
RECOGNITION, DISCLOSURE AND MARKET REACTION IN THE OIL AND GAS SECTOR

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ABSTRACT

The study examines whether recognition and disclosure have equivalent pricing consequences in the oil and gas industry. That is whether recognition and disclosure have same effects on recognized information and disclosed information.

The methodology adopted in this study was the desk research review of the available literature related to recognition, disclosure and pricing consequences. In other words, the methodology adopted in the study was highly exploratory.

The study found whether a write down-down is recognized or disclosed, has a significant effect on the firm's value. The price reactions to firms recognizing losses are negative and differ significantly from the reactions of firms disclosing losses. One of the reasons for this variety is that oil and gas companies perform upstream or integrated activities, as well as the way companies disclose their reserves.

Against this Backdrop, the study recommends that for the oil and gas firms recognizing losses and the oil and gas firms disclosing losses to have equivalent pricing consequences, the firms should direct their eyes towards recognized item and fully incorporate disclosed values into prices in the oil and gas industry.

Introduction

The Security and Exchange commission (SEC) Regulation requires the firm- specific effect of a macroeconomic event such as a major change in oil prices to be formally recognized in the financial statement for oil and gas firms adopting the full cost method but only disclosed in footnotes for firms following the successful efforts method (Aboody, 1996). The accounting treatment for oil and gas firms provides a unique opportunity for testing the pricing implication of recognition and disclosure. Security and Exchange Commission (SEC) allows firm's adopting the full cost (FC) method to capitalize all cost associated with property acquisition, exploration, and development activities even if the capitalized costs result in dry wells (Abdo & Al-Gabery, 2013). Therefore, if the net capitalized cost of FC firm exceed the net discounted future cash flows from proved oil and gas reserves (ceiling) the excess is an ordinary losses. Successful effort (SE) firms are firms following the successful method. Under the successful effort (SE), a firm may capitalize the above cost only if they result in an increase of proved oil and gas

reserves. Therefore, the SEC and Generally Accepted Accounting principles (GAAP) force successful effort firms to recognize a write-down only if the capitalized cost exceed the net undiscounted future cash flows from proved oil and gas reserves. Consequently, if the net capitalized cost exceed the ceiling but are less than the undiscounted cash flows, a full cost firm must write down its assets to the discounted cash flow while a successful effort firm will report as if write-down only in its footnotes (Aboody, 1996).

Statement of the Research Problem

However, opponents to the requirement of recognition instead of disclosure frequently claim effects on stock prices and the cost of capital (Shroff, 2012, Shantz, 2012). The social consequences of such popular beliefs are not trivial, including firm's engagement in lobbying activities and congress intervention on the FASB deliberation process. These conflicting views lead to the question of why market participants belief deviate?

Objective of the Study

Hence, the objective of this study is to examine whether recognition and disclosure have equivalent pricing consequences in the oil and gas industry. This study concentrates in the oil and gas industry because Security and Exchange Commission (SEC) regulation provides a unique opportunity for testing the price consequences of recognition versus disclosure in oil and gas industry.

LITERATURE REVIEW

The Concept of Disclosure

The disclosure of key assumptions and key sources of estimation uncertainty at the balance sheet date is required by IAS 1. Given that the reserves and resources have a pervasive impact will normally results in entities providing disclosure about hydrocarbon resources and reserve estimates. Other information such as the potential future financial costs to be incurred to occurred to acquire, develop and produce reserves may help users of statements to assess the entity's performance. Supplementary disclosure of such information with IFRS financial statements is useful, but it should be consistently reported, the underlying basis clearly disclosure and based on common guidelines or practices (Dearman & Shields, 2009; Fred, 2013).

Exploration and development costs that are capitalized should be classified as non-current assets in the financial position. They should be separately disclosed in the financial statements and distinguished from producing assets where material. The classification as tangible or intangible assets established during the exploration phase should be continued through to the development and production phases. Details of amount capitalized and the amounts recognized as an expense from exploration, development and production activities should be disclosed (Schipper, 2007).

According to Israeli (2014), SEC guidance on the disclosure of reserves is viewed by the industry as a best practice approach to disclosure. Oil and gas entities may prepare their reserves disclosures based on the guidance even were they not SEC- listed. The Security and Exchange they are not SEC- listed. The security and Exchange Commission (SEC) amended its guidance on disclosure requirements (The final Rule) and this has been in effect since December 2009.

The main disclosure requirements of the final Rule are:

- Disclosure of estimates of proved developed reserves, Proved undeveloped reserves and total proved reserves. This is to be presented by geographical area and for each country representing 15% or more of a company's overall proved reserves.
- Disclosure of reserves from non- traditional sources that is bitumen, shale, coal bed methane as an oil and gas reserves.
- Optional disclosure of probable and possible reserves.
- Optional disclosure of the sensitivity of reserve number of price.
- Disclosure of the company's progress in converting proved undeveloped reserves into proved developed reserves. This is to include those that are help for five years or more and an explanation of why they should continue to be considered proved.
- Disclosure of technologies used to establish reserve in a company's initial filing with the SEC and in filings which include material additions to reserve estimates.
- The company's internal controls over reserve estimates and the qualification of the technical person primarily responsible for overseeing the preparation or audit of the reserves estimate.
- If a company represents that disclosure is based on the authority of a third party that prepared the reserves estimate or conducted a reserve audit or process view, they should also file a report prepared by the third party (Davis-Friday, Liu & Mittelstaedt, 1999).

The Concept of Recognition

According to Ahmed, Kilic and Lobo (2006) sales contracts for certain commodities often incorporate provisional pricing at the date of delivery of the oil or gas, a provisional price may be charged. The final price is generally an average market price for a particular future period. Revenue from the sale of provisionally priced commodity is recognized when risks and rewards of ownership are transferred to the customer, which would generally be the date of delivery. At this date, the amount of revenue to be recognized would be estimated based on the forward market price of commodity sold. The provisionally priced contracts are marketed to market at each reporting date with any adjustments being recognized within revenue.

Regulation requires Full cost firm to recognize write downs, while for successful Effort firms, investors can only infer that as-if-write down from footnote disclosure. The ceiling is composed of four components. The supplementary unaudited section of the financial statement provides information on two components: the present value of the future net revenues from the oil and gas proved reserved and the income tax effect related to them. The audited part of the financial statement not being amortized (Hope & Thomas, 2008; Aboody, 1996).

The as-if write down is the excess of the disclosed ceiling amount over the net after-tax capitalized cost of proved oil and gas assets. The audited part of the financial statements reports the before-tax net capitalized cost of oil and gas properties. However, he took the sample firms which the sample firms do not detail the deferred income taxes associated with the capitalized cost in their footnotes. Therefore, he calculate the pretax as-if write-down by adding back to the ceiling its forth component, namely, the present value of income taxes. The sample of 50 successful effort firms include 16 firms that explicitly disclose the present values of income taxes and 34 firms that disclose the future values of income taxes. For the 34 firms, he applies the discount rate to discount their net cash flows to the future values of income taxes. This procedure can underestimate or overestimate the write-down given the firm's specific pattern of cash flows. Consequently, users of successful effort financial statement could also perform the calculations and arrived as-if write-downs for the net capitalized assets of successful effort firms.

Therefore, he considered successful effort firms the disclosing firms and full cost firms the recognizing firm (Muller, Riedl & Sellhorn (2013),

The Concept of Pricing

The economic productibility of a reservoir must be based on existing economic conditions. It specifies that, in calculating economic productibility, a company must use a 12-month average price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period, unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. We can use of a 12-month average price to serve as a proxy for existing economic conditions to determine the economic productibility of reserves. Some researchers noted that a 12-month average price is considered to reflect “current economic condition”. It must be noted that the use of an average price would reduce the effects of short term volatility and seasonality, while maintaining comparability of disclosures among companies.

Most researchers opposed the use of average prices stating that, conceptually, the use of average prices is poor regulatory policy and may encourage the market to pressure standard setters to use historical average prices for financial instruments and other assets and liabilities associated with volatile markets. It noted that volatility reflects the underlying economics of the oil and gas industry.

The objective of reserves estimation is to provide the public with comparable information about volumes, not fair value, of a company’s reserves available to enable investors to compare the business prospects of different companies. The use of a 12-month average historical price to determine the economic productibility of reserves quantities increases comparability between companies’ oil and gas reserve disclosures, while mitigating any additional variability that a single-day price may have on reserve estimates. Although oil and gas prices themselves are subject to market-based volatility, the estimation of reserves quantities based on any historical price assumption determines those reserves quantities as if the oil or gas already has been produced, even though they have not, and these measures do not attempt to portray a reflection of their fair value. If the objective of reserve disclosures were to provide fair value information, we believe a pricing system that incorporates assumptions about estimated future market prices and costs related to extraction could be a more appropriate basis for estimation (Clinch & Maghiolo 1992)

In order to provide disclosures which are more consistent with the objective of comparability, the amendments state that the existing economic conditions for determining the economic productibility of oil and gas reserves include the 12-month average price, calculated as the unweighted arithmetic average of the first-day-of-the-month price for each month within the 12-month period prior to the end of the reporting period. For example, a company with a reporting year end of December 31 would determine its reserves estimates for its annual report based on the average of the prices for oil or gas on the first day of every month from January through December. Therefore, the use of a 12-month average price provides companies with the ability to efficiently prepare useful reserve information without sacrificing the objective of comparability. We believe that the revised definition of the term “proved oil and gas reserves” will provide investors with improved reserves information thereby enhancing their ability to analyze the disclosures.

The use of two different prices for disclosure and accounting purposes could: Confuse investors and other users of financial statements; create misleading information; harm

comparability; decrease transparency; Increase costs and burden significantly; increase the complexity of disclosures; double record-keeping burden.

Some researchers noted that the disclosure and accounting rules and guidance do not use a different pricing method in other situations. In addition, several researchers believed that changing from the use of an average price to estimate proved reserves would have a minimal impact on depreciation and net income. We believe that changing the rules to use a 12-month average price in reserves estimations is not inconsistent with the principles and objectives of financial reporting in authoritative accounting guidance.

Oil and gas futures prices, or management's forecast of future prices, would better represent the value of the reserves and be better aligned with fair value of the reserves. They indicated that management uses futures prices, not historical prices, in its planning and day-to-day decision making. They suggested that the use of futures prices, combined with disclosure of how management made the estimates, would provide greater transparency and comparability of disclosure. One noted that historical prices have little to do with a company's future investments and values. Also, differentials can be calculated through established accounting procedures under SFAS 157.

However, futures prices are not available for all reserves locations and that applying differentials to prices would require subjective estimates and reduce comparability among companies. Futures price estimates would have to be accompanied by estimates of future costs, which they thought would be very subjective and not comparable for determining future economic conditions. Future prices would require companies to document assumptions about future costs, or else the disclosure would be very inconsistent among reporting companies. They are more subject to market perceptions than market realities and are seldom used in actual physical trading of oil and gas (Yu (2013)

Difference in assumptions between companies could reduce the comparability of reserves information between those companies.

We believe that the purpose of disclosing reserves estimates is to provide investors with information that is both meaningful and comparable. The reserves estimates in our disclosure rules, however, are not designed to be, nor are they intended to represent, an estimation of the fair market value of the reserves. Rather, the reserves disclosures are intended to provide investors with an indication of the relative quantity of reserves that is likely to be extracted in the future using a methodology that minimizes the use of non-reserves-specific variables. By eliminating assumptions underlying the pricing variable, as any historical pricing method would do, investors are able to compare reserves estimates where the differences are driven primarily by reserves-specific information, such as the location of the reserves and the grade of the underlying resource.

Prior Studies

Aboody (1996) stated that Regulation of the Security and Exchange Commission (SEC) on the full cost method prescribes under some conditions that asset are write downs by full cost firms, whereas footnotes disclosure only is required by successful effort firms. In the case of full cost firms, if the net capitalized cost of their asset exceeds the net discounted (at 10 percent) cash flows from the proved oil and gas reserves, the differential is ordinary loss. For successful effort firms the footnote disclosure is needed only if the net capitalized cost of assets exceeds the undiscounted future cash flows from proved oil and gas reserves. Aboody found full cost firms having these recognized losses sustaining stronger negative price reactions than occurred with successful firms disclosing similar losses in their footnote only. The actual write down and loss

of full cost firms are opposed to footnote disclosure only by successful firms maybe indicative of different information being received by investors, but Aboody's result should be interpreted cautiously.

Choudhary (2011) identifies the differential effect of recognition relative to disclosure in a setting where the accounting treatment of an item is exogenously determined. The timing of events the study determines which firms must recognize or disclosed. Using this random variation in the required accounting treatment of economically similar events, he demonstrates investor's weight recognized amount more heavily than disclosure amounts in setting market prices. Next, he proved evidence on why investors treat recognized and disclosed amounts differently. He fails to find evidence those differences that drive the differential investor response. Specifically, his analysis indicates differential precision which does not explain the difference in the market reaction to recognized items relative to disclosure items. He also supported the hypothesis that greater use of discretion on the part of disclosing firm contributes to the differential market response. Instead, his results are consistent with investors fixating on recognized items while failing to fully incorporate disclosed items into decisions. He shows the market reaction to an item disclosed as a subsequent event is delayed until next quarter's earnings announcement, when the item is recognized.

Yu (2013) pointed out that not all oil companies disclose their reserve of oil in their annual reports. Even these companies who do disclose the amounts of reserves use a historical cost accounting convention. This method is not appropriate as the price of oil changes day by day.

According to Abdo and Al-Gabery (2013), FASB issued a form regarding the Successful Efforts method of accounting and certain disclosure which relate to cost incurred and reserve qualities. The FASB issued statement No. 69 which includes the further requirement of supplemental information, including the disclosure of standard measures of discounting future net cash flows. The oil industry accounting committee (1990) recognized that the historical cost accounts are not as well as the absence of agreement on how to process the costs of exploration and development. Oil companies disclose the quantities of proved reserves as well as other important information. This was to make financial reports for oil companies more useful and helpful for the users. SEC (2011) adopted disclosure rules of 1978 and 1982 for oil and gas producing companies. The commission realized since that time that there had been a lot of significant changes in the oil and gas industry, such as technological advances and changes in the type of project that oil companies invest in.

Muller, Riedl and Sellhorn (2013), found that historical cost accounting measure of oil and gas assets are more strongly associated with stock prices than mandatory DCF disclosure, leading them to conclude that managers' cash flows forecasts suffer from estimation error. They found little evidence of an association between stock returns and changes in mandatory DCF disclosures. They used an event study methodology and conclude that the reserve quantity disclosures do not provide value-relevant information. Muller et al. (2013) find that the pricing difference between disclosed and recognized fair values disappear for firms with more analyst following and external appraisals of the fair value estimates

Clinch and Maghiolo (1992) argue that the mandatory valuation disclosures are subject to estimation error because reserves estimates are unreliable. He also criticizes the valuation model underlying disclosures because estimates of future cash flows are based on current oil

and gas prices rather than expected future oil and gas prices, the required uniform discount rate of 10 percent is inconsistent with the statement of financial Accounting concept No. 7, which advocates time- and firm-specific discount rates.

Ahmed, Kilic and Lobo (2006) states that the users of financial statements find recognized information more pertinent than disclosure information. While this prior work makes important strides in furthering our understanding of mandatory disclosures, concerns regarding the self-selection of which firms choose to recognize or disclose unclear inferences on the causal effects of disclosure versus recognition. They concluded that firm incentives influencing the recognition or disclosure choice are also likely linked to the market reaction to an accounting item.

Zhang (2009) provides empirical evidence consistent with differential pricing consequences of recognition versus disclosure, which helps extend the finding in experimental studies that the placement of information influences individual investors. His study provides explanations for the empirical evidences, consistent with analytical studies on recognition versus disclosure. Also, his study examines the economic consequences and management motive associated with proposed mandatory recognition or voluntary recognition. He said that inattentive investors fixate on recognized items and ignore important disclosed information, allowing firms to issue overprice stocks to fund additional investment. The recognition of previously disclosed items mitigates stock overpricing and, hence, reduces overinvestment. The market prices are more sensitive to recognized value than disclosed values for firms reporting on the same or similar events.

According Abdo and Al-Gabery (2013) there are many factors or reasons that make share prices go up or down. For example market sentiment; the mainstream movements of a market price going up and down affect the share prices of the companies in this market. New product introduction to markets also affects share prices. When a company introduce new products this will lead to an expectation to generate more revenue from this new product and this means increase in the profits, therefore this attracts investors to buy this company's shares so share prices go up. For oil and gas companies a new reserve discovery can be consider same as a new product. The investment decisions of big investors considered as a factor of the change of share prices, as their investment decisions are considered by small investors as an indication about which is the better investment decision to take. Share prices are also affected by other factors such as natural disasters, news about new inventions or new technology, patent approval and new wars.

Methodology

The methodology adopted in this study was the desk research review of the available literature related to recognition, disclosure and pricing consequences. In other words, the methodology adopted in the study was highly exploratory.

Conclusion and Recommendations

The study analyzes the recognition, disclosure and pricing consequences in oil and gas sector. This research found that whether a write down-down is recognized or disclosed, has a significant effect on the firm's value. The price reactions to firms recognizing losses are negative and differ significantly from the reactions of firms disclosing losses. One of the reasons for this variety is that oil and gas companies perform upstream or integrated activities, as well as the way companies disclose their reserves.

Against this Backdrop, the study recommends that for the oil and gas firms recognizing losses and the oil and gas firms disclosing losses to have equivalent pricing consequences, the firms should direct their eyes towards recognized item and fully incorporate disclosed values into prices in the oil and gas industry.

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