**Question: What is the long-term trend of gas and oil price?**

**Target audience:** General public, producer of oil and refinery.

It contains the people that need to store or people plan to sell oil in the future, they need to have the plan of price changes.

**Chart type:** Line Chart.

Line chart is the clearest showing the trend in a period of time. A Line Graph is most frequently used to show trends and analyse how the data has changed over time.

**Design Features:** Long-term trend of oil and gas prices should be the main feature of the graph that shows. And put prices in different chart will be easier for audience to find the main characteristic in a given period of time.

**Evaluation:** Line graph is plotted by plotting the points of main data in the Cartesian coordinate grid. The main advantage of choosing line chart to show the price trend in the gradient, while gradient is negative, the price decrease, when gradient goes smaller, the price decreases faster.

But line graph also has its disadvantages, for two data’s comparation, it can only show which is larger for a given time, the data cannot be compared over period of time.

Weigh the pros and cons, line graph is suitable for looking for price change over a period of time, which is a great choice that clearly shows trends in the data.

**Question: Is there any correlations for oil and gas prices?**

**Target audience:** General public, economist.

Target audience need to find out the relations between oil and gas price to find the supply and demand quantity change to these two kinds of resources, and price relationship between two substitutes.

**Chart type:** Scattered plot

Scatter plot is a plot that shows the average points within a short time period. Time is shown in the x axis, price is shown at y axis. The graph shows less details for every day’s price but shows more clear trends when compare two graphs.

**Design Features:**

Put two data into different colours, and through looking is there any obvious trend in scattered plots, we can get the relations between price of oil and gas.

**Evaluation:**

Scattered plots more cares about trend and average distribution of data, rather than specific fluctuation in the data set. The average data points are less ease affect by little change of the data. when the whole data set has a clear trend, it will be easier for target audience to find relationships between two data sets.

Although there still some disadvantages, such as the data is not so clear when people want to looking for a specific data, they cannot look directly from the graph.

Weight up pros and cons, the target audience want find the correlations between oil and gas price, use Scattered plot will be a good choice for them to find general trend.

**Question: Are the price of oil and gas price shows periodical trend in long run?**

**Target audience:** General public, Economist and financial analyst.

Through finding the periodical price change, economist can get the relationship between different time with price of oil and gas to analyse reasons for price level change.

**Chart type:** Small multiple line charts

This kind of chart shows trend for different period of time, and those time period is controllable.

**Design Features:**

This kind of charts usually consist with more than 1 line graph (such as 2x1 3x1 graphs), people can choose show the data in monthly or yearly to find the general trend. Away from some special cases directly leading to change of price change (such as government intervention), target audience will be glad to looking for general rules in oil market.

**Evaluation:**

The small multiple line charts are designed for audience that looking for the general rules at oil market and gas market. In the single graph, people are hard to watch chart separately into weeks and months, all data are putted in the same graph with same scale. When the data putting into smaller scale line charts, the characteristics of each piece of data can be displayed clearly, which will be easier to get their answer.

But there are some disadvantages as well: When people looking into one specific chart, it is hard for people to understand the individual trend; what is more, the space for multiple charts is limited, and single chart shows less information with smaller size.