

PROJECT2: ANALYZE NYSE DATA

# Energy & Real Estate sector

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The background of the slide is a grayscale aerial photograph of a large, dense city skyline, likely New York City, featuring many tall skyscrapers and buildings.

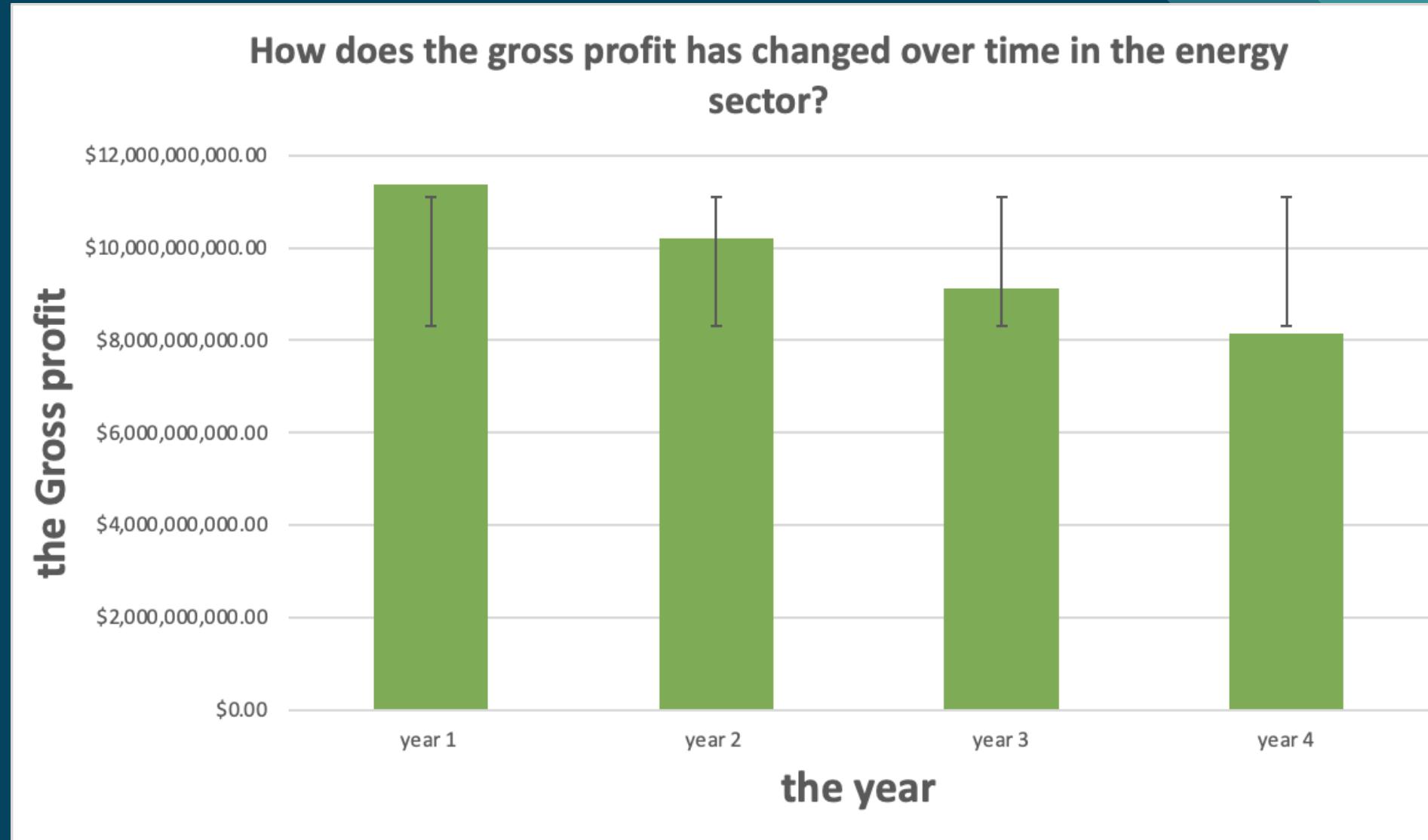
**HOW DOES THE GROSS PROFIT HAS  
CHANGED OVER TIME IN THE ENERGY  
SECTOR?**

I used a bar chart to show the gross profit of the energy sector each year.

From the chart, gross profit is decreasing over time, the lowest gross profit was at year 4, and the highest was at year 1. Thus, the range will be \$3,222,173,553.72.

The median will be about \$9,500,000,000, And the average will be a little bit more than the median. It will be about \$9,600,000,000.

I added error bars to show the standard division. The chart shows that the error bars overlap quite a bit. which means the difference is not statistically significant .



mean	\$9,707,411,181.81
median	\$9,662,690,107.43
max	\$11,363,219,033.05
min	\$8,141,045,479.33
range	\$3,222,173,553.72
standard deviation	\$1,385,702,064.14



How does the gross profit has changed  
over time in the Real Estate sector?

In this chart, I calculated the gross profit of the Real Estate each year. Unlike the energy sector, the gross profit is increasing over time.

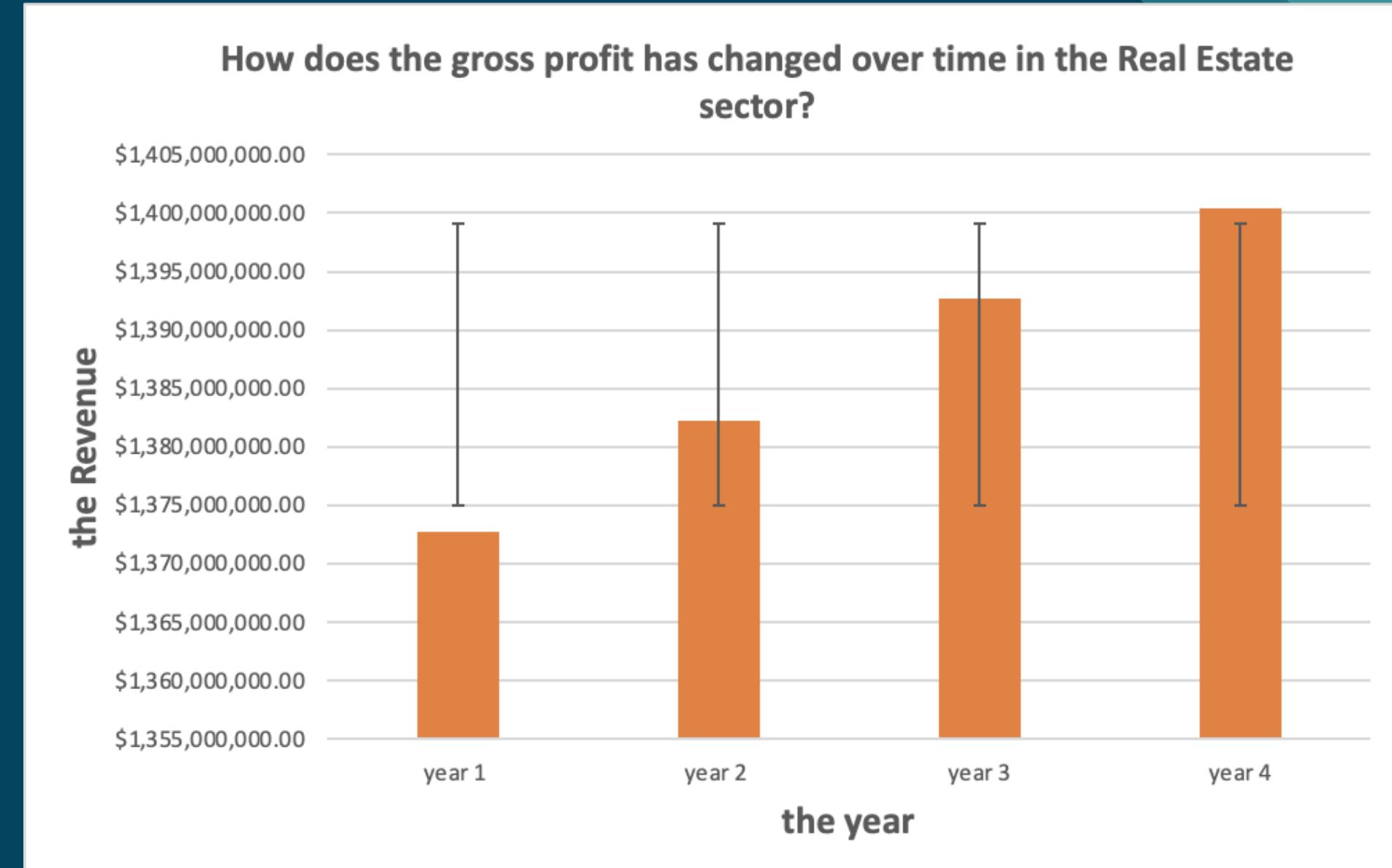
The chart shows that the mean(average) of the gross profit in 4 years is about \$1,387,000,000, which is very close to the median.

And since the gross profit is increasing, the highest gross profit was at year 4, and the lowest was at year 1. Therefore, the range is \$27,687,554.46.

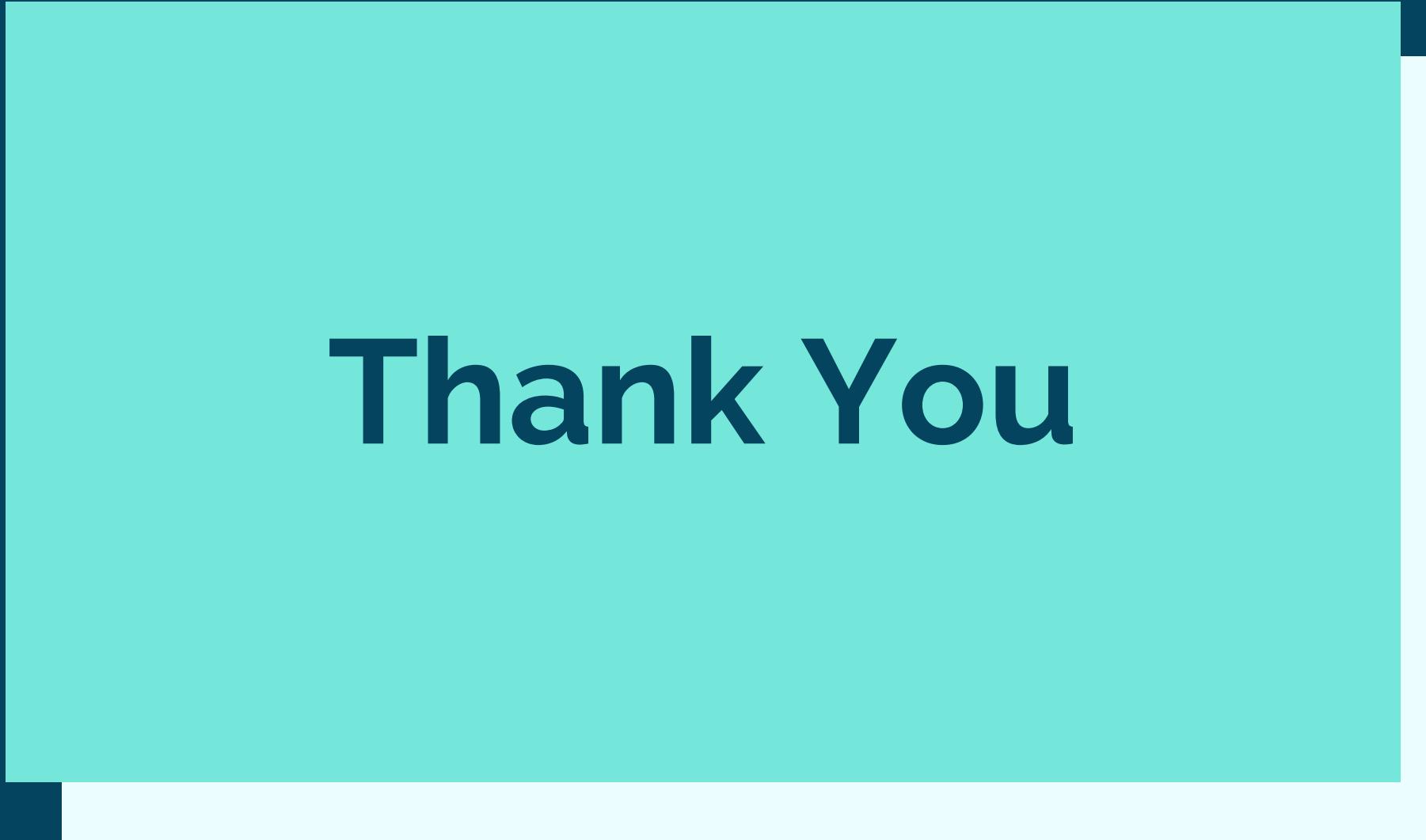
So the range of Real Estate is lower than the energy sector range, which means the energy sector is more spread than the Real Estate sector.

The error bars in the chart can give an idea of the standard deviation. The standard deviation in real Estate is \$12,079,363.32 and in the energy sector it was \$1,385,702,064.14.

So the energy sector has a higher standard deviation which means it has higher variability.



standard deviation	\$12,079,363.32
range	\$27,687,554.46
mean	\$1,387,028,537.13
median	\$1,387,477,158.42



**Thank You**