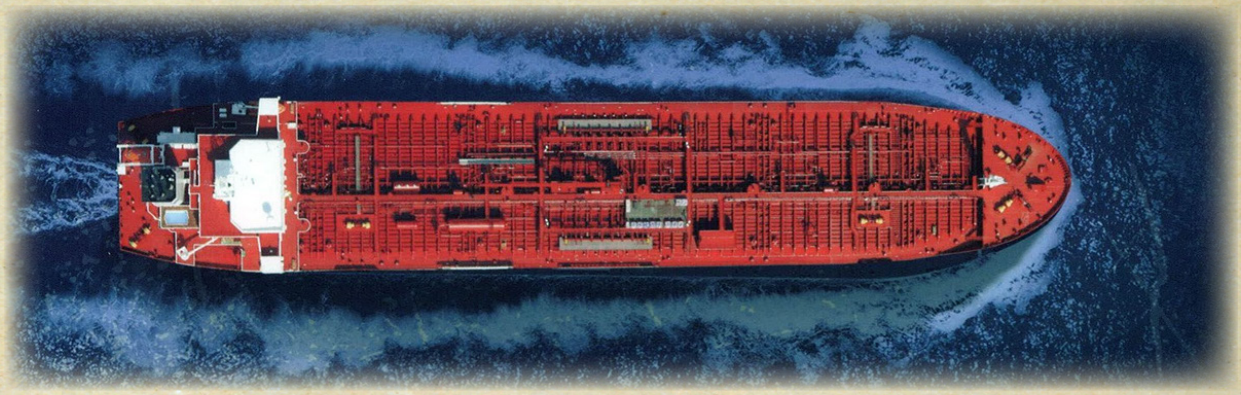
CMI CHR. MICHELSEN INSTITUTE

U4 ISSUE

June 2017 No. 6



Trading in corruption: Evidence and mitigation measures for corruption in the trading of oil and minerals

Olivier Longchamp and
Nathalie Perrot

Public Eye

U4 Anti-Corruption Resource Centre
www.U4.no

U4 is a web-based resource centre for development practitioners who wish to effectively address corruption challenges in their work.

U4 is operated by the Chr. Michelsen Institute (CMI) – an independent centre for research on international development and policy – and is funded by the DFAT (Australia), Danida (Denmark), DFID (UK), BMZ (Germany), Norad (Norway), SDC (Switzerland), Sida (Sweden) and the Ministry for Foreign Affairs of Finland.

Cover photo: flickr user International Maritime Organization

(Creative Commons)

Trading in corruption: Evidence and mitigation measures for corruption in the trading of oil and minerals

Olivier Longchamp and Nathalie Perrot

U4 Issue
June 2017 No 6

Anti-Corruption Resource Centre
www.U4.no

Keywords
Natural resource management, oil, minerals, resource curse, commodity trading, corruption, national oil companies, state-owned enterprises, extractive revenue misappropriation.

About the authors
Olivier Longchamp is in charge of tax policy and international finance at Public Eye. Nathalie Perrot is a legal advisor. She previously worked for Public Eye as a project manager.

About Public Eye
Created in 1968 and now with 25,000 members, Public Eye (formerly the Berne Declaration) is an independent Swiss NGO that uses a mixture of research, advocacy, and campaigning to fight for human rights and justice around the world, especially in poorer countries where Switzerland and its companies are involved. Public Eye has worked on Switzerland's commodity trading sector since 2011.

Acknowledgements
We would like to thank the following people for providing information and constructive comments on earlier drafts of this paper: Alexandra Gillies, Aaron Sayne and Joe Williams (NRGI); Laure Brillaud (TI); Werner Thut (SDC); Marc Guéniat, Silvie Lang, Andreas Missbach, Urs Rybi, Lyssandra Sears, and Valentino Viredaz (Public Eye). Kendra Dupuy and Aled Williams (U4–CMI).

Abstract

Between 2011 and 2013, sales of government oil from the ten biggest producers in sub-Saharan Africa accounted for 56% of these countries' total public revenues. Despite their importance, however, such sales have received little political or academic attention until recently. Corruption risks associated with this phase of the commodity value chain are high due to the volumes of the financial transactions, the high degree of interaction with public authorities, the opacity of both the sales themselves and the actors involved, and a lack of regulation. Several case examples show that these risks are not merely theoretical. We summarise the state of research on this subject, paying special attention to buyers, whose responsibilities have been little discussed. We offer a typology of corruption risks in first sale trades of oil and minerals, and analyse existing measures to tackle them.

Table of contents

1. Introduction

Commodity production has become dramatically more significant for developing countries in recent years than was the case in previous decades. Using the United Nations Conference on Trade and Development's (UNCTAD) criteria, which look at the ratio of the value of a country's commodity exports to the value of its merchandise exports, 94 countries were dependent on commodities in 2013, compared with only 58 in 1995 (UNCTAD 2015, 15; Dobbs and al 2013, 25). For the most part, the new arrivals are developing countries, including the Democratic Republic of Congo and Zambia with copper, Angola and Equatorial Guinea with oil, Mozambique and Tanzania with gas, and Sierra Leone with iron ore (Collier 2013). Some 69% of people in extreme poverty live in commodity-rich developing countries (Dobbs et al. 2013). Half of the known iron, oil, and gas reserves can be found in these same countries. If this wealth could be used to benefit these countries' citizens, extreme poverty could almost be halved by 2030, and some 540 million people could find their way out of poverty (Dobbs et al 2013, 31–33).

Many developing countries are, however, unable to turn their vast, high-value natural resource wealth into economic development gains. Instead, they are often plagued by armed and/or social conflict, while democracy, where it exists, tends to be weak. Even when resource-rich countries achieve economic growth, human development indicators remain low and the distribution of wealth stays extremely unequal. This paradox – the "resource curse" – has become a familiar concept in academic literature and debates on development policy (see, for example: Auty 1993; Sachs and Warner 1995; Ross 1999; Rosser 2006; Collier and Goderis 2007; Humphrey, Sachs and Stiglitz 2007; IMF 2007; Collier 2010; Collier and Venables 2011; Stevens 2015).

Corruption is often identified as a main cause of the resource curse, explaining why the populations of resource-rich countries do not benefit from their country's natural resources. Reviewing the available literature, Kolstad and Søreide conclude that "corruption is a huge problem in many developing countries rich in oil and other natural resources, and is central in explaining why these countries perform badly in terms of socio-economic development" (Kolstad and Søreide 2009, 214). Political debates often reach the same conclusion and many international organisations base their policies on this perspective. In 2007, for example, the International Monetary Fund (IMF) mentioned "problems" caused by the natural riches of developing countries. It noted that "when the administration is weak, possessing such riches gives way to inefficient policies, discretionary behaviour and endemic corruption that can contribute to bad performances in terms of growth and finally waste" (IMF 2007, 2).

Companies active in the oil, gas and mineral sectors tend to have poor reputations when it comes to corruption. According to Transparency International's (TI) Corruption Perception Index (CPI), oil and gas is the fourth most corrupt international commercial sector, with mining in fifth place (TI 2011, 15). More recently, in 2014, the OECD published a report to quantify and describe transnational corruption, using information from 427 legal cases processed since 1999, when the OECD anti-bribery convention came into force (OECD 2014, 8, 23). The report showed that one in five cases (19%) of transnational corruption took place in the extractive sector, suggesting that this sector is the world's most problematic, ahead of arms dealing or public works that – according to the CPI – have worse reputations. Analysts have furthermore established a close relationship between the extractive sector, especially oil and gas, and illicit financial flows (cf. Le Billon 2011, 1–3; WB 2016: §27–32; Mpenia, Metseyem, and Ngah Epo 2016; UNCTAD 2016).

The extent of corruption in both commodity rich countries and in the extractive sector has led to several political initiatives, which aim to address the resource curse. For instance, the World Bank has implemented specific projects against corruption in the extractive sector (WB 2016, § 27–32), as have

various development agencies.[1] At the international level, the Extractive Industries Transparency Initiative (EITI) is the most important. Launched in 2002, this initiative targets producer countries and companies alike. Governments that voluntarily join the EITI commit themselves to publish on a yearly basis the payments they receive from extractive companies, such as licence fees, tax, or royalties. They also commit to require – on a legal basis – that extractive companies publish their respective payments. Reconciliation of this data can identify discrepancies that may indicate corruption. The logic of this initiative is that when revenues stemming from natural resources become more transparent, governments should become more accountable to civil society for the way these revenues are spent.

Discussions abound as to the factors that determine levels of corruption in commodity-rich countries. A key observation is that until recently there were hardly any political or academic discussions on the corruption risks associated with the conditions under which producer states sell their natural resource commodities. This paper aims to shed light on this particular topic, focusing on the risks of corruption in the trade of oil and minerals.[2] We use the word "corruption" in a broad sense, taking Transparency International's definition[3] as the "abuse of entrusted power for private gain." This definition aims to capture a wide range of illegitimate practices that mean an individual – or individuals – can grab extractive revenues for their own private use, thus preventing these revenues from benefitting the citizens of the commodity-rich state. This definition goes beyond the paying of bribes. It also covers practices such as embezzlement, influence peddling, favouritism or the illegal financing of political parties. The definition we employ deliberately goes beyond definitions used in many national anti-corruption laws.

We have identified four main reasons why commodity trading operations come with a high risk of corruption:

1. Commodity trading involves large amounts of finance;
2. Trade in state oil and minerals requires interaction with numerous public authorities, especially state-owned enterprises (SOEs). The wide range of tasks conducted by SOEs leads to many possibilities for individuals to abuse their public positions;
3. The sale transactions themselves and the actors involved are highly opaque;
4. Transactions are subject to no specific regulations or international standards.

We begin by looking at commodity trading and its overlooked importance in the corruption debate (section 2). We then explain why commodity trading matters (section 3), relying on new research conducted for this paper on EITI reports published by producing countries and figures related to state sales of commodities (see appendix 1). In section 4, we give examples of existing cases of corruption in the trade of oil and minerals and highlight the corruption schemes used. We focus on typical cases

1 The Norwegian Agency for Development Cooperation has programmes dedicated to the governance of managing oil resources (https://www.norad.no/en/front/thematic-areas/oil-for-development/oil-for-development-programme/); *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) supports similar projects, which focus on the mining sector, for example in Mozambique (https://www.giz.de/en/worldwide/19385.html). The UK's DFID participates in programmes to improve natural resource governance in the extractive sector and sustainable development, for example in Kenya (http://www.adamsmithinternational.com/explore-our-work/east-africa/kenya/the-sustainable-development-of-kenyas-extractive-industries-scoping-study-a). The list could well go on.

2 Oil is by far the most important commodity. The extractive sector currently generates about US$ 3.5 trillion in annual gross revenue, of which the oil sector accounts for about 65%. Coal and natural gas account for around 11% each and non-fuel minerals account for 13% (Le Billon 2011).

3 See: http://www.transparency.org/what-is-corruption#define

chosen from our own database of more than 60 corruption cases related to commodity trading operations. Section 5 explores possible remedies and the role of regulation in the home countries of companies that buy commodities from SOEs.

2. Commodity trading

2.1 A snapshot of commodity trading

Commodity trading is the intermediation between a commodity producer (a mine, or a company producing oil) and the user (a steel mill or an oil refinery). It is also called physical commodity trading to distinguish it from trading in commodity-based financial instruments, such as oil futures. Trading therefore includes activities such as storage, shipping, and blending of commodities of different grades and characteristics, adapting them to meet customer needs (Trafigura 2016 a).

Four main types of companies are active in international commodity trading:

1. The extractive companies, such as the major oil companies BP, Total, Shell, or ENI, who all have their own trading departments. Such companies sell the oil they produce, but they also buy and resell oil from third parties;

2. The so-called "independent international traders," – the companies that do not traditionally engage in production. The biggest independent trading houses by turnover are Swiss-based companies, such as Vitol, Trafigura, Gunvor or Mercuria. Hong Kong-based Noble belongs to the same category. Since the turn of the millennium, the major independent trading companies have – to differing degrees – integrated vertically: upstream, by integrating production activities, and downstream, by creating their own distribution networks, including petrol stations. As a consequence, the line that separated the oil and mining majors from independent traders has become blurred. A prominent case is Glencore, the former independent Swiss trader, which took over mining company Xstrata (Meersman, Rechtsteiner and Sharp 2012, 9; *The Economist* 2014; Blas 2012);

3. National oil companies (NOCs) with subsidiaries that specialise in trading commodities. In these examples, the state company has its own trading entity, which sells commodities from the producer country, and also buys from other producers or traders. Sinopec, the major state-owned oil and gas Chinese company, or SOCAR, Azerbaijan's NOC, are two such examples;

4. Investment banks that trade in physical commodities.

Additionally, end-users – like smelters, or refineries – might buy directly from the producers. This is often the case on oil markets at a national level, when SOEs have their own distribution networks or state-owned refineries.[4] It is less common – though not impossible – at an international level.

As intermediaries, trading companies are in a position to offer financing arrangements or flexibility that end users rarely have. They benefit from expertise that enables them to identify the specific needs of consumers, for example regarding the physical attributes of the products they buy (Public Eye 2016, 99 sq.). In addition, some of these companies, like the independent traders, are used to operating in politically or logistically challenging environments (BD 2012, 292 sq).

4 In some cases, like in Nigeria, the domestic oil markets might be important and trade might take place at a national level, between the NOC and retail companies. In some cases like in Congo-Brazzaville, refineries might be SOE, that are not belonging to the NOC.

A tanker load of oil can be traded several times while at sea before reaching its final customer, but such trading between private companies is beyond the scope of this paper. Instead, we focus on the first sale between SOEs and companies active in commodity trading, where corruption risks relating to the resource curse are significant.

2.2 Blind spots

Academic research on commodity trading is scarce.[5] To the best of our knowledge, no scientific study has yet attempted to rank the world's largest trading centres by importance, nor does consensus exist on the data that should be used. There are only estimates about the global market shares of different trading hubs, according to which Switzerland ranks first, accounting for about one quarter of global commodity trading (Berne Declaration, 2012).[6] In 2013, Swiss federal authorities released estimates of the various commodity markets, according to which Switzerland ranks first for oil (with a market share of 35%) ahead of London (25%), New York (20%) or Singapore (15%). For metals and minerals, Switzerland's estimated market share of 60% is even higher; Singapore and Shanghai are both laggards with a joint market share of 20% (Swiss Federal government 2013, 13). Swiss authorities themselves note that these figures are based "on estimates provided by the sector itself" and that it is "impossible to verify them." This confirms our assessment that not only is scientific analysis lacking, but that basic, independent, data on commodity trading is missing.

Until recently, most academic research on corruption in the oil and mineral sector omitted trading and focused almost exclusively on extractive activities. The risks of corruption in the licensing of oil or mining concessions have often been addressed (cf. Chêne 2007; Al-Kasim, Søreide and Williams 2008; Gajigo, Mutambatsere, and Ndiaye 2012; GW 2010, 2012, 2014 and 2016). An OECD study published in 2012 referred to "evidence of large-scale corruption in the oil sector in the 1980s and in the 1990s, mainly centred on manipulation of the process of awarding concessions" (OECD 2012, 46). The risks of income misappropriation in activities such as regulation, tax collection, or the distribution of revenue coming from natural resources have also been covered (cf. Daniel, Keen and McPherson 2010). However, the risks of corruption in the sale of commodities by SOEs have hardly been dealt with, even though these sales are an important source of income for commodity-rich countries (see section 3.1).

Research on corruption in the extractive sectors tends not to mention sales by SOEs. Kolstad and Søreide, for instance, explore corruption risks in the extractive industries' value chain, but omit the selling phase (Kolstad and Søreide 2009, 220). Another 2014 study identifies good practice for mitigating corruption risks in the main stages along the extractive industries' value chain. But while it identifies five main risk areas, it also omits the selling phase (Lindner 2014, 2).

Outside of academia there are studies that analyse the risks associated with the first sale phase. NGOs and international organisations such as the World Bank (see section 4) have produced several case studies focusing on this phase. But in the few cases where discussion touches on the risks of corruption in the selling phase, the focus is usually on SOEs in producer countries, especially NOCs. The roles and responsibilities of buyers are rarely addressed (for example see: McPherson and MacSerraigh 2007, 207). This is despite the fact that many acts of corruption typically require at least two parties. In a simplified

5 Chêne (2016) makes the same observation.

6 Blas (2013); Chêne (2016); Damgé (2013); Shumsky and Kent (2014); Terazono and Blas (2013) rely on the same estimates.

Box 1: Switzerland, the world's leading commodity trading hub

As Swiss authorities have acknowledged, Switzerland is the world's leading commodities trading hub with an estimated 35% share of the oil market and 60% of the metals and minerals markets (Swiss Federal Government 2013). Reuters recently published new data on the oil market according to which the five largest Swiss independent traders (Vitol, Glencore, Trafigura, Gunvor and Mercuria) were trading almost 18 million barrels per day, equivalent to about 20% of global demand. By comparison, the three majors, BP, Shell and Total, trade around 15 million barrels per day (Reuters 2016).

Switzerland's natural resource trading sector developed quickly in the 2000s. According to estimates based on data from the Swiss National Bank (SNB 2012, 36), aggregate turnover in this sector grew more than tenfold during this period. The trading sector now generates more than 3% of Switzerland's GDP (SBA 2013, 15) and according to one of the major Swiss trading companies the country now houses at least four of the world's five largest independent trading companies for energy, metals and minerals (Trafigura 2016 a, 27). These include the world's largest independent oil trader, Vitol, whose 2015 turnover was close to US$ 168 billion, and its Geneva-based competitors, Mercuria, Gunvor, and Trafigura. The only publicly listed trading company based in Switzerland is Glencore, the world's primary trader in ore and non-ferrous metals. Listed on the London and Hong Kong stock exchanges, Glencore estimated in 2011 that it controlled 60% of the world's zinc and 50% of the world's copper markets (Glencore International PLC 2011, 44). Switzerland is also home to several companies active on agricultural commodity markets – covering grain, cocoa, coffee, and cotton, for example. It is also a prime location for the trading departments of multinational production companies such as Brazil's Vale, or commodity consuming companies such as multinational coffee company Starbucks. In total, sector representantives themselves estimate in media interviews that Switzerland hosts 500 companies active in commodity trading. Swiss authorities quote the same number, and add that they have no census that would be more precise.

case of bribery, the first party receives a bribe in exchange for unwarranted advantages. Examples include civil servants or political leaders (the "demand" side of corruption). The second party is the corrupter, who pays the bribe. An example in commodity trading would be where a private company pays a bribe to obtain an oil shipment at a good price (the "supply" side of corruption). Virtually no analysis has looked at corruption in this "supply side" of corruption inside first sales of commodities. Below, we look further at commodity buyers and their responsibilities.

2.3 Trading activities slowly entering the limelight

Data and analysis remain scarce, but more questions have been asked in recent years about the responsibilities of commodity trading companies for the resource curse in general and corruption in particular. At the international level, the most significant development occurred in 2013 when the Extractive Industries Transparency Initiative (EITI) expanded its transparency standard to include trading. EITI norms did not originally require any disclosure on sales by SOEs, focusing only on extractive activities. But the 2013 modification partially filled this loophole. It requires producer states to publish revenues or in-kind

payments from sales of oil, gas, and minerals. However, it does not require the purchasing companies to publish their payments and therefore conducting a reconciliation is voluntary and often impossible when companies do not publish the needed data on a voluntary basis.[7] Implementation is still in its infancy. In January 2016, only ten of the 49 EITI-implementing countries reported on such sales (EITI 2016),[8] although more are likely to follow.

In 2016, the OECD's work on natural resource corruption included publication of a study that analysed 131 corruption cases involving foreign public officials in the natural resources sector, including trading. The study concluded that 59 (45%) of these cases occurred during extraction (OECD 2016, 6). Most striking, however, is that 26 (20%) of the cases appeared to involve commodity trading. Moreover, these figures refer only to the number of cases, not to the sums of money misappropriated. If the latter were considered, then the scale of corruption in the trading phase, measured in terms of financial flows, would perhaps be even greater. For the first time, by releasing these results, the OECD identified specific measures to mitigate the risks of corruption during the sale of commodities. We will return to these measures later in this paper.

In the spring of 2016, the Anti-Corruption Summit in London concluded with a statement recognising the extractives sector as one of the most corruption risk-prone. In their country statements, eleven participating states highlighted the need to enhance disclosure by companies of payments to governments in the sale of oil, gas and minerals. The states included important producer countries such as Nigeria and Ghana, as well as the two most important trading hubs: Switzerland and the United Kingdom (UK).[9]

Besides these developments, the home states of natural resource trading companies are starting to recognise the challenges. In a letter sent to the NGO coalition Publish What You Pay (PWYP) after the London summit, the UK government acknowledged that "the UK has an important role to play as one of the world's largest commodity trading hubs, to ensure that these sales become transparent, in order to prevent corruption, provide accountability, and ensure that the extracted wealth of nations benefits their populations, not corrupt elites" (UK Government Letter to PWYP 2016). Addressing transparency by companies engaged in trading is also in the UK's Open Government Partnership action plan.[10] The Swiss government has also recognised the risks of corruption in commodity trading. In a 2015 report that evaluated the risks of money-laundering, Swiss authorities stressed that "the commodity sector poses the risk of Switzerland being used as a platform to launder assets derived from bribery committed abroad in resource producing countries for the purpose of obtaining contracts" (Swiss Federal Government 2015,

7 EITI, Rule 4.1.c established in 2013: 'Sale of the State's share of production or other revenues collected in-kind.' "Sale of the State's share of production or other revenues collected in-kind. Where the sale of the State's share of production or other revenues collected in-kind is material, the government, including State-owned enterprises, are required to disclose the volumes sold and revenues received. The published data must be disaggregated by an individual buying company." It is a "soft" version of revenue transparency, as it does not necessarily foresee that companies obtaining purchased cargo also publish the information relative to their transactions. This was revised in 2016 and was renamed 4.2. On this subject, see EITI (2015).

8 The countries were: Albania, Azerbaijan, Cameroon, Chad, Cote d'Ivoire, Ghana, Indonesia, Iraq, Norway and the Republic of the Congo. With implementation of this new standard underway, the list could expand rapidly in the coming months. As we discuss later (4.3), only three of those ten countries produce detailed information about their buyers to date (Dec 16).

9 The 12 May 2016 final statement (cited, §11) and the country statements can be found on the London Summit website (https://www.gov.uk/government/publications/anti-corruption-summit-country-statements).

10 UK's Open Government Partnership action plan to be accessed here: https://www.gov.uk/government/publications/uk-open-government-national-action-plan-2016-18/uk-open-government-national-action-plan-2016-18

117). The report went on to highlight that in such cases, "politically exposed persons (so-called "PEPs"[11]) [are] often involved" (Swiss Federal Government 2015, 123). Here there are similarities with the financial sector, where transactions involving PEPs are considered to be high-risk and requiring particular caution. This statement has been repeated in a 2016 report dedicated to illicit financial flows and Switzerland, that also acknowledged the link between illicit financial flows and commodity dependency (Swiss Federal Government, 2016)

In sum, corruption risks in the extractive sector have been studied for quite some time and have been identified as a key factor behind the resource curse. Until recently, however, scientific research and political discussions have shown little interest in commodity trading. Where interest has been shown, research and discussions have rarely focused on the purchasing company's responsibilities. As we will show in the following section, this grey area is surprising given the significant corruption risks and severe economic consequences for local populations in commodity-rich countries.

11 According to FATF Guidance, which made this concept commonplace in the language of anti-corruption, a politically exposed person (PEP) is "an individual who is or has been entrusted with a prominent public function. Due to their position and influence, it is recognised that many PEPs are in positions that potentially can be abused for the purpose of committing money laundering (ML) offences and related predicate offences, including corruption and bribery, as well as conducting activity related to terrorist financing (TF)." FATF-Guidance (2013). According to the principles that govern the implementation of FATF guidances, the various states which enforce the principles will each have to define a PEP in their own national legislation. So the legal definition of "PEP" might vary slightly from country to country.

3. Why trading matters

We have identified four main reasons to explain why corruption risks are high in commodity trading operations: the first is the financial size of so called "first sales" by SOEs.[12] The second is the important role of SOEs and the possibilities for private gain at public cost implied by the high degree of involvement of public authorities trading therefore implies. The third is the opacity surrounding both the sales themselves and the actors involved. The fourth is the absence of any specific regulations or international standards governing these transactions, beyond the limited transparency requirements of the EITI. We now discuss these risk factors in turn.

3.1 The amount of state-generated revenue through the sale of commodities

Revenues to the state deriving from the sale of commodities may be considerable, sometimes even more than the revenue generated by extractive activities such as tax payments, license fees, royalties, and so on. According to our own estimates, oil sales by the governments of the ten largest producers in sub-Saharan Africa equalled 56% of their combined revenues between 2011 and 2013 (BD, NRGI and SWISSAID 2014). In 2012, using relevant data from EITI and NOC reports, the non-profit organisation NRGI compared the revenue generated through oil sales by NOCs to total state revenues from a dozen countries to highlight how important such sales were: "In countries including Angola, Azerbaijan, Congo-Brazzaville, Iraq, Saudi Arabia and Yemen, crude sales bring in more than two-thirds of *total* government revenue. […] Even in Norway and Mexico, with their more diversified economies, export sales are equal to 14% and 17% of state revenue, respectively. To put this in perspective, the value of NOC oil sales is seven times as large as the health budgets in Angola and Azerbaijan" (RWI 2012b, 3). The Mexican state oil company Pemex financed almost 40% of the entire federal budget for over five years (Tordo, Tracy and Arfa 2011, 37).

Relying on data available in some of the rare EITI or SOE reports where such information is provided, we were able to add to this picture. In seven countries, we evaluated the value of the trade in hydrocarbons, then compared it to total state revenues and to revenues from extractive activities (Table 1). Our analysis shows that in three of the seven countries, oil sales represent more than half of overall government revenues. And in five of the seven countries – all of which, except for Azerbaijan, are considered by UNCTAD to be developing countries dependent on natural resources – oil sales represent over half of all government revenue from oil, gas, and mining. This shows how important commodity sales can be for state revenues. For many producer countries, revenues from sales are equivalent or even higher than revenues deriving directly from extractive activities such as royalties, tax payments or license fees, even though these extractive revenues have been at the centre of the corruption debate for the past 15 years. Even in Ghana, which is a new oil producer, oil sales by state enterprises are equivalent to more than half of its total state revenue. The picture is similar for the Ivory Coast.

12 According to EITI's definition related to the oil sector, "First sales" of comodities are the sale of commodities by SOEs EITI (2015).

Table 1 Share of state oil sales in total state revenue and share of those sales in total revenue from the extractive activities (in percentage) in seven selected countries. (For more details, refer to appendix 1).

1	2	3	4	5	6	7
Country	Year	Total government revenue (a)	Total extractive government revenue (b)	Amount of State oil sales (c)	State oil sales as a proportion to total government revenue (5/3)	State oil sales as a proportion of government revenue from oil, gas and mining (5/4)
		Mrd USD	Mrd USD	Mrd USD		
Congo-Brazzaville	2013	6.75	5.26	5.36	79%	102%
Azerbaidjan	2014	28.86	17.81	15.40	53%	86%
Nigeria	2012	66.88	52.45	42.49	64%	81%
Cameroon	2013	5.25	1.60	1.10	21%	69%
Ghana	2013	7.98	1.38	0.71	9%	52%
Ivory Coast	2013	6.15	0.74	0.35	6%	47%
Chad	2013	2.53	1.74	0.38	15%	22%

Sources:
(a) IMF, World Economic Outlook Database, April 2016; exchange rate used in the EITI reports and on usual websites
(b) EITI reports for the country and year under consideration
(c) These amounts correspond to available estimations of quantity of oil sold by state-owned entities
They are based on the EITI reports and the financial statements of the state-owned entities

We have less information about the mining sector, in which SOEs are less widespread than in the hydrocarbon sector. Some specific examples allow us, however, to say that in countries with state-owned mining companies, sales of natural resources might also represent a significant fraction of total state revenue. According to UNCTAD, Chile's state-owned mining company, Codelco, accounted on average for 13.5% of the country's annual revenue between 1990 and 2010. This revenue came both from profits related to sales of Codelco's mining production and from the taxes that Codelco paid to the state (UNCTAD 2012). According to the company's latest financial report, which covers 2013 (Codelco 2015, 78), this percentage would be in the order of 19% for 2013.[13] In Botswana, the production and trade of diamonds involving

13 Calculations were made on the basis of IMF (2016). This is true for the other estimates of sales in relation to state revenues in this paragraph.

both the state-owned Debswana and De Beers accounted for 41% of the public coffers (Ndlovu 2014). In Morocco, the state-owned Office of Cherifian Phosphates (OCP) estimated its sales at around US$ 1.3 billion for 2013 (OCP 2014, 31), representing 4% of total state revenues, equal to about US$ 29.7 billion. Despite the lack of overall figures, we can reasonably conclude that commodity sales from SOEs might matter in some cases as much as revenues stemming directly from extractive activities.

From an anti-corruption perspective, the commodities trade involves sizeable amounts of money, and this constitutes a risk factor in itself. The amounts are such that even minor embezzlement, some few cents per thousand, may actually constitute substantial amounts in terms of absolute value. On the other hand, the chances of identifying such "minor" embezzlement are relatively low. For a cargo valued at tens of millions of dollars, for example, it can be difficult to spot a price difference of less than 1%, a slight difference in volume, or cheating on a product's quality.

3.2 The important role of state-owned enterprises in selling oil and minerals and the high degree of interaction with public authorities that trading implies

A general rule of thumb in the anti-corruption literature is that the greater the opportunities for public-private interactions, the more opportunities there will be for corruption. Beyond the usual sovereign responsibilities, such as collecting taxes, the state plays a number of roles related to selling commodities. It can award extractive licenses and export permits or sell states' shares of production. The power of state authorities extends even further. They may act as regulators, controlling levels of production or access to transport infrastructure, such as ports and pipelines. They can also act as investors in the exploitation of natural resources, side-by-side with private companies.

With regard to oil, SOEs are crucial actors: 54 of the 60 nations with the greatest oil production per capita have SOEs (NRGI 2015b). Eighteen of the 25 most important oil or gas producing companies worldwide are either wholly or partly state-owned, reportedly accounting for three quarters of the world's crude oil production and between 80% and 90% of the world's estimated oil and gas reserves. Moreover, NOCs control the territory covering an estimated 60% of undiscovered oil reserves (Tordo, Tracy and Arfaa, 2011, xi). The seven most important NOCs – Saudi Aramco, the Russian Gazprom, Chinese CNPC, Iranian NIOC, Venezuelan PDVSA, Brazilian Petrobras and Malaysian Petronas – now control a third of the world's oil and gas production. This equals three times the volume generated by the four private Western companies – BP, Chevron, Shell, and Exxon – usually known as the "oil majors", descendants of the "seven sisters" that dominated oil extraction until the 1970s (Hoyos 2007). The situation is similar for natural gas.

SOEs in the hydrocarbons sector do not only sell the oil *they produce*. A range of practices involve private companies either giving SOEs some of the oil produced under Production Sharing Agreements, or paying what they owe to host states (taxes, royalties etc.) in-kind. NOCs usually then sell these in-kind revenues (RWI 2012b). Released under EU regulations, BP's 2016 consolidated report on payments to governments shows how important these in-kind payments are. Such payments relate to BP's activities in the exploration, prospection, discovery, development and extraction of minerals, oil and natural gas

deposits or other materials ("extractive activities"). The report shows that in-kind payments represent at least 69% of all payments reported by BP for its extractive activities (BP 2016, 6).[14]

SOEs are not limited to the hydrocarbons sector, even if their prevalence is not as great elsewhere. Several SOEs are active in mining, such as Codelco in Chile, the world's main copper producer (NRGI 2015c, 4), ZCCM in Zambia, or Gécamines in the DRC. In the diamond sector, three of the world's four main producer companies (Alrosa in Russia, Endiama in Angola, and Debswana in Botswana) are at least partially state-owned (Ndlovu 2014; Bain and Company 2013, 8). This is also the case for the Office of Cherifian Phosphates (OCP) in Morocco, the second largest producer of phosphates in the world (U.S. Geological Survey 2016, 125). The Indian company Coal India Limited, the world's largest coal-producing company (ArchCoal 2013), is also state-owned. According to the World Bank, governmental entities accounted for about 23.8% of global metal mine production in 2008 (WB 2011, 6).[15]

Secondary literature generally recognises the high risks of corruption associated with state entities active in the commodities sector. McPherson and MacSearraigh (2007) state, for example, that "NOCs have enjoyed a notorious reputation for corruption and waste". This assessment is corroborated by the OECD analysis mentioned above, showing that state enterprises were directly involved in 20% of corruption cases analysed in the extractive sector (OECD 2016, 6).

SOEs and other state entities conduct a broad range of activities, and this exacerbates the risk of corruption. Sometimes they manage the income from commodities or finance public works without any direct connection to production. For example, they spend funds from the extractive sector on building roads or port terminals. In the hydrocarbons sector, they can also be in charge of the downstream sector, including refining, marketing, importing, or generating power. In Angola and Nigeria, for instance, the role and influence of SOEs spreads across the entire oil sector from the award of production licenses to revenue collection, and providing fuel to their internal markets. SOEs can also have a quasi-fiscal role, for instance by subsidising the production and import of oil products for internal markets or by investing in infrastructures, like roads and ports. According to NRGI,[16] 36 out of 45 producer countries had SOEs offering services beyond their core extractive business.

A 2011 study considers that the corruption risks are "high" in resource purchase contracts, shipment authorisation, and pipeline access (Le Billon 2011, 8). This is also true for sales of commodities. In its "Background Report: Commodities", the Swiss government observed that "corruption in trading activities is exacerbated by a strong interaction of the companies concerned with State authorities. The allocation of public tenders, licenses awarding and fees, development of monopolies or customs limitation […] are all procedures particularly exposed to incentives for corruption" (Swiss Federal Government 2013, 39–40).

---

14 This figure was obtained by calculating the share of payments due to production entitlements – which are, according to BP, "commonly paid in kind" (BP 2016, 4) – to the total payments to governments. The estimate is probably conservative, since part of other payments to governements (tax, royalties, etc.) might also be paid in kind.

15 SOEs can sometimes play an important role in trading soft commodities, that are beyond the scope of this paper. In Ghana, the number two cocoa-producer in the world, a state institution called the Ghana Cocoa Board, has a monopoly on exporting cocoa beans from Ghana (Gayi and Tsowou, 2016, 11). In Uzbekistan, the state has an export monopoly on cotton (OSF, 2014, 3).

16 See NRGI's old website dedicated to the survey conducted in 2013 about SOEs: http://www.resourcegovernance.org/resource-governance-index/report/state-owned-companies

The fact that the governance of SOEs is often poor increases the risks of corruption. SOEs such as NOCs are often only subject to limited supervision (RWI 2013a, 15) and the quality of their governance varies widely. In 2013, NRGI analysed 45 state enterprises active in the oil and mining sector in 58 countries, revealing a diversity of profiles. NRGI distinguishes some companies for their good governance, including Norwegian Statoil and Mexican Pemex. According to NRGI's governance index, these companies obtained scores of 98% and 77%, while the worst performers, Burmese and Turkmen companies scored 4% and 5% respectively (RWI 2013a). Nevertheless, in 2011, an analysis of anti-corruption programmes of NOCs and major private oil companies showed strong potential for improvement, even for those who had obtained higher scores (TI and RWI 2011, 2). Analysing the public accounts of producer countries, international organisations have sometimes pointed out the significant differences between the income generated from the sale of commodities by SOEs and the actual amount of money going to the state budget. In Angola, the IMF discovered a difference of more than US$ 32 billion, a quarter of the state's budget, between sales by Sonangol, the SOE, and oil revenue in the state accounts for the years 2007 to 2010 (IMF 2011, 9). In Nigeria, the former central bank governor Lamido Sanusi highlighted the opacity of transactions between the NNPC and the state in 2015, alluding to uncertainty surrounding the fate of several billion dollars coming from oil sales (Sanusi 2015).

3.3 The opacity of first sales and the actors buying commodities in this phase

The third reason for a high risk of corruption in the "first sale" is the simple fact that such operations are supremely opaque. Indeed, SOEs in general are opaque. According to NRGI, 18 of 45 SOEs are under no legal obligation to report information about their operations. And many of those obliged to report have failed to provide comprehensive accounts on their activities and finance. More than half of the companies assessed (25 out of 45), did not publish audited reports or published them more than two years late. Only six of them are listed on a stock exchange and are therefore legally obliged to report their finances. Meanwhile, SOEs conduct a wide range of activities, but disclose little information. In more than half of the SOEs studied, state enterprises gave limited information – or no information at all – on their activities (RWI 2013b, 27–28).

The same is true for sales by SOEs. It is generally impossible to know even in an aggregated manner to whom commodities were sold and at what price, although some states with SOEs do on very rare occasions publish detailed figures for their commodity sales. In 2014, Iraq, Nigeria and Azerbaijan published EITI reports, outlining both the identities of those buying their commodities and the amounts paid (EITI 2016, 41; NEITI 2015, 221; Azerbaijan Extractive Industries Transparency Initiative, 2016, 50).[17] In some cases, producer states disclose aggregated information about their sales, but this provides no insight into who bought the commodities or the price at which they were sold. Even when they do publish such data, this is done in an heterogeneous manner. Financial statements from SOEs rarely give more information.[18] Very few SOEs reveal either the names of their clients or the sums received for their commodities. The Chilean company Codelco does (Codelco 2015, 102), but it only mentions its principal clients. Many SOEs don't provide even aggregated data about their sales. Mexican Pemex (Pemex 2013) and Nigerian NNPC (NNPC 2014), on the contrary, do release some figures about the volumes they sell and break this data down between volumes for export and volumes for local markets. But such information tells us little

17 These reports are available on the EITI website: https://eiti.org/

18 This is based on an analysis of 40 SOE websites carried out for this study. For more information, see appendix 2.

either about the buyers or about the conditions under which the commodities are sold. Qatar Petroleum gives some details about its sales but does not specify commodity types (Qatar Petroleum 2014).

Not only are sales opaque; the process for choosing buyers is too. In states where SOEs are responsible for selling natural resources, public tenders are rarely published on portals or in official journals. Tender results are published even less often. Further research is needed on this issue, including by comparing the legal basis for such practices. Rosneft[19] and India's state-owned ONGC[20] do announce their tenders publicly and publish their results, but our analysis shows such practices remain exceptional. To reduce the risk of corruption, sales tenders, the bids by participating companies, and the tender results should all be publicly announced, including the offers that were not considered. In this way, observers could see whether or not the selected buyers had, in fact, made the best offer. The conditions under which the sales are performed are generally not disclosed either. Oil sales contracts are seldom made public. Corruption risks could be lowered by publishing certain details of the contracts, such as the price established and the sales date, the number of barrels, the quality of the oil, the name of the co-contracting party, and the terms of sale and deliveries.

Given the general opacity surrounding SOE transactions, it is hard to get any details about the buyers of commodities or their relative market shares. The four types of companies active in international commodity trading noted above (see 2.1) – trading arms of extractive companies, independent traders, trading arms of SOEs, and investment banks – all buy commodities from state enterprises, making them the so-called "first buyers". But when it comes to getting more precise figures about their relative market shares, or about the importance of "first sales" in the overall figure of buyer's operations, things become difficult. In fact, very little information is available on the relative market shares of the various categories of buyers. This data is almost non-existent and what data we have is inconsistent. Moreover, sales practices vary greatly between countries and commodities. NRGI shows that most NOCs sell crude oil to end users (RWI 2012a, 7). Several NOCs such as Angola's Sonangol or Russia's Rosneft sell to intermediaries, including private companies. Sometimes, NOCs sell for export exclusively to independent trading companies, as was the case with the NNPC in Nigeria in previous years.

Despite the lack of data and the very different practices, one study analysed petroleum sales between 2011 and 2013 by the state producers of 10 major sub-Saharan African states. In this study, Public Eye and two other non-profit organisations estimated the global market share of Swiss independent traders by analysing the documents of 1,500 oil cargoes. This analysis allowed the authors to reach the conclusion that Swiss independent traders are the largest buyers of state petroleum from numerous governments, including Cameroon, Gabon, Equatorial Guinea, Nigeria and Chad. Indeed, these companies accounted for one quarter of the volume sold by SOEs in the countries considered. That is, these companies accounted for the sales of a total 500 million barrels of oil, for a total value of around US$ 55 billion. This amount was equivalent to 12% of state revenues and double the amount that those states had received during this period in development assistance. In certain countries, such as Nigeria or Equatorial Guinea, Swiss independent traders bought oil from state enterprises, paying sums equal to as much as 30% of total state revenues. In Ghana and Chad, independent trading companies bought 100% of the crude oil that we know was sold by the government. This figure was 97% in Gabon and 60% in Nigeria. By comparison, oil majors purchased oil, but only from three governments: Congo-Brazzaville, Nigeria, and Angola. In these three countries, their share remained below 8% (BD, NRGI and SWISSAID 2014, 1).

19 Rosneft's invitations to tender may be consulted at: http://tender.rosneft.com/oil/archive/index.html

20 ONGC's invitations to tender are available at: https://tenders.ongc.co.in/

This data shows how SOEs are selling large amounts of oil to buyers who are also opaque, a fact that has received less attention than the opacity of the SOEs themselves. Indeed, among other categories of buyers, independent trading companies are acknowledged as being opaque by the Swiss authorities (Swiss Federal Government 2013, 39–40). This is also why the UK's financial regulator describes these companies as "known unknowns" (FCA 2014). With the exception of Zug-based Glencore, none of the 500-odd Swiss trading companies identified by the authorities (who do not know their exact number) are listed on the stock market. These companies are therefore exempt from obligations to publish financial reports or to provide any information about their shareholders. These company structures are often composed of a multitude of intertwined companies spread throughout different jurisdictions, with a particularly strong presence in tax and legal havens (BD 2012, 257 sq). Only one of them, Trafigura, the third largest independent trader (EITI 2015, 6), has published information about its purchases from state enterprises, doing so for the first time in 2015 (Trafigura Group 2015, 17). Trafigura disclosed this information voluntarily, but while it buys oil from most of the world's petroleum producers, it limits its disclosure to EITI-member countries (Colombia, Ghana, Nigeria, Norway, Peru, and Trinidad and Tobago). In addition, Trafigura's incomplete data only covers transactions made two years before the date of publication. Finally, the data is aggregated, meaning that it does not give details of individual cargo sales. These are essential details when it comes to assessing whether or not the transaction was based on market conditions, or whether it was conducted under the correct market price related to the precise quality of the cargo on that date. In 2016, Trafigura gave more information, highlighting the transparency gap in the commodities trade, when it revealed the total payments it had made to governments. This allowed observers to compare Trafigura's overall payments to governments with payments made to EITI-member countries. The data showed that 93% of such Trafigura payments go to states that are not affiliated with EITI (Trafigura 2016 b, 13 sq).

The fact that state enterprises may also be clients of trading companies also exacerbates the risks of corruption. Corruption risks are therefore not only related to obtaining commodities from state-owned entities, but also to selling them. Several countries have state-owned companies that are dedicated to importing commodities, such as Egypt, one of the world's biggest importers of wheat. Some Swiss traders are involved in corruption cases relating to contracts awarding the provision – not the purchase – of commodities, such as in Malta or Jamaica, where oil imports are a state monopoly.[21] Even producer countries, that often have low capacity to refine, purchase petroleum products from traders to satisfy their domestic consumption, sometimes in exchange for crude oil (Public Eye 2016, 81 sq).

Other buyers might be even more opaque than the Swiss traders described above, for example other state-owned entities or very small or letterbox companies registered in tax havens.[22] Warly International, for instance, is a small company based in the British Virgin Islands, which supposedly played a crucial role in buying exports from Russia's state oil company, Rosneft, between 2010 and 2012. According to media reports, Warly, which had no history of commodity trading, is thought to have bought all the Russian Brent crude exported to the Black Sea region between March and October 2010 (*Reuters* 2010), and most of it in 2012 (*Reuters* 2012). According to a February 2011 report by analyst Platts (Platts 2011, 9 sq.), that same company, which was apparently affiliated with Swiss independent trader Gunvor, lifted a substantial part of Russian crude oil at the important Kozmino terminal in the second half of 2011. Often, for example in Nigeria, small companies re-sell their purchases to renowned trading companies which have the necessary logistics and financial capacity to conclude the deal ("back to back sales" – see

21 About Jamaica: Leigh (2009). About Malta: *Malta Today* (2013).

22 A letterbox company is a paper company, a shell company, or a money box company, that is, a company which has been formed with only the bare essentials of organisation and registration in a particular country. Its activities are carried out in another country. In some cases, letterbox companies don't even have any employees.

NRGI 2015 d). Sometimes, they do this rapidly in a practice known as "flipping" a cargo. Knowing really to whom such companies belong can be almost impossible, because the jurisdictions where they are registered have such low requirements for information on beneficial ownership. Being private companies, they are also exempt from any legal obligations to publish financial reports about their trading payments to governments.

3.4 The lack of regulation for first sales of commodities

Despite the significant sums of money involved, the trading of commodities by private companies is not regulated *specifically* in any of the home states of companies active on the "first sales market". This does not mean that such companies are above the law, which includes anti-corruption legislation. However, these countries have not put in place any *particular* legal measures to minimise the *specific* risks of corruption in core commodity trading activities. They do not place legal requirements either on the way in which commodities are traded, the conditions under which companies may carry out this type of activity, or the type of organisation required for them to minimise the risks of corruption. No regulators exist for commodity trading specifically, and so no authorities are specifically responsible for overseeing these companies. We argue that this lack of specific regulation increases the risks of revenue misappropriation.

When it comes to extractive industry activities, the USA, Canada, and Switzerland, as well as states within the EU, have been adopting or discussing legal measures to subject extractive companies to transparency norms that would complement the EITI.[23] So far, mandatory reporting focuses on extractive activities only and do not apply to trading. The following example shows how important this gap might be. Being subject to the British version of the EU transparency directive through its listing on the London Stock Exchange, Swiss company Glencore is obliged to report payments made to governments as part of its extractive activities. It published this data for the first time in 2016 (Glencore International PLC 2016, 4), but its report does not mention its trading activities. Glencore reveals, for example, that it paid US$ 80 million in 2014 for extractive activities in Chad, one of the poorest countries in the world. But, according to our estimates (BD, NRGI and SWISSAID 2014), this money represents just one fifth of the value of Glencore's unreported oil purchases from Chad's national oil company in 2013. Nor does Glencore mention that it made an oil-backed loan agreement with authorities in N'Djamena that same year for almost US$ 1.4 billion (Strasburg and Margot 2015).

23 For an overview of the discussions on this subject, cf. BD et al (2015; SEC 2016, 10 sq). EU regulations do not include trading activities. US rules [due to a court judgement currently under review at the SEC] do to a restricted extent (processing, export), but they only affect traders that would be listed on a US stock exchange.

4. Corruption schemes

Since the end of the 1990s, several case studies have documented the diversion of income in the commodities trade. Some of these case studies come from international organisations (for example: WB 2000; in the context of the oil for food scandal: IIC 2005). Others come from NGOs (for example: GW 1999; 2002; 2005; 2006; 2013; BD 2013a; 2013b; 2015; NRGI, 2015d). Sometimes such cases are confined to the media. Less often, case studies are supported by documents from legal proceedings. These cases show that the risks described above do materialise and provide precious insights into the strategies and methods used. Nevertheless, attempts to systematise such information – and to analyse patterns – are rare.

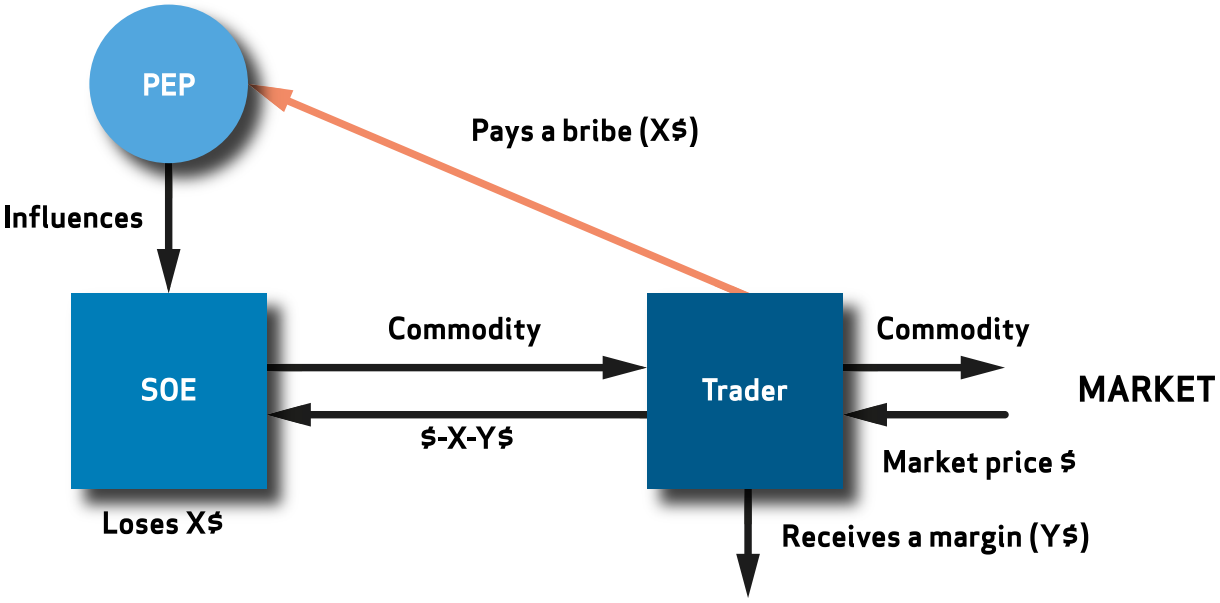
Although it does not present consolidated data specific to trading, the OECD study cited above constitutes one of two exceptions we have found. It allows us to draw some conclusions about the role of intermediaries, who were used in 49 of 130 cases of corruption in the natural resources sector. It also allows us to consider the diversity and complexity of corruption schemes. Of the 130 cases, 21 were complex operations involving different front companies (OECD 2016, 7). Secondary literature also recognises the role of these actors, euphemistically known as "business getters" or the "big men" (McPherson and MacSearraigh 2007, 207). Furthermore, these findings correspond to the conclusions revealed by research on illicit financial flows, in particular the frequent use of front companies to conceal questionable operations or to hinder legal proceedings (WB, UNODC and Star 2011). The second exception is a 2016 report by NRGI, which analysed 11 cases of corruption in the trading of oil or gas (NRGI 2016). This analysis also shows that corruption materialises at different stages in sales operations, from choosing the buyers to negotiating the sales terms and transferring funds. These two studies set forth in detail the measures that would help to combat such embezzlement.

In this section we analyse typical schemes of revenue misappropriation taking place in "first sales". Typical schemes are illustrated by specific case examples documented on the basis of publicly available information. We do not attempt to capture all corruption cases at the trading phase where public information is available. Rather, we chose from a list of roughly 60 cases over the past five years from our work on corruption in the commodities trading sector. The case examples chosen and analysed below are both related to trading and are well-documented. Some of them have led to legal proceedings, while others are documented via NGO reports or in media articles. Where the cases gave rise to legal proceedings, they may be ongoing, concluded, or settled by other means than public judgements. We have included cases of commercial operations that are difficult to explain rationally and economically, or where companies are connected with unknown third parties (or sometimes even belong to them), which indicates possible embezzlement. We recognise that we are unable to present a quantifiable measure of the frequency with which such practices occur, or of the relative prevalence of the various schemes described. Nevertheless discussion of such schemes may help us to identify measures that could help prevent corruption in commodity trading (see section 5).

4.1 Paying bribes

The most elementary case in point is when a company directly pays a bribe. To obtain access to a market or commodities under favourable conditions, a trader will pay off public officials, either those in power in the country where the commodities originate, or those in their entourage. In its simplest design, this may happen through direct payment of a commission (a bribe) by the trader (Diagram 1).

Diagram 1
Bribery – a simplified case

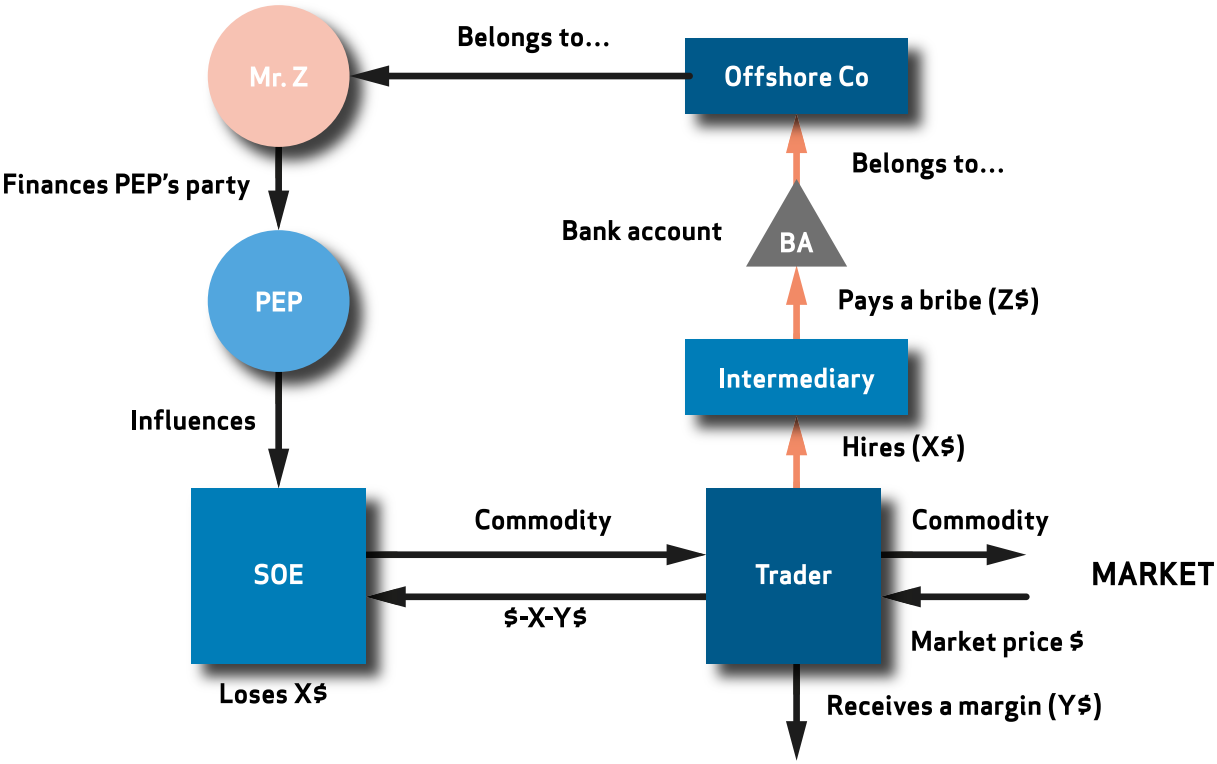


Case examples

The *Oil for Food* scandal revealed this type of operation. Between 1996 and 2003, companies paid bribes to Saddam Hussein's regime to obtain deliveries of crude oil, whose allocation was supervised by the UN. By paying a commission amounting to a few cents per barrel to the Baathist regime, these traders bought oil at a price slightly higher than the price established by the UN, but always lower than the market price. According to the Independent Inquiry Committee in charge of investigating the affair, 139 of 248 companies that participated in the *Oil for Food* programme between 1996 and 2003 paid bribes to the Iraqi regime, totalling US$ 229 million (IIC 2005, 155sq; CIA 2004, 34; Freedman and Stecklow 2002). Swiss independent traders played a leading role in this scandal, paying between 24% and 47% of the total commissions (BD 2012, 314).

In fact, the mechanisms used to bribe were more sophisticated than Diagram 1 suggests. Instead of paying directly into the accounts of the Iraqi regime or to their officials, the accused companies hired intermediaries to pay the commissions for them. To do this, small offshore structures were created with bank accounts (BA) to receive the questionable payments. In one case involving Glencore, a payment (US$ 415,000) was made in cash – backed up with an official receipt! – to an intermediary who delivered US$ 400,000 two days later to the Iraqi Embassy in Geneva. In reality, therefore, the scheme was more complicated than drawn above (see Diagram 2).

Diagram 2



Other comparable cases exist. In London, a lengthy series of trials that concluded in 2007 revealed the payment of substantial sums of money by Vitol via banks in Hong Kong to numerous individuals close to the President of Congo-Brazzaville (GW 2005; United Kingdom 2003–2007). Trafigura allegedly financed Jamaica's governing party towards the end of 2010 in return for deliveries of oil (Office of the Contractor General 2010; Leigh 2009). The payments were made to get access to the import market (and not to obtain oil for export). Moreover, the wrongdoing looked more like questionable political finance than bribery in a strict legal sense.

Analysis

From a substantive legal point of view, such operations may be prosecuted in both the countries that headquarter the purchasing company and in the producer states themselves. However, detecting such operations is difficult when intermediaries and offshore structures are placed between the trader and the Politically Exposed Person (PEP) being bribed. The bank account used for the transaction might be located in a different jurisdiction than the one where the front company is created. Or the bank account and the front company might both be part of a larger, sprawling and complex web that makes identification of individuals almost impossible. They are generally located in jurisdictions whose anti-money laundering provisions are less developed. Such schemes also diminish the buyer's liability.

Since remunerating the "door-openers" is not forbidden, the purchasing company could claim to be unaware that the intermediary was paying out commissions to the final recipients and could thus free itself from any legal liability. One might even imagine that the buyer draws up a contract with the intermediary in which it is explicitly mentioned that the latter must respect anti-corruption policies. Where necessary,

these kinds of arrangements permit the buyer to exempt himself from any legal liability by claiming that all precautions have been taken to avoid corruption, knowing all the while that the commissions paid to the intermediary were actually used for bribery.

This type of embezzlement presents legal authorities with numerous problems. One consists of finding the beneficiary of the bribe. This often implies sending mutual legal assistance demands to numerous jurisdictions. This can already be a hurdle for the investigation to proceed, and it becomes even more complex when they concern a jurisdiction in which corruption is notorious and in which the PEPs involved are in positions of power. The other challenge consists in proving that the buyer actually ordered the bribery, or that it was at least aware of it. One last pitfall is that the offenses must fall within the scope of criminal law in both countries.

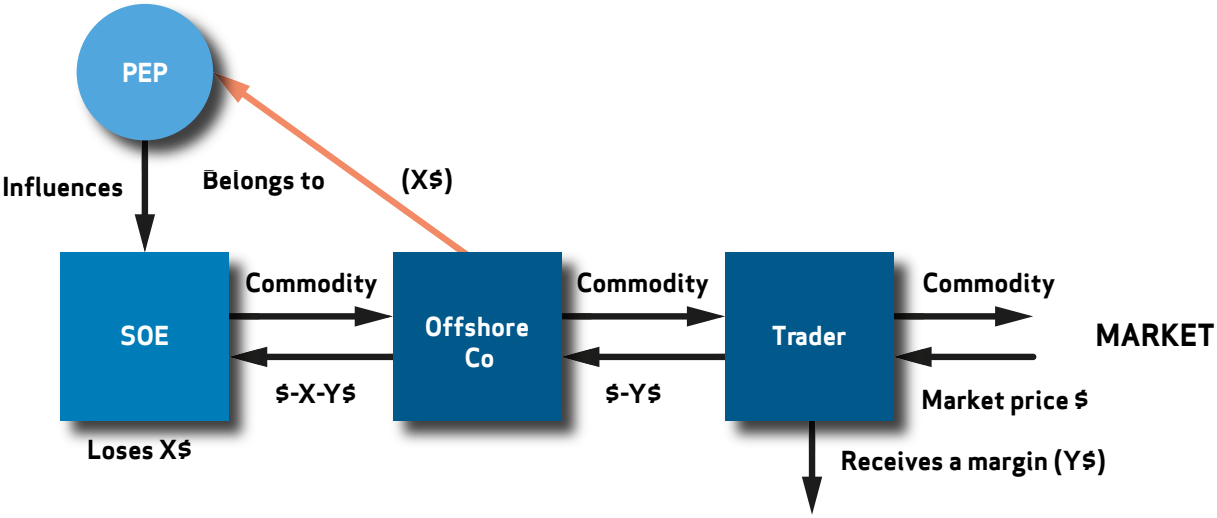
Anti-money laundering procedures may prove effective in identifying these kinds of money transfers. Large amounts of cash deposited in a bank should draw the attention of a bank's compliance department, just as relationships with PEPs, the number of front companies, or financial flows void of any justification or tangible provision, do. Such "red flags" should cause a financial intermediary to analyse the profiles of these clients more closely. If, in doing so, he comes to the conclusion that the transfers could be bribes and turns a blind eye, he could be accused of money laundering.

But in fact, many factors can explain why such operations are not detected – from the negligence of financial intermediaries to the sophistication of the corruption schemes. Even when they are detected, obstacles in obtaining convictions remain numerous. To the best of our knowledge, with the exception of the *Oil for Food* scandal, none of the cases mentioned above have resulted to date in definitive convictions for corruption. However, the legal framework does indeed make it possible, in principle, to take action.

4.2 When intermediaries pose as initial buyers

Some cases are more elaborate, using intermediaries between a state entity and the final buyer. The mechanism is simple: instead of paying bribes directly, the commodities are sold to intermediaries at conditions unfavourable to the host state – sometimes to letterbox companies – and then these intermediaries resell them almost instantly at market price to well-established traders. The undue profits go to the beneficial owners of the intermediary company, who may be a PEP in the host state or somebody close to the PEP (Diagram 3). By locating the intermediary company in a suitable jurisdiction, the beneficial owners can remain anonymous and reduce the taxes on their company's revenues.

Diagram 3



Case examples

Philia, a Geneva-based company provides a striking example of such a scheme. Created in October 2012 and lacking experience in the world of trading, Philia obtained an exclusive contract in 2013 without public tender to export petroleum products from the Congolese (Brazzaville) refining company Coraf. That is, Philia acted as an intermediary between Coraf and the international market, reselling its cargoes to third parties – generally well-known traders – without adding any further value. It pocketed a margin by providing a practically non-existent logistical service. Philia belongs to a single shareholder, who is a friend of the son of the Congolese President. The latter is also the General Manager of Coraf and signatory to the contract that was so advantageous to Philia (BD 2015). When the investigation began, this single shareholder denied having business relations with the son of the President. The subsequent publication of the Panama Papers, however, showed that the owner of Philia and the son of the President both had contracts with the same offshore company, which was registered with Mossack Fonseca (Tilouine 2016).

In the Netherlands, prosecutors opened another case against Swiss trader Glencore for over-billing ore bought from Kazakhstani company Kazzinc. Between 2003 and 2005, some of Glencore's payments had gone via a Caribbean-based offshore company, as commissions to a close advisor to the Kazakh president (Tanda 2011; Federal Criminal Court 2008).

Swiss letterbox companies controlled by a Franco-Canadian businessman played a similar role in buying alumina from Alcoa, the American mining company. The alumina was then resold at an inflated price to Aluminium Bahrain (Alba), an aluminium smelter (most of whose shares are held by the government of Bahrain). This inflated price contained the premium that allowed Alcoa to secure alumina contracts of around 2 billion Swiss francs. A Bahreini former minister, who was also the manager of Alba, received over US$ 24 million in 45 payments into four different accounts. Two of these accounts were in Switzerland (Federal Criminal Court 2015; United States District Court, 2011).

In the case of Nigeria, analysts have even calculated that such letterbox companies usually made a margin of between 0.25 and 0.4 US¢ per barrel (Katsouris and Sayne 2013, 8) that could have been captured by the state. The involvement of both Trafigura and an Angolan General in a Singaporean joint venture, which to all intents and purposes held a monopoly on the import and export of oil through Sonangol, appears to be a similar scheme, presented above. This suggests that an intermediary company can simultaneously belong to both a trader and the PEP involved in the awarding of public contracts (BD 2013a).

Such schemes may also be used in import transactions of oil or oil products. In such cases, intermediaries are inserted between trading companies and importers. In Nigeria, traders delivered fuel to shell companies that were active in importing refined products into Nigeria, thus allowing subsidies fraud on a large scale (BD 2013b).

Analysis

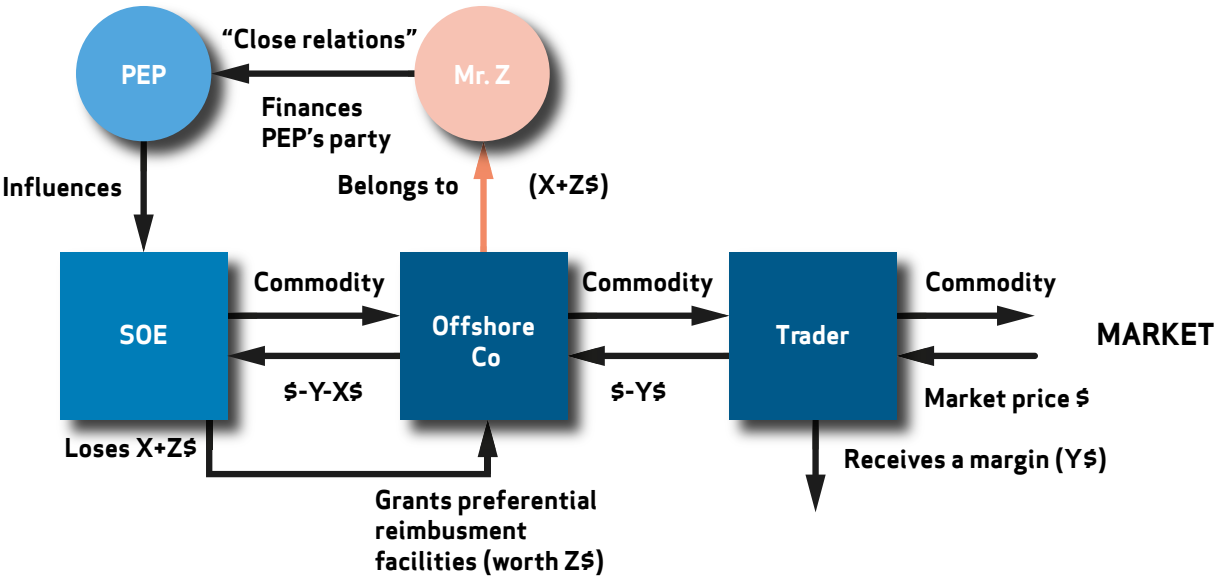
Such operations contribute to the embezzlement of extractive income. However, unlike the bribery cases above, qualifiying the criminal liability of the company described as a trader in the scheme above is much more of a challenge. An intermediary company can justify its margin by asserting the quality of its services, its expertise, the lack of capacity of the SOE, or by stating that no other competitor is capable of performing the same operation. To discuss the validity of such arguments, one would need to be able to show that competitors would have done the same deal at a higher price, a task made almost impossible when SOEs do not publish public tenders and their outcomes.

In the above presented scheme, the trader may be active (and therefore more likely to be liable) in the misappropriation of revenue if, for example, it holds shares in the intermediary company, or contributed to establishing the company. But even if this is not the case the trader still bears some responsibility if it knows – or could know – that the oil it buys is sold via schemes whose main function is to divert state revenue. The price or origin of the commodities, an intermediary company without any operational activities, or a hidden identity of the company's ultimate beneficiaries should be red flags, alerting the trader to the possibility that the commodities were obtained under questionable conditions.

In this case, the company described as the trader in the previous scheme could be seen as complicit in the trade of illicitly acquired commodities, even if it was not active itself in the misappropriation. In such a case, the role of the trader is similar to that of the financial intermediary for cases of money laundering. Even if is not the perpetrator of the offence ("misappropriation" in a money laundering scheme, or the predicate offense), the trader introduces commodities into commercial channels while knowing, or being in a position to reasonably suspect, that the commodities were acquired at the expense of the state from where they came. Continuing with the money laundering analogy, such an example could reasonably be called "commodity laundering". However, in such cases, and contrary to the schemes described above, the trading company is not usually legally liable.

Such cases may be difficult to spot. The scheme described above might be infinitely more complicated. There may be numerous intermediaries. Or, as is the case with all economic crimes that rely on over- or under-billing (Cassara 2015; FATF 2006), the offshore company could make undue profit not because of artificially low purchase prices, which are easier to spot, but because of larger quantities or better quality.

Diagram 4



State entities can lose out because the price is disadvantageous, or because the underlying contract is disadvantageous. For instance, if the sale of commodities is carried out as a refund for pre-financing, the terms of trading may comply with the market price, but there may be an unwarranted advantage concealed in the terms of the loan, or the two mechanisms may be combined (Diagram 4). In the case of Philia and Coraf mentioned earlier, the former gained a loan to Philia with unusually long reimbursement conditions. In addition, the mechanism to determine the exchange rate – and therefore the price of the cargo – was opaque. Other advantages granted in side deals, whether linked to the primary business transaction (such as the conclusion of a pre-financing contract) or independent from it (such as an intermediary purchasing goods or services from a company belonging to a PEP) may be very difficult to detect, especially when "strawmen"[24] are used.

Reality is often more complicated than the schemes described above. Firstly, the different cases described so far may well overlap. In the 2005 Congolese case documented by Global Witness, a group of inter-connected companies had preferential deals with the SNPC. Linked to this, they made direct payments to members of the presidential family for "consulting fees" paid into an offshore account. In exchange, these companies obtained shares in oil fields at preferential conditions, received under-priced oil deliveries, and enjoyed favourable repayment conditions on the loans they made to the SNPC (Global Witness 2005). The Congolese state thereby lost revenues in three different ways.

24 A strawman is a figure not intended to have a genuine beneficial interest in a property property, to whom such property is nevertheless conveyed in order to facilitate a transaction.

4.3 Some reflections on the use of anti-money laundering procedures for detecting misappropriations of extractive revenue

In many of the cases outlined above, the misappropriation of extractive revenue takes place over a series of transactions with the result that a PEP has an illicit financial flow at his or her disposal. Anti-money laundering procedures might offer an efficient mechanism to protect against such misappropriation. Of course, this would only be the case if current measures were sufficient to prevent illicit financial flows and if they were properly implemented by financial intermediaries. This paper does not examine the extent to which this is the case.[25] Rather, we ask here whether existing procedures on anti-money laundering could help combat the misappropriation of revenue in commodity trading, and whether their extension to traders would make sense. Having studied the Swiss situation we offer some preliminary answers for why anti-money laundering provisions are unlikely to prevent the misappropriation of state revenues in the commodity trade.

Firstly, it is not uncommon in the commodity sector that operations are carried out without financial flows, using barter trading, for instance.[26] Anti-money laundering provisions are useless in such cases because the trade involves commodities, not money, and so the relevant financial provisions are never engaged. The same thing goes for operations conducted as commodity swaps, as mentioned in the cases of Nigeria and Angola. Second, concealing secret payments in the commodities trade seems quite easy, because prices, quantity and quality are easily manipulated. This is perhaps even more so than in other sectors where the type of goods, their number, and value, are easier to determine. Subsequently, a financial intermediary may find it hard to assess the legitimacy of his client's operations, either because he does not have the required expertise to spot a suspect transaction, or because his client is able to hide critical information or even deceive him. The major international banks say the same thing. Applying the Wolfsberg Principles to trade finance,[27] a 2009 paper noted that banks are generally incapable of "determining if these transactions are unusual because of over- or under- billing (or any other circumstances allowing them to conceal their actual value)" (Wolfsberg Group 2009, 16). The Wolfsberg Group is even more explicit in a 2011 version of the same paper (Wolfsberg Group 2011, 9 sq): "[I]t is extremely rare for any one Bank to have the opportunity to review an overall trade financing process in complete detail given the premise of the trade business that banks deal only in documents. Furthermore it is relevant to note that: […] In determining whether transactions are suspicious due to over or under invoicing (or any other circumstances where there is misrepresentation of value) it needs to be understood that Banks are not required to check the underlying documents presented with [Documentary Bills for Collection]." Later on, the paper notes that banks are essentially incapable of analysing the activity of their clients' clients.

If we wanted banks to deter and prevent revenue misappropriation schemes as described above in Section 5.2, we should require them to analyse the activity not only of their client, the commodity trader, but also that of their clients' client, the intermediary. It is true that banks have more information at their disposal when they lend to a trading company for the pre-finance of a commodities purchase. But it is generally acknowledged that the big trading companies increasingly buy on their own accounts, without requesting

25 For an insight and for Switzerland, cf. Herkenrath and Longchamp (2013).

26 Controversial deliveries of aluminium oxide by the companies Glencore and Trafigura to Iran in 2012 were "barter trades". *NZZ* (2013).

27 The Wolfsberg Group is an association of thirteen global banks which aims to develop standards for banking activities, namely with regards to the management of financial crime risks, or the enforcement of AML-standards. To date, it has released 14 different standards, all related to specific banking activities. The Wolfsberg principles on trade finance are one of these various standards, and apply specifically to activities banks undertake when they finance trade operations, like commodity trading.

any bank loans. Furthermore, approximately 80% of world trade is conducted through open accounts today. In such cases, according to the Wolfsberg Group, "The Financial Intermediary [=the bank] has no visibility of the transaction and therefore is not able to carry out anything other than the standard AML and sanctions screening on the clean payment." (Wolfsberg Group 2011, 2).

If anti-money laundering provisions as they are applied by banks struggle to catch the misappropriation of revenue, how can they be improved? One potential path would be to expand the application of anti-money laundering legal provisions beyond banks, to commodity traders themselves. This has already been the subject of political debate in Switzerland (see Longchamp and Rybi 2014 for an overview). Good reasons exist for doing so. Commodities represent a cash equivalent and share many characteristics with money. They are liquid, fungible, and can be stored. The fact that a flow of commodities could constitute an alternative to financial flows is self-evident when we consider valuable commodities such as gold. These characteristics mean there is a risk that commodity flows – instead of financial flows – are used as conduits for illicitly acquired assets such as the proceeds of corruption. But while existing international standards prevent dirty money from entering financial systems, no equivalent measure exists for "dirty commodities". This makes commodity flows more attractive as conduits for illicitly acquired assets. In turn, this means that criminal individuals or organisations may prefer to use commodities flows – not finance flows – to fuel their criminal gain. In such cases, the paradigm of money laundering is reversed – clean money (generally) is used to buy "dirty" commodities, or at least commodities that have been illegally acquired.

The Financial Action Task Force (FATF) has identified this risk in the gold sector (FATF 2015a, 14). Moreover, this same organisation noted already in 1996 that in southern and eastern Africa, "trading commodities is a typical method of laundering money" (FATF 1997, 13; Rice 2013). FATF analysis of Islamic State (IS) led to similar interest in the possible links between commodity trading and financing terrorism (FATF 2015b). The ways in which commodities have financed conflicts has also been discussed for about 15 years, even if the measures taken to curtail the trade in "conflict minerals" have essentially been limited so far to specific commodities, such as gold, diamonds, and the "3 T's" (tantalum, tungsten and tin), or to specific regions (the great lakes region of Africa, Zimbabwe, and so on).

In any case, extending anti-money laundering legislation to trading companies would have limited effects. First, these procedures are designed to prevent the flow of dirty money into financial channels, not to prevent the trading of dirty natural resources, even if the latter has a certain analogy with the former. If they applied existing money laundering procedures, traders would have to ensure that the money they accept in exchange for their commodities is not the product of illegal activity. This would have benefits, but it would not solve the issue of revenue misappropriation *a priori*. Second, trading is different, and distinct, from financial intermediation. A banker who accepts money from a client does not own it, he is merely holding it on account for his client. On the other hand, a trading company usually buys commodities on its own behalf with the intention of reselling later. Third, the trading company itself could be involved in a criminal transaction, for example, by paying a bribe or by setting up a mechanism to conceal commission payments. In such cases, it is hard to imagine that a trading company would wish to incriminate itself by reporting such information under the usual AML obligations to the relevant authorities. Finally, the purchase and sale of commodities are rarely illegal as such. They may be illegal when the commodities are stolen, or if they are used to finance terrorism. But when commodities are obtained with a bribe, for example, it is the bribe that is illegal, not the money paid to purchase the commodity itself.

Consequently, we cannot say – as the Swiss Bankers Association (SBA 2013) does – that existing anti-money laundering provisions are sufficient to detect illicit operations in the trading sector. We also doubt whether the undifferentiated extension of these anti-money laundering provisions to trading companies

would really help to prevent revenue misappropriation. To this end, it seems necessary to develop specific due diligence requirements to ensure, first, that trading companies do not trade commodities that were bought at the expense of host states, and, second, that trading companies inform the proper authorities if they notice such activities taking place.

5. Policy discussion

Although heightened risks of corruption in the natural resources sector seem entrenched, the solutions for preventing the misappropriation of revenue is the subject of intense debate. Agreement exists, however, that ending the misappropriation of resource incomes requires a global approach, which goes beyond the borders of producer states. Research on the petroleum sector has come to a clear conclusion in this respect: "Any putative remedies to petroleum sector corruption that focus their attention solely, or even primarily, on the developing world are destined to fail" (McPherson and MacSerraigh 2007, 211). The reasons for such conclusions are numerous: first, such measures in the past have failed (Gillies 2010, 7 sq). Then, they arise from the analysis of revenue misappropriation schemes, or from the typology of cases of large-scale corruption in this sector, involving global financial and commodity flows, as well as numerous jurisdictions. Consequently, addressing such schemes requires a global approach, and not only at a legal level. Political analysis brings us to the same conclusion, since multiple jurisdictions are inevitably involved when deciding the liability of companies operating in the commodities markets, or those who provide the tools to conceal illicit financial flows. Finally, these conclusions are based on pragmatic observations of how difficult it is to establish better governance in countries where governance is weak and the dependence on natural resources is strong. Recent political discussions on development policies have adopted this global approach. In its study on corruption in the extractive sector, the OECD states that: "taking a one-dimensional approach to combating corruption, focusing just on big multinationals, or on host governments would fall short of achieving results. Both the supply and the demand sides need to be tackled, nationally and internationally" (OECD 2016, 6). The current dynamic concerning payment transparency, which entails legal action both in the home countries of the companies and in the producing countries, constitute a good illustration. In this final section, we do not intend to exhaustively recount the debates about anti-corruption measures in natural resource sectors, which have been addressed elsewhere. Instead, we review and categorise various measures for addressing revenue misappropriation and discuss how these measures can contribute to reducing such risks in the commodity trading sectors identified earlier.

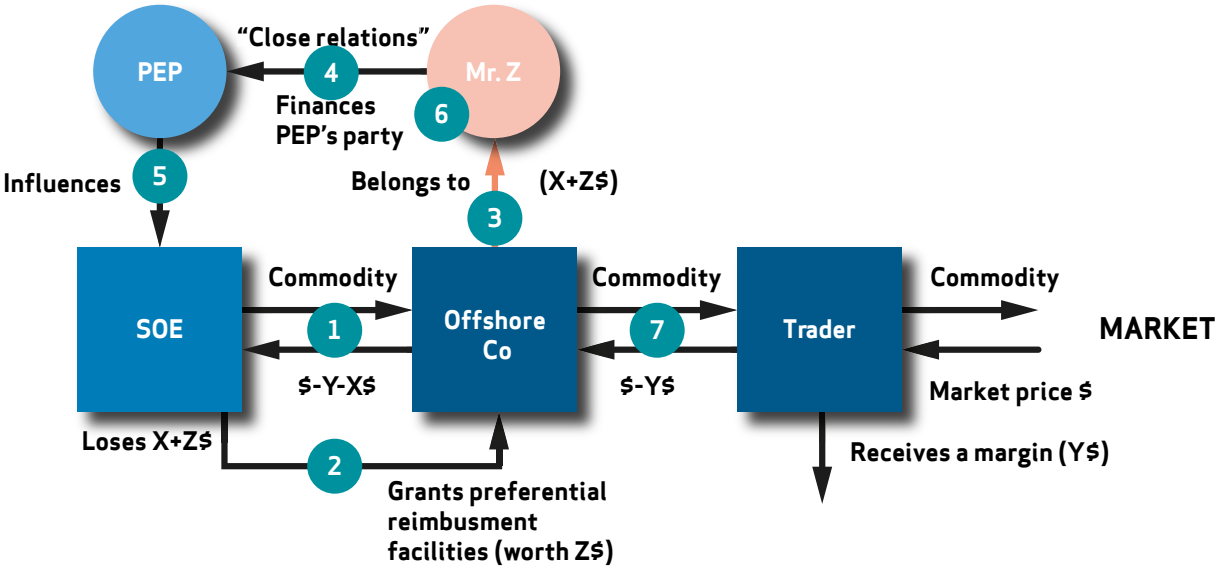
5.1 Which remedies for which ills?

The OECD provides an extended catalogue of mitigation measures that may help reduce the risks of revenue misappropriation during the trading of commodities (OECD 2016, 92–6). This catalogue reflects current political debates and can serve as a basis for our discussion. The OECD measures are directed at three different recipients: companies, their home states, and state producers. Some measures have a broad scope. They relate to, for example, the governance of SOEs. Thus, the OECD sets out various measures relating to financial flows between public companies and the state budget, to the independent oversight of their management, to the control of their foreign subsidiaries, and to the stringent definition of the legal framework which governs their activities. Others are more specific. The OECD recommends extra payment transparency, according to which SOEs should publicly report all revenues received from trading commodities, disaggregating the related data by cargo, type, quality, price, volume, and date of sale. It additionally recommends publishing the buyers' names and requiring that the latter publish the payments they make to the state, or to SOEs, so that the information can be reconciled. This recommendation goes for state producers as much as for the home states of the companies involved. Another set of measures relates to the process of granting access to commodities. The OECD suggests, for example, that host states adopt transparent processes to reduce the risks of conflicts of interest. The OECD also identifies voluntary measures for trading companies to prevent their being unwittingly complicit in the misappropriation of revenue by their personnel or their business partners. These measures include the adoption of ethical

codes, of internal and external audits, the evaluation of corruption risks, and the adoption of means to encourage whistleblowing.

We consider how these different measures apply to the concrete cases discussed above. Let us take the second one, for example, in which the initial buyer of the commodities, traded at the SOE's cost, is an intermediary diverting a portion of the income (Diagram 5).

Diagram 5



In this case, the following mechanisms might help:

(1) Transparency of payments and transparent processes (public tenders, publication of results, and transparent processes for price setting) limit risks at the initial transaction phase. A jurisdiction where the intermediary or the trading company are located, may require that parties to a transaction (SOE and the "first buyer") publish their respective revenues and payments;

(2) Where contract annexes hide undue advantages, the publication of contracts with a state entity may complement the first measure;

(3) Requirements that purchasing companies publish their ultimate beneficiaries help limit the risk that a PEP is hiding behind a company which unfairly obtains markets. The obligation to publish ultimate beneficiaries can be applied in the producer state or in the trading company's host state;

(4) In the source country, measures to combat corruption or the undue financing of political parties may limit the risks that an influential PEP gets richer in exchange for providing an advantage in contract awards;

(5) Good governance of the SOE may also limit such risks;

(6) Anti-corruption or anti-money laundering provisions on financial intermediaries in the home state of the company that obtains commodities increase the likelihood that payment to a PEP, or to someone in his circle, is detected and reported to the prosecuting authorities;

(7) Mandatory due diligence requirements in the home state of trading companies might help to prevent them from buying commodities acquired illegally or at the expense of the country of origin.

Box 2: What role for development agencies?

Development agencies have limited means to contribute to catching revenue misappropriation in commodity trading. As a rule, these agencies do not intervene in policy discussions in countries where trading companies have their headquarters. Setting conditions for development assistance in the home countries for development cooperation, linked to governance in the commodities trading operations for instance may be considered to be interference by the producer countries. Development agencies may have more room to manoeuvre when it comes to promoting civil society, supporting the media, or assisting NGOs that monitor the commodity trading sector or raise awareness about corruption or money laundering. But such measures are not specific to trading. And it might be impossible for development agencies to lend such support in countries where governance is weakest. If development agencies wish to support programmes that aim to mitigate revenue misappropriation in this specific segment of the sector's value chain, then their main area of support will be capacity building programmes and training for employees of the SOEs in charge of commodity trading. Overall, development agencies can help with raising the topic in international conferences or inside relevant organisations. They also can fund research into such issues and disseminate their results.

None of the first six measures are fundamentally new, and all of them are already implemented to varying degrees. A comparative analysis of their success only revealed a small amount of research published so far.[28] Nevertheless, none of the measures listed could have any real effect on companies which purchase from intermediaries higher in the supply chain. As we have shown previously, however, such a trading company may not be responsible for this diversion, but it may know or could easily know that it is buying illicitly acquired commodities. The OECD's 2016 study outlines for the first time measures that can be taken in the home state to stop the latter becoming passive accomplices to this misappropriation (7). This innovation warrants further examination.

28 The analysis on the efficiency of payments transparency as it has been implemented so far, and its impact on corruption is pusillanimous, for example. On this subject, cf. e.g.: Brugger, Carbonnier and Krause (2011). Analysts have noted that while transparency helps to fight corruption, it is not sufficient by itself to eradicate it (cf. e.g. Kolstadt and Wiig, 2007).

5.2 What kind of regulation by states where trading firms are headquartered?

In its aforementioned study, the OECD suggests two types of measures that could apply in countries where companies buying commodities are headquartered. Some are for trading companies, others are directed at governments of those countries. For the latter, the OECD recommends they introduce specific legal requirements for commodity trading companies. One such requirement would be due diligence of business partners in order to prevent illegal transactions with PEPs or other intermediaries, but also with respect to the supply chain, so that companies know the origin of the commodities and the conditions under which they have been purchased. The explicit goal of such a requirement would be the prevention of corruption.

Today, comparable measures for the regulation of commodity-trading activities do not exist anywhere. Such measures should aim to prevent entry to the market of commodities acquired in a way that financially damages host states or through embezzlement. They would constitute a substantive equivalent to the due diligence requirements on financial intermediaries to prevent dirty money from entering financial systems. Such due diligence requirements could be combined with other specific requirements, such as those which aim to prevent the finance of international terrorism – or violations of international embargos. Since the commodities sector also has a high-risk profile with regards to environmental and human rights violations, the requirements could also come with provisions to ensure that the commodities have been produced without undermining human rights or environmental standards. At the heart of the United Nations Guiding Principles on Business and Human Rights is the principle that companies buying goods or services are responsible for the conditions in which they have been produced. We hope that in the next few years this subject will get the attention it deserves, matching the challenges that this sector poses for the populations of producer countries.

6. Conclusion

Increased transparency and better regulation could help to improve the governance of commodity related state income, support the use of this income for development purposes that benefit the majority of the population and allow the citizens of commodity-rich countries to benefit from their non-renewable resources. With this paper, we have highlighted the major risks of revenue misappropriation during the sale of commodities by SOEs. We have shown that the revenue misappropriation risks resulting from commodity trading are not just theoretical. They do materialise, as concrete, empirical, case examples show. Analysing such cases shows that some of the typical features of revenue misappropriation may be really hard to discover and prevent with current corruption legislation. This legislation is based in large part on anti-money laundering provisions and on the idea that combating misappropriation should be aimed mainly at commodity-source countries. A focus on the purchasing companies has been identified as a possible measure against misappropriation, but such measures have not yet been implemented by any of the home states of commodity trading companies.

Despite significant risks of revenue misappropriation in the sale phase and despite the importance of this revenue for resource rich developing countries, this subject has not gained the attention we believe it deserves, as the limited existing published research shows. It is no surprise then that this issue has also attracted little political attention, although this is now slowly changing.

To influence the political agenda and drive policy change for the benefit of populations in commodity rich developing countries a number of issues merit further analysis:

1. The amount of state revenues derived from commodity trading, in particular for countries where governance is weakest, is at best partially known, particularly if we look beyond the main producing countries, or at commodities other than oil;

2. Measuring the leakage of state revenues of commodity rich developing countries and the weight of corruption in the trading phase is a challenge and there is still a lot to learn about the evolution of this loss of revenue over time;

3. We do not know enough about revenue misappropriation schemes at the point of trade of commodities. They often escape the attention of authorities or the public and are not well-documented.

We hope that with this paper we have contributed to the analysis of the misappropriation risks associated with commodity trading. The issue has become urgent, the stakes are critical and political debates on the subject have only just begun.

Appendix 1: Methodology section related to Table 1

It is difficult to find global figures on commodity sales for producer countries. Very few of them disclose detailed information about their sales in SOE reports or at state level. Some producer countries release reports that may give general information about the total amount of commodity sales by SOEs, for example, by producing reports for the EITI. This information is to date less detailed than information on payments received from extractive companies. This is because they are not broken down by buyers (= companies). Such aggregated data aids assessment of how much states get globally from their sales operations and comparisons of that amount with the sums they get from extractive operations. We have analysed various EITI reports and are able to present figures that allow us to compare seven countries. This exercise is difficult, however, because different countries present their data in very different ways. In some cases, it can be very hard to get a definition of figures, which may have similar names but are calculated in different ways. Conditions in the various countries also differ greatly from one country to another. Providing an extensive overview of such methodological differences would be impossible here. Interested readers should go directly to the various reports instead.

One of the major methodological difficulties of this exercise is related to the value of commodities sales. According to rule 4.2 of the EITI standard, EITI reports should disclose the value of "Sale of the State's share of production or other revenues collected in-kind. Where the sale of the State's share of production or other revenues collected in-kind is material, the government, including State-owned enterprises, are required to disclose the volumes sold and revenues received". In some countries, however, this figure might not be the same as the SOE's total revenues. In fact, SOE production is not always covered in all EITI countries, for example, if the field is 100% owned by the NOC or fields where the NOC is the operator as part of production-sharing agreements on behalf of the government. Despite this, we relied on data in EITI reports, where available. For Ghana and Nigeria, we relied on other data provided from the SOEs themselves, which might not be calculated on a similar basis (see below). Nevertheless, we believe the data presented here to be the best that is publicly available.

We selected the seven countries based on availability of the data we were looking for and on the availability of the aforementioned reports. Report language also played a role. The sample here is therefore not complete. The exercise could probably be done for more countries. However, we believe this sample was sufficient to allow us to conclude that, at least in some cases, commodity sales represent a significant proportion of a state's revenue, sometimes more than the revenue from extractive companies. The fact that the countries have diverse socio-economic and political features also makes us believe that our sample is representative, at least to some extent.

Details about the ways the data was collected for each country:

1) Data related to "Total government revenue" (col. 3).

This data represents the overall revenues perceived by the central state (in billions of US dollars). The data is based on the IMF's World Economic Outlook database in April 2016 for the related year (https://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx). Since those figures are always given in local currency, we converted such figures into US dollars, using exchange rates used in the various EITI reports – where available – or by visiting websites such as http://www.exchangerates.org.uk. In cases where EITI reports didn't provide an exchange rate, we used an average 12-month exchange rate. The year chosen was the one of the latest available report in June 2016.

2) Data related to "Total extractive government revenue" (col. 4).

This data shows the total revenue to the state from the extractive sector (in billions of US dollars). This data therefore normally includes BOTH revenues deriving from 1) extractive activities such as drilling, extraction, payments received for tax purposes from producer companies, royalties, sales of extractive licenses and 2) sales of the state's share of commodities. The data is sourced here:

- Congo-Brazzaville: République du Congo. 2014. *Rapport ITIE 2013*. Décembre 2014, p. 38 – quoted (République du Congo 2014). The amount given here is an estimate based on the figure given for the oil revenues in 2013 ("Revenus pétroliers", 5258 MUSD), and on the figure given for 2012 on the same page for the mining revenues (which are, in 2012, worth 0.06% of the total extractive revenues and therefore considered negligible for 2013). No overall data has been found elsewhere.
- Azerbaïjan: Azerbaijan Extractive Industries Transparency Initiative. 2016. *EITI Report for the Year ended 31 December 2014*, January 2016, p. 31 – quoted (Azerbaïjan 2016). "Receipts from the extractive industry for the year 2014 covered by EITI – Total". This figure includes both the revenues of the State oil fund of Azerbaijan Republic and the revenues of the State Treasury of the Ministry of Finance of the Republic of Azerbaijan).
- Nigeria: NEITI (Nigeria Extractive Industries Transparency Initiative). 2015 a. *Financial, Physical and Process Audit: An Independent Report Assessing and Reconciling Physical and Financial Flows within Nigeria's Oil Industry and Gas Industry* [for 2012], p. 31 – quoted (NEITI, 2015 a). The figure given there ("Oil revenue") includes crude oil and gas sales, PPT/Royalties and other revenues (broken down on a monthly basis), for a total of US$ 52.279 billion but does not take revenue from the other minerals into consideration. The revenues linked to "non oil" commodities (= 0.171 billions of US $) are found in an annex dedicated to other minerals (*Solid Minerals Industry Audit 2012*), on page 8, where they are given in Naïras (31'449 mio Naïras, worth 171 mio $ on the basis of 1 USD = 184 NGN). The figure given here (52.45 billion US $) is the addition of both figures (= 52.279 + 0.171=52.45).
- Ivory Coast: Cote d'Ivoire. Décembre 2015. *Initiative pour la Transparence dans les industries extractives (ITIE Cote d'Ivoire), Rapport ITIE 2013*, p. 7 quoted : (Cote d'Ivoire 2015). This figure (367.9 billions of CFA Fr.-) includes revenues derived from SOEs, social payments and state direct revenues (mainly taxes).
- Cameroon: République du Cameroun. 2015. *Comité de suivi de la mise en œuvre de l'initiative pour la transparence dans les industries extractives. Rapport de conciliation des flux financiers et des volumes relatifs à l'exploration et à l'exploitation des hydrocarbures et des mines solides au titre de l'année 2013*. June 2015, p. 7 – quoted (Caméroun 2015). "Contributions directes et indirectes au budget de l'Etat".
- Ghana: The sum indicated here was reached by adding revenues for the oil and gas sector and revenues from the mining sector. The source for revenue from the oil and gas sector is Republic of Ghana. 2015 b. *Final Gheiti Report on the oil-gas sector – 2014*, December 2015, p. 26 – quoted (Republic of Ghana 2015 b). The source for revenue from the mining sector is: Republic of Ghana. 2015 c. *Final Gheiti Report on the mining sector – 2014*, December 2015, p. 7 – quoted (Republic of Ghana 2015 b). The revenues from the mining sector are given in GHc, and have been converted into dollars (using an average rate for 2013 of 1$ = 2.14 GHc).
- Chad: République du Tchad. 2016. *Rapport ITIE 2013*. Janvier 2016, p. 14 – quoted (Chad 2016). "Contribution totale du secteur extractif aux revenus de l'Etat".

3) Data related to "Amount of State oil sales" (col. 5)

- Congo-Brazzaville: (République du Congo 2014, 7). The figure given here is the sum of the following figures: "pétrole commercialise par la SNPC pour le compte de l'Etat" (=2.5 MDS USD), "affecté au remboursement de projets d'infrastructures" (=2.2 MDS USD), "livrés par la SNPC à la CORAF" (=662MUSD). We don't understand why the data given here is higher than the amount given later in that same EITI report for revenues derived from the extractive sector, therefore leading to the strange figure of 102% in the last column of our table. A possible explanation could be that the amount of oil sold in 2013 by the SNPC includes oil that had been stored in 2012. No explanation for this discrepancy is to be found in the EITI report.
- Azerbaïdjan: (Azerbaïjan 2016, 31). "Receipts from the sale of profit oil and gas" delivered to the State oil fund of Azerbaijan Republic.
- Nigeria: BD (Berne Declaration), NRGI (Natural Resource Governance Institute), and SWISSAID, eds. 2014. *Big Spenders. Swiss trading companies, African oil and the risks of opacity.* Report July 2014. Zurich: BD. New-York: NRGI. Berne: SWISSAID, p. 7. NNPC sales estimates. (42.49 billions $).
- Ivory Coast: (Cote d'Ivoire 2015, 8), "Profit oil Etat Puissance publique recouvré en 2013, net des prélèvements IV". This figure has been chosen instead of the overall figure given one line after in the EITI report, which includes revenue deriving from the previous year (2012). It is probably under-evaluated though, since it does not take into account some sums levied in cash from the Treasury on the sales of state oil's share. The estimates made in our table are therefore conservative with regard to Ivory Coast (= "against" our point of view).
- Cameroon: (Caméroun 2015, 34). "Transferts SNH – mandat"
- Ghana: Ghana National Petroleum Corporation. 2016. Financial statements for the year ended 31 December 2014, p. 41. Table "Analysis of revenue due to GNPC", figure related to "Sales".
- Chad: (Chad 2016, 14). "Valeur des volumes commercialisés par la SHT".

4) Figure related to "State sales of oil in % total government revenue" (col. 6)

= col. 5/ col 3. This column gives a figure relative to the importance of oil and gas sales in proportion of the total government revenue.

5) Figure related to "State sales of oil in % total extractive government revenue" (col. 7)

= col. 5/ col 4. This column gives a figure relative to the importance of oil and gas sales in proportion of the total revenue paid to the government from all extractive activities.

Appendix 2

For the purpose of the current study, we analysed the practices of 47 SOEs. The SOEs taken into account were the following:

Country	SOE	Country	SOE
Afghanistan	Northern Coal Enterprise	Mexico	Pemex
Algeria	Sonatrach	Mongolia	Erdenes MGL
Angola	Sonangol	Morocco	O.C.P
Azerbaijan	SOCAR	Mozambique	ENH
Bahrain	Bapco	Myanmar	MOGE
Bolivia	YPFB	Nigeria	NNPC
Botswana	Debswana	Norway	Statoil
Brazil	Petrobras	Philippines	PMDC
Cameroon	SNH	Papua New-Guinea	Petromin (holding)
Chile	Codelco	Qatar	Qatar Petroleum
China	Sinopec	Russia	Rosneft
China	CNPC	Saudi Arabia	ARAMCO
Colombia	Ecopetrol	South Sudan	Nile Petroleum
Ecuador	Petroecuador	Tanzania	STAMICO
Egypt	EGPC	Trinidad and Tobago	Petrotin
Equatorial Guinea	GEPetrol	Turkmenistan	Turkmengas
India	ONGC	Venezuela	PDVSA
Indonesia	Pertamina	Vietnam	Petrovietnam
Iran	NIOC	Yemen	YOGC
Iraq	Ministry of Oil and marketing (SOMO)	Zambia	ZCCM-IH (holding)
Kazakhstan	KazMunaiGaz	Zimbabwe	ZMDC
Kuwait	KPC	Ghana	GNPC
Libya	Libyan National Oil Corporation	Congo B	SNPC
Malaysia	Petronas		

This choice is somewhat arbitrary, because we have excluded some SOEs and because some countries have several SOEs (like Afghanistan or China). We generally assessed the largest SOEs. We then visited the websites of these 47 SOEs in order to find financial reports or other sales-related information.

The results of this survey are hard to assess with precision. Some SOEs seem not to have webpages or we weren't able to locate them. Some of them enclose documents that we weren't able to open or read. We also had difficulties with the various languages used. Nevertheless this survey allowed us to draw some general conclusions: only 32 SOEs published annual reports including financial statements. In 15 of these 32 cases, the last available report was two years old or more. Twenty SOEs reported absolutely no information about their sales, and the vast majority of those which did, did so in an aggregated manner. Only two of them (Nigeria's NNPC and Chile's Codelco) gave any information about their clients. We were able to find two SOEs which reported tender procedures and their results (ONGC and Rosneft). In none of the websites of the 47 SOEs analysed did we find any information regarding the bids. We have not been able to find any oil sales contracts or any information related to the terms of the contracts.

References

Al-Kasim Farouk, Tina Søreide, and Aled Williams. 2008. *Grand Corruption in the Regulation of Oil*. U4 Issue paper 2008:2. Bergen: Chr. Michelsen Institute.

ArchCoal, Inc. 2013. "Investor Presentation." March 2013.

Auty, Richard M. 1993. *Sustaining Development in Mineral Economies. The Resource Curse Thesis*. London and New-York: Routledge.

Azerbaïjan Extractive Industries Transparency Initiative. 2016. EITI Report for the Year ended 31 December 2014, January 2016.

Bain & Company. 2013. *The Global Diamond Report 2013. Journey through the Value Chain*. Boston: Bain & Company. Antwerp: Antwerp World Diamond Centre private foundation.

BD (Berne Declaration), ed. 2012. *Commodities. Switzerland's most dangerous Business.* Zurich: BD.

BD (Berne Declaration), ed. 2013a. *Trafigura's business in Angola*. Report February 2013. Zurich: BD.

BD (Berne Declaration), ed. 2013b. *Swiss traders' opaque deals in Nigeria*. Report November 2013. Zurich: BD.

BD (Berne Declaration), ed. 2015. *Philia's refined ventures in Brazzaville. How Swiss traders misappropriate Congolese oil rents*. Report February 2015. Lausanne: Berne Declaration.

BD (Berne Declaration), NRGI (Natural Resource Governance Institute), and SWISSAID, eds. 2014. *Big Spenders. Swiss trading companies, African oil and the risks of opacity.* Report July 2014. Zurich: BD. New-York: NRGI. Berne: SWISSAID.

BD (Berne Declaration), NRGI (Natural Resource Governance Institute), PWYP (Publish What You Pay), and SWISSAID, eds. 2015. *In Pursuit of Transparent Trading.* Briefing October 2015. Zurich: BD. New-York: NRGI. London: PWYP. Berne: SWISSAID.

Blas, Javier. 2012. "Commodities traders face growing pains." Financial Times, 26 April 2012.

Blas, Javier. 2013. "Commodities traders reap $250bn harvest." *Financial Times,* 14 April 2013.

BP p.l.c. 2016. *Report on payments to governements Year ended 31 December 2015*, 24. June 2016.

Brugger, Fritz, Gilles Carbonnier, and Jana Krause. 2011. "Assessing policy responses to the resource curse: Can civil society live up to the expectation?" *Global Governance* 17, no. 2: 247–264.

Cassara, John A. 2015. *Trade-Based Money Laundering: The Next Frontier in International Money Laundering Enforcement*. Hoboken: Wiley.

Chêne, Marie. 2007. *Corruption and the renegotiation of Mining contracts*. U4 Expert Answer November 2007. Bergen: Chr. Michelsen Institute.

Chêne, Marie. 2016. *Linkages between corruption and commodity trading*. U4 Expert Answer April 2016. Bergen: Chr. Michelsen Institute.

CIA (Central Intelligence Agency). 2004. *Comprehensive Report of the Special Advisor to the DCI on Iraq's WMD*. 30 September 2004.

Codelco. 2015. Financial Statement.

Collier, Paul, and Benedikt Goderis. 2007. "Commodity prices and the Natural Resource Curse: Reconciling a Conundrum." Oxford Working Paper 15. Oxford: University of Oxford.

Collier, Paul. 2010. *The Plundered Planet: How to Reconcile Prosperity with Nature.* London: Penguin.

Collier, Paul, and Anthony J. Venables, eds. 2011. *Plundered Nations? Successes and Failures in Natural resources Extraction*. London: Palgrave.

Collier, Paul. 2013. "How we can help African nations to extract fair value." *Financial Times*, 12 May 2013.

Cote d'Ivoire. Décembre 2015. *Initiative pour la Transparence dans les industries extractives (ITIE Cote d'Ivoire), Rapport ITIE 2013*.

Daniel, Philip, Michael Keen, and Charles McPherson. 2010. *The Taxation of Petroleum and Minerals: Principles, Problems and Practice*. London and New-York: Routledge.

Damgé, Mathilde. 2013. " Les profits des négociants de matières premières dépassent ceux des banques. " *Le Monde*, 16 April 2013.

Dobbs, Richard, Jeremy Oppenheim, Adam Kendall, Fraser Thompson, Martin Bratt, and Fransje van der Marel. 2013. *Reverse the curse: Maximizing the potential of resource-driven economies*. Report December 2013. McKinsey Global institute.

EITI (Extractive Industries Transparency Initiative). 2015. *The EITI, NOCs and the first trade. The EITI as a tool for improving the trading climate with National Oil companies (NOCs)*. Brief March 2015. Oslo: EITI.

EITI (Extractive Industries Transparency Initiative). 2016. *6th Report of the Iraqi EITI 2014*. April 2016.

FATF (Financial Action Task Force). 1997. *VIII Money laundering typologies exercise. Public report 1996-97*. Paris: FATF.

FATF (Financial Action Task Force). 2006. *Trade Based Money Laundering*. Paris: FATF.

FATF (Financial Action Task Force). 2013. *FATF Guidance. politically exposed persons (recommendations 12 and 22)*. Paris: FATF.

FATF (Financial Action Task Force). 2015a. *Money Laundering, Terrorism Financing risks and vulnerabilities associated with Gold*. FATF Report July 2015. Paris: FATF. Sydney: Asia/Pacific Group on Money Laundering.

FATF (Financial Action Task Force). 2015b. *Emerging Terrorist Financing Risks.* FATF Report October 2015. Paris: FATF.

FCA (Financial Conduct Authority) [United Kingdom Government]. 2014. "Commodity Markets Update." February 2014.

Federal Criminal Court [Switzerland]. 2008. Entscheid vom 3. Juli 2008, II. Beschwerdekammer. RR.2008.11.

Federal Criminal Court [Switzerland]. 2015. Décision du 17 juin 2015, Cour des plaintes. BB.2014.123.

Freedman, Alix M., and Steve Stecklow. 2002. "How Saddam Diverts Millions Meant For Food Aid to Reap Illegal Oil Profit." *Wall Street Journal*, 2 May 2002.

Gajigo, Ousman, Emelly Mutambatsere, and Guirane Ndiaye. 2012. *Fairer Mining Concessions in Africa: How Can this be Achieved?* Africa Economic Brief 3, Issue 3. April 2012. Tunis: African Development Bank.

Gayi, Samuel K., and Komi Tsowou. 2016. *Cocoa industry: Integrating small farmers into the global value chain*. New-York and Geneva: UNCTAD

Ghana Cocoa Board. 2014. Annual Report.

Ghana National Petroleum Corporation. 2016. Financial statements for the year ended 31 december 2014.

Gibbon, Peter. 2014. "Trading Houses during and since the Great Commodity Boom: Financialization, Productivization or…?." DIIS Working Paper 2014:12. Copenhagen: Danish Institute for International Studies.

Gillies, Alexandra. 2010. *Oil Sector in Africa: The case of Nigeria*. Unpublished PhD Dissertation. Cambridge University, Massachusetts.

Glencore International PLC. 2011. "Prospectus Global Offer of up to 1,250,000,000 Ordinary Shares at a price expected to be between 480 pence and 580 pence per Ordinary Share. Admission to the Premium Listing segment of the Official List and to trading on the London Stock Exchange and Secondary Listing on the Hong Kong Stock Exchange."

Glencore International PLC. 2016. *Glencore payments to governments Report 2015*. Baar: Glencore PLC.

GW (Global Witness), ed. 1999. *A crude awakening*. Report December 1999. London: GW.

GW (Global Witness), ed. 2002. *All the president's men: Director's cut*. Report March 2002. London: GW.

GW (Global Witness), ed. 2005. *The riddle of the Sphynx: where has Congo's oil money gone*. Report December 2005. London: GW.

GW (Global Witness), ed. 2006. *It's a gas: Funny Business in The Turkmen-Ukrainian Gas Trade*. Report April 2006. London: GW.

GW (Global Witness), ed. 2010. *A Near Miss? Lessons learnt from the Allocation of Mining Licenses in the Gola forest Reserve in Sierra Leone*. Report February 2010. London: GW.

GW (Global Witness), ed. 2012. *Rigged ? The scramble for Africa's oil, gas and minerals.* Report February 2012. London: GW.

GW (Global Witness), ed. 2013. *Azerbaijan Anonymous. Azerbaijan's State Oil Company and Why the Extractive Industries Transparency Initiative Needs to go further*. Report December 2013. London: GW.

GW (Global Witness), ed. 2014. *Glencore and the Gatekeeper. How the world's largest commodities trader made a friend of Congo's President $67 million richer*. Report May 2014. London: GW.

GW (Global Witness), ed. 2016. *Out of Africa. British offshore secrecy and Congo's missing $1.5 billion*. Report May 2016. London: GW.

Herkenrath, Mark, and Olivier Longchamp. 2013. "Money laundering, liability and sanctions for Financial intermediaries – the issue of having the assets of politically exposed persons in Switzerland." In *Emerging Trends in Asset Recovery*, edited by Gretta Fenner Zinkernagel, Charles Monteith and Pedro Gomes Pereira, 127–136. Berne: Peter Lang.

Hoyos, Carola. 2007. "The new Seven Sisters: oil and gas giants dwarf western rivals." *Financial Times*, 12 March 2007.

Humphrey, Macartan, Jeffrey D. Sachs, and Joseph Stiglitz, eds. 2007. *Escaping the resource curse*. New-York: Columbia University Press.

(IIC) Independent Inquiry Committee into the United Nations Oil-for-Food Programme. 2005. *Manipulation of the Oil-for-Food Programme by the Iraqi Regime*. Final Report October 2005.

IMF (International Monetary Fund). 2007. *Guide on Resource Revenue Transparency*. Washington: IMF.

IMF (International Monetary Fund). 2011. "Angola—Fifth Review Under the Stand-By Arrangement, Request for Waiver of Applicability of Performance Criteria, and Request for Modification of Performance Criteria—Staff Report; Supplement; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Angola." IMF Country Report no. 11/346 December 2011.

IMF (International Monetary Fund). 2016. "World Economic Outlook Database." April 2016. Available here: https://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx

Katsouris, Christina, and Aaron Sayne. 2013. *Nigeria's Criminal Crude: International Options to Combat the Export of Stolen Oil*. Report September 2013. London: Chatham House.

Kolstad, Ivar, and Arne Wiig. 2007. *Transparency in Oil rich economies*. U4 Issue 2007:2. Bergen: Chr. Michelsen Institute.

Kolstad, Ivar, and Tina Søreide. 2009. "Corruption in natural resource management: Implications for policy makers." *Resources Policy* 34, no. 4: 214–226.

Le Billon, Philippe. 2011. *Extractive sector and illicit financial flows: What role for revenue governance initiatives?*. U4 Issue 2011:13. Bergen: Chr. Michelsen Institute.

Leigh, David. 2009. "Inside Trafigura: Accusations, sour deals and friends in high places." *The Guardian*, 16 September 2009.

Leite, Carlos, and Jens Weidmann. 1999. "Does Mother Nature corrupt? Natural Resources, Corruption and Economic Growth." IMF Working paper July 1999. Washington: International Monetary Fund.

Lindner, Samira. 2014. *Good practice in mitigating corruption risks in the extractives sector*. U4 Expert Answer 2014:13. Bergen: Chr. Michelsen Institute.

Longchamp, Olivier, and Urs Rybi. 2014. "Négoce des matières premières, risques de corruption, loi sur le blanchiment d'argent et matières premières illicites. Quelques considérations." In *Blanchiment d'argent: actualité et perspectives suisses et internationales*, 243–264. Paris: L'Harmattan. Geneva: Schulthess.

Malta Today. 2013. "Kickbacks paid for Enemalta oil purchases to procurement official." 20 January 2013.

McPherson, Charles, Stephen MacSearraigh. 2007. "Corruption in the Petroleum Sector." In *The Many faces of Corruption. Tracking Vulnerabilities at the Sector Level*, edited by J. Edgardo Campos and Sanjay Pradhan, 191–220. Washington: International Bank for Reconstruction/World Bank.

Meersman, Steven, Roland Rechtsteiner, and Graham Sharp. 2012. "The dawn of a new order in commodity trading." *The Oliver Wyman Risk Journal 2*: 68–78.

Mpenia, Hans T. M., Clarisse Metseyem, and Boniface N. Epo B. 2016, "Natural resources and capital flight in Cameroon."*African Development Review* 28, Issue S1: 88–99.

Ndlovu, Lindani B. 2014. "Challenges and opportunities facing landlocked countries." Presentation at Special event on ways and means of facilitating the Participation of Landlocked Developing Countries (LLDCs) in Commodity Value Chains: Challenges, opportunities and the way forward at United Nations, New-York, 1st October 2014.

NEITI (Nigeria Extractive Industries Transparency Initiative). 2015 a. *Financial, Physical and Process Audit: An Independent Report Assessing and Reconciling Physical and Financial Flows within Nigeria's Oil Industry and Gas Industry* – 2012.

NEITI (Nigeria Extractive Industries Transparency Initiative). 2015 b. *Terms of Reference for Consultant services in accordance with the EITI Standard. 2013 Oil & Gas Audit*.

NNPC (Nigerian National Petroleum Corporation). 2015. Financial and Operations Report. Monthly Report. September 2015.

NRGI (Natural Resource Governance Institute), ed. 2015b. *State Participation and State-Owned Enterprises. Roles, Benefits and Challenges*. NRGI Reader March 2015. New-York: NRGI.

NRGI (Natural Resource Governance Institute), ed. 2015c. *Copper Giants: Lessons from State-Owned Mining Companies in the DRC and Zambia*. Report April 2015. New-York: NRGI.

NRGI (Natural Resource Governance Institute), ed. 2015d. *Inside NNPC's Oil Sales: A case for reform in Nigeria*. Report August 2015. New-York: NRGI.

NRGI (Natural Resource Governance Institute), ed. 2016. *Initial Evidence of Corruption Risks in Government Oil and Gas Sales*. Briefing June 2016. New-York: NRGI.

NZZ. 2013. "Glencore könnte Iran-Sanktionen umgangen haben." 23 May 2013.

OCP Group. 2014. Financial Statement.

OECD (Organisation for Economic Co-operation and Development). 2014. *OECD Foreign Bribery Report. An Analysis of the Crime of Bribery of Foreign Public Officials*. Paris: OECD.

OECD (Organisation for Economic Co-operation and Development). 2016. *Corruption in the Extractive value chain: Typology of risks, mitigation measures and incentives*. Report 2016. Paris: OECD.

Office of the contractor General [Jamaica]. 2010. Special Report of Investigation. *Conducted into the Oil Lifting Contracts between the Petroleum Corporation of Jamaica (PCJ) and Trafigura Beheer*. August 2010.

OSF (Open Society Foundations), ed. 2014. "Uzbekistan's Cotton Sector: Financial Flows and Distribution of Resources." Working Paper October 2014. New-York: OSF.

Pemex. 2013. Annual Report.

Platts. 2011. *Russian crude oil exports to the Pacific Basin – an ESPO update*. Special Report oil February 2011.

Public Eye (formerly Berne Declaration). 2016. *Dirty Diesel. How Swiss Traders flood Africa with toxic fuels*. Report September 2016. Zurich: Public Eye.

Qatar Petroleum. 2014. Annual Report.

Republic of Ghana. 2015 Final Gheiti Report on the oil-gas sector – 2014, December 2015.

République du Cameroun. 2015. *Comité de suivi de la mise en œuvre de l'initiative pour la transparence dans les industries extractives. Rapport de conciliation des flux financiers et des volumes relatifs à l'exploration et à l'exploitation des hydrocarbures et des mines solides au titre de l'année 2013*. June 2015.

République du Congo. 2014. *Rapport ITIE 2013*. Décembre 2014.

République du Tchad. 2016. *Rapport ITIE 2013*. Janvier 2016.

Reuters. 2010. "YUKOS legal attack hits Rosneft oil export payments." 17 March 2010.

Reuters. 2012. "Shell and Statoil in Rosneft oil tender win-traders." 15 March 2012.

Reuters. 2016. "ExxonMobil eyes setting up large-scale trading division." 27 October 2016.

Rice, Xan. 2013. "Criminal networks blamed for Nigeria oil theft." *Financial Times*, 19 September 2013.

Ross, Michael L. 1999. "The Political Economy of the Resource Curse." *World Politics* 51, no. 2: 297–322.

Rosser, Andrew. 2006. "The Political Economy of the Resource Curse: A Literature Survey." Working Paper 268 April 2006. Brighton: Institute of Development Studies at the University of Sussex.

RWI (Revenue Watch Institute), ed. 2012a. *Selling the citizen's oil. How Governments Sell Their Oil*. Briefing April 2012. New-York: RWI.

RWI (Revenue Watch Institute), ed. 2012b. *Selling the citizen's oil. The Case for Transparency in National Oil Company Crude Sales*. Briefing April 2012. New-York: RWI.

RWI (Revenue Watch Institute), ed. 2013a. *The 2013 Resource Governance Index. A Measure of Transparency and Accountability in the Oil, Gas and Mining Sector*. Report 2013. New-York: RWI.

RWI (Revenue Watch Institute). 2013b. "The 2013 Resource Governance Index." Full web document.

Sachs, Jeffrey D., Andrew M. Warner. 1995. "Natural resource abundance and economic growth." NBER working papers 5398. Cambridge, USA: National Bureau of Economic Research.

Sanusi, Lamido. 2015. "Unanswered questions on Nigeria's missing billions." *Financial Times*, 13 May 2015.

SBA (Swiss Bankers Association). 2013. "La Suisse, place de négoce de matières premières." Swissbanking Factuals March 2013. Basel: Swiss Bankers Association.

SEC (Securities and Exchange Commission). 2016. *Final Rule: Disclosure of Payments by Resource Extraction Issuers*. 27 June 2016.

Shumsky Tatyana, and Sarah Kent. 2014. "Big Commodity Traders Gain Clout. " *Wall Street Journal*, 9 July 2014.

SNB (Swiss National Bank). 2012. "Swiss Balance of Payments 2011." Zurich: SNB.

Stevens, Paul. 2015. "The Resource curse revisited. Appendix: A literature Review." Energy Environment and Resources. Research Paper Appendix August 2015. London: Chatham House.

Strasburg, Jenny, and Margot Patrick. 2015. "Glencore Oil Deals Could Bite Banks." *Wall Street Journal*, 4 October 2015.

Swiss Federal Government. 2013. *Background Report: Commodities Report of the Interdepartmental Platform on Commodities to the Federal Council*. Report March 2013.

Swiss Federal Government. 2015. *Rapport sur l'évaluation nationale des risques de blanchiment d'argent et de financement du terrorisme en Suisse*. GCBF (Groupe interdépartemental de coordination sur la lutte contre le blanchiment d'argent et le financement du terrorisme). Report June 2015.

Swiss Federal Government. 2016. *Unlautere und unrechtmässige Finanzflüsse aus Entwicklungsländern Bericht des Bundesrates in Erfüllung des Postulats 13.3848 (Ingold) vom 26. September 2013 und des Postulats 15.3920 (Maury Pasquier) vom 23. September 2015*. Report October 2016.

Tanda, Jean-François. 2011. "Gezinkte Geschäfte." *Handelszeitung*, 29 September 2011.

Terazono, Emiko, and Javier Blas. 2013. "Commodities trading rule calls rejected." *Financial Times*, 26 March 2013.

The Economist. 2014. "End to End." 6 September 2014.

The Wolfsberg Group. 2009. "The Wolfsberg Trade Finance Principles."

The Wolfsberg Group. 2011. "The Wolfsberg Trade Finance Principles."

TI (Transparency International). 2011. *The Bribe Payers Index Report 2011*. Berlin: TI.

TI (Transparency International) and RWI (Revenue Watch Institute). 2011. *Promoting revenue transparency. 2011 Report on oil and gas companies*. Report 2011. Berlin: TI. New-York: RWI.

Tilouine, Joan. 2016. "« Panama papers » : comment le pétrole congolais s'évapore dans les paradis fiscaux. " *Le Monde*, 7 April 2016.

Tordo, Silvana, Brandon S. Tracy, and Noora Arfa. 2011. "National oil companies and value creation." Vol. 1. World Bank Working Paper 218. Washington: International Bank for Reconstruction and Development/World Bank.

Trafigura Group. 2015. *2015 Responsibility Report*. Amsterdam: Trafigura Beheer B.V.

Trafigura Group. 2016 a. *Commodities demystified. A guide to trading and the global supply chain*. Amsterdam: Trafigura Beheer B.V.

Trafigura Group. 2016 b. *2016 Responsibility Report*. Amsterdam: Trafigura Beheer B.V.

UNCTAD (United Nations Conference on Trade and Development). 2012. "Extractive Industries Optimizing value retention in host countries." New-York and Geneva: UNCTAD.

UNCTAD (United Nations Conference on Trade and Development). 2015. "The State of Commodity Dependence 2014." New-York and Geneva: UNCTAD.

UNCTAD (United Nations Conference on Trade and Development). 2016. "Trade Misinvoicing in Primary Commodities in Developing Countries: The cases of Chile, Côte d'Ivoire, Nigeria, South Africa and Zambia." New York and Geneva: UNCTAD.

United Kingdom. 2003–2007. Six Judgments of the High Court of Justice of England and Wales, Commercial Court.

United Kingdom Government. "Letter to Publish What You Pay on Trading Transparency." 27 May 2016. Available here: http://www.publishwhatyoupay.org/wp-content/uploads/2016/06/Letter-from-SoS-to-Elisa-Peter-27-May-2016.pdf

United States District Court. Western District of Pennsylvania. 2011. Alumium Bahraïn B.S.C v. Alcoa Inc. et al. Case No. 2:08-cv-299-DWA.

U.S. Geological Survey. 2016. "Mineral Commodities Summaries 2016." Virginia: U.S. Geological Survey.

WB (World Bank). 2000. "Analysis of the flow of Funds in Nigeria's Petroleum Sector." Oil and gas policy unit. Washington: WB.

WB (World Bank). 2011. "Overview of State Ownership in the Global Minerals Industry." Extractive Industries for Development Series #20. Oil, Gas, and Mining Unit Working Paper. Washington: WB.

WB (World Bank). 2016. "The World Bank Group's. Response to illicit financial flows: a stocktaking." 22 March 2016.

WB (World Bank), UNODC (United Nations Office on Drugs and Crime), and StaR (Stolen Asset Recovery Initiative), eds. 2011. *The Puppet Masters. How the Corrupt Use Legal Structures to Hide Stolen Assets and What to Do About It*. Washington: International Bank for Reconstruction and Development/World Bank.

CMI CHR. MICHELSEN INSTITUTE

Between 2011 and 2013, sales of government oil from the ten biggest producers in sub-Saharan Africa accounted for 56% of these countries' total public revenues. Despite their importance, however, such sales have received little political or academic attention until recently. Corruption risks associated with this phase of the commodity value chain are high due to the volumes of the financial transactions, the high degree of interaction with public authorities, the opacity of both the sales themselves and the actors involved, and a lack of regulation. Several case examples show that these risks are not merely theoretical. We summarise the state of research on this subject, paying special attention to buyers, whose responsibilities have been little discussed. We offer a typology of corruption risks in first sale trades of oil and minerals, and analyse existing measures to tackle them.

Public Eye

U4 Anti-Corruption Resource Centre
www.U4.no

U4 Anti-Corruption Resource Centre
Chr. Michelsen Institute (CMI)
Phone: +47 47 93 80 00
Fax: +47 47 93 80 01
u4@cmi.no
www.U4.no

P.O.Box 6033 Bedriftssenteret
N-5892 Bergen, Norway
Visiting address:
Jekteviksbakken 31, Bergen

This U4 Issue is also available at:
www.u4.no/publications

KEYWORDS:
natural resource management
oil
minerals
resource curse
commodity trading
corruption
national oil companies
state-owned enterprises
extractive revenue misappropriation