

EITI 2011

# What Do the Numbers Say? Analyzing Report Data

Alexandra Gillies

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## ABOUT THIS SERIES

Improving report quality and expanding the use of their contents are priorities for EITI. RWI has both analyzed the value of report data and assessed the quality of EITI reports from 23 countries according to a set of basic criteria. These and other resources are available at: [revenuewatch.org/EITireports](http://revenuewatch.org/EITireports).

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## Summary

Revenue Watch analyzed revenue data from the 50 reports published to date by 23 countries under the auspices of the Extractive Industries Transparency Initiative (EITI). Each report discloses payments made by petroleum and mining companies to the government, and the amounts received by government from companies. In addition to this basic reconciliation, most of the reports also provide further information about extractive sector operations and the revenues they produce. EITI reports remain under-utilized as a source of data even though they address some of the world's most important industries.

EITI revenue data show how dependent many countries are on these nonrenewable resources. EITI figures, when combined with independent price and production data, also provide rough estimates of how much each government earns relative to the private companies that extract the resources. Data on individual revenue streams highlight the great variety in fiscal regimes—some governments collect large sums in taxes or royalties, but many oil producers capture larger earnings from crude oil sales. EITI revenue data can also be compared with other sources of financial data to determine how much of the revenues make it to the national budget following their initial receipt.

The reports vary greatly in the quality of their data. Until EITI reports are produced regularly, contain comprehensive and reliable data and have a basic level of comparability, their value as a source of information will remain compromised. If report quality improves, the data will provide a powerful tool for making natural resource revenue management more transparent and accountable.

## Background

Since EITI's launch in 2002, 23 countries have published a total of 50 EITI reports. Can the revenue data contained in these reports be used to answer the kinds of questions that public officials, activists, investors, journalists and citizens ask about petroleum and mining industries and how they contribute to a country's economy?

RWI has analyzed the data from all EITI reports published before Feb. 1, 2011. These reports disclose the amounts paid by petroleum and mining companies to the government and the amounts received by government from companies. In addition to this basic revenue reconciliation, most reports also provide further information regarding extractive sector operations and the revenues they produce.

## Briefing

### ABOUT THE AUTHOR

Alexandra Gillies, governance advisor at RWI, specializes in issues of transparency, the political economy of resource-rich states and oil-producing Africa. RWI consultant Natalia Nagree conducted research for this report.

Collectively, the reports contain an impressive amount of information about industries that are vital both to national economies and international markets. The reports catalog the transfer of more than \$500 billion from companies to governments from 1999-2009. The publication of this information is all the more important because petroleum and mining data is often difficult or expensive to acquire, and is particularly inaccessible to citizens and civil society.

Moreover, EITI participant countries include some of the least transparent environments in the world. A number of EITI participant countries rank in the bottom half of the 2010 Revenue Watch Index that assesses how much information a country discloses about natural resource governance.<sup>1</sup> EITI reports therefore constitute one of the only, if not the only, source of publicly available information on oil and mining finances in several countries.

Despite the prominence of extractive industries, the scarcity of oil and mining data, and the great effort that went into producing the EITI reports, the data itself has garnered surprisingly little attention. This is partly due to the variable quality of EITI reports. The discussion that follows shows how the data in the reports can highlight priority issues, but it also emphasizes the ways the reports must improve before they can constitute a reliable collection of financial data. Cross-country analysis provides strong insights into natural resource governance that would be significantly enriched if reports became more comparable and comprehensive. Similarly, regular and timely production of reports (lacking in most countries, with notable exceptions like Azerbaijan) would enable better comparisons across time.

Along with their lack of standardization and irregular coverage of years, most EITI reports contain inconsistencies and lack key information. Our collection and analysis of data for this paper thus required many judgment calls on the part of the researchers. In addition to interpreting the reports, we also had to supplement their sometimes sparse contents with information from other sources (such as price and production data). Throughout the paper, we specify some of the methodologies, interpretations and shortcuts that this exercise required. We acknowledge that some of the data presented in the report will contain errors. These shortcomings represent important findings in and of themselves. If an EITI report is misleading or incomplete, the quality of future iterations needs to be improved.

Due to these caveats, *this paper does not constitute a new source of authoritative data*. Rather, it strives to illustrate the kinds of analysis that will be possible as the quality and comprehensiveness of EITI data improves.

### What can we learn from EITI report data?

A good EITI report can help the reader understand extractive sector revenue flows in a single country. If a country produces reports regularly, the reader can trace changes in these revenue flows over time. Comparing reports across countries offers additional perspectives on the differences in earnings, fiscal regimes and revenue management practices.

After extracting revenue data from all the reports, we looked to see if it could help answer four priority questions.

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### **1) How much do countries earn from oil and mining?**

Every EITI report is required to state the total revenues that the government earns from extractive industry payments. Nevertheless, compiling and comparing even these basic totals proved challenging. For example, some reports fail to cover payments from all companies, and others only report on selected commodities. Still others provide only the volume of in-kind payments (usually barrels of crude oil) without providing the monetized value of this product. These coverage issues are compounded by frequent inconsistencies, such as when the individual revenue stream figures do not add up to the totals provided in the same report.

Our basic approach to revenues was as follows: we used government receipt data, not company payments. We used reconciled receipt data in those cases where the reconciler had investigated and corrected initial discrepancies. When revenue stream data appeared comprehensive, we added up the individual revenue streams (royalties, tax, etc.) and used that total, rather than the total provided in a summary table. We monetized in-kind receipts of crude oil using country-specific price data when available and generic global prices when it was not, and added this amount to monetary earnings. We did not monetize in-kind gas receipts because gas price regimes vary drastically from country to country. All currency conversions use World Bank exchange rates from the year in question.

Comparing revenue data illustrates, in dramatic fashion, the degree to which oil proceeds dwarf those from mining in EITI countries. In 2008, when oil prices reached an historic high, Norway and Nigeria recorded the highest single-year receipts contained in any EITI reports at \$63 billion and \$61 billion respectively. Just these two single-year totals constitute 22 percent of the \$553 billion in total revenues reported in all EITI reports. At the opposite extreme, the Central African Republic (CAR) earned just \$3.5 million from its mining sector in 2008. Mining revenues totaled less than \$30 million in Sierra Leone, Niger, Ghana, Liberia and Mauritania for at least one of the years reported. Mineral producers all cluster at the bottom of the revenue rankings and oil producers at the top. Studies have found that oil-producing developing countries appear to face greater governance challenges than their mining counterparts.<sup>2</sup> This disparity in revenue flows may contribute to explaining why.

EITI revenue numbers can be used to determine levels of resource dependency, though at present these measures are only as strong as the quality and comprehensiveness of the data. Figure 1 contains the 10 highest single-year ratios of extractive industry receipts to GDP among EITI countries. Across the three measures of resource dependency contained in figure 1, these seven oil producers consistently score highest. Equatorial Guinea and Timor-Leste top the list: both are very small, poor countries where oil production quickly came to dominate the economy.

Less dependent countries include smaller mining producers like CAR, Ghana, Niger and Sierra Leone, and countries with more diversified economies like Norway and Peru. In 2008, when both Nigeria and Norway earned more than \$60 billion in petroleum revenues, EI receipts totaled only 24 percent of Norway's government revenues and 14 percent of GDP. Peru earned more than \$2 billion in petroleum and mining revenues in 2007, but these comprised just 9 percent of revenues and 2 percent of GDP.

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Country	Year	EI government receipts (\$ million)	Total government revenue (\$ million)	EI receipts as % government revenue	GDP (\$ million)	Receipts as a % GDP	Population (million)	Resource receipts per capita
Timor-Leste	2008	\$2,509	\$2,469	102%	\$444	565%	1.08	\$2,322
Timor-Leste	2009	\$1,763	\$1,929	91%	\$556	317%	1.12	\$1,582
Equatorial Guinea	2008	\$9,119	\$6,815	134%	\$18,424	49%	1.24	\$7,354
Equatorial Guinea	2007	\$6,148	\$4,816	128%	\$12,575	49%	1.21	\$5,103
Azerbaijan	2008	\$18,441	\$23,705	78%	\$46,378	40%	8.90	\$2,073
Republic of Congo	2008	\$4,645	\$5,602	83%	\$11,845	39%	3.65	\$1,273
Nigeria	2001	\$15,909	\$20,209	79%	\$44,138	36%	122.23	\$130
Nigeria	2000	\$15,818	\$19,537	81%	\$46,386	34%	118.95	\$133
Azerbaijan	2009	\$13,533	\$17,898	76%	\$43,076	31%	8.98	\$1,508
Nigeria	2006	\$45,448	\$49,251	92%	\$145,430	31%	140.00	\$325
Republic of Congo	2007	\$2,553	\$3,300	77%	\$8,356	31%	3.55	\$720
Nigeria	2004	\$26,596	\$31,058	86%	\$87,845	30%	132.60	\$201
Nigeria	2008	\$61,349	\$68,018	90%	\$207,116	30%	147.00	\$417
Nigeria	2005	\$32,601	\$42,595	77%	\$112,248	29%	136.25	\$239
Yemen	2005	\$4,668	\$5,847	80%	\$16,732	28%	20.98	\$223

Figure 1.  
High levels of resource dependency  
among certain oil producers<sup>3</sup>

Comprehensive resource revenue data is currently difficult to acquire. The World Bank, the International Monetary Fund (IMF) and other providers of data do not regularly publish these figures, though sometimes sporadic numbers appear buried in long reports (such as IMF's Article IV reports). As demonstrated above, extractive industry revenue totals are vital to understanding the resources available for development, how revenues compare across countries, and levels of resource dependency. For instance, tracking resource dependency figures over time is an excellent way for citizen groups to assess their government's economic diversification programs. If the EITI numbers become more comprehensive and reliable, they will constitute the leading source of resource revenue data available.

### 2) Does the government get a good deal?

Everyone wants to know the answer to this question. Governments want to maximize their "take" relative to what is earned by companies, companies want to know how much they are likely to earn in different countries, and many observers believe that developing countries often earn far less per unit of production than more powerful countries. For those concerned with the accountability, knowing the share of earnings that are captured by government is part of understanding how well the state manages its resources.

If report quality and regularity improve, EITI data could contribute to an understanding of government take in specific countries. However, it will not provide all the information needed to compare different countries' take levels. Many factors combine to determine the relative earnings of the government, and these factors vary across time and from place to place. Significant differences in geology, commodity quality, risk levels, the costs of production and the structure of contracts will cause legitimate differences in earning levels. Government take also depends on the stage of production. Typically, government take is low during the initial stage. During this period, companies recoup their costs and declare less profit, lowering profit tax and other revenue streams for the state. Due to this dynamic, government take numbers illuminate more when calculated for the entire lifetime of a field, rather than in certain years.

Countrywide data, even when disaggregated by company and payment stream, mask these variations. More precise calculations would require project by project data and background information on the country's specific production context, elements that extend beyond the scope of this study. Using EITI data that is imprecise and not standardized makes conclusions about take even less reliable.

Nevertheless, we present some government take numbers below in order to illustrate how EITI data can shed light, albeit limited, on a country's industry dynamics. A big hurdle was that most EITI reports fail to disaggregate revenue data by commodity. Several EITI mining countries report revenues for all their minerals in a single figure. Oil and gas revenue figures are combined by every country that produces both. Therefore, the pool of countries to analyze was constrained to single-commodity producers, though we did consider petroleum producers with small gas earnings. The lack of price data again posed a problem; we used country-specific price estimates when possible, but largely relied on global averages to estimate the total value of production.

The total value of production is calculated by multiplying the production volume by the price of the commodity. Government take equals the percentage of the total value earned by the state. For instance, take a country that produces 100,000 barrels of oil, which is valued at \$50 per barrel, and whose government earns \$3.5 million. In this case, the government receives 70 percent of the total value of production of \$5 million.

Using EITI data to calculate government take generated widely divergent results. For the reasons mentioned above, EITI data does not reveal the cause of these differences. One would guess that most variation stems from the differences in production, geological and cost profiles in the respective countries, although the inconsistency of EITI data is another possible explanation. Figure 2 illustrates this dilemma. In 2006, Ghana produced more gold than Mali, but earned more than three times less. With this information in hand, Ghanaian civil society and Parliament could query whether this difference stems from coverage problems in the EITI report, the production profile of the country's mines or its contracts with mining companies.

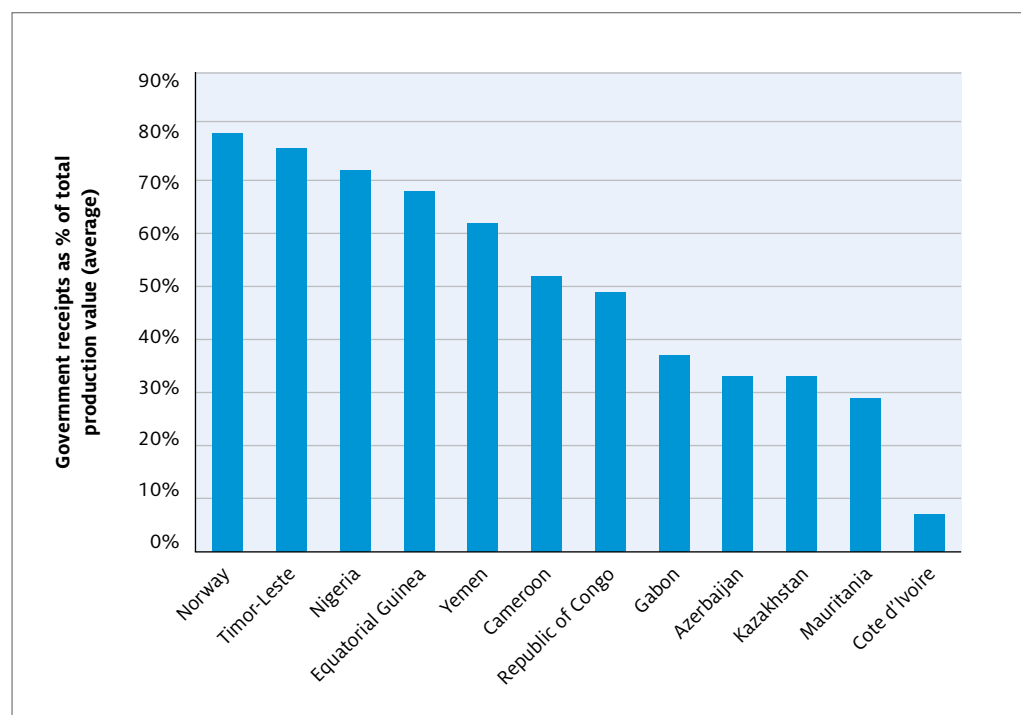
Figure 2.  
EITI data generates  
unreliable conclusions  
about government take<sup>4</sup>

Country	Commodity	Year	Production (kg.)	Price per kg., global average	EITI gold revenues	% of total value of production
Ghana	gold	2006	69,817	\$21,376	\$64,400,768	4.3%
Mali	primarily gold	2006	51,957	\$21,376	\$221,333,358	19.9%

We calculated government take for 12 oil producers.<sup>5</sup> This group includes four significant gas exporters: Norway, Azerbaijan, Equatorial Guinea and Nigeria. They remained in the analysis since their oil proceeds are much larger than those from gas. Nonetheless, their government take numbers are likely inflated to some degree because they receive both gas and oil revenues. **Because of this and other data shortcomings mentioned in the report, the findings illustrate the potential value of EITI report data and should not be considered accurate reflections of government take.**

Figures 3 and 4 show the great variety of results when EITI-reported oil revenues are calculated as a percentage of the total value of production. The divergent production profiles of the countries may explain some of the differences. As one would expect, established producers like Norway and Nigeria capture more than 70 percent of the value of production. This is significantly more than tiny producers like Cote d'Ivoire or those largely dependent on declining marginal fields like Gabon and Cameroon. Some rising producers like Kazakhstan also earn less, perhaps because company cost recovery is high during early production years. In contrast, newcomer Timor-Leste's share is high at an average of 76 percent in 2008 and 2009 which is possibly due to the maturity of its main producing field.

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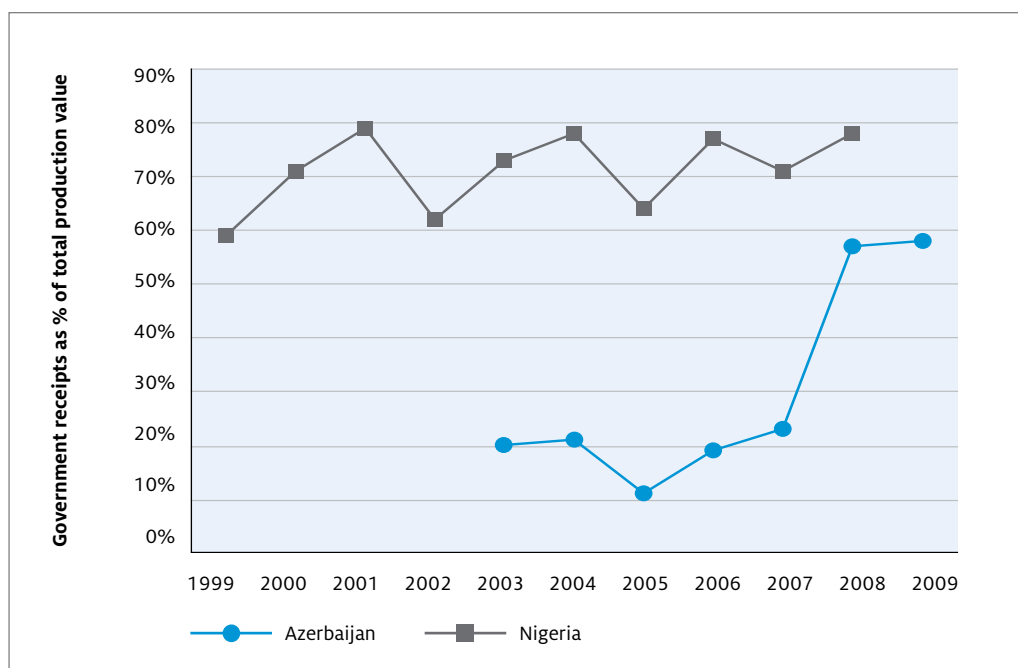
Figures 3.  
EITI-reported government receipts as percentage of total production value, average.<sup>6</sup>

Country	Average	2005	2006	2007	2008	2009
Norway	79%				73%	84%
Timor-Leste	76%				71%	81%
Nigeria	72%	64%	77%	71%	78%	
Equatorial Guinea	68%			63%	73%	
Yemen	62%	60%	66%	59%		
Cameroon	52%	75%	43%	44%	44%	
Republic of Congo	49%			48%	57%	41%
Gabon	37%	38%	35%			
Azerbaijan	33%	11%	19%	23%	57%	58%
Kazakhstan	33%	10%	30%	43%	48%	
Mauritania	29%		29%			
Cote d'Ivoire	7%		6%	9%		

Figures 4.  
EITI-reported government receipts as percentage of total production value, average and per year.<sup>6</sup>

However, some of the variety also comes from different approaches to EITI reporting, errors in the EITI data or errors in our interpretations. Some of the lowest percentages warrant particular caution, such as for the years in which Kazakhstan and Azerbaijan captured less than 15 percent and Cote d'Ivoire less than 10. On the other hand, Nigeria, Norway and Yemen's numbers are higher and quite consistent across years. The countries with higher averages track closer to available industry estimates and therefore might be less problematic.

Figure 5.  
Nigeria and Azerbaijan EI  
receipts as a share of total  
production value.



Looking at single countries over time eliminates some of the comparability problems. Figure 5 shows changes in government take in Nigeria and Azerbaijan, the countries with the most years of data. Again, gas is not included in the production numbers used to arrive at the total production value numbers—a serious data flaw especially for Azerbaijan.

Even with all the caveats, figure 5 shows how EITI data can reveal some industry trends, especially in single countries. Nigeria is an established producer known for negotiating competitive takes with its private oil company partners. The national oil company receives more than half of the country's production, the vast majority of which it exports itself. Azerbaijan developed its major fields of operation more recently and it appears to capture a mounting share of revenue as production advances and the cost-recovery phase comes to an end. The scope of Azerbaijan's EITI reports does not appear to change from year to year, so it seems more likely that the trend line reflects actual shifts in revenue flows rather than inconsistencies across reports. One could conjecture about the progressiveness of their respective fiscal regimes as well, as Azerbaijan's gains correspond with a period of price escalation.

Until EITI reports are released regularly, disaggregate by commodity and project, provide full price data, and assume a more standard approach to calculating and categorizing revenues, they will not provide reliable information on government take. Should these elements improve, however, the availability of this information would help citizens and civil society monitor whether governments maximize the value derived from the country's resource endowments.

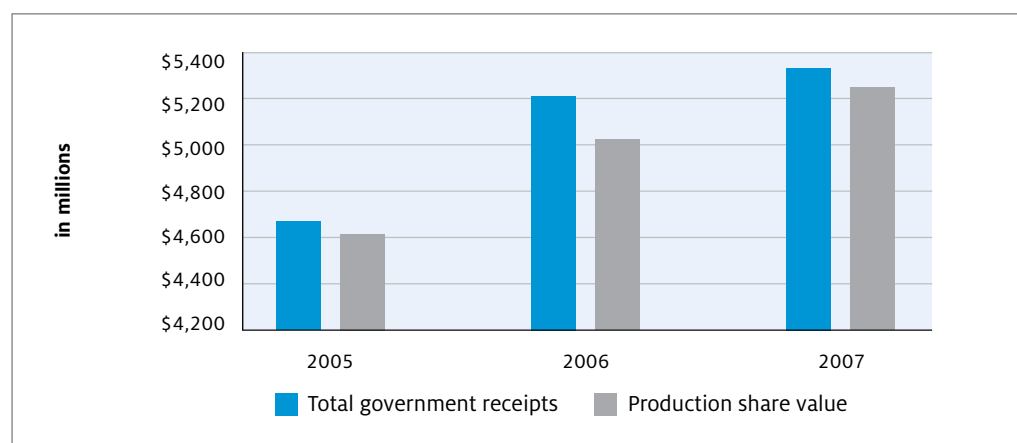
### 3) Where do the revenues come from?

Extractive industry revenues comprise several types of payments including royalties, taxes, fees, bonuses and shares of production. The relative importance of these revenue streams varies from contract to contract and country to country. All EITI reports disaggregate their data by revenue streams to some degree and therefore tell us something about their prevailing fiscal regime.

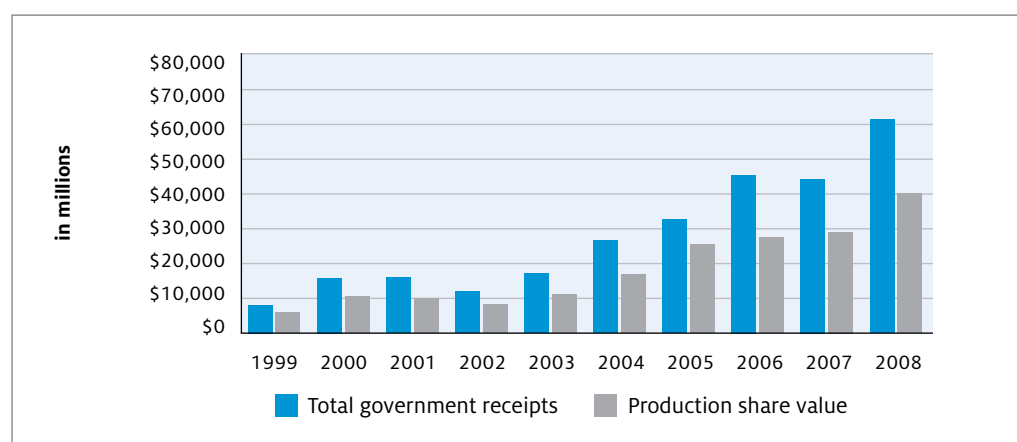
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Comparing countries reveals variety in fiscal regimes. Norway's petroleum taxes constitute 62 percent of the government's oil-related revenues. This reflects the country's high tax rates and the absence of royalties, an approach to revenue collection that relies on Norway's strong tax administration capacity. In the other oil producing EITI countries, royalties and taxes play a minority role, though royalties do comprise 42 percent of Equatorial Guinea's EITI-reported revenues and 25 percent of Gabon's. For countries like Mauritania and Liberia with nascent industries, exploration activities are more prominent than actual production. As a result, fees and bonuses play an unusually large role.

### Yemen



### Nigeria



### Cameroon

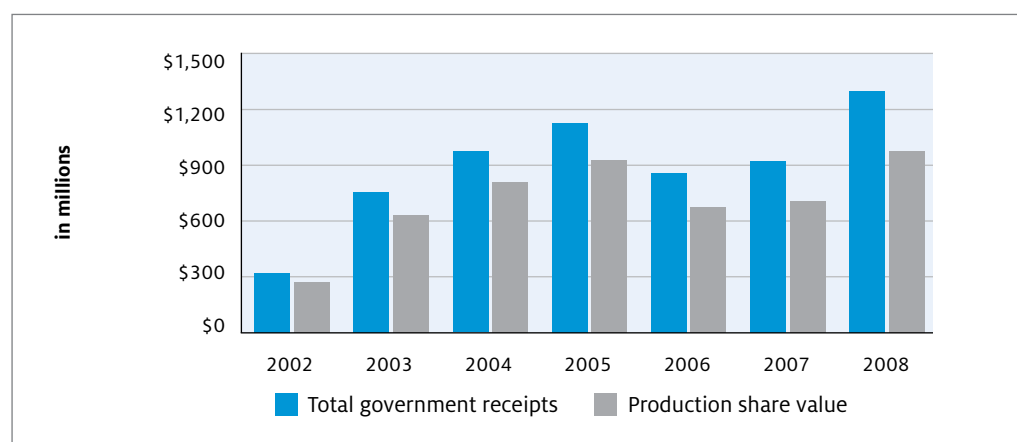


Figure 6.  
Crude oil receipts as a share  
of total oil revenues, \$ million



*EITI reports could do a much better job of presenting transactions such as the receipt of in-kind product by the national oil company, its sale and the deposit of the proceeds.*

The most striking result from this analysis is the overwhelming importance of production shares to a number of EITI oil producers. In this case, production share refers to both the portion of *profit oil* that governments receive according to the terms of their production sharing contracts and *equity oil* that governments receive if they control all or a share of producing concessions. Figure 6 shows leading examples of how crude oil receipts dominate certain revenue regimes. In each year with EITI data, Nigeria receives over 60 percent of its oil revenues from production receipts, Cameroon over 75 percent and Yemen over 98 percent.

The Republic of Congo also receives most of its revenues from its production share. According to its latest EITI report, the government sold 54 percent of the country's exports in 2008 and 38 percent in 2009. However, it is difficult to understand how the physical receipts are accounted for in the report. Timor-Leste reports its first tranche payments (similar to royalties) and its profit oil receipts as a single figure, which prevents their independent analysis.

The high value of in-kind receipts has implications for EITI reporting as well as for actors concerned with revenue oversight and accountability. Reports could do a much better job of presenting the relevant transactions that include the receipt of product by the national oil company, its sale and deposit of the proceeds. Countries like Gabon do not differentiate between equity and profit oil, which makes it difficult to interpret why a government receives the amount that it does. Azerbaijan, Cameroon and Equatorial Guinea tell us only the volume of crude received, not its value. Unless the reader calculates the value of the crude and adds it to the financial revenue data, revenue numbers for these countries are deceptively low. Conversely, Gabon provides only the value of its crude receipts. In its latest report, Nigeria follows better practice and provides both physical and production data; Yemen goes a step further by providing these figures as well the price at which they were sold.

Disclosing both production and volume data sheds light on whether a government gets a good deal for the crude that it sells. These sales are prone to corruption,<sup>7</sup> with governments sometimes offering lower prices to favored buyers. EITI reports are not detailed enough to uncover such practices. The EITI volume and value numbers suggest that the Nigerian national oil company sold its crude for an average of \$63.58 per barrel in 2006, \$74 in 2007 and \$96.89 in 2008. These prices appear lower than Forcados or Bonny Light prices (two prominent Nigerian blends), which average \$67.04 in 2006, \$74.58 in 2007 and \$101.70 in 2008.<sup>8</sup> Given the intricacies of Nigeria's export system, these simplistic figures cannot be interpreted easily. However, if Nigeria indeed sold its crude at \$5 less than market price in 2008, the losses would total \$1.9 billion—roughly equal to the country's education budget that year.<sup>9</sup>

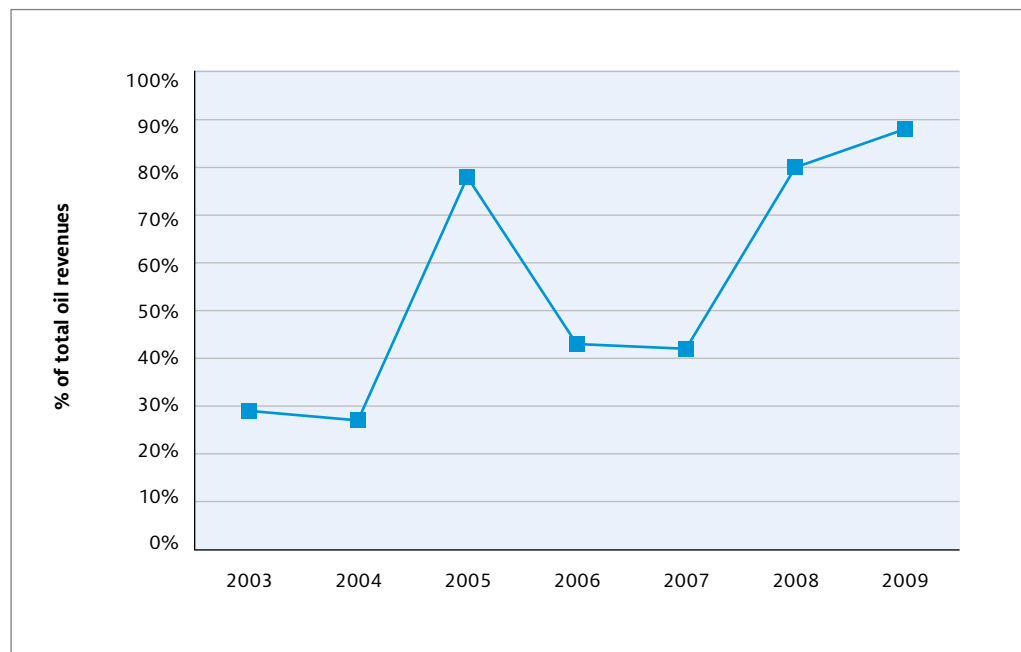
National oil companies receive most production shares and transfer them to domestic refineries or sell them on the international markets. The proceeds of these sales enter the budget, go into special funds, or remain with the national oil company. Given the size of production shares, EITI reports would be more valuable if they tracked these flows and transactions in addition to just the initial receipt of crude by the state company.

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Comparing fiscal regimes across time is another promising angle of analysis. For example, figure 7 shows how crude receipts have rapidly become the dominant source of revenue in Azerbaijan.<sup>10</sup>

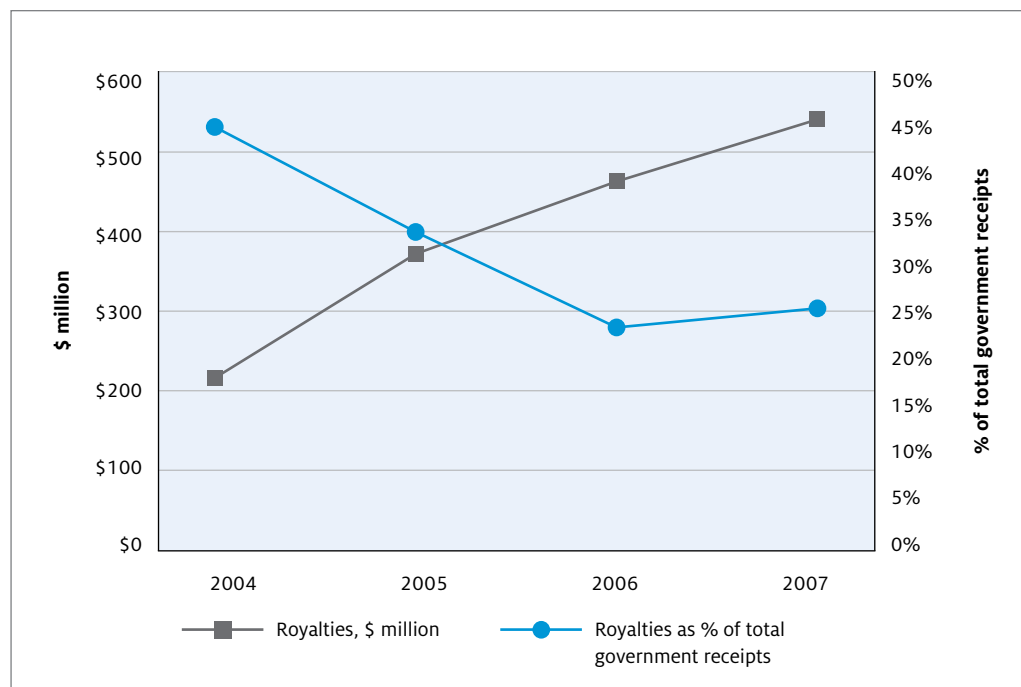
Figure 7.  
In-kind oil receipts as a percentage of Azerbaijan's total oil revenues.

(Note: The 2005 figure is an outlier because royalty numbers for that year were remarkably low—eight times lower than 2004 royalties and four times lower than 2006.)



Peru illustrates how the importance of royalties can decline as commodity prices increase. Figure 8 shows that royalties rise in value but fall significantly as a share of total earnings in 2004-2007.

Figure 8.  
Royalty trends in Peru, 2004-2007.



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Knowing the relative importance of revenue streams can help direct the attention of accountability actors. For instance, if the national oil company collects the vast majority of a country's oil earnings, then the spotlight should shine first on the company's operations.

#### **4) Where do the revenues go?**

EITI reports give us revenue numbers that can then be traced through a country's fiscal system. By comparing EITI receipt numbers with data from other sources like government budgets or IMF reports, we can investigate whether they end up where they are meant to go. One would hope that EITI revenue figures and those from other sources make sense when looked at side by side. If they do not, this requires attention from government authorities, civil society, international institutions and other actors concerned with efficient and leak-proof revenue management.

We examined whether EITI revenue data helps create a full picture of public finances in two countries, Kyrgyzstan and Timor-Leste. Kyrgyzstan has produced two EITI reports: one covering 2008 and the other the first half of 2004. The EITI report states that in 2008 Kyrgyzstan earned \$72 million from its mining industry, or 4.7 percent of its total government revenues. Pre-2010 budgets are no longer available on the Ministry of Finance website, and World Bank and IMF have not recently commented on resource revenues. Therefore it is difficult to see whether the EITI-reported revenues make it to the budget, or whether they include all mining earnings. However, World Bank data is available for 2004. The EITI report says that the government earned \$26.4 million from profit tax, VAT and land tax receipts in the first six months of 2004.<sup>11</sup> The World Bank finds that Kyrgyzstan earned \$166 million from the same three revenue streams for the entire year—a difference that is difficult to interpret.<sup>12</sup>

*By comparing EITI receipt numbers with data from other sources like government budgets or IMF reports, we can investigate whether revenues end up where they are meant to go.*

In such cases, the EITI reconciler may want to look at comparable data sources to see if the EITI report data is credible. The World Bank, too, which is heavily involved in supporting EITI implementation in countries, could look at how the EITI results mesh with its own data. The same goes for the IMF, which routinely reviews country fiscal performance.

Timor-Leste's EITI numbers, on the other hand, correspond with the broader fiscal context and other sources of revenue data, thanks in part to some extra effort to improve their report. All of Timor's oil revenues enter its petroleum savings fund, which is operated transparently. The fund therefore constitutes a secondary source of revenue data against which to check the EITI numbers. (In Kyrgyzstan there was no other source.) The country's first EITI report states that Timor earned \$2.51 billion in oil revenues in 2008. The Banking and Payments Authority (BPA), the entity that holds the fund, reported \$2.28 billion.<sup>13</sup> Observers were left to speculate about the discrepancy. However, in its second EITI report, Timor-Leste took on this issue. A detailed reconciliation explains the accounting practices that lead the EITI and BPA totals to differ by \$103 million in 2009. Overall, we observe lower discrepancies and less inconsistency in the Timor case—data from EITI, other government sources and international agencies seem to describe the same reality.

In addition to analyzing revenue numbers across multiple sources, observers should be able to see where EITI revenues go following their initial receipt. EITI reports catalog the amounts received by government agencies directly from companies. Not all of these revenues are then spent through the centralized budget process. Some profit oil goes to domestic refineries, often at subsidized prices, and crude sale revenues frequently fund off-budget spending or are retained by state-owned companies for their own operations and investments. Resource revenues can also avoid the budget by entering special savings funds.

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Big bonuses offer an easy opportunity to see if revenues can be traced through to the budget. According to its EITI report, Mauritania received a \$108 million signature bonus in 2006. Its total EI revenues that year totaled \$280 million, up from just \$29 million in 2005. Given that the one-off bonus equaled 16 percent of the government's total revenues of \$660 million,<sup>14</sup> it should be easy to see whether the bonus made it into the budget. And it is, which suggests good things about revenue management in this case. Government figures showed that total revenues increased by \$133 million from 2005 to 2006.<sup>15</sup> Given that Mauritania saved around 40 percent of EI revenues at that time, the total budget increase is very near to 60 percent of the total increase in oil revenues. IMF Article IV reports record a similar trend: oil revenues rose to constitute 10.6 percent of GDP in 2006 (around \$286 million, very close to the EITI figure) and drop back down to 4.1 percent in 2007. Thus a coherent story is told and corroborated by multiple sources: Mauritania received a large bonus, its oil revenues and total revenues increased by commensurate amounts, and the next year they fell again given the one-off nature of the bonus payment.

EITI was founded because, for many countries, petroleum and mining provide significant portions of public revenues, and these revenues often fail to advance the long-term interest of the country. Especially if their quality and comprehensiveness improve, EITI revenue figures will facilitate the examination of whether the government's fiscal systems maximize how well this wealth is used.

### Further uses of EITI data

We highlighted above how EITI data can be used to address four broad questions related to extractive industry revenues. Other important topics of analysis include:

#### ***Company contributions to national revenues***

This research did not address the company-by-company numbers contained in EITI reports, yet this represents a promising area of work. In the coming years, more countries are likely to disclose company-by-company payment and receipt data in their EITI reports. The Democratic Republic of Congo (DRC), Ghana, Guinea, Liberia, Mongolia, Nigeria, Norway and Timor-Leste do this already, and Niger, Peru and Sierra Leone provide partial company information. Company data should be presented as a summary of payments per company, as well as by individual revenue stream. For instance, the appendices of the DRC 2007 report list the amounts individual companies paid in specific revenue types.

The 2010 U.S. Dodd-Frank legislation requires all extractive sector companies listed with the Securities and Exchange Commission to report project-by-project, country-by-country payment data each year. Once reporting begins in 2012-2013, this information will be available to the public. EITI reports should rise to this standard, with companies and governments providing revenue data on each company and each project. Such data would greatly enhance the reliability of the corresponding government receipt data, standardize company reporting requirements, and significantly increase the cross comparability of EITI data.

#### ***Discrepancies***

Discrepancies between company payment and government receipt data total hundreds of millions of dollars. Examining and explaining their cause should be part of the terms of reference for all EITI reconcilers as these explanations constitute a valuable guide for governments and accountability actors that seek to minimize leakages. In the future, if data quality improves, discrepancy levels could become a possible proxy measure for the quality of extractive industry revenue management. Stronger reports would also be more adept at identifying leakages, such as in Liberia where an EITI report revealed an instance of corruption which was then prosecuted.<sup>16</sup>

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### ***The effects of price volatility***

As expected, EITI-reported revenues reflect the wild price fluctuations of the past few years. EITI data could help evaluate how different fiscal regimes affect the susceptibility of government revenues to such changes. Using regression techniques, one could hold production constant and isolate how changes in price affect revenues. Fiscal terms, such as the ratio of royalties to taxes, alter the extent to which governments capture profit windfalls during price spikes and suffer revenue loss when prices fall. However, these observations will only be possible when reports cover a greater number of years, and if reports contain more comparable definitions of revenue streams and complete revenue stream disaggregation.

### ***“Things that make you go ‘hmm’”***

Finally, the reports contain a number of figures that beg for additional explanation. In 2006-2008, the government of Cameroon had to pay royalties to the oil companies rather than the other way around. In its mining sector, reported company payments decreased between 2006 and 2008, while government reported an increase in receipts; the two figures met to match perfectly in 2008. Mining royalties peaked in 2007, adding to the confusion. Ghana’s mining revenues, as mentioned above, appear lower than expected, as do those in Sierra Leone (though its report admits some producing companies are not covered). Azerbaijan’s royalty receipts fall from \$400 million in 2004 to \$52.6 million in 2005, and bounce up again to \$190 million, despite steadily increasing price and production numbers. Kazakhstan provides data for local currency and U.S. dollar receipts, as well as a third set of local currency numbers that could be read as totals or an additional set of receipts. These and other curiosities may well have reasonable explanations. But from the EITI reports alone they appear unusual enough to warrant a further look by EITI reconcilers, as well as by government and accountability actors.

### **Improving EITI data**

For the EITI data to be interesting and useful to all its stakeholders, it must improve in a number of ways.

**The Revenue Watch Institute has assessed the quality of the most recent EITI report from 23 countries across several indicators which include the priority issues listed here. The findings and further information on improving EITI report quality are available online at: [www.revenuewatch.org/EITIreports](http://www.revenuewatch.org/EITIreports).**

**Regularity and Timeliness.** The value of report data will increase if the data is current and exists for a number of years.

**Reliability.** The reports are only useful if they contain reliable numbers. EITI validation criteria require that company and government reports be “based on audited accounts to international standards.” However, employing this rule in practice has proven challenging, and most reports contain unverified figures.

**Coverage.** To be comprehensive and comparable, report data should cover all companies, payments (above a clearly defined materiality threshold), revenue streams and commodities. Price and production data, the volumes and values of in-kind receipts, and the identification of equity shares and equity receipts are also crucial.

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[revenuewatch.org/EITIreports](http://revenuewatch.org/EITIreports).

**State-owned Enterprises (SOE).** Many SOEs receive a large share of revenues on behalf of government and then transfer some or all of these proceeds to the treasury. These transactions require careful attention in the reports.

**Disaggregation.** Analysis of EITI data is severely constrained by the failure of most reports to disaggregate by revenue stream, commodity, company and project. Since the launch of EITI, civil society has advocated for such disaggregation requirements.<sup>17</sup>

**Comprehensibility.** Some reports leave the reader well-informed about the sector and its revenues; others leave the reader confused. Accessible language, summary figures that correspond with their component parts, clear usage of currencies and units of measurement, definition of terms and easily identifiable reconciled data would help advance this cause.

**Comparability and standardization.** Along with these quality issues, this research generates serious questions about the comparability of EITI reports. At the moment, comparative analysis is challenging and produces findings that are suggestive at best. While country ownership remains vital, EITI members may wish to consider the issue of comparability and standardization. Coordinated technical assistance on the reporting templates and reconciler terms of reference, the use of model reports and reporting guidelines, and agreement on basic standards and definitions could deliver greater comparability. With some attention to these matters, future reports could constitute a collective of data that rivals any other source of information on extractive sector financial flows.

EITI aspires to set a standard for extractive industry transparency. Currently, the standard varies significantly from country to country. With concerted efforts to improve data quality, EITI reports would fulfill their potential as a source of data on critical industries. Such advancements may represent the best strategy for protecting the initiative's future. If the reports are eminently useable and valuable, demand from their users will ensure their continued production.

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## ENDNOTES

- 1 2010 Revenue Watch Index (New York: Revenue Watch Institute, 2010).
- 2 Antoine Heuty and Ruth Carlitz, *Resource Dependence and Budget Transparency* (Washington, DC: International Budget Partnership, 2008); Michael Ross, *Oil and Democracy Revisited* (Los Angeles: UCLA Department of Political Science, 2010).
- 3 Total government revenue and GDP data sourced from: *World Economic Outlook* (Washington, DC: International Monetary Fund, 2010).
- 4 Total mining revenues are used for Mali since gold dominates its mineral sector. Production and price data from: U.S. Geological Survey, "International Minerals and Statistics Information," [minerals.usgs.gov/minerals/pubs/country](http://minerals.usgs.gov/minerals/pubs/country).
- 5 Liberia and Mauritania's EITI reports include petroleum revenues, like signature bonuses, for years when they did not produce any oil. These years are not included in the analysis.
- 6 Production data from 2010 Statistical Review of World Energy (London: BP, 2010); and U.S. Energy Information Administration, [www.eia.doe.gov](http://www.eia.doe.gov). Price data from EITI reports (when available) and 2010 Statistical Review of World Energy.
- 7 See, for example *The Riddle of the Sphinx: where has Congo's oil money gone?* (London: Global Witness, 2005); and Alexandra Gillies, *Reforming corruption out of Nigerian oil?* (Bergen, Norway: Chr. Michelsen Institute, 2009).
- 8 U.S. Energy Information Administration.
- 9 President Umaru Musa Yar'Adua's 2008 budget, Nov. 8, 2007, <http://nigeriansenatepresident.com/files/2008%20Budget%20Speech.pdf>, Abuja, Nov. 8, 2007.
- 10 Given the challenges of finding price data for Azerbaijani blends, the monetized value of in-kind crude receipts was calculated using BP Statistical Review global price averages for the years in question.
- 11 The 2004 report is not available electronically, so we used the World Bank summary of the report as provided on EITI International's website ([www.eiti.org/document/eitireports](http://www.eiti.org/document/eitireports)).
- 12 *Mining Industry as a Source of Economic Growth in Kyrgyzstan* (Washington, DC: World Bank, 2005).
- 13 *Petroleum Fund of Timor-Leste Quarterly Report, December 31, 2008*, (Dili: Bank and Payments Authority of Timor-Leste, 2009).
- 14 *World Economic Outlook*.
- 15 *Cadre Budgétaire à Moyen Terme (Medium Term Budgetary Framework)*, (Nouakchott: Islamic Republic of Mauritania, 2007).
- 16 *EITI Case Study: Addressing the roots of Liberia's conflict through EITI* (Oslo: EITI, 2009).
- 17 For a summary of this argumentation, see Sefton Darby, *The Case for Company-by-Company Reporting of Data in the Extractive Industries Transparency Initiative (EITI)*, (New York: Revenue Watch Institute, 2009).

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The Revenue Watch Institute promotes the effective, transparent and accountable management of oil, gas and mineral resources for the public good. Through capacity building, technical assistance, research, funding and advocacy, we help countries to realize the development benefits of their natural resource wealth.

1700 Broadway  
17th Floor  
New York, NY 10019  
Phone 1.646.929.9750  
[rwi@revenuewatch.org](mailto:rwi@revenuewatch.org)