National oil companies and fossil fuel subsidy regimes in transition: the case of Indonesia

Article  (Published Version)

Ichsan, Muhammad, Lockwood, Matthew and Ramadhani, Maghfira (2022) National oil companies and fossil fuel subsidy regimes in transition: the case of Indonesia. Extractive Industries and Society. a101104. ISSN 2214-790X

This version is available from Sussex Research Online: http://sro.sussex.ac.uk/id/eprint/106580/

This document is made available in accordance with publisher policies and may differ from the published version or from the version of record. If you wish to cite this item you are advised to consult the publisher’s version. Please see the URL above for details on accessing the published version.

Copyright and reuse:
Sussex Research Online is a digital repository of the research output of the University.

Copyright and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable, the material made available in SRO has been checked for eligibility before being made available.

Copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

http://sro.sussex.ac.uk
Original article

National oil companies and fossil fuel subsidy regimes in transition: The case of Indonesia

Muhammad Ichsan a, Matthew Lockwood b, *, Maghfira Ramadhani c

a Icenergy Institute, AD Premier Office Park, 9th floor, Jl. TB Simatupang No.5, RW.7, Ragunan, Kec. Pasar Minggu, South Jakarta, Jakarta Capital Special Region 12550, Indonesia
b Science Policy Research Unit, University of Sussex Business School, Falmer, Brighton BN1 9SN, United Kingdom
c Petroleum Engineering Department, Institut Teknologi Bandung, Ganesha 10, Bandung 40135, Indonesia

ARTICLE INFO

Keywords:
- Fossil fuel subsidies
- National oil companies
- Political economy
- Indonesia

ABSTRACT

It has long been recognised that national oil companies (NOCs) offer the means for funding and delivering fuel subsidies as a politically valuable good. But what happens when the oil begins to run out? Fiscal pressures will clearly increase, but there is also evidence that net importers with NOCs are still more likely to have subsidies than those without. A key question about countries moving through this transition is therefore whether and how the role of NOCs in the subsidy regime changes as the classic logic erodes. We examine these issues in a detailed case study of Indonesia, which became a net oil importer in the early 2000s. A series of partial reforms of FFS has followed, but subsidies remain and the NOC still plays a central role in their delivery. We find that certain functions of the NOC, such as obfuscating the fiscal cost of subsidies, have eroded. But increasing fiscal pressure has not so far overcome the political lock-in of subsidies and institutional inertia in the role of the NOC. Fundamental reform remains unlikely in the short term, but separating the upstream and downstream businesses of the NOC and changing its governance could help support that reform.

1. Introduction

The roles of national oil companies (NOCs) in pursuing political goals have long been recognised, along with associated problems of inefficiency and corruption (Aharoni and Ascher, 1998; Losman, 2010; Tordo et al., 2011; Ross, 2012). Such roles include providing a mechanism for off-budget spending, dispensing patronage, and building infrastructure, but primary amongst them has been providing resources for fossil fuel subsidies (FFS) (Victor, 2009; Cheon et al., 2015).

The classic logic linking NOCs to subsidies for oil products is that such large, state-owned enterprises (SOEs) involved in producing and exporting oil offer the means for both funding and delivering subsidies as a politically valuable good (Victor, 2009: 24). But what happens when the oil begins to run out, or as domestic consumption begins to outpace production, and countries become net importers at scale? There are some countries facing declining reserves, such as Angola and Mexico, but there are many more where consumption growth may outpace production. As the economic rent providing the basis for political rent begins to dry up, how does the role of the NOC and its connection to the subsidy regime change?

Fiscal pressures will clearly increase as net consumption of oil grows and the literature on FFS reform shows that fiscal crisis is one of the main triggers for reform (Rentschler and Bazilian, 2017; Vagliasindi, 2012). On the other hand, Cheon et al., (2015) provide evidence that net importers with NOCs are still more likely to have subsidies than those without, suggesting that the institutional role of NOCs is not simply dependent on domestic oil wealth. Key questions about countries moving through this transition are therefore how such dynamics work, i.e. how the relationship between governments and NOCs, and the role of NOCs in the subsidy regime, change as the classic logic erodes.

In this article, we examine these issues in the case of Indonesia. Indonesia was a large net oil exporter in the 1970s and 1980s, and the NOC, Pertamina, played an important role in the economy as well as in the dispensing of political patronage, including in the form of FFS. However, production plateaued in the 1980s and 1990s and from the early 2000s Indonesia became a net importer, and a long series of attempts at FFS reform followed (Chelminski, 2018). It therefore provides an ideal case for understanding the changing role of the NOC. The study is based on government and Pertamina documents and media reports in Bahasa Indonesia and English, and on a number of interviews with...
actors in the Indonesian government, the NOC, a specialized task force and a commission related to fuel business, and academics.

Not surprisingly, we find that the transition is a contested process, with different interests and forces acting for and against change. The role of the NOC is in part determined by governance arrangements (Luong and Weinthal, 2006), and the Indonesian story is shaped by an increased politicisation of the governance of the NOC linked to wider institutional reforms following the fall of Soeharto (Reformasi). We find that certain functions of the NOC, such as obfuscating the fiscal cost of subsidies, have eroded. But crucially, while fiscal pressure on the Indonesian government has increased, resource change has not so far overcome the political lock-in of subsidies and institutional inertia in the role of the NOC. While the government has tried to reassess control over the NOC and make it more efficient in certain ways, it has been reluctant to let go of its basic political functions.

The article makes several contributions. It adds to the considerable literature on fossil fuel subsidy reform in Indonesia by bringing in an analysis of the changing role of Pertamina and its relationship with the government as a supply side factor in the subsidy regime. At the same time, it adds to the literature on NOCs and their role in subsidy regimes by examining how these roles come under pressure and change as net resources from oil decline. As a detailed case study, the article also complements much of the research on the role of NOCs that takes the form of large N studies, while at the same time drawing out themes for other countries.

The rest of the paper is organised as follows. Section 2 locates the study in the literature on NOCs and fossil fuel subsidy regimes, and the methodological approach and sources are briefly described in Section 3. Section 4 gives an overview of FFS reforms since 2000. Sections 5 and 6 then look at the changing role of Pertamina in financing and delivering subsidies, and the emergence of groups in and around Pertamina with interests in the persistence of the subsidy regime, respectively. The key themes emerging from this analysis are discussed in Section 7, along with some implications of the Indonesian experience for our understanding of FFS and for the reform agenda.

2. Theoretical approach

There is now a considerable literature on FFS reform (for recent reviews see Rentschler and Bazilian, 2017; Skovgaard and van Asselt, 2019). Following Victor’s (2009) seminal contribution, much of this literature frames fuel subsidies, especially consumer subsidies, as a mechanism of political patronage used to maintain power by ruling elites, and tends to focus on public opposition as presenting the key challenge to reform (Skovgaard and van Asselt, 2019; Strand, 2013). However, there is also a body of research on the institutions through which subsidies are typically financed and fuel distributed to the public (Losman, 2010; Tordo et al., 2011; Ross, 2012). In most cases, consumer subsidies are delivered via SOEs. The bulk of subsidies are for road transport fuels, and so this often means a NOC. Today, NOCs control around 65% of oil reserves and 55% of production globally (IEA, 2020).

Victor’s original analysis pointed to NOCs as a key supply side factor for FFS, as they offer a ‘ready instrument for delivering politically valuable goods’ (2009: 24). Cheon et al., (2015) have subsequently provided strong evidence for this effect, showing that the presence of a NOC is positively associated with fossil fuel subsidies independently of other factors. Luong and Weinthal (2006) observe that the degree to which NOCs provide these functions also depends on governance arrangements, with NOCs with independent boards less likely to be associated with FFS.

The classic logic linking the presence of a NOC with FFS is that the former provides the economic rent that makes the use of FFS as political rent possible (Abaroni and Ascher, 1998). Crucially, when international oil prices rise, political demand for subsidies increases, but as price rises also increase the wealth and cash flow of NOCs, they can absorb the fiscal costs of higher subsidies (Cheon et al., 2015: 376). Because they typically span upstream oil production and downstream retailing, the costs of FFS in the latter can be disguised from legislative scrutiny by profits in the latter. The drawback of this arrangement from a commercial point of view is the diversion of resources from exploration and production.

However, these relationships raise the question of what happens as oil production begins to fall, or more widely relevant, as domestic consumption starts to outpace production and countries move from net exporter to net importer status. As the net economic rent providing the basis for political rent begins to dry up, how does the role of the NOC, its relationship with the state and its connection to the subsidy regime change? The literature on FFS reform shows clearly that fiscal crisis is one of the main triggers for reform (Rentschler and Bazilian, 2017; Vagliasindi, 2012), and fiscal pressures will clearly increase as oil production falls. On the other hand, Cheon et al.’s (2015) finding of correlation between NOC and FFS even when only net importers are considered suggests that the institutional role of NOCs is not simply dependent on domestic oil wealth.

Our approach to these questions is guided by an historical institutionalist approach that emphasises the importance of institutional path dependence and political lock-in (Steinmo and Thelen, 1992; Pierson, 2004). Fossil fuel subsidies lead actors to make investments that rely on low fuel prices, providing a source of positive feedback that locks the policy in since reform becomes politically difficult (Pierson 1993). Lock-in can be overcome by creating new positive feedback pathways through reform, such as offering compensation to losers, but it is a complex process (Lindvall, 2017). At the same time, the institutions and actors in the regime linking governments and NOCs that have benefitted during the net export phase will tend to oppose reform, even as the fiscal basis for the regime is eroding. Leaders who have traditionally used NOCs for a variety of political projects may find it hard to let go these roles. Where reforms do occur, we expect that they will tend to be where interests are weaker and where they have no formal veto powers.

3. Methodological approach and data sources

The focus here is on complex relationships between actors in institutions involving the use of power, so a qualitative case study is an appropriate methodological approach (Ercan and March, 2016). As a detailed case study, the article also complements much of the research on the role of NOCs that takes the form of large N studies (e.g. Cheon et al., 2015), while at the same time drawing out themes for other countries. The choice of Indonesia as a case is based its long history of both subsidising fossil fuels and attempting reform (Chelminski, 2018), while also having a large NOC, i.e. Pertamina. The focus is on the period from the early 2000s onwards since this is when Indonesia became a net oil importer, but there is a particular focus on the administration of Joko Widodo (Jokowi), since he came to power on a platform of reform.

The article is based on a mix of primary sources, including 30 company and government accounts, six agency reports and 36 legal documents, in both English and Bahasa Indonesia, as well as secondary sources, including 216 media reports. It also draws on semi-structured interviews with key actors conducted between late 2019 and late 2021. The interview guideline was prepared to fill gaps in information from the document reviews. Interviews included questions on overview of historical Indonesia’s downstream oil sector and the changing FFS regime and their capacity to fill information gaps. They include the Downstream Oil and Gas Regulator (BPH Migas), Pertamina, Reforminer Institute, Energy Study Center in Universitas Gadjah Mada, a former member of the oil and gas governance reform team (TRTKM), Ministry of Finance, and Commission for the Corruption Eradication (KPK). Some interviews with different persons under similar institutions and further informal interactions were conducted more than once to
collect more information and to further clarify the data.

4. Fossil fuel subsidies in Indonesia

Fuel subsidies have been present in Indonesia for decades. They rose sharply under the Soeharto regime in the 1970s, but were cut in 1982 due to a dip in oil production and resulting fiscal pressures (Barnes, 1995). The centralisation of political authority under Soeharto allowed him to drive reform through (Lockwood, 2015). However, this authority eroded over time, and by the time of the Asian Financial Crisis in 1997-1998 further reforms imposed as part of an IMF programme led to sharp increases in the prices of kerosene, diesel, and gasoline, and triggered the protests that eventually led to his downfall (Mydans, 1998; Beaton and Lontoh, 2010). The fall of Soeharto ingrained a deep fear of backlash against fuel subsidy reforms in his successors.

Despite this, the pressure to reform increased as Indonesia became a net oil importer by the early 2000s (Fig. 1). The country had been a large net exporter of crude in the 1970s and 1980s, and although it had little domestic refining capacity and imported final products, the balance of trade was clearly positive. However, after growing rapidly through the 1960s, production then plateaued, before beginning to decline from the mid-1990s. At the same time, Indonesia’s economic growth record meant that consumption rose consistently, exceeding production by around 2003.

Thus from the late 1990s onwards, there were renewed fiscal pressures on the Indonesian government to reduce subsidy costs (Dartanto, 2013). Under successive presidents Abdurrahman Wahid, Megawati, and Yudhoyono a series of fuel subsidy reforms were implemented, with varying degrees of success (Table 1).

Attempts to increase road transport fuel prices in 2003 were abandoned after violent protests (Clements et al., 2007; Beaton and Lontoh, 2010). In 2005 major cuts to subsidies were once again introduced, but this time with less opposition, potentially because of the introduction of a compensatory social assistance programme for low-income households (Chelminski, 2018). In 2007, Yudhoyono’s administration took the approach of introducing subsidized LPG to substitute subsidized kerosene. As international oil prices peaked in 2008, further major fuel price increases were brought in, again with a cash transfer programme for poorer households (Beaton and Lontoh, 2010). The global recession following the 2008-09 financial crisis depressed demand and prices dropped, along with subsidy expenditure, before rising again in the recovery. However, a following set of reforms in 2012 were less successful and were met with violent demonstrations.

These attempts were complicated by political reforms after the fall of Soeharto (Reformasi) that saw democratization and a decentralisation of political power. These reforms did not end patronage but rather decentralised it, meaning that the central state has had less control over corruption and over interest groups in society. These changes have arguably made FFS reform more difficult and made offers of alternative, compensating forms of redistribution less credible (Lockwood 2015).

As part of these political reforms, the role and authority of the Indonesian parliament and its relationship with the government were restructured several times between 1998 and 2004, when direct presidential elections were finally held for the first time in Indonesian history (Kawamura, 2013). Under the pluralist party system, Presidents are reliant on developing a coalition in order to implement their policy programs (Kawamura, 2013), and patronage sometimes characterises the relationship between the executive and parliamentarians (e.g. Mietzner, 2007).

These arrangements mattered for FFS reform because fuel subsidy plans fell under the annual state budget, which in turn had to be ratified by parliament. When Presidents have had a strong popular mandate, this has not been so much of an issue, but it was for the Yudhoyono administration in 2012 when many parties were reluctant to back FFS reform on the grounds that it would be unpopular. In late 2014, along with another round of FFS reforms, the new Jokowi administration reasserted the power of the executive by giving government direct authority to set prices for subsidized fuels without the need for parliamentary approval.2

FFS reforms under Jokowi in late 2014 benefitted from a slump in international oil prices that more than halved from $113/bbl in June 2014 to US$48/bbl in January 2015.3 This meant the Jokowi administration could set economic domestic prices for diesel and gasoline without fear of backlash. Government expenditure on fuel subsidies plummeted from almost 11% of the budget in 2014 to 2.7% in 2016 (Fig. 2). Retail prices of gasoline and diesel were then regularly updated every three months based on the government’s evaluation of international oil prices.4 However, from early 2016 the trend reversed, and in April the government froze domestic prices for gasoline and diesel even as international prices began to soar (Fig. 3).5

5. The changing role of Pertamina in the FFS regime

A central role in funding and delivering the Indonesian FFS regime has been played by the country’s NOC, Pertamina. While its roots go back to the 1950s, the current form of the company was established in 1968. Pertamina has been a key source of economic rent in the Indonesian context for decades. Even in 2008, well after production had been in decline, the company provided almost half of all dividends from Indonesian SOEs. Although this dominance subsequently declined, in 2018 it still produced Rp120.8 trillion (US$9.1bn) in taxes and corporate dividends to the government (Pertamina, 2019). Pertamina, and SOEs more broadly, have also provided the government with a slush fund to finance unbudgeted expenditures in industrial development and infrastructure (Bremmer, 2009, Dick and Mulholland, 2010).

Pertamina has been the delivery agent for consumer subsidies for road transport fuels. Gasoline in Indonesia is sold under various brand names differentiated by quality. Subsidized gasoline sold by Pertamina is known as Premium (RON88), and subsidized diesel is known as Solar (CN48). There are in addition a number of higher quality but more expensive fuels, whose prices are also controlled. From independence up to the early 2000s, Pertamina enjoyed a monopoly in the growing downstream market as the only business entity allowed by law to distribute fuels.6

Under pressure from the international financial institutions (IFIs) for reform of SOEs (Wicaksono, 2008), a liberalization process was started in 2001.7 A downstream oil and gas regulator (BPH Migas) was established in 2003 and the retail market was opened to competition in 2004.8 In November 2005, Shell began opening retail fueling stations for the first time. Other foreign oil companies such as Petronas, Total, Vivo and BP, and a national private company, AKR Corporindo, followed. However, progress in practice has been minimal. Over 15 years after liberalization, Pertamina still dominates the retail market with over 7,8

---

1 For example, in 2015 the head of the energy commission in the parliament, Sultan Batoegana, was convicted of corruption in requesting and receiving a bribe of US $140,000 from the special oil and gas work unit (SKK Migas) to smooth approval of its funding (CNN, 2016).

2 See Presidential Regulation No. 191/2014 on provision, distribution and determination of fuel retail prices.

3 Prices are for Brent Crude

4 See Presidential Regulation No. 191/2014 on provision, distribution and determination of fuel retail prices.

5 Officially, subsidy was withdrawn from gasoline (Premium), but its price was still frozen by the government.

6 See Law No. 8/1971 on oil and gas mining company

7 See Law No. 22/2001 on oil and gas

8 See Government Regulation No. 36/2004 on downstream oil and gas business activities
government began to open up opportunities for non-Pertamina companies to distribute subsidized fuels for areas outside Java and Bali. In 2003, Megawati attempted to link movements in domestic fuel prices and international prices, but public opposition halted the attempt. In 2005, Yudhoyono increased gasoline prices by 29 per cent in March and 114 per cent in October. Opposed by public, industry was no longer eligible to access subsidised diesel (Solar). In 2008, Yudhoyono increased prices in May by 33 per cent for gasoline (Premium), 28 per cent for diesel (Solar) and 25 per cent for kerosene. Gasoline and diesel prices were lowered in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2009, Yudhoyono lowered gasoline prices in January by 11 per cent, and diesel (Solar) by 7 per cent. 2010, Yudhoyono increased prices in December by 20 and 15 per cent, respectively, as international oil prices eased. 2011, Yudhoyono increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2012, Yudhoyono increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2013, Yudhoyono increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2014, Jokowi increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2015, Jokowi increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2016, Jokowi increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2017, Jokowi increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2018, Jokowi increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2019, Jokowi increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased. 2020, Jokowi increased prices in December by 20 and 15 per cent, respectively, allowing international oil prices eased.

With decreasing national oil reserves and production, Pertamina’s assets in the downstream sector over the last 15 years are almost twice as much than those upstream. However, the company’s profits from downstream activities have been significantly lower than those upstream (Fig. 4), which effectively cross-subsidizes the former. For many years, the company could absorb this cross-subsidisation, but as consumption has grown and production declined over the 2000s and 2010s, negative effects on its cash flow have grown significantly. Pertamina procures fuels at cost price, and then is supposed to be compensated by the state for sale of subsidised products on the basis of an agreed quota in the annual budget. However, since the disbursed subsidized fuels frequently exceed the allocated subsidy quota, full compensation is not always forthcoming by the end of the budget period. Pertamina then treats these dues as arrears from government in their annual financial reports. According to state auditing and budgeting processes, these arrears should be paid off fully by the government within two years, but Pertamina cannot charge interest on the arrears and has to bear all losses resulting from delayed payment.

Under various administrations, losses have also arisen from the sale of fuels that are not formally subsidized but are subject to direct price control. While Pertamina can in principle set prices for these fuels, government (and parliament before 2014) approval is still required, but which in some cases has not been forthcoming. For instance, a senior company figure stated in July 2013 that faced with difficulties in raising

---

**Table 1**

Selected fossil fuel subsidy reforms in Indonesia since 2003.

<table>
<thead>
<tr>
<th>Date</th>
<th>Presidency</th>
<th>Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>Megawati</td>
<td>Attempt made to link movements in domestic fuel prices and international prices – public opposition.</td>
</tr>
<tr>
<td>2005</td>
<td>Yudhoyono</td>
<td>Prices increased by 29 per cent in March and 114 per cent in October. Opposed by public.</td>
</tr>
<tr>
<td>2008</td>
<td>Yudhoyono</td>
<td>Prices increased in May by 33 per cent for gasoline (Premium), 28 per cent for diesel (Solar) and 25 per cent for kerosene. Gasoline and diesel prices were lowered in December by 20 and 15 per cent, respectively, as international oil prices eased.</td>
</tr>
<tr>
<td>2009</td>
<td>Yudhoyono</td>
<td>Prices lowered in January by 11 per cent for gasoline (Premium) and 7 per cent for diesel (Solar), leaving gasoline prices the same as diesel prices (close to 2005 levels).</td>
</tr>
<tr>
<td>2012</td>
<td>Yudhoyono</td>
<td>One-off price increase averaged 40 per cent; reversed after protests and opposed by Parliament</td>
</tr>
<tr>
<td>2014</td>
<td>Jokowi</td>
<td>Government initiated price increases of 31 per cent for gasoline (Premium) and 36 per cent for diesel (Solar).</td>
</tr>
<tr>
<td>2015</td>
<td>Jokowi</td>
<td>Premium and Solar prices updated regularly according to market prices. Subsidies for gasoline (Premium) were entirely removed from the state budget, but low oil prices result in a price decline of 12 per cent. Diesel (Dolar) subsidies reduced to IDR 1,000 per litre.</td>
</tr>
<tr>
<td>2016</td>
<td>Jokowi</td>
<td>Gasoline (Premium) and diesel (Solar) prices frozen while international oil price rises</td>
</tr>
<tr>
<td>2022</td>
<td>Jokowi</td>
<td>Premium distribution removed from domestic market. Pertalite considered as assigned fuel, replacing Premium. Price control over Pertamax relaxed.</td>
</tr>
</tbody>
</table>

Source: Chelminksi 2018 and authors

000 fueling stations (Pertamina, 2020) compared with 284 operated by other companies. With the exception of AKR Corporindo, most non-Pertamina fueling stations are located in urban areas such as Jakarta and its satellite cities, and East Java. A new attempt to promote competition specifically in subsidized fuel distribution emerged in the early 2010s. From 2011 the Yudhoyono government began to open up opportunities for non-Pertamina companies to distribute subsidized fuels for areas outside Java and Bali through a tender process. Observers believed that this unprecedented step was taken in response to the increasing number of subsidized fuel smuggling cases happening under Pertamina’s monopoly (see below and Kompas, 2009). With the contribution of the oil and gas sector to state revenues waning, there was also increased pressure to distribute subsidies more effectively to targeted groups on the lowest income. But again progress was quite slow. In 2012, of more than 38 billion liters of subsidized fuel allocated, the quota for non-Pertamina companies (i.e., AKR Corporindo and Petronas) was less than 0.4% (Detik, 2011), falling to less than 0.15% by 2014 (BPH Migas, 2014).

Pertamina’s continuing dominance despite new market arrangements has been due to two factors. First, in the non-urban areas, with extensive infrastructure, from refineries, storages to fueling stations, in place at the time of liberalization, Pertamina has benefited from economies of scale. Effective competition has been difficult, especially outside cities where financial risks are higher. Second, in urban areas such as Java and Bali, Pertamina has been the only company permitted to sell subsidized fuels (Detik, 2014).

With decreasing national oil reserves and production, Pertamina’s assets in the downstream sector over the last 15 years are almost twice as much than those upstream. However, the company’s profits from downstream activities have been significantly lower than those upstream (Fig. 4), which effectively cross-subsidizes the former. For many years, the company could absorb this cross-subsidisation, but as consumption has grown and production declined over the 2000s and 2010s, negative effects on its cash flow have grown significantly. Pertamina procures fuels at cost price, and then is supposed to be compensated by the state for sale of subsidised products on the basis of an agreed quota in the annual budget. However, since the disbursed subsidized fuels frequently exceed the allocated subsidy quota, full compensation is not always forthcoming by the end of the budget period. Pertamina then treats these dues as arrears from government in their annual financial reports. According to state auditing and budgeting processes, these arrears should be paid off fully by the government within two years, but Pertamina cannot charge interest on the arrears and has to bear all losses resulting from delayed payment.

Under various administrations, losses have also arisen from the sale of fuels that are not formally subsidized but are subject to direct price control. While Pertamina can in principle set prices for these fuels, government (and parliament before 2014) approval is still required, but which in some cases has not been forthcoming. For instance, a senior company figure stated in July 2013 that faced with difficulties in raising

---

See Regulation of Minister of the Energy and Mineral Resources No. 16/2011 on fuel delivery activities
the price of nonsubsidized LPG, Pertamina had to bear losses amounted to more than Rp 28 trillion since 2008 (Detik, 2013). Recently, in 2021, Pertamina has been facing losses as much as Rp 3,000 per liter of Pertalite (one of types of non-subsidized gasoline) as it cannot adjust the prices to increasing global oil prices without government approval (CNBC, 2021).

With the Jokowi subsidy reforms and the collapse in the global oil price in 2014-15, Pertamina’s downstream business was able to sell previously subsidized fuels at prices that covered costs, moving it into a significant positive profit position (Fig. 4). Subsidy for Pertamina’s gasoline product (Premium) was phased out altogether, although the price remained controlled. At the same time the government instructed Pertamina to make Premium an ‘assigned’ fuel, guaranteeing its availability in Pertamina’s fuelling stations in all regions outside of Java, Madura and Bali (Jamali).

But as the international oil price decline reversed, the financial situation of Pertamina’s downstream businesses began to deteriorate again. From April 2016, the government stopped updating Pertamina’s prices for Premium and Solar (Fig. 3). With subsidies per litre fixed for Solar and price control for fuels still in place, the company’s cashflow was disrupted. Pertamina withdrew Premium distribution in Jamali where it could under the terms of the assigned fuel deal. However,
public protest against the scarcity of fuel in Jamali then led the government to instruct Pertamina to guarantee the supply of Premium in all its fuelling stations in 2018.\(^{11}\)

Pertamina’s profitability was also affected by the introduction of the ‘One Price Fuel’ policy in November 2016.\(^{12}\) This was a Jokowi flagship policy aimed at ensuring the distribution of Solar and Premium at a single price across Indonesia, including 500 remote areas, by 2024. Jokowi claimed that One Price Fuel would improve the affordability of subsidized fuels for people in rural areas, where prices varied from Rp 7,000 to 100,000/litre (BPH Migas & ESDM, 2019). However, these huge price differences largely reflected poor infrastructure in more remote areas, including the absence of roads, pipelines and storage facilities (Ichsan et al., 2021). Without the allocation of a supporting budget from government, the assigned companies (Pertamina and AKR Corporindo) were forced to invest in infrastructure directly. In some cases, where the cost of such infrastructure was prohibitive, the companies resorted to extremely expensive short-term measures such as transporting fuel to remote regions by air (Deltik, 2018).

The government claimed to have indirectly compensated Pertamina by allowing it to take over the management of several important oil and gas fields in Indonesia, including the Mahakam Blok in East Kalimantan (CNBC, 2018). The government also introduced a new mechanism in 2018 called the ‘compensation for retail selling price difference (selisih harga jual eceran)’ for the sale of Premium. However, such compensation has in practice covers only part of Pertamina’s losses, and has no fixed schedule, and this has contributed to increasing arrears (Fig. 5). These arrangements have also given Pertamina liquidity problems, requiring the corporation to take out loans domestically and on international markets.

Within the spectrum of governance arrangements for NOCs (Luong and Weithal, 2006), Pertamina has been in the category of direct control by government (and as discussed above, by Parliament before 2014) rather than through an independent board. Senior executives, under the patronage of the state (Hafi and Koenig, 1988) have been expected to cooperate with the implicit bargain in which the company enjoyed effective near-monopoly control over the retail market and management of major oil and gas fields, in exchange for underwriting the FFS regime as well as major initiatives such as the One Price Policy. However, the increasing tensions arising from the financial pressure this put the company under did lead to a major rift in 2018. Elia Massa Manik was appointed as President Director of Pertamina in March 2017, but was removed in April 2018 after being considered unable to cooperate with the government’s agenda (Tirto, 2018). Over 2017 and 2018, including in a hearing in Parliament, Manik spoke out against losses to the company arising from unclear compensation arrangements for selling assigned fuel and implementing the One Price Fuel policy (CNN, 2017).

6. Interest groups around Pertamina and the FFS regime

Thus far we have been concerned with the interests of key actors, including the President, Parliament and Pertamina itself, in the FFS regime and how these are changing as Indonesia’s oil production declines. These are summarized in Table 2. However, the FFS regime in Indonesia has created a number of opportunities for activities that have created and sustained other interest groups with a stake in the continuation of the subsidy regime, all of which are connected to Pertamina in some way.

One such group comprises Pertamina-franchised fuel station entrepreneurs who benefit from the company’s market dominance. Only a small minority of Pertamina’s fueling stations (only 180 out of over 7,000 in 2019) are fully owned and operated by Pertamina, while the vast majority are franchised to local entrepreneurs (Pertamina, 2020). Fuel subsidies have given these franchised fuel stations a protected position in the Indonesian market, especially after the liberalization of the market in 2004 (Merdeka, 2014).\(^{12}\) Most of the retail entrepreneurs who run Pertamina’s fuel stations are therefore opposed to the removal of subsidized fuels or distributing subsidized fuels to non-Pertamina companies.

Retailers also extracted economic rent through so-called ‘naughty’ fuelling stations, which became commonplace in the 1990s and 2000s, where pump meters were manipulated so less fuel was delivered than was paid for. An investigation by the Fuel Integrated Team (Tim Terpadu BBM) found that 348 of Pertamina’s fuelling stations in Java Island were

---

\(^{10}\) See Presidential Regulation No. 43/2018 on revision of Presidential Regulation No. 191/2014

\(^{11}\) (BBM Satu Harga). See Regulation of Minister of the Energy and Mineral Resources No. 36/2016

\(^{12}\) For instance, in early 2006, when Shell and Petronas entered the Indonesian fuel retail market, their lowest fuel prices were Rp 5,400/ltr (albeit for a higher quality product), while Pertamina’s subsidized gasoline and diesel prices were Rp 4,500/ltr and Rp 4,300/ltr respectively (Antara, 2006).
managers modifying vehicle fuel tanks to maximize volumes. In some cases, diverted subsidized fuel is supplied to industries, such as plantations and mining, where its consumption is prohibited by regulation.\textsuperscript{13} When smugglers have a network abroad fuel is supplied by ship to neighboring countries in Southeast Asia where prices are based on the international market (for examples see kompas (2012) and Tempo (2014a)). Many of those who have benefited from these arrangements have been employed or contracted by Pertamina, ranging from high-ranking officials to tanker drivers (Tempo, 2005a; Tempo, 2005b; Tempo, 2012). Pertamina itself acknowledged the involvement of its own staff in smuggling, often with the connivance of the police (Tempo, 2005c). In other cases, the police, law enforcement officers, regional government officials, and regional parliament members are suspected of directly smuggling fuels (Tempo, 2015; Tempo, 2012).

In 2018, the Jokowi administration instructed the Ministry of Energy, Pertamina, and Telkom (Indonesia’s telecommunication SOE) to work together to digitalize all of Pertamina’s fuel stations across Indonesia in order to address fuel diversion for both price gouging and smuggling by tracking flows of subsidized fuels using information technology. By late 2020, Pertamina had digitalized over 5,500 fuel stations (BUMN, 2021).

Meanwhile, at a high level, there are groups of individuals known as the ‘oil and gas mafia’ who benefit materially through the authority and access derived from patronage relationships. The power of these groups, and the need of some Presidents to rely on patronage to return for political support, is in part a result of the democratization following the fall of Soeharto. Indeed the formation of mafia-type institutions in Indonesia is common and can be observed across government, the judiciary system, and parliament (Baker, 2015; Aspinall and van Klinken, 2011). According to the oil and gas governance reform team (Tim Reformasi Tata Kelola Migas, TRTKM) formed in 2014, these groups included individuals within and around Pertamina itself and also from a number of government ministries (CNBC, 2019), and even Parliament (Republika, 2014).

One of the organizations most commonly associated with the oil and gas mafia was Pertamina Energy Trading Limited (PETRAL), the company’s trading and marketing agent in the international market. According to the former head of TRTKM, political elites in the government involved in this practice, with reductions in fuel delivered ranging from 0.6 to 1.3 L for each purchase of 10 L (Liputan6, 2006).

Meanwhile, smuggling of subsidized fuel has also been a major problem in Indonesia. According to a former Minister of Energy and Mineral Resources, smuggling of subsidized fuels is rife with 1.7 million liters of subsidized fuels smuggled in South Kalimantan in 2012 alone (ESDM, 2012). TRTKM (2015) reported that smuggling groups operate both at the point where fuel is being transported from Pertamina’s fuel depots to fueling stations, and at stations with the cooperation of station managers modifying vehicle fuel tanks to maximize volumes. In some

### Table 2

<table>
<thead>
<tr>
<th>Group or institution</th>
<th>Interest in FFS regime in transition</th>
<th>Influence over reform agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Mixed – FFS provide popularity, but pose fiscal problems, with the latter increasing over time</td>
<td>High</td>
</tr>
<tr>
<td>Parliament</td>
<td>Mixed – FFS provide popularity, but pose fiscal problems, with the latter increasing over time</td>
<td>Medium</td>
</tr>
<tr>
<td>Pertamina management</td>
<td>Opposed under current arrangements – while near monopoly arrangements in retail market provided protection in the past, financing of FFS through arrears has negative impact on company, with the latter increasing over time</td>
<td>Low</td>
</tr>
<tr>
<td>Non-Pertamina oil retailers</td>
<td>Opposed under current arrangements – retailers not effectively included in distribution of subsidized fuels, but would be in favour if they were. Generally in favour of competitive domestic retail market</td>
<td>Low</td>
</tr>
<tr>
<td>Oil and gas mafia</td>
<td>In favour – FFS reform could shrink domestic market, reducing rent seeking opportunities</td>
<td>Currently low</td>
</tr>
<tr>
<td>Pertamina’s fuelling station franchisees</td>
<td>In favour – FFS help maintain domestic market, and opportunities for fuel diversion and price gouging</td>
<td>None</td>
</tr>
<tr>
<td>Smuggling groups</td>
<td>In favour – FFS produce price differential with some sectors and neighbouring countries</td>
<td>None</td>
</tr>
</tbody>
</table>

\textsuperscript{13} See Regulation of Minister of the Energy and Mineral Resources No. 12/ 2012 on Fuel Consumption Control
and Soeharto’s circle had long been benefiting from rents from Indonesia’s oil exports under PERTA Group (CNN, 2014). From 2003, through its subsidiary, Pertamina Energy Service Pte Limited (PES), PETRAL became a procurement agent for Pertamina’s growing crude oil and other fuel imports. This provided another source of rent extraction with senior executives implicated in taking bribes in oil tender deals (Reuters, 2019). These arrangements stayed in place throughout the 2000s and early 2010s with the tacit support of the executive (e.g. Republika, 2015).

The activities of the mafia had implications for the FFS regime and vice versa. TRTKM estimated that PETRAL collected US$1-3 per barrel oil imported in 2014-2015 (CNBC, 2019), effectively adding to the fiscal burden of subsidizing fuel to consumers. At the same time, it is believed that the maintenance of subsidy and price control is in the interest of PETRAL, as these policies ensure Pertamina’s dominance in the domestic retail fuel market, makes new commercial domestic refinery capacity development unviable, thereby maintaining demand for imported fuel (Tirto, 2018).

Radical policy changes to PETRAL were introduced under Jokowi, who led a new party and did not have the same links to the mafia as his predecessor. In 2015, PETRAL and its subsidiary were dissolved and a new trading unit called Integrated Supply Chain (ISC) was formed in Pertamina. Since the development of the ISC to early 2016, improved transparency in transactions has been claimed to result in efficiencies in fuel imports of over 208.1 million USD (Pertamina, 2016). Further changes include a development plan for Indonesia’s domestic refinery capacity (Bisnis, 2020) and early proposals for the gradual removal of Premium fuel from the domestic market (Gatra, 2020), eventually realised in 2022.

In 2015 the government also introduced palm oil-based biodiesel to reduce the state’s reliance on diesel imports. Domestic consumption of biodiesel has grown seven-fold between 2015 and 2019, with subsidies coming from palm oil export levies (ESDM, 2020). Recently, the government also placed reformers in Pertamina’s high-level management, again reflecting the Jokowi’s administration commitment to eradicating corruption in the company.

7. Discussion and conclusions

In the 1970s and 1980s, Indonesia had the characteristics of a classic oil exporter: it operated a generous FFS regime, funded and delivered by a large NOC, Pertamina. The costs of the regime arising from the downstream retailing of cheap fuel could be obfuscated by revenues from upstream production and export. However, as Indonesia has moved from being a major oil exporter to a net importer since the early 2000s, this arrangement has come under increasing pressure. Pertamina’s contribution to state revenues has dwindled, creating greater fiscal vulnerability and more pressure, including from the IFIs, to reduce subsidies and liberalise the retail fuel market. Since 2000, fourteen attempts at FFS reforms have been undertaken by various administrations (Chelminksi, 2018), and although some were successful to a degree, subsidies for gasoline and diesel remain in place. In the 2000s and 2010s, with democratization and greater scrutiny of Pertamina’s finances by Parliament, the obfuscation role of the NOC has become less effective.

President Jokowi came to power on a strong and popular reform platform in 2014. Unlike his predecessor, he has distanced himself from the elite ‘oil and gas mafia’ interests and imposed reforms on Pertamina’s fuel import arm, pushed to increase domestic refinery capacity and introduced biofuels. He has also taken steps to tackle fuel diversion for price gouging and smuggling through digitisation of fuel stations. It is worth noting that it was the combination of Jokowi’s relative autonomy from the oil and gas mafia together with the absence of any formal veto points in Parliament or elsewhere that enabled him to take these steps.

However, these reforms aimed at increasing efficiency and driving out corrupt activities from groups in and around Pertamina are relatively limited. Jokowi has not effectively ended the FFS regime, nor Pertamina’s role in maintaining it, including its protected position in the retail market. This is despite the fact that the senior management of the NOC are no longer in favour of subsidies because of the arrears that they lead to. The reforms of 2015 have experienced drift (Hacker et al., 2015) as international oil prices rose, exposing Jokowi’s commitment to a permanent exit from subsidy as insufficient in the face of potential backlash from parts of the public. At the same time, he has continued to use Pertamina for other major social and political projects such as the One Price Policy and the assigned fuel policy. The relationship between the state and the NOC has not fundamentally changed; indeed Jokowi reasserted the dominance of the executive in shaping the FFS regime by removing Parliament’s role in determining fuel price in late 2014.

One key lesson from the Indonesian experience therefore is that while the resource base for FFS and the NOC may change, political and institutional settlements that evolve during a long period of subsidies delivered through and by the NOC can persist for a long time, despite rising fiscal costs and the declining effectiveness of the NOC role. This may contribute in part to explaining Cheon et al.’s (2015) finding of the significance of NOCs for FFS in oil importers, although further research differentiating non-exporters from previous net exporters would be needed to determine this. Our findings also have wider implications for countries approaching the shift from net export to net import status, especially where the governance of the NOC remains in the hands of the state.

The analysis above suggests the value of reform of NOCs as part of a complementary reform agenda for FFS, in order to ensure institutional lock-in of the latter. The underlying reason for the absence of more fundamental reform to date is the political challenge of cutting subsidies. Changes to the NOC and associated interest groups that alter coalitions and change the institutional process for reforms are most likely to be helpful in managing this challenge. Victor (2009) argues for full legal, political and commercial separation of NOCs from the state. However, the experience of power sector reform in many countries suggests that such steps may be difficult to achieve (Eberhard and Godinho, 2017). Moreover, the developmental roles, including delivery of public goods, that state-owned NOCs can play may persist for a long time, despite rising fiscal costs and the declining effectiveness of the NOC role. This may contribute in part to explaining Cheon et al.’s (2015) finding of the significance of NOCs for FFS in oil importers, although further research differentiating non-exporters from previous net exporters would be needed to determine this. Our findings also have wider implications for countries approaching the shift from net export to net import status, especially where the governance of the NOC remains in the hands of the state.

The analysis above suggests the value of reform of NOCs as part of a complementary reform agenda for FFS, in order to ensure institutional lock-in of the latter. The underlying reason for the absence of more fundamental reform to date is the political challenge of cutting subsidies. Changes to the NOC and associated interest groups that alter coalitions and change the institutional process for reforms are most likely to be helpful in managing this challenge. Victor (2009) argues for full legal, political and commercial separation of NOCs from the state. However, the experience of power sector reform in many countries suggests that such steps may be difficult to achieve (Eberhard and Godinho, 2017). Moreover, the developmental roles, including delivery of public goods, that state-owned NOCs can play may persist for a long time, despite rising fiscal costs and the declining effectiveness of the NOC role. This may contribute in part to explaining Cheon et al.’s (2015) finding of the significance of NOCs for FFS in oil importers, although further research differentiating non-exporters from previous net exporters would be needed to determine this. Our findings also have wider implications for countries approaching the shift from net export to net import status, especially where the governance of the NOC remains in the hands of the state.

Two kinds of reform are suggested by this. One is to fully separate the upstream part of the NOC from the downstream business, commercially and legally. Currently the former pays for the latter; if they were fully separate, then cross-subsidization would no longer be masked and at the same time the upstream SOE would be freed to become a clear voice for reform. In the case of Indonesia, in late 2021 Pertamina’s upstream and downstream businesses were commercially separated, but both remain within the holding company.

The second is to provide some insulation of NOC from the politics of FFS by moving its governance to a board that has some genuine independence from the executive. However, the sacking of an independently-minded director of Pertamina in 2018 shows how difficult even these limited moves are likely to be in the case of Indonesia.

A further type of reform that might be important in some contexts would be the dissolving or weakening of institutions that are illegitimately benefiting from FFS and blocking their reduction or removal. In

14 PETRAL was originally built under the name of PERTA Group at the beginning of the Suharto administration in 1969. Along with the collapse of Suharto’s power in 1998, PERTA Group was then fully taken over by Pertamina, and changed its name into PETRAL in 2001.
Aharoni, Y, Ascher, W, 1998. Restructuring the arrangements between government and responsibility for any errors of fact or interpretation remain with the viewed. We are also grateful to Neil McCulloch and three anonymous reviewers for useful comments on an earlier version of this paper. Responsibility for any errors of fact or interpretation remain with the authors.

References

Aharoni, Y, Ascher, W. 1998. Restructuring the arrangements between government and responsibility for any errors of fact or interpretation remain with the viewed. We are also grateful to Neil McCulloch and three anonymous reviewers for useful comments on an earlier version of this paper. Responsibility for any errors of fact or interpretation remain with the authors.

Acknowledgments

The authors would like to thank all those who agreed to be interviewed. We are also grateful to Neil McCulloch and three anonymous reviewers for useful comments on an earlier version of this paper. Responsibility for any errors of fact or interpretation remain with the authors.

References

Aharoni, Y, Ascher, W. 1998. Restructuring the arrangements between government and responsibility for any errors of fact or interpretation remain with the viewed. We are also grateful to Neil McCulloch and three anonymous reviewers for useful comments on an earlier version of this paper. Responsibility for any errors of fact or interpretation remain with the authors.

Aharoni, Y, Ascher, W, 1998. Restructuring the arrangements between government and responsibility for any errors of fact or interpretation remain with the viewed. We are also grateful to Neil McCulloch and three anonymous reviewers for useful comments on an earlier version of this paper. Responsibility for any errors of fact or interpretation remain with the authors.


Victor, D.G., Hults, D., Thurber, M, 2012. Oil and Governance


