Energy Economics 37 (2013) 167–181

Contents lists available at SciVerse ScienceDirect

Energy Economics

journal homepage: www.elsevier.com/locate/eneco

Purchasing reserves and commodity market timing as takeover motives in the oil and gas industry

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ARTICLE INFO

Article history:
Received 12 August 2012
Received in revised form 29 January 2013
Accepted 31 January 2013
Available online 20 February 2013

JEL classifications:
G34
L71
M20

Keywords:
Takeovers
Mergers & acquisitions
Oil and gas industry
Oil reserves
Energy

ABSTRACT

Can broad factors such as natural resources endowment and global commodity markets influence corporate takeovers? This paper theorizes that managers are motivated in mergers and acquisitions to purchase energy reserves and to time the commodity market in the oil and gas industry. We find supportive evidence that shows that energy reserves and prices cause and affect takeover activity, value, and performance. Acquirers are motivated to purchase reserves, while targets are motivated to sell based on market timing. Acquirers have negative takeover performance from lower risk. Our conclusions are robust to the traditional explanations: equity valuation, synergy, free cash flow, equity and debt market conditions, and economic cycles.

1. Introduction

Can broad factors such as natural resources endowment and global commodity markets influence corporate decision making? Our contribution to the extensive mergers and acquisitions (M&A) literature concerns novel motivations for takeovers that offer explanations from broader economic and environmental factors rather than simply traditional firm and managerial ones. We find evidence supporting our theoretical notion that these factors, such as energy reserves and commodity prices, do influence takeovers. In other words, managers can be motivated to purchase energy reserves and to time prices in the commodity markets when making takeovers in the energy industry. Because these motives better fit the reality of takeovers in the natural resources and extraction industries than existing theories, this study thus serves the interests of researchers that are exploring how the natural environment and global pricing markets influence corporate decision making.

Canada is among the only 10 countries in the world that produces significant amount of oil (equal or greater than 3% global share).[1] It is presently ranked number 6th in terms of global production share. Total oil production is increasing as oil sands production grows. Canada with its oils sands has the world's second largest oil reserves after Saudi Arabia. Therefore, this study of Canadian oil and gas firms is a representative and valid study on the phenomena of energy takeovers.

Over the past decade, the oil and gas (O&G) industry in Canada has taken center stage economically. At the G8 meeting in 2006, Prime Minister Steven Harper declared, "Canada is now an energy superpower." At the same time, the global economic stage is increasingly recognizing the rise of emerging superpowers such as China and India. Because these rapidly expanding economies are consuming resources at a growing rate, they are being forced to look beyond their borders in order to meet their energy needs. For example, Canada increased its exports of crude oil to China by 255% to 440,000 tons in 2010.[2] International oil majors are pouring money into large Canadian projects in order to extract oil in such places such as the Athabascan oil sands of Alberta. The combination of these and other factors have left reserves-rich Canadian energy companies in a favorable position.

The O&G industry attracts investors and speculators because they are ultimately well rewarded. Crude oil prices have been over $100 a barrel since 2008, while capital investment in the oil sands was almost $10 billion in 2009.[3] Further, over the next 25 years, a $218 billion injection of capital investment is forecasted by the Canadian Energy Research Institute. The energy sector is also evolving to become crucial

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[1] Global production of petroleum. http://en.wikipedia.org/wiki/Petroleum.

[2] http://data.chinaoilweb.com/crude-oil-import-data/latest.htm.

[3] The Canadian Association of Petroleum Producers from http://oilsands.alberta.ca/economicinvestment.html.

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http://dx.doi.org/10.1016/j.eneco.2013.01.010

to the economic prosperity of Canada and to its relationship with the US. However, even though intense changes arising from takeovers in this sector have received media interest, there is a paucity of academic research on M&A.

Although there have been substantial streams of work on M&A within specific industries such as banking and financial services, the empirical literature on takeovers and performance largely overlooks the O&G industry. Therefore, M&A in the O&G industry merit further academic study because takeovers in this industry, unlike others, reflect responses to fundamental changes in the economy. How energy, its endowment, and its market pricing, influences inflation, monetary policy, economic growth, and wealth is thus a core part of any national economy.

For instance, energy markets have been shown to affect stock markets. Jones and Kaul (1996) show how oil price shocks that affect international stock markets are justified in terms of changes in real cash flows and/or in expected returns. From this perspective, we propose that broader economic forces can influence corporate financial decision making in the energy industry, namely takeovers. Our proposition offers to broaden the rather narrow firm-level (e.g. synergies, efficiency) and managerial (e.g. agency, market timing) understanding of motivations for takeovers in the extant literature. For example, Weston et al. (1990) note that recent takeover activity has been high in industries undergoing deregulation, experiencing oil price shocks, or facing structural alteration. Further, Jensen (1993) states that oil price volatility stemming from the 1973 OPEC boycott and continuing in the 1979 Iran embargo is one shock that drove takeover activity during the 1980s. This shock directly affected not only the O&G industry, but also the structure of other industries in which energy is a key input. Lastly, after examining takeover patterns over time in 51 industries, Mitchell and Mulherin (1996) conclude that the rate of takeover activity is directly related to the economic shocks suffered by these industries. They also theorize that M&A are driven by broad fundamental factors that have general implications on how stock returns affect takeover announcements, corporate takeovers, and the timing of takeover waves. Hence, we continue to question whether macroeconomic forces, which uniquely define the energy industry (and more generally resource extraction industries), can influence corporate takeovers. Specifically, do energy prices and resource endowment, which economically determine both the inputs and the outputs of energy firms,[4] drive M&A?

Our motivation to study takeovers in the O&G industry is that there could be different motivations for takeovers compared with those studies of mainstream firms in the general M&A literature. Indeed, Ferguson and Popkin (1982) propose that a unique motivation for the oil industry is to purchase reserves, namely increase the resource endowment possessed by a firm. Ferguson and Popkin (1982) explain that the market price of a target should equal the market value of its reserves. However, targets are offered premiums above market value. They explain that acquirers pay more for these targets because the oil reserves offer depreciation tax shields, which add value to the firm. We theorize that the real gain and motivation for acquirers is to gain reserves because this is the greatest source of wealth to their shareholders in the long-term. Reserves affect market wealth and thus gaining reserves from takeovers increases shareholder wealth in the long-term because the value of reserves rises over time; they are an appreciating asset for several reasons. We also provide direct evidence of how energy reserves affect takeover activity, value, and performance.

Equally importantly, we further propose that managers of energy firms time their takeovers with prices in the world commodity markets as a new motivation for takeovers. "The idea that macroeconomic variables can help to explain excess returns in equity and bond markets has recently been extended to commodity futures markets" (Sadorsky, 2002). Thus, managers are motivated to make acquisitions when O&G prices are high because they can take advantage of the high valuations of their companies' stock prices and because they perceive higher cash flows and investment returns. We provide evidence of how the market timing of energy prices affects takeover activity, value, and performance.

As stated earlier, our contribution to the extensive M&A literature centers on novel motivations for takeovers. The evidence derived from the examination of M&A in the O&G industry in Canada between 1990 and 2008 is supportive of our theoretical notion that oil companies make takeovers to purchase reserves, as proposed by Ferguson and Popkin (1982) but never empirically demonstrated by them. We also find that reserves are an appreciating asset that positively affects takeover value. Specifically, energy reserves cause and relate to takeover activity, value, and performance at the industry level and at the firm level. Our results thus suggest that acquirers are motivated to purchase reserves in takeovers.

Our second contribution is to demonstrate the link between energy prices and takeovers, which suggests a commodity market timing motivation for takeovers. Although price shocks are theorized to cause takeovers (Jensen, 1993; Mitchell and Mulherin, 1996; Weston et al., 1990), this link has not been examined empirically until now. The results show that energy prices, which economically determine both the inputs and the outputs of energy firms, greatly influence corporate decision making in takeovers. In other words, energy prices similarly cause and relate to the takeover activity, value, and performance of energy firms. Our results thus suggest that targets are motivated to time the market for energy prices when they offer themselves for takeover.

A third contribution is to discover a different return pattern from the stylized facts about Canadian M&A performance, namely O&G acquirers lose during takeover announcements, whereas Canadian targets generally gain. This finding implies that these novel motivations for takeovers result in different shareholder wealth consequences because the O&G industry has interesting particularities. First, "most of the value of oil and gas firms is driven by the price of the commodity which they produce, a price upon which no firm has any impact" (Boyer and Filion, 2007). Second, the market beta of these firms is less than one, which suggests that they have lower systematic risk than the average Canadian corporation.

In particular, we show how the commodity price-driven motivation for takeovers is distinct from the stock market-driven motivation. Moreover, our conclusions seem to be robust to traditional M&A explanations on takeover performance such as gaining operational synergies, spending free cash flows, equity and debt financing conditions, and economic recessions. Overall, our findings are clearly supportive of both the purchasing reserves and the market timing hypotheses for takeovers in this industry. Consequently, our paper's study of the O&G industry amply shows how macroeconomic effects, in addition to fundamental firm factors, influence corporate M&A.

This study is organized as follows: 1) a theoretical notion on corporate takeovers in natural resources industries; 2) literature review; 3) hypotheses development; 4) methodology; 5) sample description; 6) results; 7) discussion; and 7) conclusion.

2. Takeovers in natural resources industries

The natural resources sector, including the O&G industry, is known to have specific pricing factors that differ from the general asset pricing model literature. Donker et al. (2006), Berry and Wright (2001), and Spear (1994, 1996) all demonstrate the relevance of reported oil reserves to energy company stock prices. Kretzschmar and Kirchner (2009) provide market evidence of the effects of reserves location and oil prices on O&G company returns. Blose and Shieh (1995) show in their study of gold prices that commodity sector stock returns are affected by commodity prices. Indeed, Boyer and Filion (2007) and Sadorsky (2001) also show that as well as market index returns, oil and natural gas prices

[4] Natural gas is the main input used in the Canadian oil sands production of bitumen and upgrades to synthetic crude (at a rate of five to six times the oil produced in terms of equivalent energy).