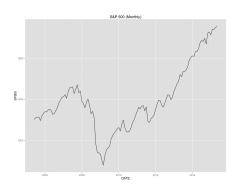
:-)

Da Hawk

June 4, 2015

- **1** Graphs (1)
- 2 Methods
- 3 Tables
- **4** Graphs (2)

Monthly S&P 500



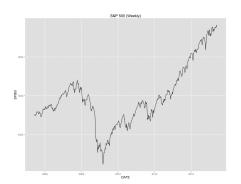
(a) Montly S&P 500 Index



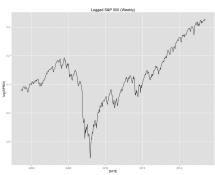
(b) Logged Montly S&P 500 Index

Da Hawk :-)

Weekly S&P 500



(c) Weekly S&P 500 Index



(d) Logged Weekly S&P 500 Index

Da Hawk

- ① Graphs (1)
- 2 Methods
- 3 Tables
- 4 Graphs (2)

Holt-Winters method

Holt-Winters is an (triple) exponential smoother that decomposes a time series into three components

- Level
- Trend
- Seasonal

Forecasts for the Monthly and Weekly S&P 500 will be compared one-year out

- 52 weeks (weekly)
- 12 months (monthly)



- ① Graphs (1)
- 2 Methods
- 3 Tables
- 4 Graphs (2)



Tabels

Period	Forecast	Lo95	Hi95	Observed
51	2053.374	1699.511	2407.237	2127.95
52	2045.534	1688.227	2402.841	2113.97
11	2160.959	1623.475	2698.442	2094.86
12	2157.658	1576.201	2739.114	2111.94

Table: Weekly v. Monthly Raw Forecaste

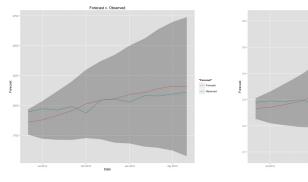
Period	Forecast	Lo95	Hi95	Observed
51	3.330807	3.189547	3.472066	3.327961
52	3.324947	3.182309	3.467584	3.325099
11	3.351797	3.109288	3.594306	3.321155
12	3.349269	3.083922	3.614616	3.324682

Table: Weekly v. Monthly Logged Forecaste

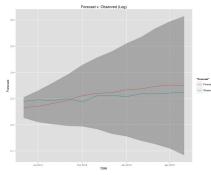


- **1** Graphs (1)
- 2 Methods
- 3 Tables
- **4** Graphs (2)

Monthly S&P 500 Forecast



(e) Untransformed

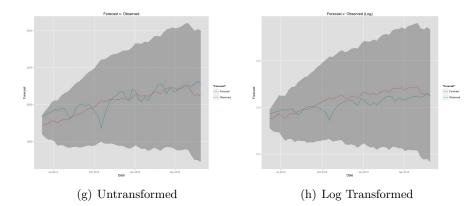


(f) Logged Tranformed

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Weekly S&P 500 Forecast



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