

Analysis of Oil Prices since 1974

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3 May 2024

1 Abstract

This report looked at the price of a crude oil barrel every month from January of 1974 to December of 2023. Crude oil prices are somewhat volatile due to how much they are affected by geopolitics. Instead of looking at the raw numbers for every month, the average yearly prices were found and then plotted. This analysis was done through python, with help from the numpy and matplotlib python packages. Python is a strong tool for data analysis due to the variety of available packages, its open-source nature, and the wide number of available resources to help people in their goals for a project. The steps for the analysis here will be explained throughout this text. The report analysis was focused on the causes for the spike in oil prices from 1978-1980, specifically the Iranian Revolution which started in 1978. A simple graph of something like oil prices can seem uninteresting at face value but it can often be representative of larger world events if some time is taken to really dig into the reasons for why changes happen when they do. It also shows how python is not strictly limited to STEM applications, but can also be used to help our understanding of things like history, sociology, and economics.

2 Introduction

Have you ever been frustrated at the price of gas? Cars are an integral part of most people's lives, especially in the United States, so it makes sense that people feel strongly about the price of gas. Gas is not the only product affected by the price of crude oil, but it is the one that most people probably think of when they hear "crude oil." Crude oil is one of the most important commodities in modern society and its price is tied to a large number of factors. Oil is collected from many locations around the world and whenever major events happen in these locations, it can shift oil production rates which in turn affects the price of oil. This report will explain how this crude oil price data was collected, what it actually means, how it can be visualized, and how trends in the data can be explained by real-world events with a specific example.

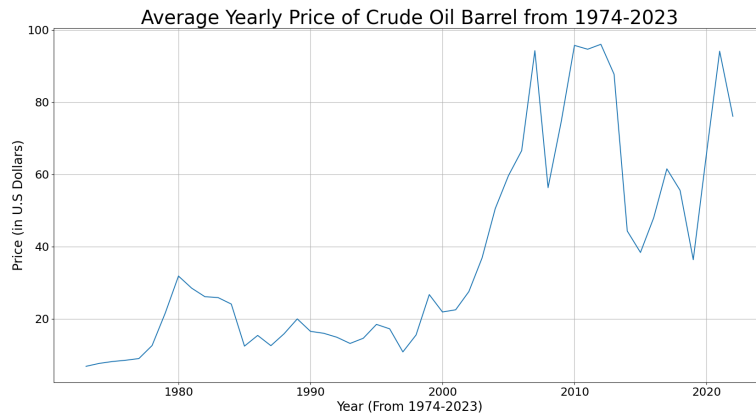


Figure 1: This is the graph of average Crude oil barrel prices. It was made using the modified lists of data and pylab

3 Data and Visualization

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4 Data Analysis