WHAT IS THE ECONOMIC VALUE OF THE EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE (EITI) INFORMATION DISCLOSURE?

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Abstract

Notwithstanding contributions of the Extractive Industries Transparency Initiative (EITI) to development strides in natural resource-rich countries, the question of how disclosure requirements of EITI on natural resources exploration payments impact the valuation of extractive companies in EITI implementing countries has remained unanswered. We thus examine for the first time, the stock market reaction to the unilateral release of natural resources revenue payments information by the United States Department of the Interior (DOI) in pursuance of the United States Extractive Industries Transparency Initiative (USEITI) candidacy implementation process, as an illustration of the economic value of EITI information. This first-time disclosure relates to extractive companies' payments received by the Office of Natural Resources Revenue (ONRR) for the 2013 calendar year. Standard event study methodology, using a two-factor model incorporating an oil and gas industry index, is used to measure average cumulative abnormal return around the event date of the release of this information. We find average positive cumulative abnormal returns during the event period associated with the release of this financial information. The results thus show that, on average, the market reacts positively to the release of this information. The findings indicate that investors consider EITI information be relevant for the valuation of extractive companies, and thus, important for national resource allocation.

Keywords

Extractive Industries Transparency Initiative; U.S. extraction issuers; Natural resources; Event study; Dodd-Frank Act

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Introduction

This study examines the economic impact of Extractive Industries Transparency Initiative (EITI) disclosure requirements on extractive companies' shareholders wealth. We use the United States Extractive Industries Transparency Initiative (USEITI) information release on non-tax payments of extractive companies to the United States government as an illustration of the economic value of EITI information. The Extractive Industries Transparency Initiative (EITI) is one of the international Transparency and Accountability Initiatives (TAIs) [1] focussed on making natural resources revenue payments and receipts more transparent and accountable. The EITI issues and promotes global standards for transparent and accountable management of natural resources in resource-rich countries. It achieves this objective using standards that require participating companies to publish their payments to governments and governments, in turn to publish what they receive from companies, and the two sets of information are then reconciled by an Independent Administrator (IA) [2].

This study focuses on the information content of non-tax payments by extractive companies to the United States government for the 2013 calendar year. We test whether this information disclosure is priced by investors, and (if so) the incremental extent to which such information disclosure is used in valuing extractive companies. We measure market reaction by the average abnormal return over the event period. Despite the growing flow of data from EITI in recent times (Short, 2014), the U.S. payment data provides the first opportunity to determine the association between EITI information disclosures and extractive companies' shareholders'

wealth. While significant studies have been conducted in understanding proclivities for natural resource curse and opacity (Corrigan, 2014; Gamu, Le Billion & Spiegel 2015; Kolstad & Wiig, 2009; Williams, 2011) empirical evidence is lacking on how EITI required disclosures impact extractive companies in implementing countries. This lack of focus on extractive companies in the literature results from failure of extractive companies to provide disaggregated data on non-tax natural resource payments in their financial statements. In the United States, this current inadequacy in disclosure by extractive companies is likely to improve with enforcement of the re-proposed requirements of Section 1504 of Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub.L.111-203, H.R. 4173) (U.S. Congress 2010); in Europe, with the implementation of Chapter 10, of the European Union Accounting Directive (2013/34/EU) (The European Parliament, 2013); and in Canada, with the enactment of Extractive Sector Transparency Measures Act (2014) (Department of Justice, 2014).

Our study is novel in two ways. Firstly, it considers the impact of EITI's disclosure requirements for the first time on extractive companies' valuation. Secondly, it determines the impact of the release of individual company data gathered by EITI implementing government (intermediary) but not fully disclosed by the extractive companies themselves to the market (i.e. unilateral disclosure[3]). The results indicate that investors consider EITI information disclosure be relevant for the valuation of extractive companies. Extending the findings further to EITI theorization show consistency that EITI information disclosure requirement is capable of easing capital access for companies operating in implementing countries due to such countries' improved sovereign credit ratings.

The next section of the paper provides background information on EITI. This is followed by discussion on the United States Extractive Industries Transparency Initiative and related announcements leading to the eventual unilateral release of the information under study. Next,

we review prior literature and develop our hypotheses, followed by development of the test for the market reaction. Finally, we present and discuss our results, and draw our conclusions.

Background

The EITI is a voluntary development initiative that operates an international platform for openness in the management and reduction of information asymmetry of revenues from natural resources. It strengthens accountability and transparency and aids public trust in the governance of extractive resources through disclosure and reconciliation of payments by extractive companies to governments. This is done at the national EITI level of each member country via the tripartite Multi-Stakeholder Group[4] validation process involving government, companies, and civil society. Countries that follow the EITI standards publish reports in which companies and government publicly disclose payments and revenue respectively, related to extractive activities within their country.

Establishment of the EITI in September 2002, is traceable to the call by Civil Society Organizations (CSOs), such as Publish What You Pay, Global Witness, Oxfam America and Transparency International (Short, 2014; Williams, 2011), for stronger efforts to stem growing poverty and corruption in poor but resource-rich countries. This pressure was reinforced by research indicating the presence of low or negative growth in most developing countries with an abundance of natural resources (e.g. Auty, 2001; Ross, 1999; Sachs & Warner, 2001). The announcement by the former British Prime Minister Tony Blair, at the World Summit on Sustainable Development in Johannesburg, of the establishment of the EITI as a policy intervention mechanism was praised by developed countries, donors, and international

organizations as the key to resurrecting the stagnating economies of poor resource-rich countries (Hilson & Maconachie, 2008).

The EITI's 12 Principles (Appendix A) are the cornerstone on which it operates and consenting to them signifies a country's desire to become an implementing member. Broadly put, EITI implementing country status describes both candidate and compliant countries. The former is a temporary status which is intended to lead, in a timely fashion, to compliance with the EITI Standard. Countries wishing to become an EITI compliant country are required to undertake a number of steps to first attain candidacy. In all, a country must meet EITI defined "Requirements 1-8" to attain compliant status (Appendix B). However, fulfillment of major aspects of Requirement 1 grants a country candidate status. A country may hold EITI candidate status for no more than five years from the date the country was admitted as an EITI candidate (Extractive Industries Transparency Initiative, 2015b).

Country membership of the EITI is voluntary and primarily involves the government of the country undertaking to disclose revenue received from extractive companies operating in the country. However, once a country signs up to the membership of the EITI, it becomes mandatory for companies operating in such a country to report payments made to the host government for extraction of minerals, hydrocarbon or other commodities covered by the EITI process (Extractive Industries Transparency Initiative, 2013). The membership drive in earlier years targeted developing resource-rich countries with weak natural resource governance, rather than developed economies with strong natural resource governance. As time progressed, however, it became important for the credibility of EITI that developed resource-rich countries considered transparent also join the global initiative and thus offer opaque developing countries

opportunity to learn from transparent natural resource-rich countries best practices in natural resources revenue management.[5]

Although EITI membership is not compulsory, a significant number of countries have been persuaded to join through peer pressure and incentivized lobbying. Membership of the initiative has grown steadily with 51 implementing countries as at June 2016 and of whom 31 are fully compliant (Appendix C). The EITI reports that the countries' aggregate resource revenue reported to date totaled over US$1.9 trillion from oil, gas, and mining (Extractive Industries Transparency Initiative, 2016a). Countries joining the EITI confirm globally their commitment to transparency in extractive revenue business and in the reform process to become reputable in global extractive business dealings. Dreher, Mikosch, & Voigt (2015) confirm that *"membership in an international organization can make promises of investor-friendly policies more credible if deviation from the international organization's requirements leads to sanctions or harms the reputation of the non-complying government"*.

United States Extractive Industries Transparency Initiative

The United States is currently a candidate member undergoing processes for becoming an EITI compliant country. U.S. is an important player in global energy production, ranked as number one producer of total petroleum and other liquids production in 2014 (U.S. Energy Information Administration, 2014). The United States' joining the EITI signaled the growing influence of EITI in widening the extractive governance net to include rich and developed natural resource-rich countries.

The first official statement regarding the U.S. joining the EITI was made on September 20, 2011, by President Barack Obama during his opening remarks at the Open Government Partnership launch in New York. This was the start of multi-year steps towards attaining EITI compliant status. Obama's speech officially committed the United States to develop plans and a roadmap necessary to achieve the goals for compliance. On March 19, 2014, the EITI Board approved the United States application as an EITI candidate country.

On December 11, 2014, in line with the decision reached in the USEITI-MSG meetings, the U.S. Department of the Interior (DOI) launched an *On-line Data Portal* which contains Office of Natural Resources Revenue (ONRR) company level data. Legality for disclosing this category of information had been discussed in meetings where it was accepted that for all in-scope commodities, the DOI would disclose company-level data to the extent that is permitted by law (approximately 100% of DOI revenue is in-scope). The ONRR source, for the first time, provides valuable information about the extractive industry in the United States (United States Extractive Industries Transparency Initiative, 2014).

Literature and Hypotheses Development

Event studies have a long and well-established position in literature. They have provided evidence in finance tests used to assess the magnitude of the impact of an event on the wealth of firms' shareholders (Kothari & Warner, 2007). Studies on events and announcements from firms' and/or regulatory institutions seek to provide empirical evidence on corporate policy acceptance by market participants. Wells (2004) affirms that information is often of interest to market players in terms of which companies are winners and losers following the introduction of new regulatory initiatives. Of importance is how an entire industry adopting a new regulation

is perceived by players in the market. The seminal paper on event studies by Fama, *et al.*, (1969) established a link between new information and unusual behavior in rates of return on securities in the period surrounding the introduction of the new information to the market. Markets adjust to new information even when some of the information may have been anticipated ahead of the event or announcement day. A common thread running through all market reaction research is the fact that markets are interested and responsive to new information affecting stocks traded in the market. Ball & Brown (1968), one of the pioneering studies on information relevance to investors contend that given the efficient and unbiased nature of markets in using information, usefulness can be assessed by the impact on securities prices.

Pranther-Kinsey & Tanyi (2014) provide an example of a recent study on the impact of regulatory announcements. The study investigates the market reaction to the Securities and Exchange Commission's (SEC) IFRS-related press releases between 2007 and 2011, regarding the adoption of IFRS in the United States. They use American Depository Receipts data and found a significant positive reaction to the SEC's announcements related to the potential announcement of IFRS in industries where IFRS is globally predominant.

The demand for greater disclosure by firms is particularly strong for extractive companies whose exploration activities are perceived to have a significant effect on the environment and society. Within the bounds of legislation and scope of discretionary reporting, much emphasis is put on extractive companies' information disclosures. Griffin, Lont, & Sun (2014) recount that "*advocates of sustainability accounting seek to encourage or require companies to disclose information on a wide range of issues beyond those within the traditional confines of financial reporting, particularly issues as they relate to companies' involvement in social*

justice". These additional disclosures are considered to be of several benefits to diverse stakeholders, chiefly investors in making financial decision about firms. Grewal, Riedl & Serafeim (2015) in a study of market reaction to mandatory nonfinancial disclosure document such benefits to include increased information relevant to assessing performance and management practice which can increase accuracy in prediction of firm's future performance, positive stock price reaction and expectations regarding inherent risks. Their study is consistent with previous literature on voluntary disclosure (e.g. Cheng, Ioannou & Serafeim, 2014; Eccles, Krzus & Serafeim, 2011).

Dhaliwal, *et al*., (2012) provide evidence that stock price incorporates more information on future earnings among firms with greater corporate social responsibility disclosures. They use the issuance of stand-alone corporate social responsibility (CSR) reports to proxy for disclosure of nonfinancial information and found that the issuance of CSR reports significantly reduces earning forecast errors. This suggests that the non-financial information disclosed by companies compliment financial disclosures by mitigating financial opacity on forecast accuracy. Thus it can be expected that securities of firms with additional disclosure (financial and nonfinancial) will receive more acceptance in the market, particularly, if the information conveys useful and above average disclosure. Equally, Elbannan & Elbannan (2015) in a related study of bank risk disclosures affirm that market participants prefer, and price firms with increased disclosures higher than those disclosing less information. Suggesting that increased disclosure help market participants make value-based decision about firms. The implication being that higher information disclosing firms are associated with higher investor confidence and growth expectations. However, additional disclosure is constrained by preparation costs and proprietary costs (Griffin, *et al.,* 2014).

Extractive companies operating in EITI implementing countries have played down the feasibility of reporting disaggregated extractive financial information in annual reports, citing proprietary costs (among others) as the core limitation (Seitzinger & Ruane, 2015). Rajan & Sarath (1996) suggest alternative specifications to increase full disclosure given a prevalence of partial disclosure, especially where information content is dictated by firms' preferences. One possibility is using line-item reporting to provide disaggregated details in financial reports. Although, the information released by DOI is included in companies' reported profit but it is not separately disclosed as a line item in the financial statements of the extractive companies. Thus, eliminating the line-item reporting option in this case. Another possibility according to Rajan & Sarath (1996) is to introduce a risk-neutral third party (i.e. the intermediary). Hence, the independent role of the DOI in releasing this information, not fully disclosed in companies' financial report suffice here.

An event study of the impact on share prices of the release of this information thus provides an indicator of the perceived usefulness of the information to assessing the value of the companies. If the information is value relevant, it indicates not only that it is relevant to the assessment of the value of individual companies, but also that it is important for national resource allocation. Hence, consistent with prior studies stock prices incorporate information about firms useful for economic valuation, assessment and financial judgment (Ball & Brown, 1968; Dhaliwal, *et al.*, 2012; Fama, *et al.*, 1969; Griffin, *et al*., 2014; Prather-Kinsey & Tanyi, 2014). Based on the discussion, we set up the following null hypothesis to test for the economic value of EITI information:

H_1: There is no significant market reaction to the release of information on the non-tax payments made by the United States extractive industry companies to the United States government.

Extractive companies' disclosure and the Proprietary Cost Theory

The proprietary cost theory suggests that firms' decisions to disclose information are constrained by concern that such disclosures can damage their competitive position in markets (Healy & Palepu, 2001; Son & Crabtree, 2011; Verrecchia, 1983; Wagenhofer, 1990). This cost reduces the likelihood of companies disclosing information to the market, particularly, if non-disclosure will not directly harm companies' performance (Ellis, Fee & Thomas, 2012). Consistent with this theory, the market may react in a negative manner to additional disclosure.

The counter expectation regarding the DOI disclosure is that since there are uniform timing and equal disclosure for all firms in the industry we would not expect any harm to result for the companies. In other words, if an investor's basis for withdrawing investments from say company X for Y is based on its proprietary disclosure, then such investor would have no incentive for withdrawing when companies X and Y make equal disclosure at the same time. The EITI posits that companies supporting extractive revenue disclosure will enjoy positive reputation effects and better access to capital. Implying that rather than damage competitiveness, EITI disclosures would improve the financial reputation of both companies and implementing countries. When a country's sovereign credit ratings and governance indicators improve, it improves access to finance, attracts investors and strengthens the image of companies operating there (Extractive Industries Transparency Initiative, 2013). This theorization by the EITI is consistent with the findings of Dreher & Voigt (2011) who found membership of international organizations to be associated better country risk ratings.

While companies in an EITI implementing country can be expected to benefit from the credit rating of the country, however, extractive companies with more demand for financing would

be expected to benefit most from disclosure. Hence, we hypothesize that the market reaction would be more positive for companies with higher leverage. Leverage here is used as an indicator for firms need for external finance. The literature indicates that Book-to-market ratio, the book value of equity over market value, is sensitive to market announcements (Prather-Kinsey & Tanyi, 2014; Zhang, 2007). Similarly, the literature on event studies shows evidence of market reactions being related to the size of firms (Hitz & Müller-Bloch, 2015; Rai & Tartaroglu, 2015). We measure the size of firms, by the natural logarithm of total assets. The choice of natural logarithms is to normalize the size of data. We thus propose the following hypothesis:

H_2: Ceteris Paribus, extractive companies with higher leverage, lower book-to-market, and larger size will have stronger positive cumulative abnormal returns following information release by the U.S. government on their non-tax extractive payments.

Method and Data

Model for measuring abnormal performance

We use the event study approach as outlined by Mackinlay (1997) to assess the impact on returns of the disclosure of non-tax payments to the U.S. government. The impact is assessed by cumulative average abnormal return over the event period. Abnormal returns are defined as actual return less expected returns based on a two-factor market model estimated from data on the period preceding the event period- the estimation window. The two-factor market model includes a market factor and an industry factor and is specified as follows:

$$R_{it} = \propto_i + \beta_{1i} R_{mt} + \beta_{2i} Ind_t + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

where:

R_{it} = Period return for security i

$\propto_i$ = Constant (intercept) estimate for security *i*

β_{1i} = Estimated Beta for return on Standard & Poor's Composite Index

R_{mt} = Return on the Standard & Poor's Composite Index in period *t*

β_{2i} = Estimated Beta for return on US Oil and Gas Index

Ind_t = Return on the US Oil and Gas Index in period *t*

ε_{it} = Disturbance term (residual)

The parameters of the model are estimated from data on the estimation window using ordinary least squares regression and then used to calculate the abnormal return during the event period or segments thereof:

$$\widehat{AR_{it}} = R_{it} - \widehat{R_{it}} \quad \text{..... (2)}$$

where

R_{it} = actual return

$\widehat{R_{it}} = \widehat{\propto_i} + \widehat{\beta_{1i}} R_{mt} + \widehat{\beta_{2i}} Ind_t$ = expected return ..... (3)

$\widehat{\propto}$; $\hat{\beta}$= estimates of the parameters from (1)

$\widehat{AR_{it}}$ = the component of the actual return which is "*abnormal*"

The timeline and event period is as follows:

τ = 0: the event day, 11 December 2014

T_0+ 1 to T_1: represents the estimation window, the 120 days (from day -123 to -4, 18th June 2014 to 5th December, 2014) before the event period

T_1+1 to T_2 : represents the event window -3 trading days before the event day (τ) and 13 days after

τ+ 1 to T_2: represents the post-event window (1-13 trading days after event day)[6]

[INSERT FIGURE 1 HERE]

Cumulative abnormal return (CAR) is calculated as the aggregate over the event period of the daily mean abnormal returns across the companies.

$$\overline{CAR_{(t1-tn)}} = \sum_{t=T1}^{Tn} \overline{AR_t} \quad \text{..... (4)}$$

where

$$\overline{AR_t} = \frac{1}{N} \sum_{i=1}^{N} AR_{it} \quad \text{..... (5)}$$

AR_{it} = abnormal return for company *i* on day *t*.

$\overline{CAR_{(t1-tn)}}$ = mean cumulative abnormal return for sampled companies for the event window or one-period partitioned interval.

The test for statistical significance for the individual AR_t are calculated using the below equation

$$t_{AR_t} = \frac{\overline{AR_t}}{S(\overline{AR}_{t_{-123}-t_{-4}})} \quad \text{..... (6)}$$

Where

t_{AR_t}= t-statistics for abnormal return on day *t*

$\overline{AR_t}$ = mean abnormal return for sampled companies on day *t*

$S(\overline{AR}_{t_{-123}-t_{-4}})$ = Standard deviation of average abnormal returns over the estimation window (-123 to -4).

Consistent with Brown & Warner (1985) and Lee & Park (2016), we use standard deviation over the estimation period to moderate the possibility of cross-sectional dependence across returns during the event period. Following recommendation by Kothari & Warner (2007) and Kryzanowski & Jenkins (1993) with modification, we calculate the *t*-statistic for CAR over various intervals using equation (7) below:

$$t_{CAR_{(t_1,t_n)}} = \frac{CAR(t_1,t_n)}{[\sigma^2(t_1,t_n)]^{1/2}} \quad \text{..... (7)}$$

where

$t_{CAR_{(t_1,t_n)}}$ = t-statistics of CAR for event period (t_1, t_n)

$$\sigma^2(t_1,t_n) = L\sigma^2\ (AR_t) \quad \text{..... (8)}$$

$L\sigma^2\ (AR_t)$ = variance of the one-period mean abnormal return.

$CAR(t_1,t_n)$ = one-event period cumulative abnormal return

Data

Data was accessed from the United States Extractive Industries Transparency Initiative online data portal tracked and managed by the Department of the Interior's Office of Natural Resource Revenues. The online portal contains non-tax revenue categorized by company, commodity and revenue type for each calendar year. These open datasets are revenues for United States

Federal lands and offshore areas. The revenue types are royalty, rent, bonus and other payment (i.e. penalties etc.). The USEITI portal reports disaggregated royalties, rent, bonuses, penalties and other payments by the companies. In terms of commodity, the portal presents the payments under the headings of oil, gas, coal, geothermal and other commodities. The payments are for companies paying US$100,000 and above for different extractive activities in the 2013 calendar year.

The sample initially comprised the 563 companies that made payments for the 2013 calendar year to the United States government. We separated listed and unlisted companies to enable us to identify firms with daily trading data. Table 1 gives the breakdown of listed companies by payment category. As observed from the table, listed companies' payments across the different revenue types were $7,560,507,737.80 signifying 61.2% of total payments made for the 2013 calendar year, which shows that a significant threshold of payments was made by extractive issuers listed in US stock markets.

[INSERT TABLE 1 HERE]

We dropped companies with dual unique permanent security identification number (PERMNO) from the sample (i.e. companies for which the parent and one or more subsidiaries made payments) in order to avoid double counting. Companies listed outside of the United States and those traded on OTC were also dropped from the sample. Table 2 shows the selection process for the final sample used in the study. As shown, we obtained a final sample of 95 extractive companies that made payments to the U.S. government for the 2013 calendar year (detail in Appendix D). Daily trading data for individual securities and the indexes was obtained from CRSP/Stock/Security Files/Daily Stock Files database.

[INSERT TABLE 2 HERE]

Empirical Results

Table 3 present summary results of the abnormal returns and statistical significance. The model indicates significant abnormal positive returns around the event day, beginning from day two before the event day to the fourth day after the event. The negative abnormal return on day -3 suggests that introduction of this information caused a revision of behavior in the market in opposite direction as noticed on the second day before the event. Consistent with Kothari & Warner (2007) suggestion that if the event is partially anticipated (due to red flags announcements, as in this case), some of the abnormal return behavior related to the event should show up prior to the event. Noticeably days -3 and -2 shows this behavior with abnormal returns of -0.04 and 0.06 percent respectively, both statistically significant.

The results show evidence that the information release caused a positive revaluation of the sampled extractive firms with the release being partly anticipated. The third and fourth day after the release of the information were the days on which the response peaked with abnormal returns at 0.07 percent and statistically significant at 1% level for both days.

[INSERT TABLE 3 HERE]

Cumulative abnormal returns results for different partitioned intervals of the event period reported in Table 4, provide clearer evidence of the impact of the information release. All the intervals during the event period show positive cumulative abnormal returns with significance

at one and five percent levels, except (-3, 1). The entire event period (-3, 13) shows a cumulative abnormal return of 0.23 percent, significant at 1% level. Partition (-3, 3) produced a positive cumulative abnormal return of 0.08 percent and significant at 5% level, while the (-3, 5) and (-2, 4) partitions show cumulative abnormal returns of 0.14 and 0.20 percent respectively, all statistically significant at 1% level.

The results provide a clear basis for rejecting the null hypothesis of no market reaction following the release of the extractive companies' information and inviting the inference that the unilateral release of extractive companies' non-tax payment in the United States by the Department of the Interior, in pursuance of the United States of America EITI candidacy was associated with a positive incremental valuation for the affected firms.

[INSERT TABLE 4 HERE]

Figure 2 illustrates the path of cumulative abnormal returns during the event period. The diagram confirms that the finer information provided by the USEITI release evokes a market reaction for the sample extractive companies, that is, the release has valuation relevance for these extractive companies. Furthermore, on average the reaction is positive thus indicating a positive reassessment of company prospects given the finer data set available to investors. The market begins to process the information from before the event date with gradual positive reaction until the fourth day when a daily peak was reached.

Cross-sectional variation model

Following the finding of positive overall shareholders' wealth impact of the release of payments made to United States Department of the Interior, by extractive companies for 2013, we further test the influence of firms' specific characteristics on the market reaction to the release of the payments information. We employ a multivariate regression model to test our third hypothesis across firm's specific characteristics, consistent with Prather-Kinsey & Tanyi, (2014); Akyol, Lim, & Verwijmeren, (2012); Marden, (2000) we introduce additional firm attributes in our model to test the CAR. The regression model is stated below in as equation (9).

$$CAR_{(t1-tn)} = \propto_i + \beta_1 StdRTN_i + \beta_2 BTM_i + \beta_3 LNAT_i + \beta_4 LEV_i + \beta_5 FirmCAR_i + \beta_6 IND_i + \varepsilon_i \quad \ldots\ldots (9)$$

where:

$CAR_{(t1-tn)}$ = One-period cumulative abnormal return across firms' estimated using the two-factor market model;

$StdRTN$ = Standard deviation of the of firm's daily stock return during the estimation window (120 days before the event period)

BTM = Book-to-Market ratio (Book value per share scaled by market price per share)

$LNAT$ = Natural logarithm of firms' total assets

LEV = Leverage (total debt scaled by total assets)

$FirmCAR$ = 1 if firm has positive cumulative abnormal return during the event window, 0 otherwise;

IND	=	1 if firm is an oil & gas and 0 for mining and non-oil and gas companies
ε_i	=	Error term

In line with previous studies, the explanatory variables for firm characteristics include the standard deviation of the of firm's daily stock return *(StdRET)* to check for the impact of volatility of firms' stock returns. We include leverage to test our second hypothesis. Using this proxy allows us to infer the extent to which firms rely on external finance and a way of assessing if such firms would be likely to benefit from EITI disclosure. Leverage is also a good measure of the risk of firms. *FirmCAR* is the cumulative abnormal return for individual firms. It is a dummy variable with value 1 for firms with the positive market reaction and 0 otherwise.

Since the information release affects all firms at the same time, the single date event may be influenced by cross-sectional correlation. To mitigate for this, we partitioned the event period into several intervals to test for consistency across the event period.

Descriptive statistics

Tables 4A and 4B show descriptive statistics for the variables used in our study and pairwise correlations of the variables respectively. The data show that the mean and the median book-to-market ratio of firms is 0.38 and 0.69 respectively, signifying that on average, shares of the companies are worth more than book value. Leverage of the companies is mean 0.36 median of 0.34. Of the sample companies, 84% have positive cumulative abnormal returns. Approximately 78% of the companies in the sample belong to oil and gas industry. This aptly

explains the inclusion of the US Oil and Gas industry index in estimating the abnormal return to control for specific industry effects that could be driven by the oil and gas companies.

[INSERT TABLE 4A & 4B HERE]

Multivariate cross-sectional regression results

We present the result of the multivariate analysis in table 5. The result shows evidence that average, book-to-market ratio, and size influence the reaction with all being significant at 1% level. Our results are thus consistent with regular EITI Reports on payments and revenues being likely to improve the creditworthiness of countries and by extension ease of access to capital for companies. The impact of book-to-market is significant, but contrary to expectation, it has a greater impact the higher is the ratio. The results suggest that the market reacted more strongly to companies with larger size, as measured by the natural logarithm of total assets. This is observed from the coefficient of the *LNAT* at 0.013 and significant at the 5% level. This may be part of initial concerns that led the American Petroleum Institute (API), the U.S. Chamber of Commerce, the Independent Petroleum Association of America, and the National Foreign Trade Council to file a suit against the SEC in October, 2012 on the final rule for Section 1504 of Dodd-Frank Act, 2010.[7] The API and other Plaintiffs' argument is that the SEC acted arbitrarily and capriciously in promulgating the rules by not carry out sufficient cost-benefit analysis challenge of the disclosure. And that the rule violated the First Amendment guarantee of freedom of speech since disclosing such information would allow companies' competitors access to sensitive proprietary information. However, if the argument on violation of First Amendment is valid then we should expect to see a negative reaction from the companies-which is not the case, but perhaps a lead for further research.[8]

Alternative intervals

Our main study is focused on the impact of the information release over a period of (-3, 13). However, to reduce the possibility of cross-sectional correlation we test for consistencies over the event window, by partitioning the event period into alternatives intervals to test if the market response remains constant. We split the event window into four hypothetical event windows (-3, 5); (-3, 3); (-2, 4) and (-3, 1). Table 6 shows that overall the results were consistent across the different windows.

Additional Tests

We conducted additional tests by splitting our sample to reflect firms that voluntarily participated in the 2015 reconciliation reported on December 15, 2015. The 2015 report is based on the same 2013 calendar year revenue first released on December 11, 2014. In this report, however, only companies that paid at least US$50 million revenue to the DOI bureaus were invited to participate in the voluntary reconciliation. Although only 44 companies met the materiality threshold, due to a calculation error, 45 companies (Appendix E) were invited to participate in the reconciliation. However, only 31 of the companies invited to participate actually did (Appendix F). In all, 20 out of the 45 companies invited to participate were listed on the NYSE with daily stock price data. The eight unlisted companies, two listed outside of the U.S. and one company that filed for voluntary reorganization in August 2015, were dropped (Appendix G).

The cumulative abnormal return results for the 20 companies that voluntarily participated in the 2015 USEITI reconciliation (not reported) were qualitatively consistent with the result of the disclosure for all 95 companies reported above. For the fourteen companies that were invited to participate in the reconciliation but declined the invitation (Appendix H), there was

also a market reaction but the pattern of the CAR was negative. This requires further investigation.

Conclusion

We examine the economic value of Extractive Industries Transparency Initiative (EITI) information disclosure on the wealth of shareholders using as an example, the United States Extractive Industries Transparency Initiative (USEITI) disclosure. Our results show that USEITI disclosure of the non-tax data for individual extractive companies produced a market reaction indicating that the finer disclosure had information content relevant to price setting. The reaction was positive, indicating that investors had on average underestimated prospects for the companies on the basis of financial statement information only. Furthermore, the results are consistent with the EITI position that companies accessing capital from the market would benefit from the additional disclosure.

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Notes

1. These are citizen-led, demand-side influenced accountability and access to information as ways of combating developmental and democratic failures. The growth of TAI activities has stimulated researchers to understand their modus operandi (Gaventa & McGee, 2013).

2. The Independent Administrator (IA) also referred to as the Reconciler, is an independent entity (usually an audit firm) that is appointed by the MSG to reconcile the revenue received by the government and payments made by the extractive companies. Although required to apply international auditing standards in the reconciliation process, the Reconciler's task is not to carry out audit in the traditional accounting manner, but rather (i) to compile and analyse the information received from government and companies, and (ii) to investigate and explain any discrepancies as set out in the terms of reference agreed upon with the Multi-Stakeholder Group. This task is to provide a credible assurance to every information reported in national EITI reports.

3. Whereas studies have looked at mandatory and voluntary disclosures, there seems to be no evidence of unilateral disclosure explaining how information held by regulatory agencies impact firms when released to third parties or the market.

4. MSG (also known as national EITI Council) is the committee that develops a country's work plan, to oversee implementation of and management of the EITI program. Its core functions include (i) overall strategic decision-making (ii) defining the scope of EITI process (iii) identifying, assessing and removing barriers to implementation (iv) preparing the work plan and monitoring implementation (v) select and oversee the work of the Independent Administration (vi) contribute to an approve reporting templates (vii) communicate about the EITI and engage stakeholders (viii) ensure that EITI reports are comprehensible and publicly accessible so as to contribute to open, public debate (ix) appoint the Validator and approve validation reports and (x) take steps to act on lessons learnt, address discrepancies and ensure the sustainability of the EITI process.

5. EITI former Chair, Clare Short, puts it in perspective in her foreword to the 2015 EITI Standards when she affirmed that,

   … one of the key challenges ahead is to recognize and learn from countries that exceed the minimum requirements and create incentives for more innovative use of EITI to the benefit of the countries that implement the EITI (Extractive Industries Transparency Initiative, 2015a p.7).

6. Some studies suggest three days after event day as being sufficient to measure abnormal performance. However, given the nature of the information release we use 13 days post

event to give a longer range picture of the behavior of the firms' returns conditional on to the release.

7. Section 1504 (2) (A) stipulates that Not later than 270 days after the date of enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Commission shall issue final rules that require each resource extraction issuer to include in an annual report of the resource extraction issuer information relating to any payment made by the resource extraction issuer, a subsidiary of the resource extraction issuer, or an entity under the control of the resource extraction issuer to a foreign government or the Federal Government for the purpose of the commercial development of oil, natural gas, or minerals, including ''(i) the type and total amount of such payments made for each project of the resource extraction issuer relating to the commercial development of oil, natural gas, or minerals; and ''(ii) the type and total amount of such payments made to each government.

8. On June 27, 2016, the SEC adopted the re-proposed Rule 13q-1 and an amendment to Form SD to implement Section 1504. With the Final Rule now issued, resource extraction issuer must comply with the final rule and form for fiscal years ending on or after September 30, 2018.

References

Akyol, A. C., Lim, W. F., & Verwijmeren, P. (2012). Shareholders in the boardroom: Wealth effects of the SEC's proposal to facilitate director nominations. *Journal of Financial and Quantitative Analysis, 47(05),* 1029-1057.

Auty, R. M. (2001). The political economy of resource-driven growth. *European Economic Review, 45(4),* 839-846.

Ball, R., & Brown , P. (1968). An empirical evaluation of accounting income numbers. *Journal of Accounting Research, 6(2),* 159-178.

Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics, 14(1),* 3-31.

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal, 35(1),* 1-23.

Corrigan, C. C. (2014). Breaking the resource curse: Transparency in the natural resource sector and the extractive industries transparency initiative. *Resources Policy 40,* 17-30.

Department of Justice. (2014). *Extractive Sector Transparency Measures Act.* The Minister of Justice. http://laws-lois.justice.gc.ca.

Dhaliwal, D. S., Radhakrishnan, S., Tsang, A., & Yang, Y. G. (2012). Nonfinancial disclosure and analyst forecast accuracy: International evidence on corporate social responsibility disclosure. *The Accounting Review, 87(3),* 723-759.

Dreher, A., Mikosch, H., & Voigt, S. (2015). Membership has its privileges–The effect of membership in international organizations on FDI. *World Development, 66,* 346-358.

Dreher, A., & Voigt, S. (2011). Does membership in international organizations increase

governments' credibility? Testing the effects of delegating powers. *Journal of Comparative Economics, 39(3),* 326-348.

Eccles, R. G., Serafeim, G., & Krzus, M. P. (2011). Market interest in nonfinancial information. *Journal of Applied Corporate Finance, 23(4),* 113-127.

Elbannan, M. A., & Elbannan, M. A. (2015). Economic consequences of bank disclosure in the financial statements before and during the financial crisis evidence from Egypt. J*ournal of Accounting, Auditing & Finance, 30(2),* 181-217.

Ellis, J. A., Fee, C. E., & Thomas, S. E. (2012). Proprietary costs and the disclosure of information about customers. *Journal of Accounting Research, 50(3),* 685-727.

Extractive Industries Transparency Initiative. (2013). *Business Guide: How companies can support EITI implementation* . Oslo: EITI International.

Extractive Industries Transparency Initiative. (2015a, November). *https://eiti.org/eiti/history*. Retrieved from https://eiti.org

Extractive Industries Transparency Initiative. (2015b). *The EITI standard.* Oslo: EITI International.

Extractive Industries Transparency Initiative. (2016a). *https://beta.eiti.org*. Retrieved from https://eiti.org

Extractive Industries Transparency Initiative. (2016b). *The EITI Standard 2016.* Oslo: EITI International.

Fama, E. F., Fisher, L., Jensen, C. M., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review, 10(1),* 1-21.

Gamu, J., Le Billon , P., & Spiegel, S. (2015). Extractive industries and poverty: A review of recent findings and linkage mechanisms. *The Extractive Industries and Society, 2(1),* 162-176.

Gaventa, J., & McGee, R. (2013). The impact of transparency and accountability initiative. *Development Policy Review, 31(S1),* S3-S28.

Grewal, J., Riedl, E. J., & Serafeim, G. (2015). *Market reaction to mandatory nonfinancial disclosure.* Harvard Business School Working Paper, No. 16-025, September 2015.

Griffin, P. A., Lont, D. H., & Sun, Y. (2014). Supply chain sustainability: evidence on conflict minerals. *Pacific Accounting Review, 26(1/2),* 28-53.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics, 31(1),* 405-440.

Hilson, G., & Maconachie, R. (2008). "Good governance" and the extractive industries in Sub-Saharan Africa. *Mineral Processing and Extractive Metallurgy Review, 30(1),* 52-100

Hitz, M. J., & Müller-Bloch, S. (2015). Market reactions to the regulation of executive compensation. *European Accounting Review, 24(4),* 659-684.

Kolstad, I., & Wiig, A. (2009). Is transparency the key to reducing corruption in resource-rich countries? *World Development, 37(3),* 521-532.

Kothari, S. P., & Warner, J. B. (2007). Econometrics of event studies. In B. E. Eckbo (Eds.), *Handbook of corporate finance: empirical corporate finance volume 1* (pp. 3-36). Amsterdam: Elsevier.

Kryzanowski, L., & Jenkins, C. (1993). The market's reaction to the release of drill-core assay results by junior mining firms. *Journal of Accounting, Auditing & Finance, 8(3),* 289-308.

Lee, H., & Park, K. I. (2016). Market valuation effect of foreign asset divestitures in an emerging economy: Korean Evidence. *Emerging Markets Finance and Trade*, 52(1), 136-153.

MacKinlay, C. A. (1997). Event studies in economics and finance. *Journal of Economic Literature, XXXV,* 13-39.

Marsden, A. (2000). Shareholder wealth effects of rights issues: Evidence from the New Zealand capital market. *Pacific-Basin Finance Journal, 8(3),* 419-442.

Prather-Kinsey, J. J., & Tanyi, P. N. (2014). The market reaction to SEC IFRS-related announcements: The case of American Depository Receipt (ADR) firms in the US. *Accounting Horizons, 28(3),* 579-603.

Rai, A., & Tartaroglu, S. (2015). The relative option to stock volume and market response to earnings surprises. *Journal of Accounting, Auditing & Finance, (30)4,* 431-460.

Rajan, M. V., & Sarath, B. (1996). Limits to voluntary disclosure in efficient markets. Jou*rnal of Accounting, Auditing & Finance, 11(3),* 361-387.

Ross, M. L. (1999). The political economy of the resource curse. *World politics, 51(02),* 297-322.

Sachs, D. J., & Warner, M. A. (2001). The curse of natural resources. *European Economic Review, 45(4),* 827-838.

Seitzinger, M. V., & Ruane, K. A. (2015). *Conflict minerals and resource extraction: Dodd-Frank, SEC regulations, and legal challenges.* Congressional Research Service. www.crs.gov.

Short, C. (2014). The development of the Extractive Industries Transparency Initiative. *The Journal of World Energy Law & Business, 7*(1), 8-15

Son, M., & Crabtree, A. D. (2011). Earnings announcement timing and analyst following. *Journal of Accounting, Auditing & Finance, 26(2),* 443-468.

The European Parliament. (2013). *European Union Accounting Directive [2013/34/EU].*

U.S. Congress. (2010). *Dodd-Frank Wall Street Reform and Consumer Protection Act.* Pub. L. No. 111-203, 124 Stat. 1376 (2010).

U.S. Energy Information Administration. (2014). *U.S. crude oil and natural gas proved reserves, 2014.* Retrieved from www.eia.gov: http://www.eia.gov/beta/international/rankings/#?prodact=53-1&cy=2014

United States Extractive Industries Transparency Initiative. (2014). *United States EITI Annual Activity Report 2014.* Retrieved from doi.gov/eiti: https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/Annual%20Activity%20Report%202014%207_17_15%20Final.%20%281%29%20%281%29.pdf

Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of accounting and economics, 5,* 179-194.

Wagenhofer, A. (1990). Voluntary disclosure with a strategic opponent. *Journal of Accounting and Economics, 12(4),* 341-363.

Wells, W. H. (2004). A beginner's guide to event studies. *Journal of Insurance Regulation, 22(4),* 61-70.

Williams, A. (2011). Shining a light on the resource curse: An empirical analysis of the relationship between natural resources, transparency, and economic growth. *World Development, 39(4),* 490-505.

Zhang, X. I. (2007). Economic consequences of the Sarbanes–Oxley Act of 2002. *Journal of Accounting and Economics, 44(1),* 74-115.

Appendix A: Extractive Industries Transparency Initiative Principles

1. We share a belief that the prudent use of natural resource wealth should be an important engine for sustainable economic growth that contributes to sustainable development and poverty reduction, but if not managed properly, can create negative economic and social impacts.
2. We affirm that management of natural resource wealth for the benefit of a country's citizens is in the domain of sovereign governments to be exercised in the interests of their national development.
3. We recognize that the benefits of resource extraction occur as revenue streams over many years and can be highly price dependent.
4. We recognize that a public understanding of government revenues and expenditure over time could help public debate and inform the choice of appropriate and realistic options for sustainable development.
5. We underline the importance of transparency by governments and companies in the extractive industries and the need to enhance public financial management and accountability.
6. We recognize that achievement of greater transparency must be set in the context of respect for contracts and laws.
7. We recognize the enhanced environment for domestic and foreign direct investment that financial transparency may bring.
8. We believe in the principle and practice of accountability by government to all citizens for the stewardship of revenue streams and public expenditure.
9. We are committed to encouraging high standards of transparency and accountability in public life, government operations and in business.
10. We believe that a broadly consistent and workable approach to the disclosure of payments and revenues is required, which is simple to undertake and to use.
11. We believe that payments' disclosure in a given country should involve all extractive industry companies operating in that country.
12. In seeking solutions, we believe that all stakeholders have important and relevant contributions to make – including governments and their agencies, extractive industry companies, service companies, multilateral organizations, financial organizations, investors and non-governmental organizations.

Extractive Industries Transparency Initiative (2015b)

Appendix B: The Extractive Industries Transparency Initiative Requirements

1. Oversight by the multi-stakeholder group.
2. Legal and institutional framework, including allocation of contracts and licenses
3. Exploration and production.
4. Revenue collection.
5. Revenue allocations.
6. Social and economic spending.
7. Outcomes and impact
8. Compliance and deadlines for implementing countries

Extractive Industries Transparency Initiative (2016b)

Appendix C: Extractive Industries Transparency Initiative Countries

Country	Country Status	Country	Country Status
Albania	Complaint	Afghanistan	Candidate
Burkina Faso	Complaint	Azerbaijan	Candidate
Cameroon	Complaint	Colombia	Candidate
Chad	Complaint	Dominican Republic	Candidate
Cote d'Ivoire	Complaint	Ethiopia	Candidate
Democratic Republic of Congo	Complaint	Germany	Candidate
Ghana	Complaint	Honduras	Candidate
Guatemala	Complaint	Madagascar	Candidate
Guinea	Complaint	Malawi	Candidate
Indonesia	Complaint	Myanmar	Candidate
Iraq	Complaint	Papua New Guinea	Candidate
Kazakhstan	Complaint	Peru	Candidate
Kyrgyz Republic	Complaint	Senegal	Candidate
Liberia	Complaint	Seychelles	Candidate
Mali	Complaint	Tajikistan	Candidate
Mauritania	Complaint	Ukraine	Candidate
Mongolia	Complaint	United Kingdom	Candidate
Mozambique	Complaint	United States of America	Candidate
Niger	Complaint	Zambia	Candidate
Nigeria	Complaint		
Norway	Complaint	Central African Republic	Complaint but Suspended
Philippines	Complaint	Yemen	Complaint but Suspended
Republic of the Congo	Complaint		
Sao Tome and Principe	Complaint		
Sierra Lone	Complaint		
Solomon Islands	Complaint		
Tanzania	Complaint		
Timor-Leste	Complaint		
Togo	Complaint		
Trinidad and Tobago	Complaint		

EITI (2016)

Globally 51 implementing countries have signed up with the EITI, with 31 fully compliant as at June 30, 2016. However, two complaint countries Central African Republic and Yemen are suspended due to political instability and conflicts.

Appendix D: USEITI Listed sample companies for 2013

S/N	PERMNO	Ticker Symbol	Company Name	S/N	PERMNO	Ticker Symbol	Company Name
1	11850	XOM	EXXON MOBIL CORP	26	34833	OXY	OCCIDENTAL PETROLEUM CORP
2	12291	RNO	RHINO RESOURCE PARTNERS L P	27	37234	FST	FOREST OIL CORP
3	12786	VOC	V O C ENERGY TRUST	28	47723	HNRG	HALLADOR ENERGY CO
4	12903	SARA	SARATOGA RESOURCES INC	29	50017	RRC	RANGE RESOURCES CORP
5	13116	BCEI	BONANZA CREEK ENERGY INC	30	59467	WLB	WESTMORELAND COAL CO
6	13124	LPI	LAREDO PETROLEUM INC	31	61487	AE	ADAMS RESOURCES & ENERGY INC
7	13141	WPX	W P X ENERGY INC	32	61815	NBL	NOBLE ENERGY INC
8	13163	MEMP	MEMORIAL PRODUCTION PARTNERS L P	33	61946	BKH	BLACK HILLS CORP
9	13244	MTDR	MATADOR RESOURCES CO	34	62341	PDCE	P D C ENERGY INC
10	13356	PSX	PHILLIPS 66	35	63765	SWN	SOUTHWESTERN ENERGY CO
11	13928	COP	CONOCOPHILLIPS	36	63781	UNT	UNIT CORP
12	14026	JONE	JONES ENERGY INC	37	64936	D	DOMINION RESOURCES INC VA NEW
13	14134	OCIR	O C I RESOURCES LP	38	75039	BHP	B H P BILLITON LTD
14	14179	AR	ANTERO RESOURCES CORP	39	75241	PXD	PIONEER NATURAL RESOURCES CO
15	14541	CVX	CHEVRON CORP NEW	40	75326	ACI	ARCH COAL INC
16	15069	MRO	MARATHON OIL CORP	41	75825	EOG	EOG RESOURCES INC
17	19166	FMC	F M C CORP	42	76082	COG	CABOT OIL & GAS CORP
18	23835	MDU	M D U RESOURCES GROUP INC	43	76127	TTI	TETRA TECHNOLOGIES INC
19	25590	NFG	NATIONAL FUEL GAS CO N J	44	76888	AXAS	ABRAXAS PETROLEUM CORP
20	26470	EGN	ENERGEN CORP	45	78186	PQ	PETROQUEST ENERGY INC
21	27756	STR	QUESTAR CORP	46	78877	CHK	CHESAPEAKE ENERGY CORP
22	28118	NC	NACCO INDUSTRIES INC	47	79159	CWEI	CLAYTON WILLIAMS ENERGY INC
23	28345	MUR	MURPHY OIL CORP	48	79444	SGY	STONE ENERGY CORP
24	28484	HES	HESS CORP	49	79915	NFX	NEWFIELD EXPLORATION CO
25	32803	HFC	HOLLYFRONTIER CORP	50	80926	CPE	CALLON PETROLEUM CO DEL

Appendix D: USEITI Listed sample companies for 2013

S/N	PERMNO	Ticker Symbol	Company Name	S/N	PERMNO	Ticker Symbol	Company Name
51	81598	AGU	AGRIUM INC	74	90494	BBG	BILL BARRETT CORP
52	82196	DNR	DENBURY RESOURCES INC	75	90533	WTI	W & T OFFSHORE INC
53	84167	GEL	GENESIS ENERGY L P	76	91081	LINE	LINN ENERGY LLC
54	86223	EPD	ENTERPRISE PRODUCTS PARTNERS LP	77	91100	ROSE	ROSETTA RESOURCES INC
55	86759	KWK	QUICKSILVER RESOURCES INC	78	91111	ETE	ENERGY TRANSFER EQUITY L P
56	86799	CNX	CONSOL ENERGY INC	79	91135	BTE	BAYTEX ENERGY CORP
57	87137	DVN	DEVON ENERGY CORP NEW	80	91283	HK	HALCON RESOURCES CORP
58	87471	TGC	TENGASCO INC	81	91376	ATLS	ATLAS ENERGY L P
59	88818	ERF	ENERPLUS CORP	82	91494	BBEP	BREITBURN ENERGY PARTNERS L P
60	88871	MCF	CONTANGO OIL AND GAS COMPANY	83	91739	LGCY	LEGACY RESERVES L P
61	88882	UPL	ULTRA PETROLEUM CORP	84	91983	CLR	CONTINENTAL RESOURCES INC
62	88991	BTU	PEABODY ENERGY CORP	85	91985	DEJ	DEJOUR ENERGY INC
63	89016	STO	STATOIL A S A	86	92215	EXXI	ENERGY XXI LTD
64	89134	ECA	ENCANA CORP	87	92239	CXO	CONCHO RESOURCES INC
65	89509	XEC	CIMAREX ENERGY CO	88	92375	VNR	VANGUARD NATURAL RESOURCES LLC
66	89547	NRP	NATURAL RESOURCE PARTNERS L P	89	92421	SD	SANDRIDGE ENERGY INC
67	89858	PAA	PLAINS ALL AMERN PIPELINE L P	90	92478	FOR	FORESTAR GROUP INC
68	89901	WLL	WHITING PETROLEUM CORP NEW	91	92530	CPN	CALPINE CORP
69	90071	NRG	N R G ENERGY INC	92	92621	IPI	INTREPID POTASH INC
70	90386	MOS	MOSAIC COMPANY NEW	93	93095	CLD	CLOUD PEAK ENERGY INC
71	90444	ORA	ORMAT TECHNOLOGIES INC	94	93152	CIE	COBALT INTERNATIONAL ENERGY INC
72	90458	NEW	NORTHWESTERN CORP	95	93420	OAS	OASIS PETROLEUM INC
73	90492	WRES	WARREN RESOURCES INC				

Appendix E: List of companies invited to participate in 2015 USEITI report

S/N	Company	S/N	Company
1	Alpha Natural Resources, Inc.	24	Fieldwood Energy LLC
2	Anadarko Petroleum Corporation	25	Freeport-McMoRan Inc.
3	ANKOR Energy LLC	26	Hess Corporation
4	Apache Corporation	27	Linn Energy, LLC
5	Arch Coal, Inc.	28	LLOG Exploration Company LLC
6	Arena Energy, LLC	29	Marathon Oil Company
7	BHP Billiton LTD	30	Newfield Exploration Company
8	BOPCO, LP	31	Noble Energy, Inc.
9	BP America	32	Oxy USA, Inc.
10	Chevron Corporation	33	Peabody Energy Corporation
11	Cimarex Energy Co.	34	QEP Resources, Inc.
12	Cloud Peak Energy Resources, LLC	35	Repsol E&P USA Inc.
13	Cobalt International Energy, Inc.	36	SandRidge Energy, Inc.
14	Concho Resources, Inc.	37	Shell E&P Company
15	ConocoPhillips	38	Statoil Gulf of Mexico
16	Continental Resources, Inc.	39	Stone Energy Corporation
17	Devon Energy Corporation	40	Talos Energy LLC
18	Encana Corporation	41	Ultra Resources Inc.
19	Energy XXI	42	Venari Offshore LLC
20	EPL Oil & Gas, Inc.	43	W&T Offshore, Inc.
21	ENI Petroleum	44	Walter Oil & Gas Corporation
22	EOG Resources, Inc.	45	WPX Energy, Inc.
23	Exxon Mobil Corporation		

Appendix F: Companies that participate in 2015 USEITI report

S/N	Company
1	Alpha Natural Resources, Inc.
2	Anadarko Petroleum Corporation
3	ANKOR Energy LLC
4	Arch Coal, Inc.
5	Arena Energy, LLC
6	BHP Billiton LTD
7	BP America
8	Chevron Corporation
9	Cimarex Energy Co.
10	Cloud Peak Energy Resources, LLC
11	Cobalt International Energy, Inc.
12	ConocoPhillips
13	Devon Energy Corporation
14	Energy XXI
15	ENI Petroleum
16	EPL Oil & Gas, Inc.
17	Exxon Mobil Corporation
18	Freeport-McMoRan Inc.
19	Hess Corporation
20	Marathon Oil Company
21	Newfield Exploration Company
22	Noble Energy, Inc.
23	Peabody Energy Corporation
24	Repsol E&P USA Inc.
25	Shell E&P Company
26	Statoil Gulf of Mexico
27	Stone Energy Corporation
28	Ultra Resources Inc
29	Venari Offshore LLC
30	W&T Offshore, Inc
31	WPX Energy, Inc.

Appendix G: 2015 USEITI participating companies' status

S/N	Company	Permno/Remark
	Listed	
1	Arch Coal, Inc.	75326
2	BHP Billiton LTD	75039
3	Chevron Corporation	14541
4	Cimarex Energy Co.	89509
5	Cloud Peak Energy Resources, LLC	93095
6	Cobalt International Energy, Inc.	93152
7	ConocoPhillips	13928
8	Devon Energy Corporation	87137
9	Energy XXI	92215
10	Exxon Mobil Corporation	11850
11	Hess Corporation	28484
12	Marathon Oil Company	15069
13	Newfield Exploration Company	79915
14	Noble Energy, Inc.	61815
15	Peabody Energy Corporation	88991
16	Statoil Gulf of Mexico	89016
17	Stone Energy Corporation	79444
18	Ultra Resources Inc	88882
19	W&T Offshore, Inc	90533
20	WPX Energy, Inc.	13141
	Not Listed	
1	Anadarko Petroleum Corporation	Not listed
2	ANKOR Energy LLC	Not listed
3	Arena Energy, LLC	Not listed
4	BP America	Not listed
5	ENI Petroleum	Not listed
6	Freeport-McMoRan Inc.	Not listed
7	Repsol E&P USA Inc.	Not listed
8	Venari Offshore LLC	Not listed
	Listed outside the USA	
1	Shell E&P Company	AMS
2	EPL Oil & Gas, Inc.	NASDAQ
	Voluntary reorganization/bankruptcy	
1	Alpha Natural Resources, Inc.	Subsidiary of Alpha Natural Resources, Inc. On August 3, 2015, Alpha Wyoming Land Company, LLC filed a voluntary petition for reorganization.

Appendix H: List of companies that did not Participate in 2015 USEITI report reconciliation

S/N	Company	Permno/ Remark
	Listed	
1	Oxy USA, Inc.	34833
2	EOG Resources, Inc.	75825
3	Encana Corporation	89134
4	Linn Energy, LLC	91081
5	Continental Resources, Inc.	91983
6	Concho Resources, Inc.	92239
7	SandRidge Energy, Inc	92421
	Unlisted	
1	Apache Corporation	Not listed
2	BOPCO, LP	Not listed
3	Fieldwood Energy LLC	Not listed
4	LLOG Exploration Company LLC	Not listed
5	QEP Resources, Inc	Not listed
6	Talos Energy LLC	Not listed
7	Walter Oil & Gas Corporation	Not listed