M. (2017). 'India and Indonesia: Lessons Learned from the 2013 Taper Tantrum'. *Bulletin of Indonesia Economic Studies*, 53(2): 137–60. https://doi.org/10.1080/00074918.2017.1392922.

Block, F. (2008). 'Swimming Against the Current: The Rise of a Hidden Developmental State in the United States'. *Politics & Society*, 36(2): 169–206. https://doi.org/10.1177/0032329208318731.

BP (2019). *BP Statistical Review of World Energy*, 68th edition. London: BP.

Bremmer, I. (2010). *The End of the Free Market: Who Wins the War between States and Corporations?* London: Portfolio.

Bruton, G., M. Peng, D. Ahlstrom, C. Stan, and K. Xu (2015). 'State-Owned Enterprises around the World as Hybrid Organizations'. *Academy of Management Perspectives*, 29(1): 92–114. DOI: 10.5465/amp.2013.0069.

Carney, R. (2018). *Authoritarian Capitalism: Sovereign Wealth Funds and State-Owned Enterprises in East Asia and Beyond*. Cambridge: Cambridge University Press.

Chang, H. (2002). *Kicking Away the Ladder: Development Strategy in Historical Perspective*. London: Anthem Press.

Chang, H. (2007). 'State-Owned Enterprise Reform'. National Development Strategies Policy Notes. New York: United Nations.

Chelminski, K. (2018). 'Fossil Fuel Subsidy Reform in Indonesia: The Struggle for Successful Reform'. In J. Skovgaard and H. van Asselt (eds), *The Politics of Fossil Fuel Subsidies and Their Reform*. Cambridge: Cambridge University Press.

Cherif, R., and F. Hasanov (2019). 'The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy'. IMF Working Paper WP/19/74. Washington, DC: International Monetary Fund.

Chua, B. (2016). 'State-Owned Enterprises, State Capitalism and Social Distribution in Singapore'. *The Pacific Review*, 29(4): 499–521. https://doi.org/10.1080/09512748.2015.1022587.

Cuervo-Cazurra, A. (ed.) (2018). *State-Owned Multinationals: Governments in Global Business*. Cham: Palgrave Macmillan.

Davidson, J. (2015). *Indonesia's Changing Political Economy: Governing the Roads*. Cambridge: Cambridge University Press.

De Luna-Martinez, J., C. Vicente, A. Arshad, R. Tatucu, and J. Song (2018). *2017 Survey of National Development Banks*. Washington, DC: World Bank Group.

Evenett, S., and J. Fritz (2018a). *Brazen Unilateralism: The US–China Tariff War in Perspective* (The 23rd Global Trade Alert Report). London: CEPR Press.

Evenett, S. and J. Fritz (2018b). *The Global Trade Alert Database Handbook*. London: CEPR Press.

Felipe, J. (ed.) (2015). *Development and Modern Industrial Policy in Practice*. Cheltenham: Edward Elgar Publishing.

Ferguson, N. (2012). 'We're All State Capitalists Now'. *Foreign Policy*, 9 February.

Garnaut, R. (2015). 'Indonesia's Resources Boom in International Perspective: Policy Dilemmas and Options for Continued Strong Growth'. *Bulletin of Indonesian Economic Studies*, 51(2): 189–212. https://doi.org/10.1080/00074918.2015.1061910.

Grabel, I. (2017). *When Things Don't Fall Apart: Global Financial Governance and Development Finance in an Age of Productive Incoherence*. Cambridge, MA: MIT Press.

Gu, J., Z. Chuanhong, A. Vaz, and L. Mukwereza (2016). 'Chinese State Capitalism? Rethinking the Role of the State and Business in Chinese Development Cooperation in Africa'. *World Development*, 81: 24–34. DOI: 10.1016/j.worlddev.2016.01.001.

Gunawan, A. (2019). *Indonesia' Economic Outlook 2019 and Key Economic Challenges*. Jakarta: Bank Mandiri.

Hill, H. (2015). 'The Indonesian Economy during the Yudhoyono Decade'. In E. Aspinall, M. Mietzner, and D. Tomsa (eds), *The Yudhoyono Presidency: Indonesia's Decade of Stability and Stagnation*. Singapore: ISEAS Publishing.

Inalum (2019). 'Completion of PT Freeport Indonesia (PTFI) Divestment Process and Issuance of IUPK as Substitute of PTFI's Contract of Work'. *Inalum News*, 4 January.

Indonesia Eximbank (2019). *2018 Annual Report: Unlocking Developmental Potential, Expanding Export Boundaries*. Jakarta: Indonesia Eximbank.

Jakarta Post (2018a). 'Government Pushes for SOEs to Boost Exports'. *Jakarta Post*, 7 September.

Jakarta Post (2018b). 'PT Inka Manufactures 31 Driverless Trains for LRT'. *Jakarta Post*, 28 September.

Jarvis, D. (2012). 'The Regulatory State in Developing Countries: Can It Exist and Do We Want It? The Case of the Indonesian Power Sector'. *Journal of Contemporary Asia*, 42(3): 464–92. https://doi.org/10.1080/00472336.2012.687633.

Johan, S., A. Knill, and N, Mauck (2013). 'Determinants of Sovereign Wealth Fund Investment in Private Equity vs Public Equity'. *Journal of International Business Studies*, 44(2): 155–72. http://dx.doi.org/10.2139/ssrn.2181130.

Kalinova, B., A. Palerm, and S. Thomsen (2010). 'OECD's FDI Restrictiveness Index: 2010 Update'. OECD Working Papers on International Investment 2010/03. Paris: OECD Publishing.

Kementerian Badan Usaha Milik Negara (2017). *Kiprah BUMN Membangun Negeri: Proyek Strategis Nasional BUMN Tahun 2017*. Jakarta: Kementerian Badan Usaha Milik Negara.

Kementerian Badan Usaha Milik Negara (2018). *Sinergi Wujudkan Pembangunan Negeri Berkelanjutan Laporan Tahunan 2017*. Jakarta: Kementerian Badan Usaha Milik Negara.

Kementerian Badan Usaha Milik Negara (2019). *BUMN Semakin Nyata Kehadirannya: Hadir Untuk Terus Membangun Indonesia*. Jakarta: Kementerian Badan Usaha Milik Negara.

Kementerian Perindustrian (2017). *Karya Indonesia Kina Edisi 01 2017*. Jakarta: Kementerian Perindustrian.

Kim, K. (2018). 'Matchmaking: Establishment of State-Owned Holding Companies in Indonesia'. *Asia & the Pacific Policy Studies*, 5(2): 313–30. https://doi.org/10.1002/app5.238.

Kim, K. (2019a). 'Indonesia's Restrained State Capitalism: Development and Policy Challenges'. *Journal of Contemporary Asia*, advance online publication. https://doi.org/10.1080/00472336.2019.1675084.

Kim, K. (2019b). 'The State as a Patient Capitalist: Growth and Transformation of Indonesia's Development Financiers'. *Pacific Review*, advance online publication. https://doi.org/10.1080/09512748.2019.1573266.

Kim, K. (2019c). 'Using Partially State-Owned Enterprises for Development in Indonesia'. *Asia Pacific Business Review*, 25(3): 317–37. https://doi.org/10.1080/13602381.2019.1575660.

Kim, K., A. Sumner, and A. Yusuf. (2019). 'Is Structural Transformation-Led Economic Growth Immiserizing or Inclusive? The case of Indonesia'. In P. Shaffer, R. Kanbur, and R. Sandbrook (eds), *Immiserizing Growth: When Growth Fails the Poor*. Oxford: Oxford University Press.

Klingler-Vidra, R. (2018). *The Venture Capital State: The Silicon Valley Model in East Asia*. Ithaca, NY: Cornell University Press.

Kowalski, P., and K. Perepechay (2015). 'International Trade and Investment by State Enterprises'. OECD Trade Policy Papers 184. Paris: OECD Publishing. https://doi.org/10.1787/5jrtcr9x6c48-en.

Kowalski, P., M. Büge, M. Sztajerowska, and M. Egeland (2013). 'State-Owned Enterprises: Trade Effects and Policy Implications'. OECD Trade Policy Papers 147. Paris: OECD Publishing.

Kring, W., and K. Gallagher (2019). 'Strengthening the Foundations? Alternative Institutions for Finance and Development'. *Development and Change*, 50(1): 3–23. https://doi.org/10.1111/dech.12464.

Kurlantzick, J. (2016). *State Capitalism: How the Return of Statism Is Transforming the World*. New York: Oxford University Press.

Liang, H., B. Ren, and S. Sun (2015). 'An Anatomy of State Control in the Globalization of State-Owned Enterprise'. *Journal of International Business Studies*, 46(2): 223–40. DOI: 10.1057/jibs.2014.35.

Lin, J., and H. Chang (2009). 'Should Industrial Policy in Developing Countries Conform to Comparative Advantage or Defy It? A Debate between Justin Lin and Ha-Joon Chang'. *Development Policy Review*, 27(5): 483–502. https://doi.org/10.1111/j.1467-7679.2009.00456.x.

Mazzucato, M. (2013). *The Entrepreneurial State: Debunking Public vs Private Sector Myths*. London: Anthem.

McCawley, P. (2015). 'Infrastructure Policy in Indonesia 1965–2015: A Survey'. *Bulletin of Indonesian Economic Studies*, 51(2): 263–85. https://doi.org/10.22146/jieb.6299.

McCawley, P. (2019). 'Jokowi Bets on an Infrastructure Boom'. *East Asia Forum*, 10 April.

McKendrick, D. (1992). 'Obstacles to "Catch-Up": The Case of the Indonesian Aircraft Industry'. *Bulletin of Indonesian Economic Studies*, 28(1): 39–66. DOI:10.1080/00074919212331336124.

McMillan, M., D. Rodrik, and I. Verduzco-Gallo (2014). 'Globalization, Structural Change, and Productivity Growth, with an Update on Africa'. *World Development*, 63: 11–32. https://doi.org/10.1016/j.worlddev.2013.10.012.

Meckling, J., and J. Nahm (2018). 'When Do States Disrupt Industries? Electric Cars and the Politics of Innovation'. *Review of International Political Economy*, 25(4): 505–29.

Megginson, W., and V. Fotak (2015). 'Rise of the Fiduciary State: A Survey of Sovereign Wealth Fund Research'. *Journal of Economic Surveys*, 29(4): 733–78. http://dx.doi.org/10.1111/joes.12125.

Megginson, W., M. You, and L. Han (2013). 'Determinants of Sovereign Wealth Fund Cross-Border Investments'. *The Financial Review*, 48(4): 539–72. https://doi.org/10.1111/fire.12015.

Musacchio, A., and S. Lazzarini (2014). *Reinventing State Capitalism: Leviathan in Business, Brazil and Beyond*. Cambridge, MA: Harvard University Press.

Musacchio, A., S. Lazzarini, and R. Aguilera (2015). 'New Varieties of State Capitalism: Strategic and Governance Implications'. *The Academy of Management Perspectives*, 29(1): 115–31. https://doi.org/10.5465/amp.2013.0094.

Naqvi, N., A. Henow, and H. Chang (2018). 'Kicking Away the Financial Ladder? German Development Banking under Economic Globalisation'. *Review of International Political Economy*, 25(5): 672–98. DOI: 10.1080/09692290.2018.1480515.

Narjoko, D. (2014). 'Did Better Firms Enter the Indonesian Manufacturing Sector after the 1997–98 Crisis?' *Bulletin of Indonesian Economic Studies*, 50(3): 371–91. DOI: 10.1080/00074918.2014.980379.

Nem Singh, J., and G. Chen (2018). 'State-Owned Enterprises and the Political Economy of State–State Relations in the Developing World'. *Third World Quarterly*, 39(6): 1077–97. DOI: 10.1080/01436597.2017.1333888.

Noman, A., and J. Stiglitz (eds) (2017). *Efficiency, Finance, and Varieties of Industrial Policy: Guiding Resources, Learning, and Technology for Sustained Growth*. New York: Columbia University Press.

OECD (2015). *State-Owned Enterprise in the Development Process*. Paris: OECD Publishing.

OECD (2016). *Broadening the Ownership of State-Owned Enterprises: A Comparison of Governance Practices*. Paris: OECD Publishing.

OECD (2017). *The Size and Sectoral Distribution of State-Owned Enterprises*. Paris: OECD Publishing.

Page, J., and F. Tarp (eds.) (2017). *The Practice of Industrial Policy: Government–Business Coordination in Africa and East Asia*. Oxford: Oxford University Press.

Pellizzola, L. (2017). 'Introducing Sovereign Wealth Funds'. In B. Bortolotti (ed.), *Sovereign Wealth Fund Annual Report 2016: Hunting Unicorns*. Milan: Bocconi University Sovereign Investment Lab.

PwC Indonesia (2018). *Mining in Indonesia: Investment and Taxation Guide*, 10th Edition. Jakarta: PwC Indonesia.

Republik Indonesia (2014). *Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2015–2019*. Jakarta: Republik Indonesia.

Resosudarmo, B., and A. Yusuf (2009). 'Survey of Recent Developments'. *Bulletin of Indonesian Economic Studies*, 45(3): 287–315. https://doi.org/10.1080/00074910903301639.

Rodrik, D. (2008). 'Normalizing Industrial Policy'. Commission on Growth and Development Working Paper 3. Washington, DC: World Bank.

Rodrik, D. (2016). 'Premature Deindustrialization'. *Journal of Economic Growth*, 21: 1–33. https://doi.org/10.1007/s10887-015-9122-3.

Rowden, R. (2018). 'A Review of the SPERI Series, "Revisiting the Developmental State"'. Sheffield Political Economy Research Institute Blog, 6 April.

Salazar-Xirinachs, J., I. Nübler, and R. Kozul-Wright (eds) (2014). *Transforming Economies: Making Industrial Policy Work for Growth, Jobs and Development*. Geneva: ILO.

Sekretariat Kabinet Republik Indonesia (2018). *Laporan 4 Tahun Pemerintahan Joko Widodo—Jusuf Kalla*. Jakarta: Sekretariat Kabinet Republik Indonesia.

Singh, H. (2016). 'New Industrial Policy and Manufacturing: Options for International Trade Policy'. E15Initiative Policy Options Paper. Geneva: International Centre for Trade and Sustainable Development and World Economic Forum.

Singh, H., and R. Jose (2016). 'Industrial Policy and the WTO Rules-Based System'. E15Initiative Overview Paper. Geneva: International Centre for Trade and Sustainable Development and World Economic Forum.

Steenblik, R. (2009). 'Green Growth, Protectionism, and the Crisis'. In S. Evenett, B. Hoekman, and O. Cattaneo (eds), *Effective Crisis Response and Openness: Implications for the Trading System*. London: Centre for Economic Policy Research.

Storm, S. (2015). 'Structural Change'. *Development and Change*, 46(4): 666–99. https://doi.org/10.1111/dech.12169.

Suhartono, H., and F. Dahrul. (2019). 'Airbus Supplier in Indonesia Targets Composite Parts Orders'. *Bloomberg*, 13 May.

Sulaiman, S. (2018). 'Pertamina Says Refinery Plan on Schedule'. *Jakarta Post*, 2 August.

Sulaiman, S. (2019). 'Antam Races Against Time to Build Smelter'. *Jakarta Post*, 19 March.

Tang, W. (2019). 'SOE Infrastructure Development Drives Indonesia's Economy'. *Jakarta Post*, 25 February.

Thrasher, R., and K. Gallagher (2008). '21st Century Trade Agreements: Implications for Long-Run Development Policy'. The Pardee Papers 2. Boston: Boston University.

Tijaja, J., and M. Faisal (2014). 'Industrial Policy in Indonesia: A Global Value Chain Perspective'. ADB Economics Working Paper 411. Mandaluyong: Asian Development Bank.

UNCTAD (2015a). *International Classification of Non-Tariff Measures, 2012 Version*. Geneva: UNCTAD.

UNCTAD (2015b). *Investment Policy Framework for Sustainable Development*. Geneva: UNCTAD.

UNCTAD (2016). *The Role of Development Banks in Promoting Growth and Sustainable Development in the South*. Geneva: UNCTAD.

UNCTAD (2018). *World Investment Report 2018: Investment and New Industrial Policies*. Geneva: UNCTAD.

UNCTAD (n.d.). 'UNCTADStat'. Geneva: UNCTAD. Available at: https://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sCS_ChosenLang=en (accessed 29 January 2019).

UNIDO (2019). 'Database: CIP'. Vienna: UNIDO. Available at: https://stat.unido.org/database/CIP%202019 (accessed 29 January 2019).

Vahn, G., A. Nugraha, and M. Tan (2019). *Analysis: Indonesia's Trade Deficit Raises Urgency to Boost Refining Capacity*. Singapore: S&P Global Platts.

Wade, R. (1990a). *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*. Princeton, NJ: Princeton University Press.

Wade, R. (1990b). 'Industrial Policy in East Asia: Does it Lead or Follow the Market?'. In G. Gereffi, and D. Wyman (eds), *Manufacturing Miracles: Paths of Industrialization in Latin America and East Asia*. Princeton, NJ: Princeton University Press.

Wade, R. (2003). 'What Strategies Are Viable for Developing Countries Today? The World Trade Organization and the Shrinking of 'Development Space'. *Review of International Political Economy*, 10(4): 621–44. https://doi.org/10.1080/0969229031000160190 2.

Wade, R. (2012). 'Return of Industrial Policy?' *International Review of Applied Economics*, 26(2): 223–39. https://doi.org/10.1080/02692171.2011.640312.

Wade, R. (2016). 'Industrial Policy in Response to the Middle-Income Trap and the Third Wave of the Digital Revolution'. *Global Policy*, 7(4): 469–80. https://doi.org/10.1111/1758-5899.12364.

Warburton, E. (2017). 'Resource Nationalism in Indonesia: Ownership Structures and Sectoral Variation in Mining and Palm Oil'. *Journal of East Asian Studies*, 17(3): 285–312. https://doi.org/10.1017/jea.2017.13.

Warwick, K. (2013). 'Beyond Industrial Policy: Emerging Issues and New Trends'. OECD Science, Technology and Industry Policy Paper 2. Paris: OECD Publishing. https://doi.org/10.1787/23074957.

Weiss, L. (2010). 'The State in the Economy: Neoliberal or Neoactivist?' In G. Morgan, J. Campbell, C. Crouch, O. Pedersen, and R. Whitley (eds), *The Oxford Handbook of Comparative Institutional Analysis*. New York: Oxford University Press.

Weiss, L. (2014). *America Inc.? Innovation and Enterprise in the National Security State*. Ithaca, NY: Cornell University Press.

Willemyns, I. (2016). 'Disciplines on State-Owned Enterprises in International Economic Law: Are We Moving in the Right Direction?' *Journal of International Economic Law*, 19(3): 657–80. http://dx.doi.org/10.2139/ssrn.2731045 .

World Bank (2013). *Indonesia Economic Quarterly: Pressures Mounting (March 2013)*. Jakarta: World Bank.

World Bank (2014). *Indonesia: Avoiding the Trap*. Development Policy Review 2014. Jakarta: World Bank.

World Economic Forum (2019). 'The Global Competitiveness Index 4.0 2019 Dataset: Version 20191004'. Available at: http://www3.weforum.org/docs/GCR2018/GCI_4.0_2018_Dataset.xlsx (accessed 29 January 2019).

WTO (2019). 'Agreement on Government Procurement: Parties, Observers and Accessions'. www.wto.org/english/tratop_e/gproc_e/memobs_e.htm (accessed 29 January 2019).

Yasin, M. (2013). *BUMN dan Perekonomian Nasional*. Jakarta: Kementerian Badan Usaha Milik Negara.