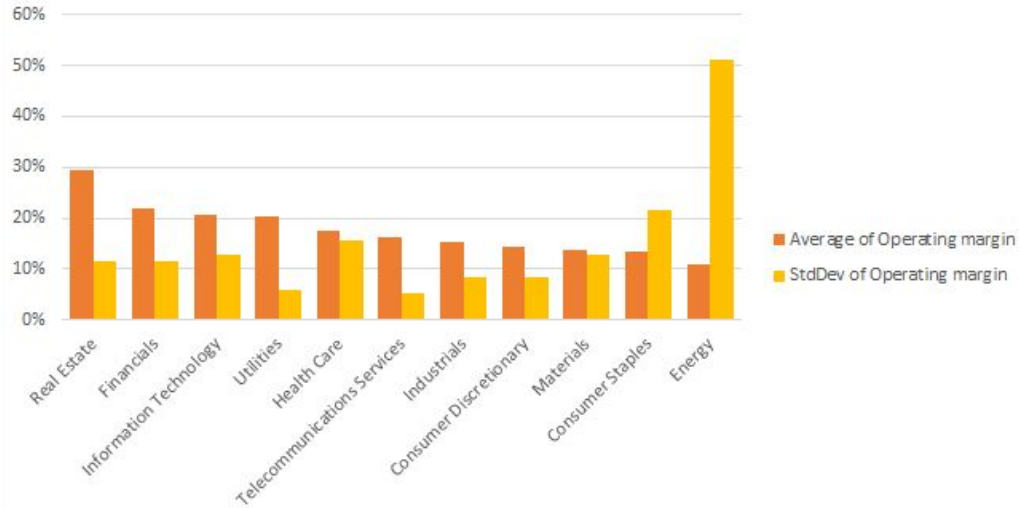


# Average Operating Margin by GICS Type

Average of Operating margin by GICS type

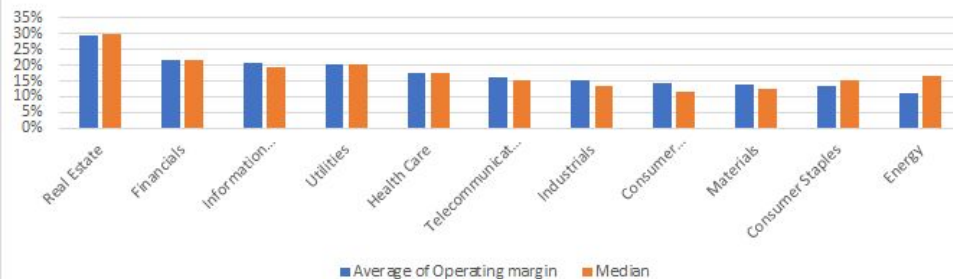


Which GICS has the highest operating margin as presented by the data?

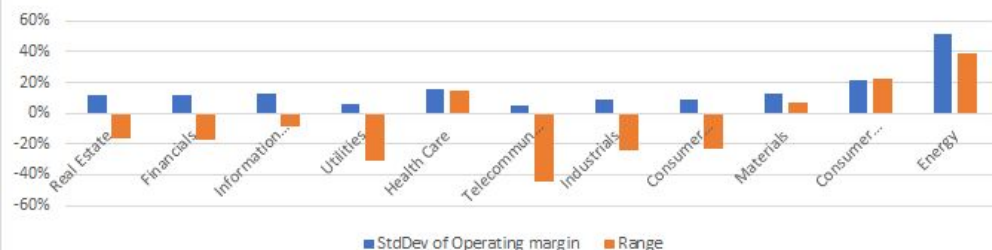
**Real Estate** with an average operating income of 29.32%, with a fairly low variability, 11.4% standard deviation. The standard deviation is generally higher with lower average operating income, as exemplified by the **Energy** GICS, with an average operating income of 10.88% and a standard deviation of 51.21%

# Operating Margin by GICS Type

Data skew by industry, median vs mean average operating return



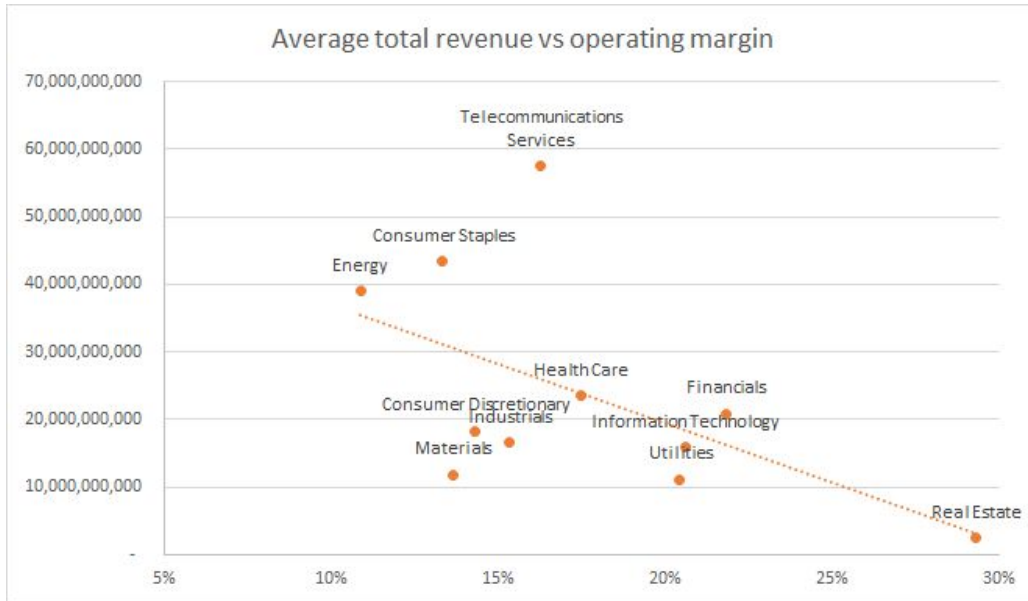
Standard deviation and Log base 50 of the range by industry



The previous slide is further exemplified by the visuals alongside, where an observer of the graph would conclude that spread is inversely correlated to average operating income.

Our two previous discussion data points, **Real estate**, has a median average operating income of 29.8%, while it's mean is 29.32%, indicating the data is positively skewed, has a range of 52.11%, while **Energy** has a median of 16.44% with a mean of 10.88% indicating that the data points are negatively skewed, has a range of 450.14%, significantly higher than its higher returning counterpoint. It appears as if Energy may be expected to include a vast range of outcomes, for forecasting purposes, while in real estate, estimates may be nominally closer to the outcomes.

# Average Operating Margin by GICS Type



## What is the relationship between operating margins and total revenue?

As can be determined from the trendline, average total revenue is negatively correlated with average operating income. **Real Estate** with an average operating income of 29.32 on average only turns over 2.511 BN \$. Turnover (average revenue) is generally higher with lower average operating income, as exemplified by the **Energy** GICS, with an average operating income of 10.88% and an average revenue of 38.979 BN \$.