



VARIANCE OF STOCK RETURNS

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PY 538

TOPIC

- Inspiration
- Variance of individual stock movement
- Correlation between index values and spread of returns

HYPOTHESIS

- Standard deviation of constituent returns
- S&P 100 volume and volatility
- Positive or negative correlation?

DATA

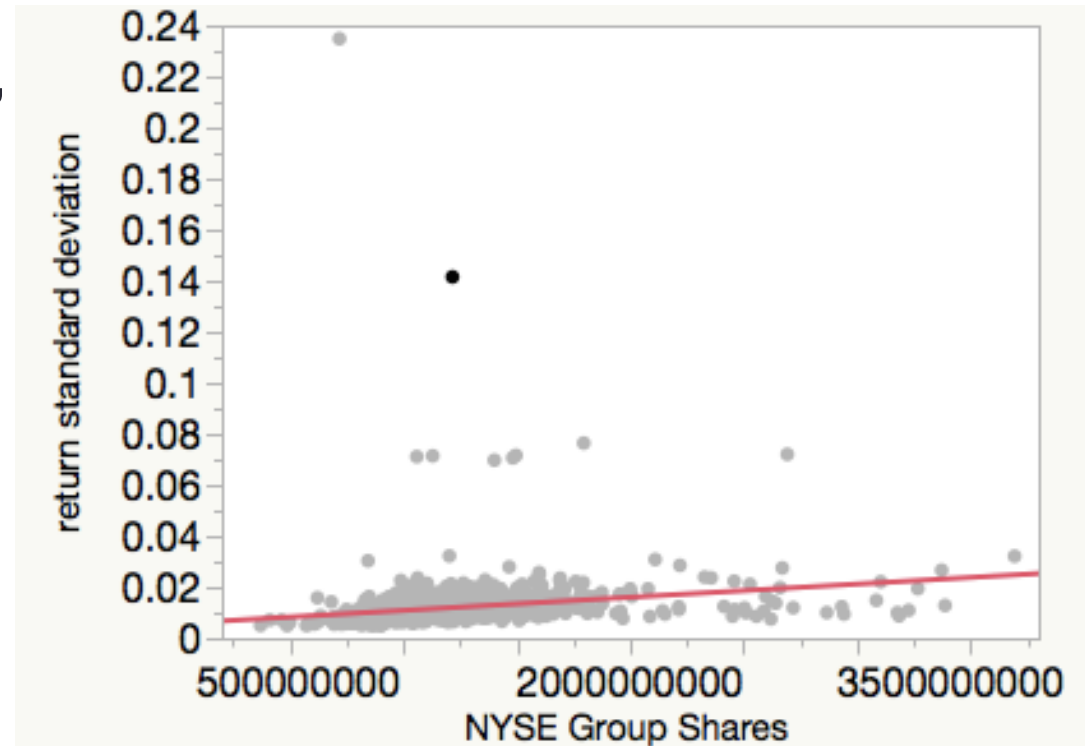
- Gathered from S&P 100 and NYSE websites
- Volume data from NYSE
- Data from March 2011 to March 2016

- Calculations done on MATLAB
- Analysis done on JMP

Date	NYSE Group Shares	return standard deviation	s&p volatility
03/10/2016	1043041108	0.0077	0.0000002
03/09/2016	955188117	0.013	0.000022
03/08/2016	1105189115	0.0215	0.0000785

RESULTS: Volume

- Positive Relationship, standard deviation of returns increases with volume

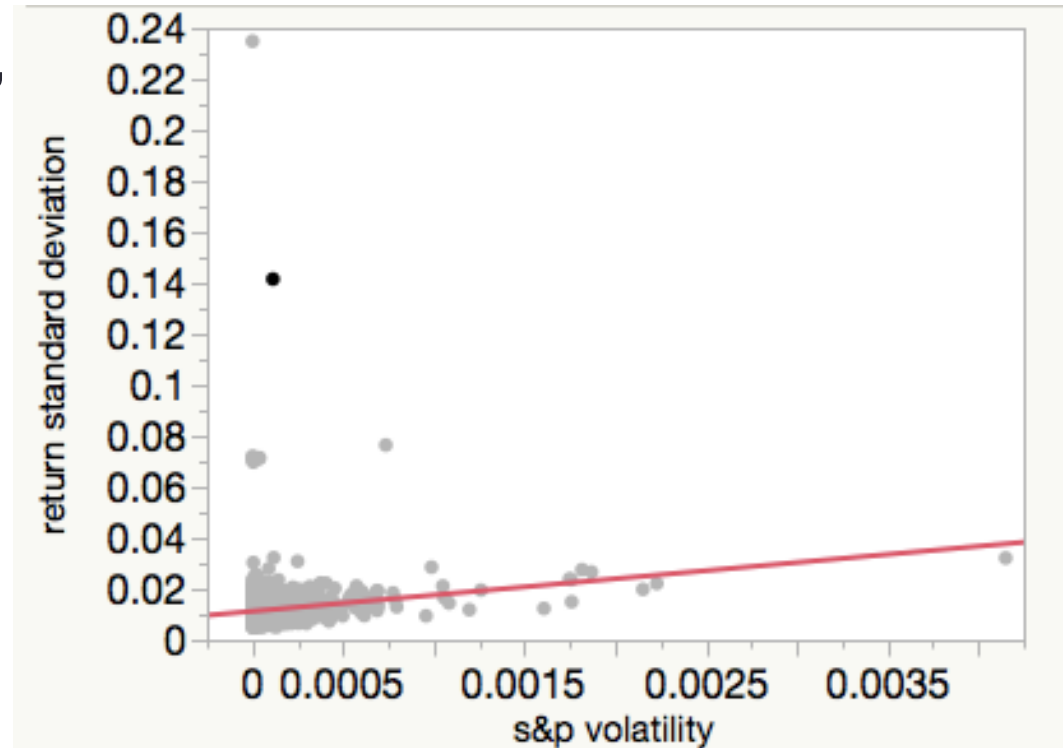


Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.005684	0.000877	6.48	<.0001*
NYSE Group Shares	5.18e-12	7.09e-13	7.30	<.0001*

RESULTS: Volatility

- Positive Relationship, standard deviation of returns increases with volatility



Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	0.0111992	0.000281	39.92	<.0001*
s&p volatility	6.3805704	1.113153	5.73	<.0001*



Thank You

Any Questions??