

Big Sellers: Exploring the Scale and Risk of National Oil Company Sales

Alexander Malden and Joseph Williams

KEY MESSAGES

- 1 The sale of oil is an economically significant activity for many countries. The oil, gas and product sales of 35 countries' national oil companies (NOCs) to commodity traders and other buyers generated over \$1.5 trillion in 2016, equaling 22 percent of these countries' total government revenues.
- 2 Most NOCs only pass on a small percentage of their oil sales revenue to government treasuries. NOCs from the 30 countries for which data are available transferred just 22 percent of their revenue to the country's national treasury.
- 3 This results in NOCs managing huge public revenues in environments that lack basic transparency, accountability and good governance practices. Seventy-nine percent of the identifiable oil sales, or \$1.2 trillion, occurred in countries with "weak" or "poor" scores in the 2017 Resource Governance Index.
- 4 While oil sales disclosure has improved in countries which are part of the Extractive Industries Transparency Initiative (EITI), non-EITI countries generated over 90 percent of the identifiable NOC oil sales revenue, or \$1.4 trillion.

KEY RECOMMENDATIONS

- Companies that buy oil and gas from NOCs should disclose these transactions on a sale-by-sale basis. Governments in commodity trading hubs, including Singapore, Switzerland, the United Arab Emirates, the United Kingdom and the United States should require these companies to disclose the payments they make to purchase oil and gas from governments and NOCs.
- 2 All NOCs should commit to disclosing the buyers, volumes and prices of individual sales of oil and gas.

¹ We refer to oil, gas and product sales as "oil sales" throughout this briefing.

² A full list of the NOCs included in the analysis of this briefing is available in Appendix 1. We removed two NOCs for which oil sales data is available in the database from this analysis. We removed PetroChina to avoid double counting oil sales as it is a subsidiary of Sinopec Corporation, which we include in this analysis. We also removed Timor GAP as it generated no oil sales revenue in the year of analysis (2016).

INTRODUCTION

In many oil-producing countries, the national oil company (NOC) sells vast quantities of the state's oil and gas. The sale of a state's non-renewable natural resource endowment is often a revenue stream that can have a significant impact on a country's national budget and the state's ability to fulfil its national development priorities. It is important therefore that citizens are able to assess the performance of their NOCs, who they sell state assets to, under what terms they sell them and what they do with the resulting sales revenue. While tax and royalty disclosure related to upstream extractive activities have become considerably more transparent over the past two decades, including through "payments to governments" laws in Europe and Canada that require companies to publish annual reports disclosing the payments they make to governments, oil sales have remained opaque. Recent high-profile corruption cases in Brazil and Venezuela have only acted to underscore that opacity in such an economically lucrative sector fosters opportunities for mismanagement, bribery and politicization of the resulting revenues. (See box 1.)

In this briefing we use data from NRGI's new National Oil Company database to examine the governance and corruption risks posed by NOC's oil sales activities. Using this newly compiled data including over \$1.5 trillion in oil sales from 39 NOCs in 35 countries, the first section of this briefing demonstrates why it is important for citizens to be able to scrutinize their NOC's management of this vast revenue stream.

In the second section we outline international developments in oil sales transparency, including consideration of the EITI's new requirements and the role of buying companies.

In the third section we examine case studies where available oil sales data have been used by oversight actors to analyze the commercial performance of NOCs to address the governance and corruption risks of their oil sales activities.

We conclude with recommendations on what more international actors, including commodity traders, international oil companies (IOCs), NOCs, international organizations and governments in oil producing and trading hub countries can do to increase transparency and accountability in the sector and to enable citizens in resource-rich countries to scrutinize their NOCs oil sales activities. Recent high-profile corruption cases in Brazil and Venezuela have only acted to underscore that opacity in such an economically lucrative sector fosters opportunities for mismanagement, bribery and politicization of the resulting revenues.

Box 1. Recent evidence of corruption risks in oil sale transactions

NOC oil and gas sales exhibit corruption risks. A 2016 NRGI publication, *Initial Evidence of Corruption Risks in Government Oil and Gas Sales*, describes how controversies or legal actions arose around oil and gas sale transactions in Angola, Indonesia, Iraq, Nigeria, the Republic of Congo and Turkmenistan.³ Publications by the U4 Anti-Corruption Centre and the Organisation for Economic Co-operation and Development (OECD) echo these concerns.^{4,5} More recently, additional controversies and accusations have arisen in other locations including Brazil and Venezuela. In February 2019, Reuters reported that the U.S. Department of Justice is investigating a former U.S.-based oil trader for Brazil's NOC, Petrobras, who has been charged in Brazil with "taking part in a corruption scheme involving commodity traders Vitol, Glencore and Trafigura."⁶ In 2018, Glencore received a subpoena from the U.S. DOJ to produce documents and other records with respect to compliance with the Foreign Corrupt Practices Act and U.S. money laundering statutes. The requested documents related to Glencore's business in Nigeria, the Democratic Republic of Congo and Venezuela from 2007.⁷ Glencore's activities in Nigeria and Venezuela during the period relate primarily to oil offtake agreements with NOCs.

- 3 Aaron Sayne and Alexandra Gillies. *Initial Evidence of Corruption Risks in Government Oil and Gas Sales* (Natural Resource Governance Institute, 2016), resourcegovernance.org/analysis-tools/publications/ initial-evidence-corruption-risks-government-oil-and-gas-sales.
- 4 U4 Anti-Corruption Centre, *Trading in corruption: Evidence and mitigation measures for corruption in the trading of oil and minerals* (2017), www.u4.no/publications/trading-in-corruption-evidence-and-mitigation-measures-for-corruption-in-the-trading-of-oil-and-minerals.
- 5 Organisation for Economic Co-operation and Development, Corruption in the Extractive value chain: Typology of risks, mitigation measures and incentives (2016), doi.org/10.1787/9789264256569-en.
- 6 Gary McWilliams, "U.S. opens probe into Brazilian oil bribery scheme: sources." *Reuters*, 8 Feb 2019, www.reuters.com/article/us-brazil-corruption-petrobras-trader-ex/exclusive-u-s-opens-probe-intobrazilian-oil-bribery-scheme-sources-idUSKCN1PW2LT.
- 7 Glencore, *Subpoena from the United States Department of Justice* (2018), www.glencore.com/mediaand-insights/news/Subpoena-from-United-States-Department-of-Justice.

I. SHEDDING LIGHT ON THE SCALE OF NOC OIL SALES

Previous research has used what little data are publicly available on NOC oil sales to assess the economic importance and governance risks associated with these activities. In 2014, NRGI, the Berne Declaration (now known as Public Eye) and Swissaid analyzed the sales activities of the top 10 oil exporters in sub-Saharan Africa and found that from 2011 to 2013, the governments of these countries generated more than \$250 billion in sales revenue, equaling 56 percent of their combined government revenues.⁸ Similarly Olivier Longchamp and Nathalie Perrot used data from EITI reports in seven countries to show the size and scale of oil sales in relation to their total government revenue and in relation to revenues generated from their extractive industries.⁹ Analyzing the economic importance of oil sales activities for oil-producing countries, we found that in 2016, the governments and NOCs in 32 countries received 25 percent or more of their payments for extractive activities, from companies required to disclose their payments to governments under mandatory disclosure regulations, in the form of physical oil and gas paid in-kind.¹⁰ This high proportion of payments made in-kind, rather than in cash, demonstrates that many countries are dependent on their NOCs oil sales activities to transform these physical quantities of oil and gas into revenue transferable to the national treasury.

In this briefing we further this research by leveraging the new National Oil Company Database, developed by NRGI.¹¹ The database collects data from company and EITI reports on production, revenues and other key performance indicators. Launched in May 2019, it contains data over a seven-year period on 71 NOCs from 61 countries, making it the largest publicly available dataset of its kind. The National Oil Company Database Methodology Guide describes the selection process for NOCs within the database and how the data contained within the database were collected.¹² We provide a full list of NOCs included in the analysis of this briefing in Appendix 1.

While this new database provides a unique opportunity to assess oil sales activities of NOCs globally, the limitations of the dataset highlight the need for greater transparency in this area. A first major limitation is that while the NOC database contains data from 2011 to 2017, we used a 2016 snapshot for the analysis below as it represents the most recent year for which data are available from a large number of NOCs. A second major limitation is that some of the world's largest NOCs, including the National Iranian Oil Company and the Abu Dhabi National Oil Company provide so little public information on their revenues and oil sales they were not included in the database. A final limitation is that while an aggregate oil sales revenue figure was available for 39 NOCs in 2016, very few of these provide the level of detail, including volume, price and name of buyer for each sale required to sufficiently analyze these NOC sales activities for accountability purposes.

- 8 Alexandra Gillies, Marc Gueniat and Lorenz Kummer. *Big Spenders: Swiss Trading Companies, African oil and the risk of opacity* (Natural Resource Governance Institute, 2014), resourcegovernance.org/sites/default/files/documents/bigspenders_20141014.pdf.
- 9 Olivier Longchamp and Nathalie Perrot, Trading in corruption: Evidence and mitigation measures for corruption in the trading of oil and minerals. (U4 Anti-Corruption Centre: 2017), https://www.u4.no/ publications/trading-in-corruption-evidence-and-mitigation-measures-for-corruption-in-the-tradingof-oil-and-minerals.pdf
- 10 Alexander Malden and Joseph Williams, *Generating Government Revenues from the Sale of Oil and Gas* (Natural Resource Governance Institute, 2018), resourcegovernance.org/sites/default/files/ documents/generating-government-revenue-from-sale-of-oils-and-gas 0.pdf.
- 11 Natural Resource Governance Institute. *National Oil Company Database* (2019). Accessed April 2019, www.nationaloilcompanydata.org.
- 12 We included multiple NOCs from China, Russia and United Arab Emirates in this analysis. A full list of NOCs included in the analysis is available in Appendix 1.

The sale of oil is an economically significant activity for many countries

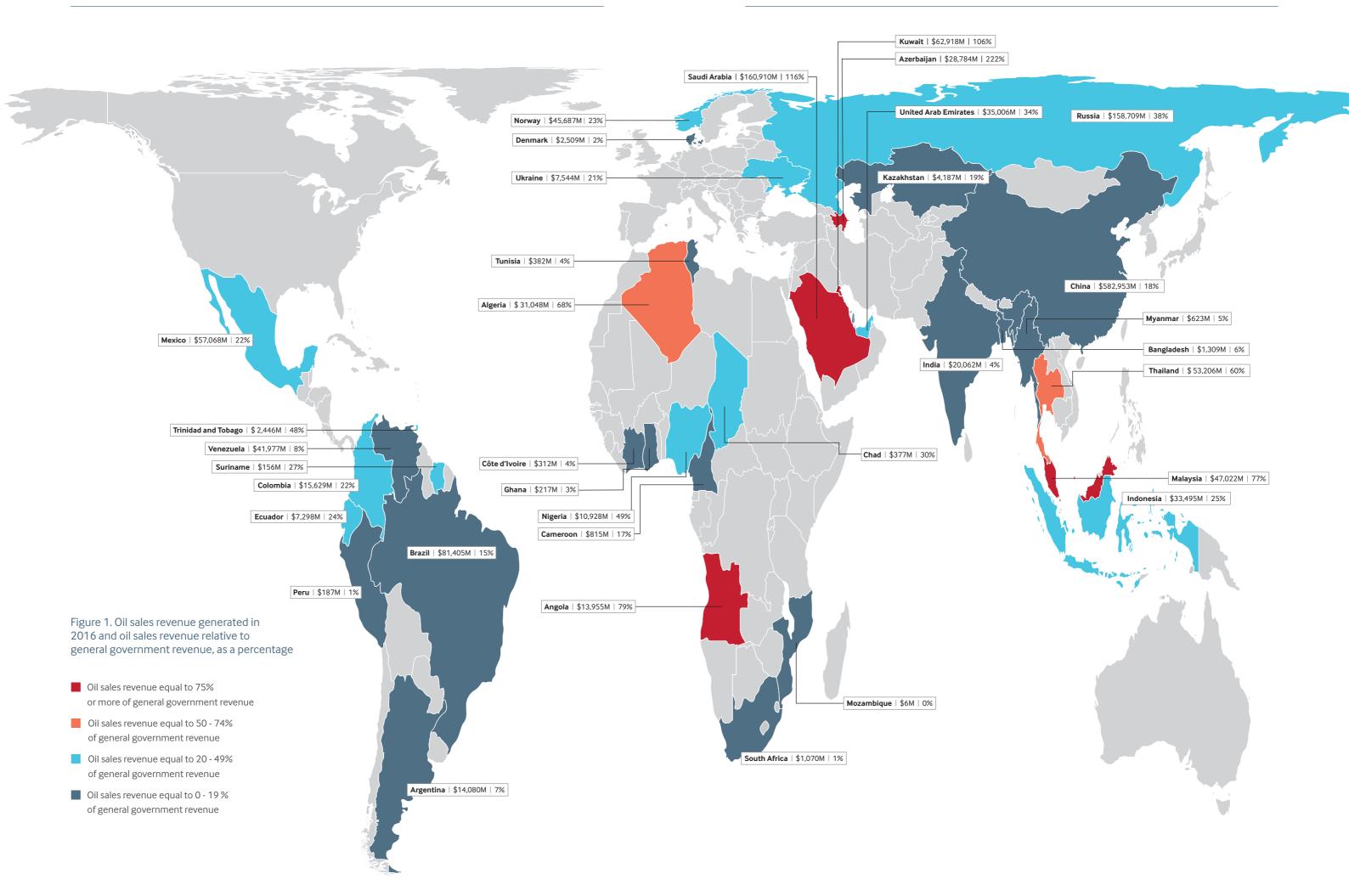
Oil sales from 39 NOCs in 35 countries generated over \$1.5 trillion in 2016, equaling 22 percent of these countries' combined government revenue.¹³ (See figure 1.) This 22 percent figure is remarkably high given that this data is drawn from such a wide range of countries, and includes new producers such as Ghana and Mozambique for which oil sales are currently equivalent to a relatively low percentage of government revenue, at 3 percent and less than 1 percent respectively.

As the NRGI National Oil Company Database report noted, the International Monetary Fund (IMF) defines a country as resource-dependent if more than 20 percent of all government revenues come from the sector.^{14,15} Adapting this definition, for 19 of the countries we examined, not only are they resourcedependent, but they are dependent on NOC oil sales.¹⁶ In other words, NOC sales revenues were equivalent to 20 percent or more of general government revenues in these countries. This underscores the importance of these revenues as a key source of public finance.

The 10 countries that generated the most oil sales revenue relative to their general government revenue had NOC oil sales that totaled over \$570 billion in 2016, equivalent to 65 percent of their combined government revenue. (See figure 2.) Eight of these ten countries, including Angola, Algeria and Nigeria, score "weak" or "poor" in the 2017 Resource Governance Index (RGI). Trinidad and Tobago was the only country on this list to score "satisfactory," while the final country, Thailand, was not assessed as part of the RGI. Again, the countries included in the database leave out some oil producers where these levels are likely even higher, such as the National Iranian Oil Company and the Abu Dhabi National Oil Company, due to lack of data.

Oil sales from 39 NOCs in 35 countries generated over \$1.5 trillion in 2016, equaling 22 percent of these countries' combined government revenue.

- 13 We included multiple NOCs from China, Russia and United Arab Emirates in this analysis. A full list of NOCs included in the analysis is available in Appendix 1.
- Natural Resource Governance Institute. National Oil Company Database (2019), nationaloil companydata.org/api/publications/content/NFInSnhdYNC4ntCohaYqok1u2jHAG4vvLXK1jwrL.pdf.
 The general generating on the National Oil Company database are taken.
- 15 The general government revenue in the National Oil Company database are taken from the IMF's World Economic Outlook database, which provides ambiguous guidance about whether to include NOC revenues under general government revenues. More information on these country revenue variables is available in the National Oil Company Database Methodology Guide: nationaloilcompanydata.org/api/publications/ content/6zCffQ0LimL0rd5IFmvZYNVFDOCSLCQZYB8kZysF.pdf.
- 16 The 19 countries with oil sales equivalent to 20 percent or more of their general government revenue are: Algeria, Angola, Azerbaijan, Chad, Colombia, Ecuador, Indonesia, Kuwait, Malaysia, Mexico, Nigeria, Norway, Russia, Saudi Arabia, Suriname, Thailand, Trinidad and Tobago, Ukraine and the United Arab Emirates.



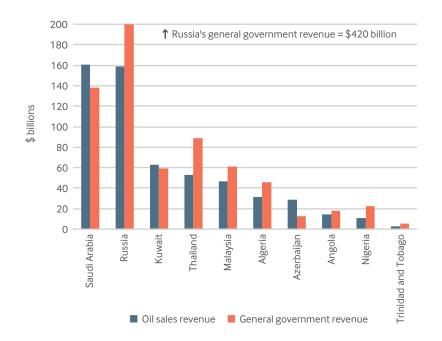


Figure 2. Ten countries with significant NOC oil sales revenue relative to their general government revenue, 2016

Oil sales are central to NOCs overall finances. They represent the dominant revenue generating activity for the 35 NOCs for which both sales and total revenue data are available, with oil sales revenue equaling 95 percent of the NOCs' combined total revenue.¹⁷

NOC oil sales can often be larger than a country's resource revenues as recorded by public data sources. In eight of the 10 countries for which both NOC sales data and data on total resource revenue (from the International Center for Tax and Development) were available for 2016, the NOC generated more in oil sales than the government received in resource revenue in total.¹⁸,¹⁹

Most NOCs only pass a small percentage of their oil sales revenue onto the government treasury

Given the vast sums generated by NOCs from oil sales, policies dealing with how much they transfer to the state in taxes, dividends and other payments have a huge impact on the finances that their governments have to spend on national development. It is critically important that the revenues that pass through the coffers of NOCs are managed correctly and are subject to rigorous oversight.

As figure 3 shows, in 2016, the 33 NOCs from 30 countries for which data are available transferred just 22 percent of the combined total revenue they generated, including from oil sales, to their countries' national treasuries.

In 2016, the 33 NOCs from 30 countries for which data are available transferred just 22 percent of the combined total revenue they generated, including from oil sales, to their countries' national treasuries.

- 17 Information on NOCs for which both total NOC revenue and oil sales revenue was available is presented in Appendix 1.
- 18 The resource revenue data used in the national oil company database and used in this analysis is sourced from the International Centre for Tax and Development (ICTD), Global Revenue Dataset, www.wider.unu.edu/project/government-revenue-dataset.
- 19 Information on resource revenue in the public domain is incomplete and non-standardized. In many cases, this data was inconsistently measured across countries. For more information on the difficulties with accurately measuring resource revenues, see David Mihalyi and Anna Fleming. *Countries Struggling with Governance Manage \$1.2 Trillion in Resource Wealth* (Natural Resource Governance Institute, 2017), resourcegovernance.org/blog/countries-struggling-governance-manage-12-trillion-resource-wealth.

These 33 NOCs spent or retained \$1.2 trillion of the \$1.6 trillion in total NOC revenue generated in 2016, transferring just \$349 billion. PDVSA, Venezuela's NOC, transferred just 11 percent of the \$48 billion it generated in 2016, including \$42 billion from oil sales.

Sonangol transferred 40 percent of its total revenues to the Angolan government treasury in 2016, making it one of the NOCs that transferred the highest percentage of total revenue. However, this still resulted in the NOC retaining \$8.9 billion of the \$15 billion total revenue generated in 2016, a massive sum given past concerns around the scale and purpose of Sonangol's spending. A 2011 IMF report showed shortfalls in Angola's fiscal accounts between 2007 and 2010 amounting to \$31.4 billion—or roughly a quarter of the country's GDP. Much of the unaccounted-for funds were linked to off-budget spending of oil sale revenues by the NOC.²⁰ As Sayne and Gillies noted, while the Angolan authorities explained that Sonangol used the oil sales revenues to fund sizable public works projects and to service public debt, the explanations did not describe the projects in detail or explain why the government chose to pay for them from NOC funds rather than via the national budget.²¹

33 NOCs spent or retained \$1.2 trillion of the \$1.6 trillion in total NOC revenue generated in 2016, transferring just \$349 billion.

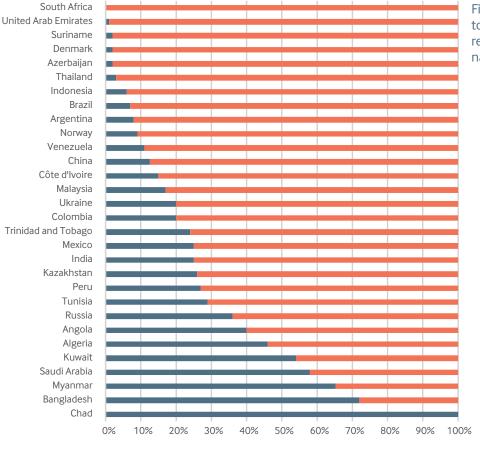


Figure 3. Percentage of total national oil company revenue transferred to national treasury, 2016

Percentage of total NOC revenue transferred to treasury
 Percentage of total NOC revenue spent or retained by the NOC

²⁰ International Monetary Fund (IMF), Angola—Fifth Review Under the Stand-By Arrangement, Request for Waiver of Applicability of Performance Criteria, and Request for Modification of Performance Criteria (2011).

²¹ Aaron Sayne and Alexandra Gillies. *Initial Evidence of Corruption Risks in Government Oil and Gas Sales* (Natural Resource Governance Institute, 2016).

Large-scale spending by NOCs is not inherently problematic. It is important for NOCs to spend and retain some of the revenues generated in order to fund project costs, develop their capacity and invest in projects designed to generate strong returns in the long term.

However, the fact that NOCs retained 78 percent of the nearly \$1.6 trillion total revenues generated highlights the need for greater transparency to enable oversight actors to monitor whether NOCs are managing these considerable revenues appropriately to maximize benefits for the country's citizens. Revenues retained by an NOC do not face the same checks and balances common to normal government spending, such as parliamentary oversight.

The risks inherent in NOCs retaining vast sums of revenue were demonstrated in 2015, when Nigeria's then central bank governor Lamido Sanusi raised concerns around how the Nigeria National Petroleum Corporation (NNPC) had used around \$20 billion in unremitted oil sale revenues over a 19-month period.²² PricewaterhouseCoopers, the auditors hired to review the relevant accounts, wrote that NNPC had a "blank cheque to spend money without limit or control. This is untenable and unsustainable and must be addressed immediately."²³

Even though Chad registers on figure 3 as transferring the largest share of its revenues to the state, its history provides a clear illustration of why NOC revenue retention requires greater scrutiny given its enormous economic implications. While Chad is recorded as transferring nearly all of its oil sales revenue to the national treasury in the NOC database, these transfers are made only after it repays its enormous debts to Glencore.²⁴ Societe des Hydrocarbures du Tchad (SHT) borrowed \$600 million from Glencore in 2013 and nearly \$1.5 billion in 2014 to be repaid with crude oil cargoes.²⁵ In 2015, after oil prices crashed, SHT was forced to divert over 90 percent of the government's share of production into repaying its loans to Glencore.²⁶

NOCs manage huge public revenues in environments that lack basic transparency, accountability and good governance practices

The vast majority of oil sales activities are being executed by NOCs based in poorly governed natural resource sectors.

As figure 4 illustrates, countries that generate a larger amount of oil sales revenue relative to their government revenue tend to score poorly on the RGI. This does

Countries that generate a larger amount of oil sales revenue relative to their government revenue tend to score poorly on the RGI.

22 Lamido Sanusi. "Unanswered questions on Nigeria's missing billions." *Financial Times*, 13 May 2015, www.ft.com/content/e337c7a4-f4a2-11e4-8a42-00144feab7de.

23 Aaron Sayne, Alexandra Gillies and Christina Katouris. Inside NNPC Oil Sales: A Case for Reform in Nigeria (Natural Resource Governance Institute, 2015), resourcegovernance.org/analysis-tools/ publications/inside-nnpc-oil-sales-case-reform-nigeria.

24 Chad EITI, Chad 2016 EITI Report (EITI, 2018), https://eiti.org/sites/default/files/documents/rapport_ itie_tchad_2016.pdf

25 Julia Payne, "Glencore, banks and Chad reach deal on \$1 bln-plus oil-backed loan." *Reuters*, 22 February 2018, www.reuters.com/article/us-glencore-chad/glencore-banks-and-chad-reach-deal-on-1-bln-plus-oil-backed-loan-idUSKCN1G52B9.

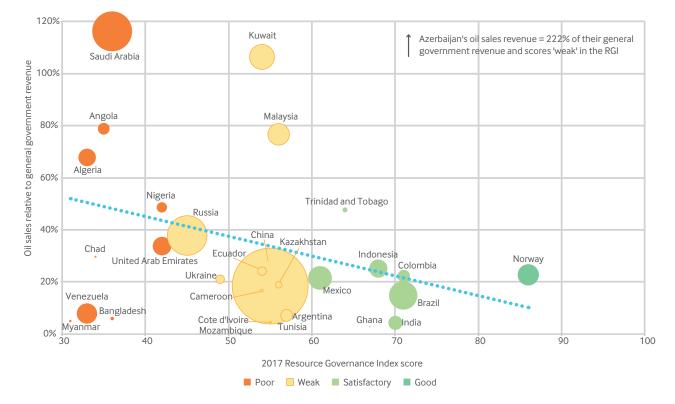
26 EITI International Secretariat, Transparency in the first trade, Working Draft (2019).

not suggest causation but highlights that the majority of oil sales occur in poorly governed environments. Notable examples include three countries that received "poor" scores in the 2017 RGI:

- In Algeria, Sonatrach generated \$31 billion in oil sales in 2016, equaling 68 percent of Algerian general government revenue.
- Sonangol's oil sales revenues in Angola were \$14 billion in 2016, equal to a staggering 79 percent of government revenue.
- Nigeria's oil sales revenue generated by NNPC was \$10.9 billion, equivalent to 49 percent of general government revenue.



Size of bubble indicates \$ value of the country's oil sales



Examining NOCs' oil sales on a total revenue basis, rather than country by country, we see that 79 percent, or \$1.21 trillion, of oil sales occur in countries that score "weak" or "poor" in the 2017 RGI. (See figure 5.)



Figure 5. Total oil sales revenue generated by Resource Governance Index score of the selling country (USD billions)

27 We included multiple NOCs from China, Russia and United Arab Emirates in this analysis. A full list of NOCs included in the analysis is available in Appendix 1.

II. THE URGENT NEED FOR GREATER OIL SALES TRANSPARENCY

Oil and gas sales transactions are subject to limited scrutiny with very little detailed public information available for oversight actors to interrogate, despite their scale and the numerous corruption risks associated with them.

Sale-by-sale disclosure (i.e., disclosure of transactions related to individual cargos of oil and gas) provides the most effective means of addressing the corruption risks and governance challenges related to oil and gas sales:

- Many of the governance challenges and controversies around oil and gas sales described in section 1 relate to the terms of each sale. Disclosure is needed at this level to aid deterrence and achieve effective disclosure.
- Individual sales are usually large and constitute material transactions for producer countries. For example, a typical sale of 1 million barrels of crude oil is worth \$60 million at today's prices. These sales are individually material and need to be disclosed at this level.
- Sale-by-sale data helps governments, parliamentarians, citizens and watch dogs understand the price achieved, observe patterns, and query anomalies. This form of scrutiny is simply not possible with aggregated data.

Detailed disclosure on oil and gas sales in countries which implement the EITI is beginning to emerge. For example, Cameroon and Ghana have both disclosed saleby-sale information on their NOCs' sale of oil in 2017 (the most recent year for which data is available), making use of a reporting template and guidance compiled by an EITI working group composed of governments, traders and civil society.²⁸ (See Appendix 2.)

EITI continues to play an important role in the pursuit of greater oil sales transparency. The EITI's Requirement 4.2 relates to reporting on the sale of the state's share of production or other revenues collected in-kind. The EITI introduced this requirement in 2013.

In June 2019, Requirement 4.2 was significantly expanded:

- Disclosure must now take place at the level of the contract entered into between a buying company and the government or the state-owned enterprise selling the commodity. If there are multiple cargos or sales related to a particular contract, each EITI country has the option to break these down as part of their reporting regime.
- Marketing companies selling oil, gas or minerals on behalf of a government are now required to disclose their sales.
- Payments related to product swap agreements and resource-backed loans should also now be disclosed. For countries where such arrangements are present, both product swap agreements (as in Nigeria) and resource-backed loans (as in Chad and Congo-Brazzaville) are of critical economic importance and have proven prone to secrecy and governance concerns.
- EITI encourages countries to disclose their process for selecting buyers, a list of selected buying companies and the sales agreements themselves.

For EITI countries which adhere to the EITI's new requirements and encouragements on commodity sales reporting in a timely manner, citizens and

Oil and gas sales transactions are subject to limited scrutiny with very little detailed public information available for oversight actors to interrogate, despite their scale and the numerous corruption risks associated with them.

²⁸ EITI, Guidance Note 26 – *Reporting on first trades in oil* (2017), eiti.org/GN26.

other oversight actors can look forward to scrutinizing these transactions in ways which were not previously possible.

However, given that the vast majority of oil and gas sales take place in non-EITI countries (see figure 6), new approaches are urgently needed, specifically in terms of company disclosures.

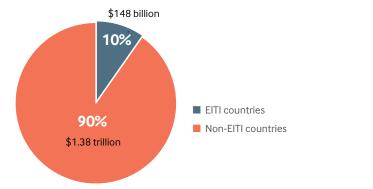


Figure 6. Oil sales in EITI versus non-EITI countries

Disclosure by buying companies

Very few companies report on their purchases of oil and gas from NOCs and the EITI Standard only encourages them to do so. Notable exceptions include EITI processes in Chad, Ghana and Iraq where all buying companies have disclosed their purchases of crude oil from NOCs. In addition, Trafigura (purchases between 2013 to 2017) and Glencore (purchases in 2017) have adopted the practice of unilaterally disclosing their purchases from NOCs in an annual report, providing the data on a country-by-country basis for EITI countries together with an aggregate figure for non-EITI countries. Neither company discloses sale-by-sale data in their annual reporting. Swiss-based Gunvor committed to a similar approach in 2017 but has yet to disclose.²⁹

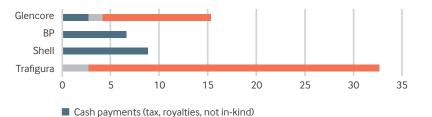


Figure 7. Company payments for crude oil purchases from national oil companies versus tax/royalty payments to governments

Cash payments - purchase of oil/gas (by EITI country)

Cash payments - purchase of oil/gas (aggregate for non-EITI countries)

The scale of payments made by commodity traders to purchase oil from NOCs can far outweigh what a government receives in taxes, royalties and other fees from extractive companies. Figure 7 above shows that Glencore and Trafigura's purchases from NOCs are significantly higher than the payments of taxes, royalties and other fees made by larger integrated oil companies BP and Shell. Neither BP, Shell nor any other major integrated oil company currently provides unilateral disclosure of their payments to governments for the purchase of oil and gas from NOCs comprehensively around the world, even though they purchase huge amounts from these state entities.

29 Guvnor Group, *Guvnor Joins EITI Transparency Initiative* (2018), gunvorgroup.com/news/gunvor-joinseiti-transparency-initiative/.

The very limited insights into major integrated oil companies' payments to NOCs for the purchase of oil and gas available from EITI reporting nevertheless underline their scale, particularly when compared to the other payments they make to governments. Figure 8 shows the significant payments made by BP, Gazprom, Lukoil, Shell and Total to purchase crude oil from Iraq's State Organization for Marketing of Oil (SOMO) as detailed in Iraq's 2016 EITI report. The payments that these companies make to the government of Iraq in the form of taxes and fees related to their extractive activities is a small fraction of those same companies' purchases of crude oil.

These figures also serve to underline the significant role the United Kingdom plays in regulating these companies: all five companies are either registered in the U.K. or listed on the London Stock Exchange.

Action by the U.K. government to require these companies to disclose their payments for the purchase of oil and gas from governments and NOCs globally would significantly increase public disclosure of these sales transactions.

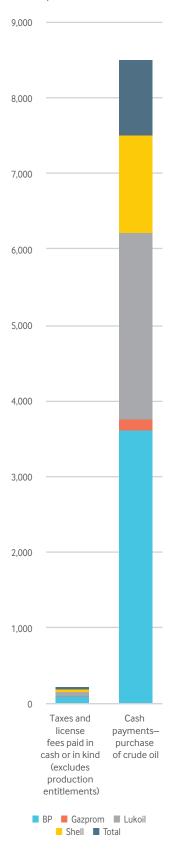
Disclosures by buying companies can provide important insights into the opaque world of NOC oil and gas sales, particularly in countries where NOCs have not provided such information to citizens in their home jurisdiction. For those companies embroiled in corruption investigations related to oil trading, making such NOC payment disclosures can help rebuild public trust in their business dealings. For example, despite corruption investigations into oil trading in Brazil and Venezuela, the named trading companies are yet to volunteer to disclose their oil purchases from Petrobras and PDVSA.

International efforts are nevertheless underway to bring about greater company disclosure. In 2016, a number of countries made encouraging commitments to "enhance company disclosure regarding payments to government for the sale of oil, gas and minerals" at the 2016 London Anti-Corruption Summit.³¹ Among the countries that made these commitments were trading hubs where companies that purchase oil and gas from NOCs are registered or listed. These countries included key trading hubs such as the Netherlands, Switzerland and the United Kingdom.

In taking forward its commitment, the U.K. government has been instrumental in establishing a forum at the OECD on commodity trading transparency.³² Among the agreed activities of this forum is the development of a global reporting template for payment disclosure by companies involved in commodity trading.³³ In May 2019, the U.K. government further elaborated on this commitment by announcing that it would "establish and implement a common global reporting standard" on company disclosure in this area.³⁴

- 30 Taxes and license fee information taken from each company's mandatory payments to governments report, available at www.resourceprojects.org. BP includes crude oil purchases made together with joint venture partner PetroChina. Lukoil includes payments made by its trading subsidiary Litasco. Cash payments for the purchase of crude oil is taken from the Iraq's 2016 EITI report.
- 31 UK Country Statement, Anti-Corruption Summit London 2016: assets.publishing.service.gov.uk/ government/uploads/system/uploads/attachment_data/file/522749/United_Kingdom.pdf and Switzerland Country Statement, Anti-Corruption Summit – London 2016: assets.publishing.service. gov.uk/government/uploads/system/uploads/attachment_data/file/522732/Switzerland.pdf
- 32 OECD, Background Note on Commodity Trading Transparency (2017), www.oecd.org/dev/
- inclusivesocietiesanddevelopment/Background-note-on-Commodity-Trading-Transparency-PD-NR.pdf.
 This template will not be limited to oil or only to EITI countries like the current template issued by the EITI's Working Group on Transparency in Commodity Trading mentioned further above.
- 34 Government of the United Kingdom, UK National Action Plan for Open Government 2019-2021, www. gov.uk/government/publications/uk-national-action-plan-for-open-government-2019-2021/uknational-action-plan-for-open-government-2019-2021.

Figure 8. Iraq's payments to governments for extractive activities versus for purchase of crude oil, 2016 (\$ million)³⁰



For its part the Swiss government complemented the U.K.'s approach in November 2018 by recommending that EITI guidance be used to develop a standard on transparency of payments to governments in commodity trading to be adopted by the OECD.³⁵

In January 2019, the IMF published Pillar IV of its Fiscal Transparency Code.³⁶ Pillar IV is the IMF's framework on fiscal transparency for natural resource revenue management and provides the basis for the IMF's fiscal transparency evaluations. Significantly, the 2019 Pillar IV and accompanying report makes clear that payments to governments in relation to commodity trading should be made transparent, and notes that governments can support this process by requiring companies to disclose these transactions. (See box 2.)

Box 2. IMF endorses company disclosure on commodities trading

IMF Fiscal Transparency Code – Pillar IV on Principle 4.4.2. Reporting by Resource Corporations (emphasis added through <u>underlined text</u>)

31. Open and transparent reporting of resource corporations' payments to government is an important element of transparency. Governments can support this process by requiring that companies report on all payments to government, including payments in kind, on a project-by-project basis where possible. The disclosure requirement would extend to any corporate entity, including state-owned enterprises, engaging in natural resource exploration, extraction or <u>commodity</u> trading activity. [Footnote]

Footnote text: <u>As such, trading companies which purchase commodities from</u> government or state-owned enterprises are also responsible for disclosing revenue payments to government.

Box 3. Major investor endorses company disclosure on commodities trading

Commenting on potential changes to the European Union's payments to governments legislation, Norges Bank Investment Management. which manages Norway's Government Pension Fund Global, one of the world's largest sovereign wealth funds valued at approximately USD 1 trillion, said in 2018: "These requirements could be expanded to include payments that companies make to governments for the purchase of crude oil and minerals. Such payments are currently non-transparent to investors. However, they may be economically significant and – without transparency – can present the same corruption risk as other types of payments to governments."³⁷

35 Swiss Federal Council, *The Swiss commodities Sector: Current Situation and Outlook* (2018), p. 38, www.newsd.admin.ch/newsd/message/attachments/55063.pdf.

- 36 IMF, Fiscal Transparency Initiative: Integration of Natural Resource Management Issues (2019), www.imf.org/en/Publications/Policy-Papers/Issues/2019/01/29/pp122818fiscal-transparencyinitiative-integration-of-natural-resource-management-issues.
- 37 Norges Bank Investment Management (NBIM) response to European Commission *Fitness check* on the EU framework for public reporting by companies (2018), ec.europa.eu/info/consultations/ finance-2018-companies-public-reporting_en.

III. USE OF OIL SALES DATA FOR ACCOUNTABILITY

While detailed and timely information on oil sales activities is still very limited, case studies are emerging of oversight actors using what data is available to scrutinize NOCs' performance in selling their states' share of oil production.

The case studies outlined below are intended to illustrate how the provision of detailed information, either by the NOC or government or buying company can be used to address the corruption and governance risks described in this report.

Scrutinizing SNPC's commodity trading activities

In 2017, Publish What You Pay (PWYP) in the Republic of Congo sought to find out how much the country's NOC Société Nationale des Pétroles du Congo (SNPC) generated from selling the state's oil, what price they achieved per barrel and how much of this revenue was passed onto the state treasury.³⁸ Congo is heavily dependent on SNPC's ability to effectively and efficiently sell the state's share of oil, with over 90 percent of the country's total resource revenue coming from the NOC's sale of oil and gas.³⁹

The data required to answer these questions was only partially available. The country's EITI reports provided the number of barrels sold, the revenues from these sales, the allocation of these sales to the budget of the state, and the legal framework pertaining to the sales process. While this information enabled PWYP to answer the first question regarding how much the national treasury was collecting from the sale of the state's oil, it was not granular enough to meaningfully answer the second question of whether SNPC achieved a fair price for the oil it sold.

A second important source of data on SNPC's oil sales was KPMG's quarterly reports on certification of oil receipts, which for each sale provided:

- Date of sale
- Quality of crude sold
- Volume sold
- Price per barrel achieved
- Exchange rate used
- Income generated on a sale-by-sale basis
- Amount transferred to the public treasury after deduction of expenses by SNPC

The production of these quarterly reports on certification of oil receipts emerged from an agreement in 2004 between the IMF and the government of Congo in relation to financial support. These reports were briefly made publicly available for years 2009 to 2013 but are no longer being published.⁴⁰

A major finding of the research was that the amount retained or spent by SNPC, rather than transferred to the treasury, rose sharply during the years of available data (2011 to 2013). According to the data available in the KPMG quarterly reports,

- 38 This research was carried out as part of PWYP's Data Extractors Program, information on this program is available at: www.publishwhatyoupay.org/wp-content/uploads/2016/12/PWYP-Data-Extractorsprogramme-brochure.pdf.
- 39 Figures drawn from year 2013. PWYP Congo Brazzaville, *Sale of Oil by the State: how to improve transparency in Congo B* (2019), www.pwyp.org/pwyp-resources/sale-of-state-oil-in-republic-congo.
- 40 EITI International Secretariat, *Validation of the Republic of Congo Report on initial data collection and stakeholder consultation* (2017), eiti.org/sites/default/files/documents/eiti_-_roc_eiti_2017_ validation_-_draft_report_on_initial_data_collection_and_stakeholder_co.pdf.

A major finding of the research was that the amount retained or spent by SNPC, rather than transferred to the treasury, rose sharply during the years of available data (2011 to 2013). the percentage of revenues retained by SNPC jumped from around 2 percent in 2011 and 2012 to 18 percent in 2013. No explanation for this steep rise was offered in the reporting.⁴¹

PWYP Congo also examined the sale price achieved by SNPC and this information allowed civil society to raise questions about the commercial performance of the NOC and its oversight mechanisms. They have also used this research to push for SNPC to increase its own reporting and increase the level of detail available on SNPC's oil sales activities in the country's EITI reports, especially in the light of KPMG's quarterly certification of oil receipts reports no longer being published. In February 2019, EITI Congo released its 2016 Annual EITI report which for the first time included detailed information on SNPC sales of the state's share of oil, including the date of sale, volume, unit price, revenues and buyer.⁴²

Inside NNPC's oil sales

Nigeria's NOC, the Nigerian National Petroleum Corporation (NNPC), is a central source of government revenue and its performance is critical to the economic development of the country. In 2015 NRGI conducted an in-depth analysis of NNPC's oil sales processes and offered recommendations for reform.^{43,44}

Oil sales data from Nigeria EITI's oil and gas audit reports, along with other sources of information, allowed NRGI to:

- Examine the terms and mechanics of complex contracts undertaken by NNPC, including most notably NNPC's oil-for-product swap arrangements. These arrangements were poorly structured and did not represent a good deal for Nigerian citizens. The report estimated that losses from three provisions in a single contract could have reached \$381 million in a single year.
- Calculate figures demonstrating key governance risks including the amount of oil sale revenues withheld from the treasury over time, commissions paid to middlemen companies involved in NNPC's sales and government revenue losses from subsidizing NNPC activities.
- Highlight billions of dollars in quasi-fiscal spending out of oil sale proceeds by NNPC over the 2010 to 2015 period.

Three weeks after the release of *Inside NNPC Oil Sales*, the NOC canceled several of the problematic oil swap contracts, replacing them with deals that reflected some of recommendations contained in the report.⁴⁵ This analysis by NRGI relied heavily on oil sales data to highlight and quantify the weaknesses in NNPC's sales process and to suggest policy reforms to increase the revenue Nigeria was able to generate from its substantial oil wealth.

⁴¹ PWYP Congo Brazzaville. Sale of Oil by the State, p. 3.

⁴² EITI Congo. EITI Congo Annual Report 2016 (2019), eiti.org/sites/default/files/documents/rapport_ itie_congo_2016_version_finale.pdf.

⁴³ Sanusi Lamido Sanusi, Memorandum Submitted to the Senate Committee on Finance on the Non Remittance of the Oil Revenue to the Federation Account (3 Feb 2014).

⁴⁴ Sayne, Gillies and Katouris, Inside NNPC Oil Sales.

⁴⁵ Natural Resource Governance Institute. *NRGI Impact: Better Management of Nigerian Oil Sales* (2017), resourcegovernance.org/analysis-tools/publications/nrgi-impact-better-management-nigerian-oil-sales.

Analysis of the use of oil to repay loans in Ecuador

Journalists have drawn on sporadically available oil sales data to shed light on how various oil producers use oil to repay enormous loans. In Ecuador, Reuters pieced together oil sales data from seven different contracts to shed light on how much oil PetroEcuador sold to Chinese NOCs in a report on the country's heavy reliance on Chinese lending.⁴⁶ They reported that China had lent the government of Ecuador an initial \$2 billion dollars, with an agreement that PetroEcuador would sell Chinese firms hundreds of millions of barrels of oil at a fixed price. In one report, Richard Aidoo and his coauthors found that these deals have resulted in Ecuador "repaying substantially more than the loan amount with interest and losing the ability to sell its oil on the international market."⁴⁷ As a result of these loan agreements with China, PetroEcuador was only able to sell around 10 percent of their oil on international markets and thereby potentially achieve a better price. Reuters also reported that Ecuador has sought to renegotiate these oil deals with Chinese firms to achieve a higher price for its oil.⁴⁸

This case demonstrates the need to scrutinize the terms negotiated by an NOC when selling the state's oil. Not only do NOCs risk agreeing to a price that undervalues the state's oil, but when using the oil to secure financing, its oil sale practices can place the macroeconomic wellbeing of the country in jeopardy. As was outlined in section 1, the challenges of oil backed loans of this nature have also arisen in Chad's struggles to repay loans to Glencore.

In Ecuador, greater transparency would have permitted the journalists and other observers to detail exactly how much oil was going to Chinese buyers, the price received compared to the international market price, and how those sales relate to the repayment of large oil-backed NOC and government loans.

In Ecuador, Reuters pieced together oil sales data from seven different contracts to shed light on how much oil PetroEcuador sold to Chinese NOCs in a report on the country's heavy reliance on Chinese lending.

- 46 Joshua Schneyer, Nicolas Medina and Mora Perez. "Special Report: How China took control of an OPEC country's oil." *Reuters*, 26 Nov 2013, www.reuters.com/article/us-china-ecuador-oil-special-report/ special-report-how-china-took-control-of-an-opec-countrys-oil-idUSBRE9AP0HX20131126.
- 47 Richard Aidoo, Pamela Martin, Min Ye and Diego Quiroga. *Footprints of the Dragon: China's Oil Diplomacy and its Impacts on Sustainable Development Policy in Ecuador and Ghana* (International Development Policy, 2017), journals.openedition.org/poldev/2408 tocto1n4.
- 48 Alexandra Valencia. "Ecuador seeks renegotiation of China oil sales, loans." *Reuters*, 25 October 2017, www.reuters.com/article/ecuador-oil/ecuador-seeks-renegotiation-of-china-oil-sales-loans-idUSL2N1MZ1G5.

CONCLUSION AND POLICY RECOMMENDATIONS

In this briefing we have drawn on the largest publicly available dataset on the revenues and key performance indicators of NOCs to shed new light on the governance and corruption risks of their oil sales activities. Drawing on oil sales data from 39 NOCs in 35 countries, we have shown that: the sale of oil is an economically significant activity for a large number of countries; most NOCs only pass on a small percentage of their oil sales revenue to the government treasury and that these huge public revenues are being managed by NOCs that operate in environments that lack basic transparency, accountability and good governance practices.

Progress made in certain EITI countries on oil sales transparency is commendable and promises to be further enhanced through implementation of the EITI's new requirements adopted in June 2019. However, over 90 percent of the oil sales revenue identified in this report, or \$1.4 trillion, was generated in non-EITI countries, which serves as a potent reminder that much remains to be done to improve transparency of these transactions.

Ongoing international efforts in the U.K., Switzerland and at the OECD will need to be judged based on whether they actually result in enhanced buyer company transparency. Since the commitments to enhance company disclosure were made by trading hubs such as the U.K. and Switzerland as part of the London Anti-Corruption Summit in 2016 only one additional oil trader (Glencore) has begun to unilaterally provide some of this information.

In the final section we presented case studies from the Republic of Congo, Nigeria and Ecuador of ways oil sales data, where available, has been used to scrutinize NOCs' commercial performance and to hold them accountable for the revenue generated when selling the state's oil.

Greater transparency on oil sales would begin to mitigate risks related to the selection of buyers, negotiation of the terms of the sale and the transfer of revenues from the NOC to the state treasury.

Recommendations

- In May 2019, the U.K. government acknowledged that "the largest payment stream missing from mandatory disclosure is payments to governments for the sale of publicly owned oil, gas and minerals (commodity trading), an area where corruption risk is acute." The logical next step is for the U.K. to amend its mandatory payments to governments law to include payments to governments for the purchase of oil, gas and minerals, in order to capture sales transactions from companies such as BP and Shell.
- The Swiss parliament is currently considering the details of its mandatory payment disclosure law. Swiss lawmakers should insist that the scope of the final law includes payments to governments for the purchase of oil, gas and minerals in order to facilitate global disclosure by traders such as Vitol, Trafigura, Glencore, Mercuria and Gunvor.
- As part of the European Commission's ongoing review of its mandatory payment disclosure law, it should conclude that the EU should amend its reporting regime to include payments to governments for the purchase of oil, gas and minerals. The Netherlands should champion these changes, given its prior commitments in this area.

- The U.S. Securities and Exchange Commission (SEC) says that in September 2019 it will commence a delayed rulemaking process to implement its own mandatory payment disclosure law (Section 1504 of the Dodd Frank Act). In its upcoming rule, the SEC should require disclosure of payments to governments for the purchase of oil, gas and minerals.
- Other leading commodity trading hubs, such as the United Arab Emirates and Singapore, should adopt their own laws to include payments to governments for the purchase of oil, gas and minerals. The OECD should prioritize engagement with these hubs as part of its forum on commodity trading transparency.
- Responsible commodity trading companies, including all EITI supporting companies that purchase oil and gas from NOCs, should help to improve transparency and mitigate corruption risks in this area by disclosing the payments they make to purchase these state assets.
- All NOCs should commit to providing details of the sale of the oil and gas they manage on behalf of citizens.

APPENDIX 1. NOCs INCLUDED IN ANALYSIS IN THIS REPORT

National oil company	Country	Oil sales, 2016 (\$ million)	Total NOC revenue, 2016 (\$ million)	General government revenue, 2016 (\$ million)	Total transfers to government, 2016 (\$ million)	Oil sales as a percentage of general government revenue, 2016 (%)
Sinopec Corp	China	282,970	290,604	3,167,733	38,695	9%
CNPC	China	281,723	289,174	3,167,733	33,288	9%
Saudi Aramco	Saudi Arabia	160,910	161,995	138,520	94,018	116%
Gazprom	Russia	85,830	102,449	420,269	30,403	20%
Petrobras	Brazil	81,405	84,767	546,803	6,277	15%
Rosneft	Russia	72,879	75,355	420,269	31,753	17%
KPC	Kuwait	62,918	63,223	59,215	34,391	106%
Pemex	Mexico	57,068	59,143	265,169	14,850	22%
PTT	Thailand	53,206	48,972	89,083	1,517	60%
Petronas	Malaysia	47,022	48,966	61,423	8,111	77%
Equinor	Norway	45,687	45,992	200,058	4,020	23%
PDVSA	Venezuela	41,977	48,002	524,181	5,450	8%
IPIC	United Arab Emirates	33,804		104,015		32%
Pertamina	Indonesia	33,495	36,487	133,615	2,338	25%
Sonatrach	Algeria	31,048	37,124	45,792	17,023	68%
SOCAR	Azerbaijan	28,784	33,105	12,963	589	222%
ONGC	India	20,062	20,190	473,591	4,980	4%
CNOOC Limited	China	18,260	22,047	3,167,733	3,849	1%
Ecopetrol	Colombia	15,629	16,058	70,297	3,278	22%
YPF	Argentina	14,080	15,412	194,578	1,195	7%
Sonangol	Angola	13,955	14,982	17,720	6,054	79%
NNPC	Nigeria	10,928		22,461		49%
Naftogaz	Ukraine	7,544	7,647	35,775	1,533	21%
Petroecuador	Ecuador	7,298		30,314		24%
KazMunayGas	Kazakhstan	4,187	5,429	22,136	1,416	19%
Orsted	Denmark	2,509	10,510	163,231	255	2%
Petrotrin	Trinidad and Tobago	2,446	2,479	5,129	590	48%
Petrobangla	Bangladesh	1,309	1,319	22,220	956	6%
TAQA	United Arab Emirates	1,202	4,438	104,015	49	1%
PetroSA	South Africa	1,070	1,077	84,726	0	1%
SNH	Cameroon	815		4,833		17%
MOGE	Myanmar	623	1,489	12,147	971	5%
ETAP	Tunisia	382	429	9,599	123	4%
SHT	Chad	377	377	1,268	377	30%
Petroci	Côte d'Ivoire	312	342	7,043	42	4%
GNPC	Ghana	217	512	7,383	129	3%
Perupetro	Peru	187	843	36,432	229	1%
Staatsolie	Suriname	156	368	575	8	27%
ENH	Mozambique	6		2,856	3	0%

APPENDIX 2. EXAMPLES OF EITI SALE-BY-SALE PUBLIC DISCLOSURE

Ghana, 2017⁴⁹

Lifting	Name of seller	Oil grade and quality (e.g. API) - cargo by cargo disclosures only	Date of Sale - (Bill of lading date cargo by cargo disclosures only)	Type of state-owned oil sold (e.g. profit oil)	Invoice #	Buyer	Incoterms	Load port, terminal or depot
TEN 3rd	GNPC	TEN Blend Crude API 34.40	18-Jun-2017	Equity production / royalty obligations	PIN/T/ TC/17-002	GLENCORE	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE GHANA
Jubilee 41st	GNPC	Jubilee Crude API 36.4	16-Dec-2017	Equity production / royalty obligations	PIN-T- JC-18-001	GLENCORE	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE GHANA

Volumes sold (barrels)	Revenues received US\$	Price information: Unit price US\$/bbl	Price information: pricing option	Contract type	Pricing option fee US\$/bbl	Payment receipt date	Payment account	Destination (sellers only)
995,657	45,175,945.06	45.273	5 DAYS AROUND B/L	Spot	\$0.10	18-Jul-17	BANK OF GHANA	Rotterdam for orders
992,459	63,387,363.87	63.869	5 DAYS AFTER B/L	Spot	n/a	15-Jan-18	BANK OF GHANA	CHINA

Chad, 2017⁵⁰

Name of seller	Oil grade and quality (e.g. API cargo by cargo disclosure only)	Date of sale (Bill of lading date - cargo by cargo disclosure only)	Type of State owned oil sold (e.g. profit oil)	Contract #/p/o#/ invoice#	Buyer	Incoterms	Load port, terminal or depot	Volumes sold (barrels)
SocietHydrocarbTChad	Doba	09-Mar-17	Equity	50379944	Glencore Energy UK Ltd	FOB	KomeKribi	950,883.00
SocietHydrocarbTChad	Doba	08-Jan-17	Royalty	50406964	Glencore Energy UK Ltd	FOB	KomeKribi	903,210.00
SocietHydrocarbTChad	Doba	24-Apr-17	Royalty	50513771	Glencore Energy UK Ltd	FOB	KomeKribi	950,572.00
SocietHydrocarbTChad	Doba	15-Jun-17	Royalty	50613974	Glencore Energy UK Ltd	FOB	KomeKribi	951,079.00
SocietHydrocarbTChad	Doba	08-Aug-17	Equity	50682959	Glencore Energy UK Ltd	FOB	KomeKribi	948,997.00
SocietHydrocarbTChad	Doba	02-0ct-17	Equity	50856190	Glencore Energy UK Ltd	FOB	KomeKribi	903,469.00

Revenue received	Price information: official selling price	Price information: pricing option	Contract type	Forex rate	Payment receipt date	Payment account	Destination (sellers only)
49,637,994.37	52.202	5 Quotes 10 Days Before BL	Buy	USD	07-Apr-17	Citibank Escrow Account	Japan
44,785,667.85	49.585	5 Quotes 10 Days Before BL	Buy	USD	07-Feb-17	Citibank Escrow Account	US Gulf Coast
47,510,539.13	49.981	5 Quotes 10 Days Before BL	Buy	USD	24-May-17	Citibank Escrow Account	China
40,884,984.05	42.988	5 Quotes After BL	Buy	USD	14-Jul-17	Citibank Escrow Account	India
44,023,970.83	46.390	5 Quotes 5 Days After BL	Buy	USD	07-Sep-17	Citibank Escrow Account	China
49,996,167.52	55.338	5 Quotes After BL	Buy	USD	01-Nov-17	Citibank Escrow Account	Fujairah

EITI, Ghana EITI Commodity Trading Pilot (2018), www.gheiti.gov.gh/site/index.php?option=com_phocadownload&view=category&downloa d=349:ghana-eiti-commodity-trading-pilot-data-excel&id=42:trading-reports<emid=54.
 EITI, Chad 2016 EITI report (2016), p. 178, eiti.org/sites/default/files/documents/rapport_itie_tchad_2016.pdf.

Alexander Malden is a governance associate with the Natural Resource Governance Institute

Joseph Williams is an advocacy manager with the Natural Resource Governance Institute

ACKNOWLEDGEMENTS

The authors would like to thank Alexandra Gillies and Patrick Heller for their invaluable input and guidance in developing the briefing. The authors would also like to thank Anna Fleming for her assistance in assembling the data for this analysis. Finally the authors would like to thank Charlotte Boyer and Aaron Sayne for their inputs into the data use case studies in the briefing.

The Natural Resource Governance Institute, an independent, non-profit organization, helps people to realize the benefits of their countries' oil, gas and mineral wealth through applied research, and innovative approaches to capacity development, technical advice and advocacy. **Learn more at www.resourcegovernance.org**

