Global Oil & Gas Industry Analysis.

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The oil and gas industry is one of the largest and most important global industries. Without oil and gas our lifestyles would be very different from what they are today. There is no question that oil and gas effects our daily lives in countless ways; through transportation national security, heating, and petrochemical products. All countries consume products derived from oil and gas, but only a small set of nations are major producers. Though there have been some fluctuations of gas prices over the past couple of years, the global demand for oil and gas will continue to rise over the next few decades. Due to world population growth, there are predictions that the global demand for energy will increase by 30% to 40% by 2030.

The Global Oil and Gas Exploration and Production Industry is in a mature stage of its life cycle. Oil and gas will remain as one of the most vital for global economy. It is documented that the Chinese were the first to discover underground oil deposits in 500b.c Ancient Chinese history describes wells over 100 feet deep containing water and natural gas along the Tibetan border. “The Chinese constructed extensive bamboo pipelines drawing from the wells in order to transport oil and natural gas, which was used for lighting” There is also documentation of Romans, Persians, and Europeans. Romania is the site for Europe’s first oil reservoir. When oil struck in northwestern Pennsylvania in 1859, the birth of oil in modern industry began. The invention of the kerosene lamp led to the establishment of U.S. first major company; Standard Oil Company founded by John D Rockefeller. Another important phase of the industry began at Spindle top in East Texas in 1901. Discovery at Spindle top marked the shift of oil use for lamps and lubrication, to major fuel for airplane and automobile. Ships and Trains began substituting oil for coal.

The global oil and gas industry is made up of thousands of firms of all shapes, sizes, and capabilities with a revenue of $4tr and annual growth of 4.6%. An international oil company (IOC) includes: BP, ExxonMobil, Chevron, Shell, and Total. These companies compete across borders and generally operate in partnership with national oil companies (NOC). The control of IOCs lies in the hands of private investors. NOCs are wholly state owned companies controlled by national government usually formed to manage the country’s hydrocarbon resources. “National oil companies (NOCs) control approximately 90% of the world’s oil reserves and 75% of production (similar numbers apply to gas), as well as many of the major oil and gas infrastructure systems” (Silvana). The “Seven Sisters” of NOCs include: Saudi Amaco (Saudi Arabia), Petrobras (Brazil, Petronas (Malaysia), Gazprom (Russia), National Iran Oil Company, Petroleos De Venezuela, and China National Petroleum Company. One of the most important trends of the new century has been the growing importance of the NOCs. NOCs have mixed reputation from a business perspective.

The Organization of Petroleum Exporting Countries (OPEC) has been labelled the most influential non-corporate organization in the oil markets. Article 1 and 2 of the OPEC Statute explains the organizations objective “to coordinate and unity the petroleum polices of Member Countries and ensure the stabilization of oil prices in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers and a fair return on capital to those investing in the petroleum industry”. OPECs ability to influence a major portion of the market’s total volume (50%) in different time periods has been proven effective on price. One of the main actions of the group is to restrict overflow of crude oil in the market. With OPC playing the balancing role everything will always be about the price of oil.

IOC are publicly traded firms, therefore it is imperative that they are responsive to demands and expectations of private shareholders. The main objective is to maximize shareholder value by spotlighting cost control through sustainable profitability over time. In the words of Lee Raymond, former ExxonMobil CEO “We’re in a commodity [business]. We go through peaks and valleys, so that, over the cycle, our shareholders see an adequate return on their investment.” Oil majors are vertically incorporated companies in today’s industry IOC buy oil and gas for their refineries; Sell gas and crude oil to other firms, and also participates in the buying and selling of finished products.

Three main segments to the oil and gas industry value chain are: upstream, midstream, and downstream. On the downstream end products are sold to consumers. At the distant upstream end the activities include exploration, development, and production. Commonly, oil and gas that lies beneath the surface of the earth is owned by the state (excluding the United States land owner rights). Fiscal regimes for international petroleum agreements (IPAs) are in place to cover the responsibilities of the developer and the mineral rights owner. After an agreement on a lease crude oil and natural gas are discovered during exploration. Natural gas reserves, production, and consumption in the United States have increased in the last several years as the result of technologies and economics of nonconventional natural gas. In 2011, “ExxonMobil earned about 84% of its corporate profits from upstream activities, Chevron earned 92%, and ConocoPhillips earned 66%” – Congressional Research Service. Even with high cost of production and operational risks deep-water production will continue to grow. Roughly 27% of shelf production is at a depth of 300 m and growing.

The big five oil companies have shown some interest in expanding their positions in the natural gas market. The demand for diesel fuel will grow rapidly among oil products. China the largest product consumer in the Asia Pacific region has the world’s largest market for passenger cars. Emerging economies of the BRIC nations (Brazil, Russia, India, and China) will encourage an increase in gas consumption. As the United States becomes the net exporter of oil products, its oil refinery industry is transforming. On the other hand, Europe suffers an oil refinery crisis: companies are forced to shut down due to the decrease in demand of oil products. Most importantly the trend of U.S. dollar depreciation is a main component influencing oil price increase. With lower gas prices and depreciation of the dollar stimulating the U.S. economy, urbanization and growth in developing countries will promote demand for energy resources.

The oil and gas industry is reliant on technology. Innovations in subsea equipment, deep-water and horizontal drilling has opened new terrain for development. As the demand grows, environmental safety concerns surge. Oil exploration has progressively become costly; Strict guidelines are put in place to improve energy efficiency. The process of moving liquefied natural gas (LNG) into the market is a great example of meeting environmental requirements. Because of the extensive and quickened advancement of the LNG market, previously abandoned natural gas reserves evaluated for possibly commercial development. Gas to Liquid (GTL) technology turns natural gas into a clean burning synthetic diesel fuel. If regulated, GTL fuel can be very costly. Only GTL project under construction is the Chevron plant in Escravos, Nigeria. “Competitive advantage in the production activity is directly related to cost management” (Ink pen/ Moffett 211).

Oil Markets deal in commodities and are essentially a global auction: the highest bidder wins the supply. Marketing for motor fuels vary from selling gasoline in bottles and jars in West Africa to giant Motorway stations in the United States. Chevron promotes the cleaning capability of its gasoline, reducing maintenance cost. Meanwhile Shell focuses on performance with its power addictive. BP say that its Ultimate brand of fuel is cleaner than other brands. Perceived value to customers and lack of imitation by competitors play big roles in fuel marketing.