Georgia Institute of Technology

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Computational Investing, Part I

122: Digging Into the Data (Actual vs Adjusted Prices)

Find out how modern electronic markets work, why stock prices change in the ways they do, and how computation can help our understanding of them. Learn to build algorithms and visualizations to inform investing practice.

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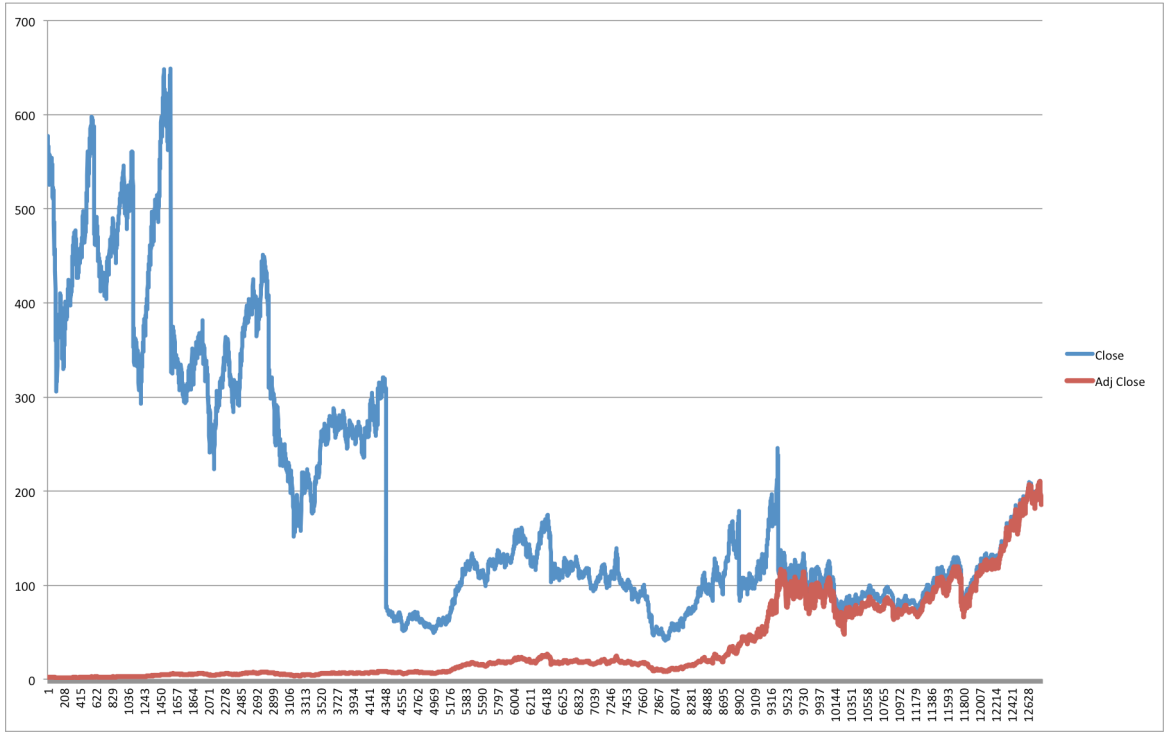
Actual versus Adjusted

- Actual: The actual closing price recorded by the exchange on the specific date in history.
- Adjusted: A revised price that automatically accounts for “how much you would have made if you held the stock.”

Example Yahoo Data: IBM

Date,Open,High,Low,Close,Volume,Adj Close
2012-12-03,190.76,191.30,188.36,189.48,3349600,189.48
2012-11-30,191.75,192.00,189.50,190.07,4936400,190.07
2012-11-29,192.75,192.90,190.20,191.53,4077900,191.53
…
1962-01-08,559.50,559.50,545.00,549.50,544000,2.43
1962-01-05,570.50,570.50,559.00,560.00,363200,2.48
1962-01-04,577.00,577.00,571.00,571.25,256000,2.53
1962-01-03,572.00,577.00,572.00,577.00,288000,2.55
1962-01-02,578.50,578.50,572.00,572.00,387200,2.53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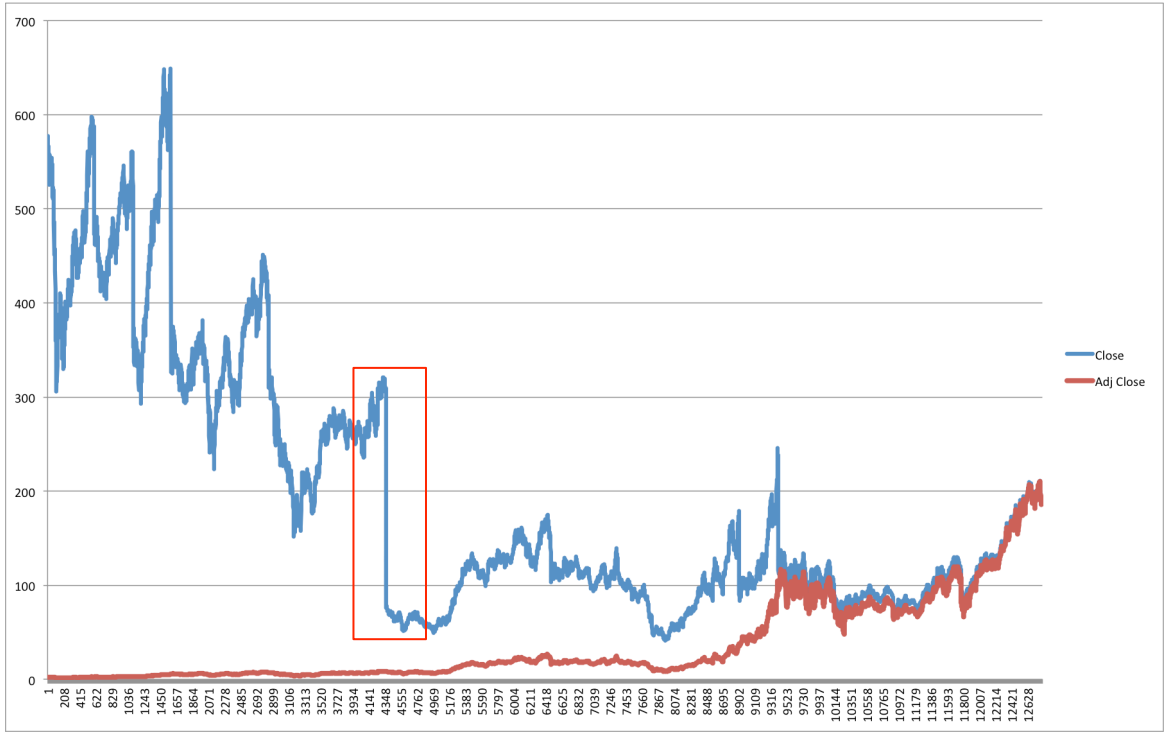
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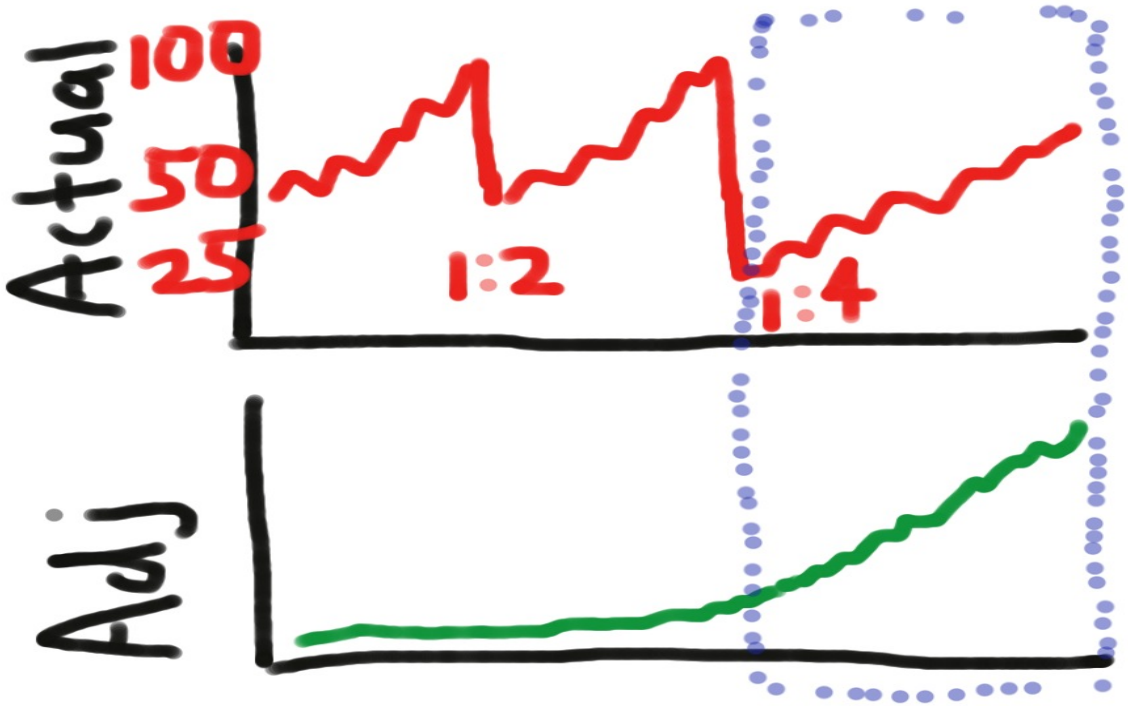
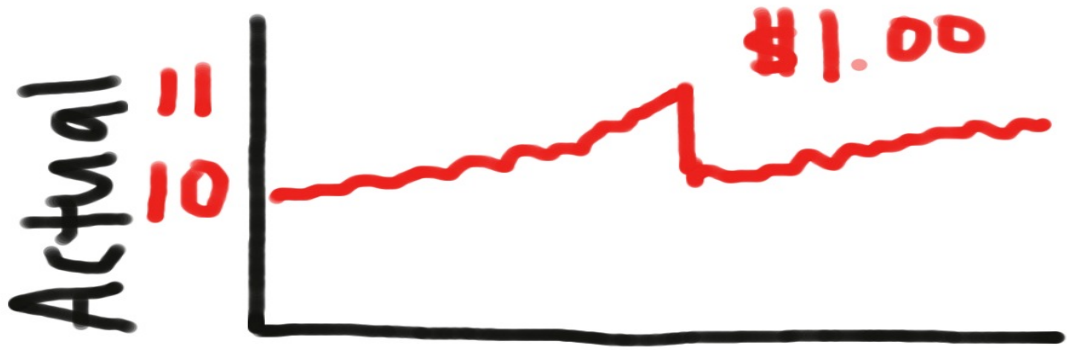
Adjusting For Splits



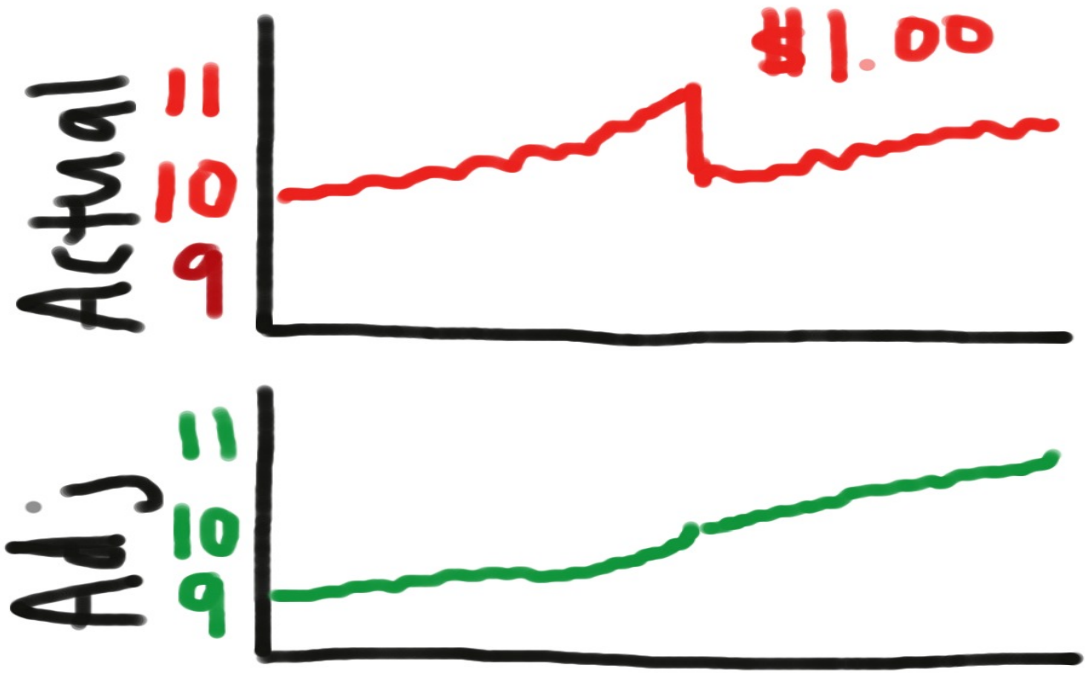
Dividends: AGNC Example

Dividends: Actual Vs Adjusted

Example: Dividends



Example: Dividends

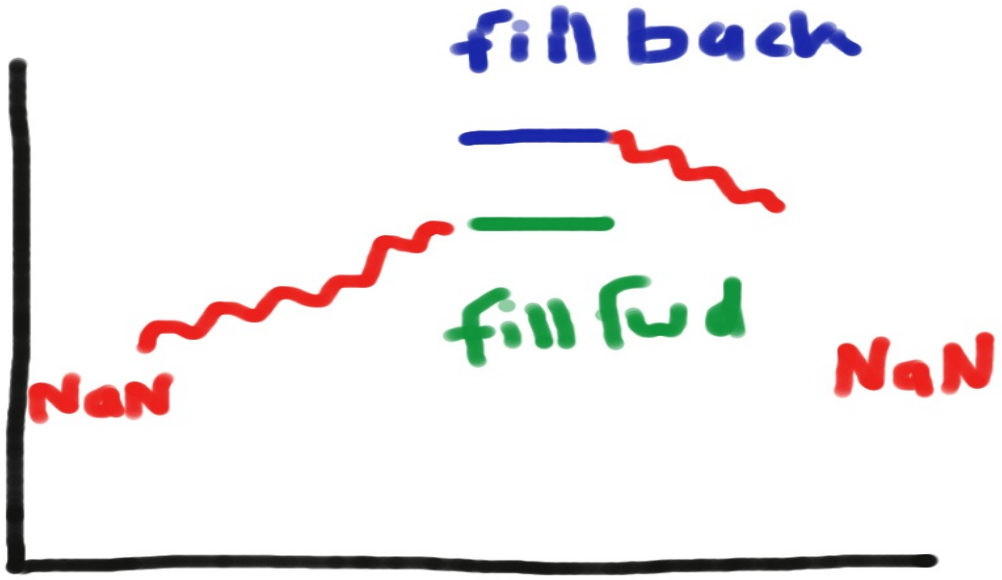


Gaps In Data (NaN)

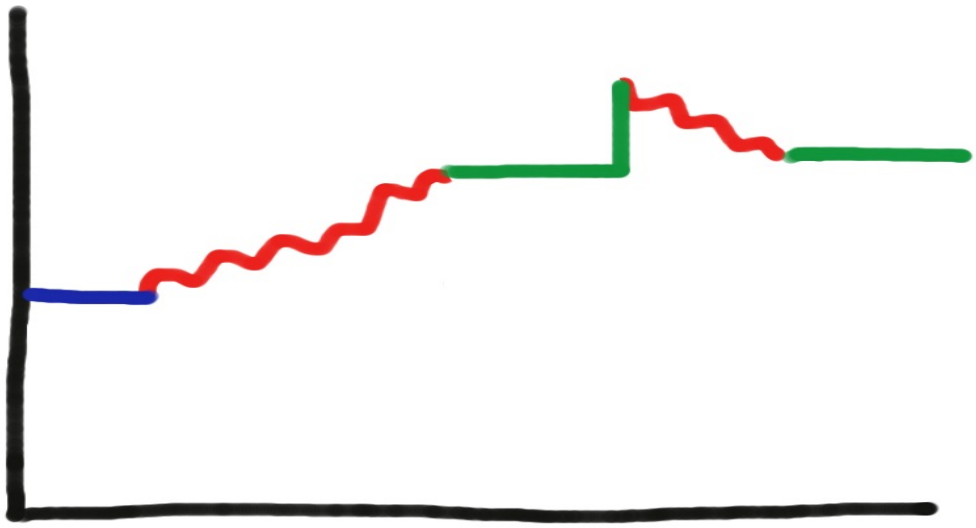
- Breaks in trading
- Before stocks exist
- After stocks exist

Example

Fill Forward or Fill Back?



Forward, Then Back



Summary

- Know what your data is!
- When use adjusted?
- When use actual?
- Fill forward, then fill back
- Dangers of filling

Next: Data Sanity