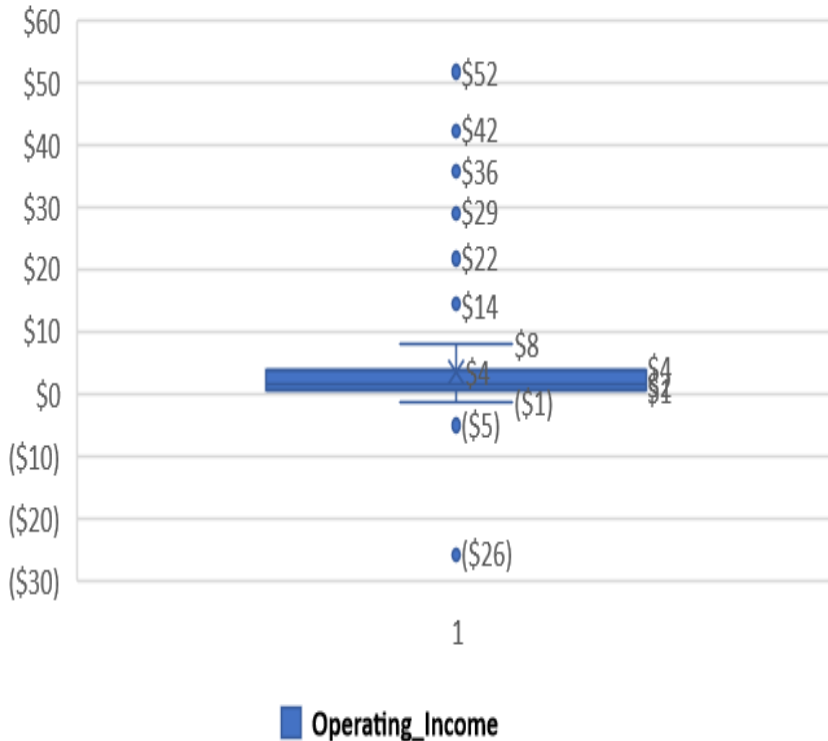


Does the Energy sector's total operating income keeps reducing year by year ?

Energy sector's operating income over all years

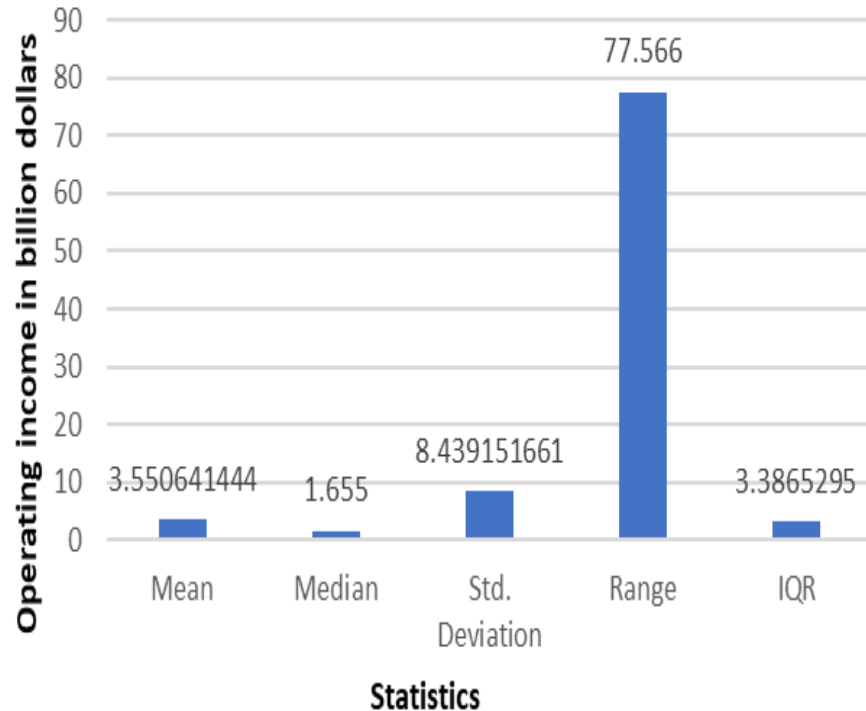


This box and whisker chart gives the spread of the Energy sector's total operating income over all years.

There are more outliers in this data and most of the values are between \$8 billions to -\$1 billions. The minimum is around -\$26 billion(loss) whereas the maximum is \$52 billions(profit) and that is why, the range (\$77 billions) is very high which tells the operating income is more volatile over the years. The mean operating income is only around \$4 billions as there are more losses experienced. The median is around \$1 billion which indicates almost half of the operating income is less than \$1 billion. 75% of the operating income is more than \$4 billions. Even though there are higher profits, there is still more loss experienced in some years leading to a wider range or spread of the operating income.

Does the Energy sector's total operating income keeps reducing year by year ?

Spread of Operating income over years



This bar chart gives an in-depth view on the spread of operating income over years.

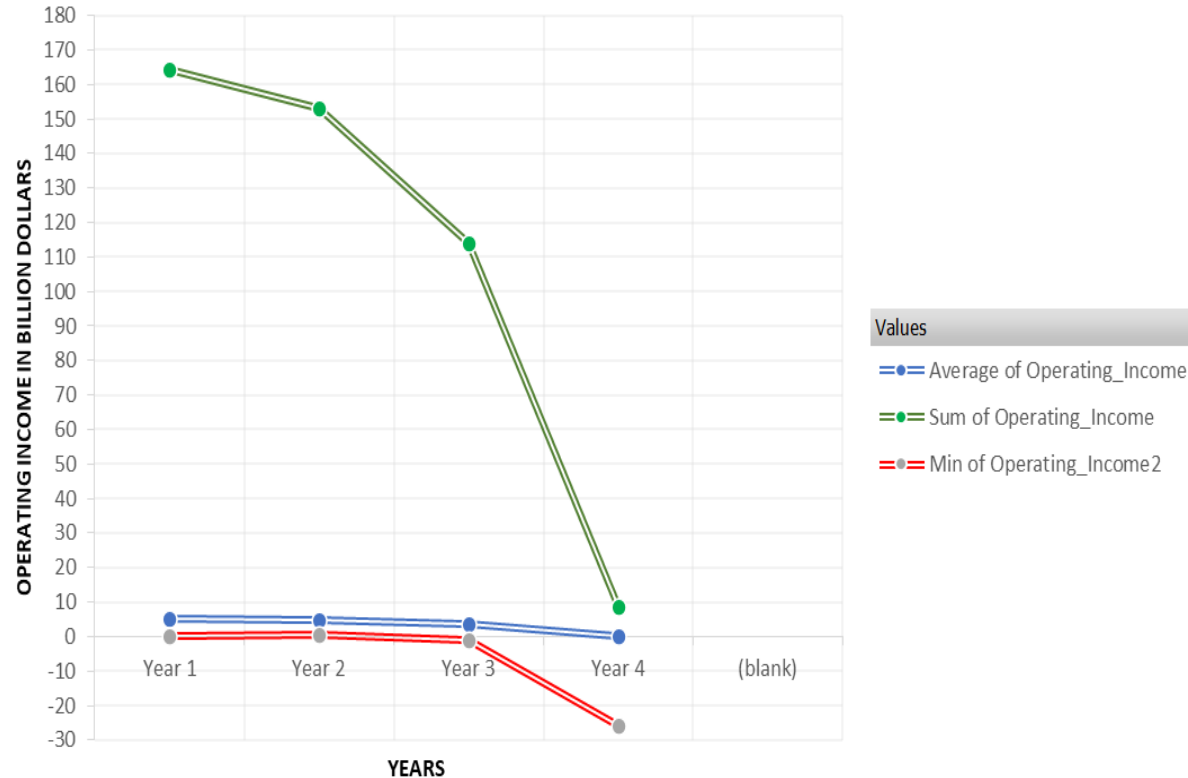
As there are more outliers in this data, the range is \$77.5 billions which is very high, and this gives a quick idea of spread. Due to outliers, the IQR gives the exact measure of where bulk of the values lie. IQR is around \$3.38 billions which is the exact measure of the spread of operating income.

The mean operating income is \$3.5 billions whereas the standard deviation is \$8.4 billions which means that on average, the variability of the operating income is \$8.4 billions from the mean.

Also, the median \$1.65 billions shows that half of the operating income are below this and the other half above this number.

Does the Energy sector's total operating income keeps reducing year by year ?

DECLINE IN TOTAL OPERATING INCOME

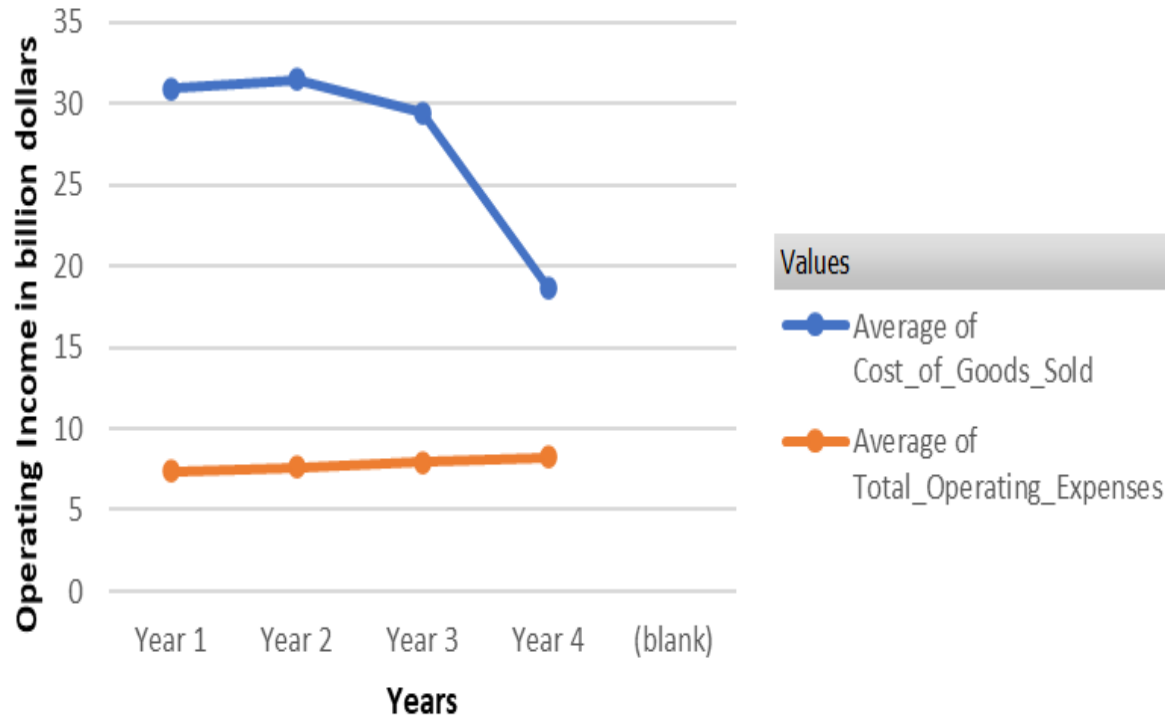


This is the line chart depicting a decline in the total operating income across Energy sector companies from year 1 to year 4 - in color Green. The mean operating income also reduced over years but almost stayed in the range - in color blue. Also, The minimum operating income has reduced drastically over the years leading to a negative operating income – in color red.

This indicates a declining operating profit – either there is decrease in sales (COGS) or increase in expenses.

Does the Energy sector's total operating income keeps reducing year by year ?

COGS Vs Total Operating Expenses



I created a line chart to checkout the trend line for both the mean Cost_of_goods_sold COGS (in blue) and the mean total operating expenses (in orange).

This shows that the mean operating expenses is almost constant whereas the mean COGS is declining drastically. This indicates the overall cost of goods sold in year 4 is very less compared to other years.

Overall, the decline in the operating income in year 4 is due to minimum goods sold.