

Finance and Risk Analytics Business Report

Market Risk Analysis

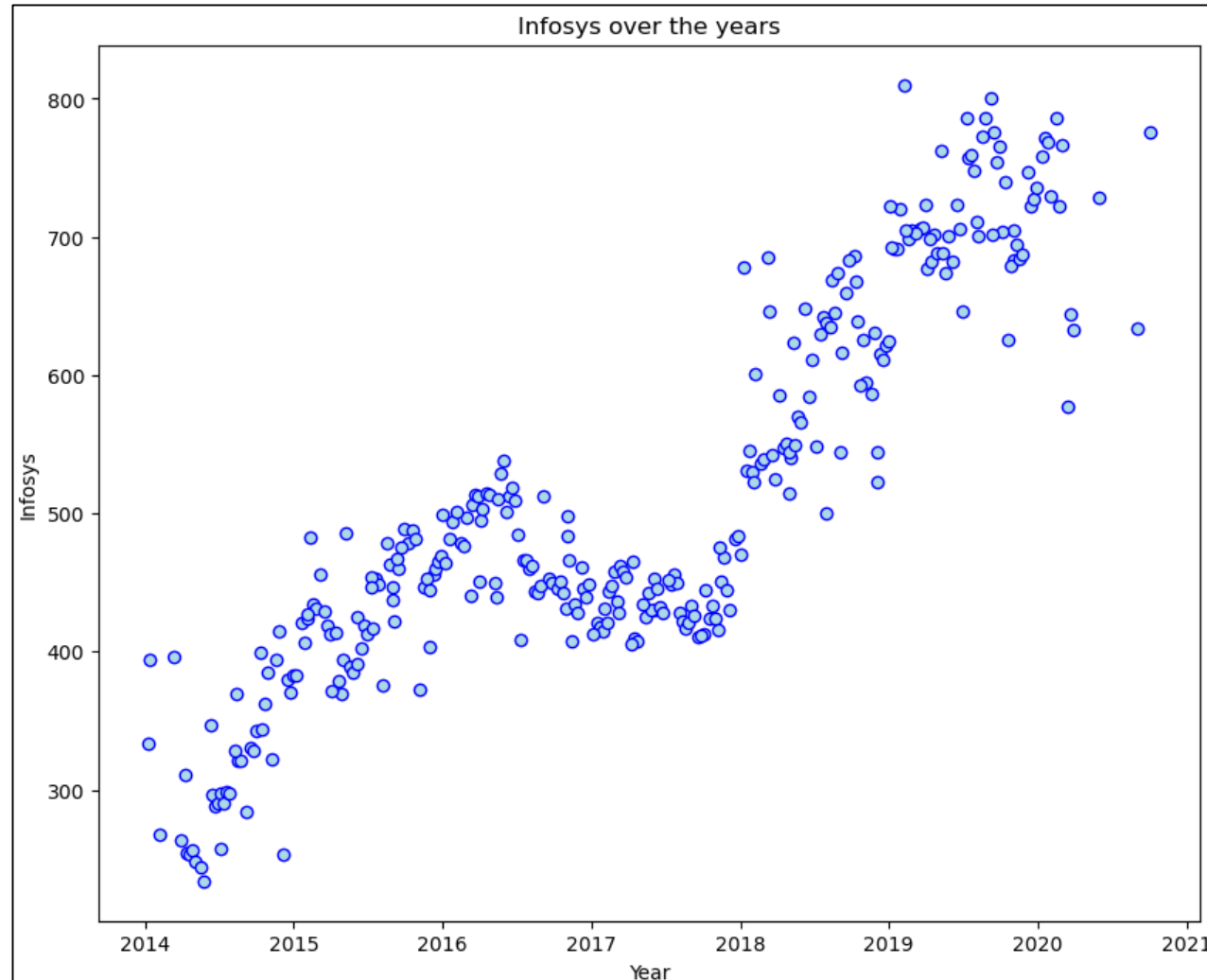
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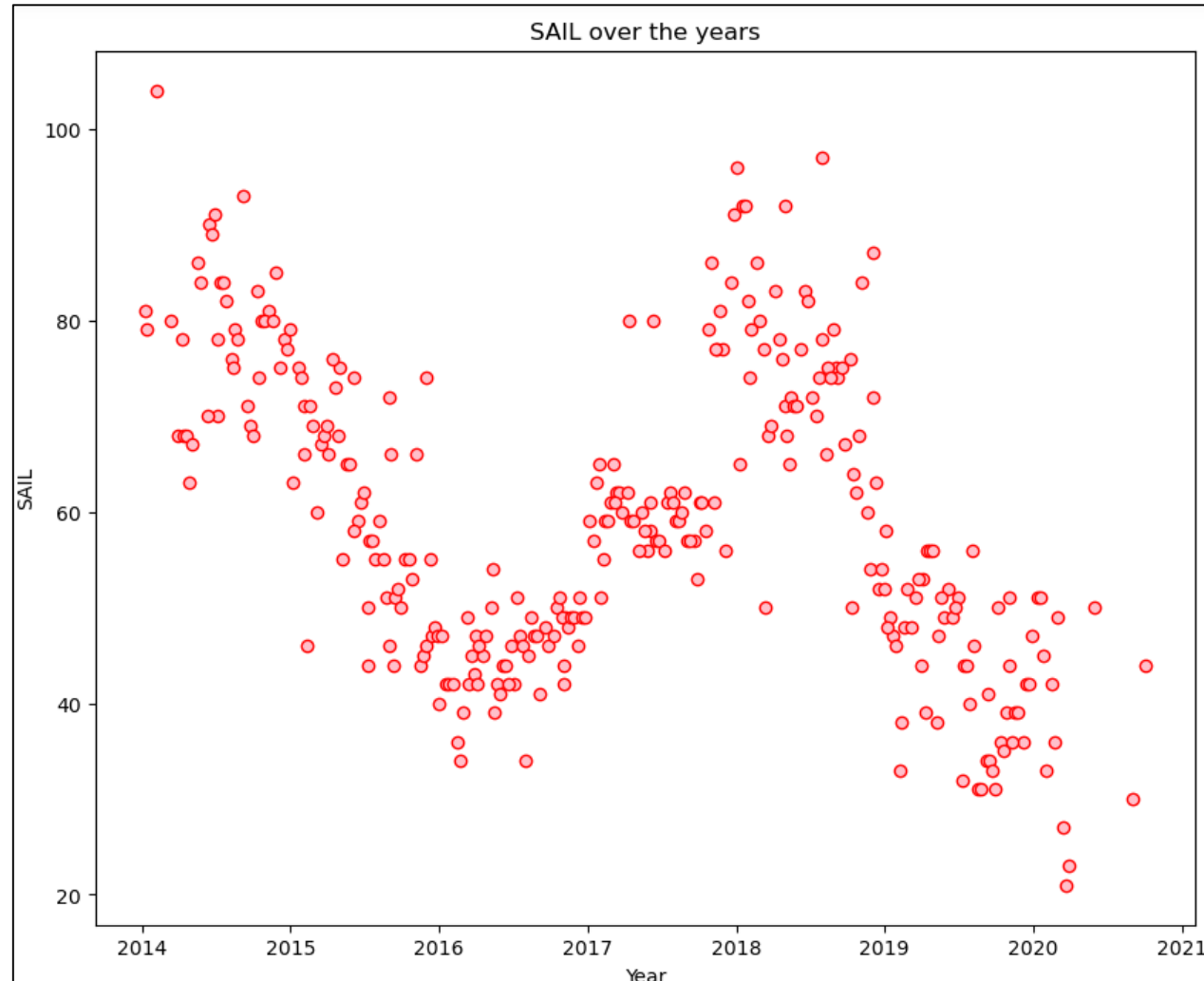
Stock Prices Graphs

It can be seen that the stocks of Infosys have generally seen an upward trend over time. The stocks saw a decline in value from mid 2016 to 2018 however thereafter, they have increased.



Stock Prices Graphs

Stocks of SAIL have seen an overall downward trend. They saw an increase from the year 2017 to mid 2018 however they dipped thereafter reaching an all-time low in the year 2020.



Stock Returns

When looking at the returns of the various stocks, it can be seen that most of the companies have negative returns. The returns on the stocks of *Idea Vodafone* have witnessed the steepest decline while the returns on the stocks of *Shree Cement* have witnessed the highest increase.

	count	mean
Infosys	313.0	0.002794
Indian Hotel	313.0	0.000266
Mahindra & Mahindra	313.0	-0.001506
Axis Bank	313.0	0.001167
SAIL	313.0	-0.003463
Shree Cement	313.0	0.003681
Sun Pharma	313.0	-0.001455
Jindal Steel	313.0	-0.004123
Idea Vodafone	313.0	-0.010608
Jet Airways	313.0	-0.009548

Stocks Means and Standard Deviations

The mean value of the stocks for *Shree Cement* are the highest while for *Idea Vodafone* are the lowest.

When looking at the standard deviations or volatility of the different stocks, it can be seen that *Idea Vodafone* and *Jet Airways* have the highest values for volatility while *Infosys* and *Shree Cement* have the lowest values for volatility.

Stock Means:

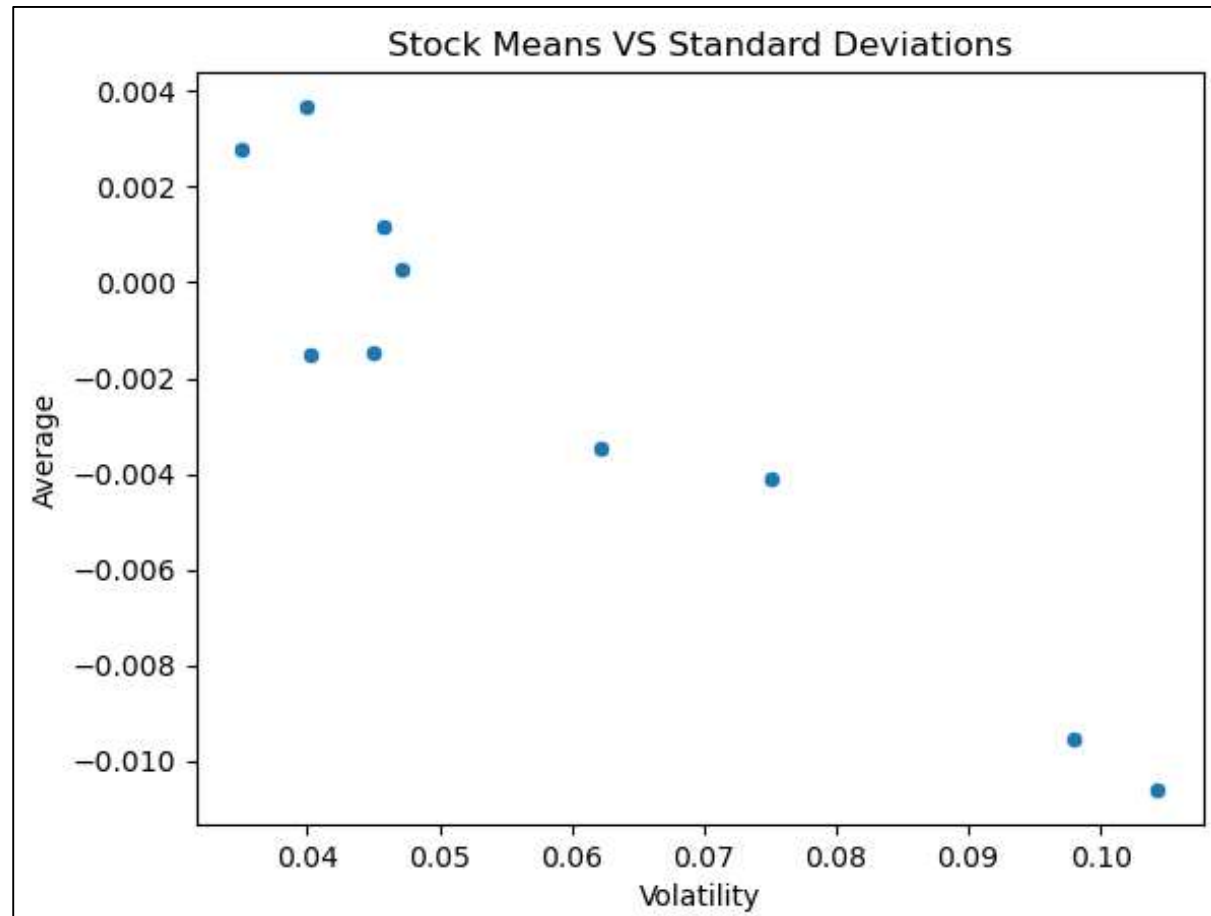
Infosys	0.002794
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Jindal Steel	-0.004123
Idea Vodafone	-0.010608
Jet Airways	-0.009548
dtype: float64	

Stock Standard Deviation:

Infosys	0.035070
Indian Hotel	0.047131
Mahindra & Mahindra	0.040169
Axis Bank	0.045828
SAIL	0.062188
Shree Cement	0.039917
Sun Pharma	0.045033
Jindal Steel	0.075108
Idea Vodafone	0.104315
Jet Airways	0.097972
dtype: float64	

Plotting the Stock Means and Standard Deviations

It can be clearly observed from the stock means and volatility scatter plot that stocks with higher mean values tend to be less volatile and stocks with lower mean values tend to be highly volatile.



Conclusions and Recommendations

It can be concluded that stocks with a higher return and lesser risk should be considered rather than the stocks with lower mean & higher volatility values.

For the provided dataset, it would be wise to invest in the stocks of *Infosys*, *Shree Cement* and *Axis Bank* as the stocks of these companies assure relatively higher returns with lesser risk.