

## Introduction

The energy industry is comprised of all activities involved in extracting, processing, and distributing natural resources to create energy. While it includes alternative energy sources, it is dominated by the production of petroleum and natural gas. The petroleum sector



has always been unstable as disturbances in the supplier regions may greatly affect the supply, which in turn affects prices. Though bad for the consumer, the rise in the price per barrel of crude oil is good news for oil companies.

## Industry Composition

Energy is the backbone of any economic system. The energy industry includes the discovery, production, distribution, and sale of energy for multiple power needs including heat, light, propulsion, and whatever else energy may be needed for. There are two primary sources of energy: renewable alternative fuels and fossil fuels. Alternative fuels include energy sources such as wind, water, solar, geothermal, bio-diesel, or nuclear power. Fossil fuels account for nearly 80% of the world's energy consumption and include oil, gas, and coal.

The petroleum and natural gas industry is divided into three processes: upstream, midstream, and downstream. Upstream is the exploration of resources, and includes production and extraction companies. Midstream is transporting the product to factories and the refining process. Downstream mainly involves distribution and sales. Gas distribution utilities, service stations, and other oil product wholesalers are all involved in the downstream process.

For globalEDGE's purposes, the upstream segment is listed under the Mining/Minerals/Metals industry, as discovering and extracting resources for energy would be defined as mining.

## Industry Leaders and Fragmentation

\* All amounts are given in Billions USD

| Company                                  | Country | Sales | Profits | Market Value |
|--|---------|-------|---------|--------------|
| PetroChina                               | 173     | 280.7 | 2.9     | 66.7         |
| Sinopec                                  | 173     | 271.1 | 4.8     | 82.6         |
| Saudi Arabian Oil Company (Saudi Aramco) | 319     | 229.7 | 49.3    | 1897.2       |
| BP                                       | 228     | 180   | -20.9   | 84.5         |
| ExxonMobil                               | 161     | 178.2 | -22.4   | 239.9        |



## Profitability and Demand Drivers

### Primary Demand Drivers:

- Commercial, government, and residential needs for electrical power (which mainly depend on economic activity and population growth)

### Profitability Drivers:

- Government regulations
- Fuel costs

## Trends

The industry, despite being very profitable for a sustained period of time, has many problems. One of the major issues facing the industry is its environmental impact. Nearly all energy sources impact the environment in a negative way. The most common effects discussed are global warming and the disappearance of the ozone layer. In order to combat this global problem, leaders from 120 countries met in February 2010 to discuss possible solutions. Nothing was established then, but the framework for future regulations was laid. Carbon cap trading is a very realistic possibility, where producers can a set amount of carbon they can produce and are able to sell or buy excess amounts of these carbon caps.

The other big issue with petroleum as the principal source of energy that it is today is the fact that it is a nonrenewable resource. All resources are finite, petroleum is no exception. Petroleum takes millions of years to be created and is being used at a much faster rate than that. These factors are leading a push towards the alternative fuel division of the industry.