

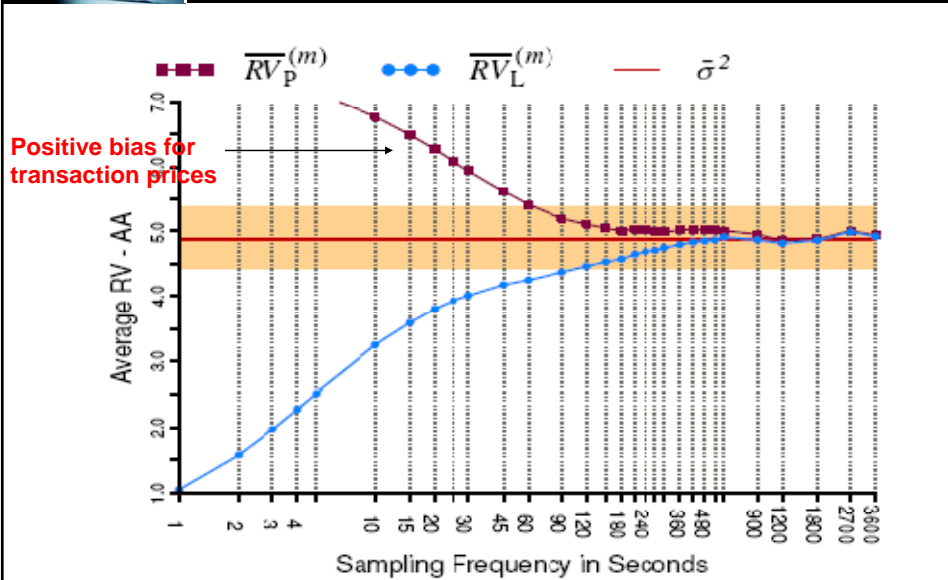
Financial Econometrics and Volatility Models

Recent Results for Realized Variance Estimators

Eric Zivot
 Professor and Gary Waterman Distinguished Scholar
 Department of Economics, University of Washington

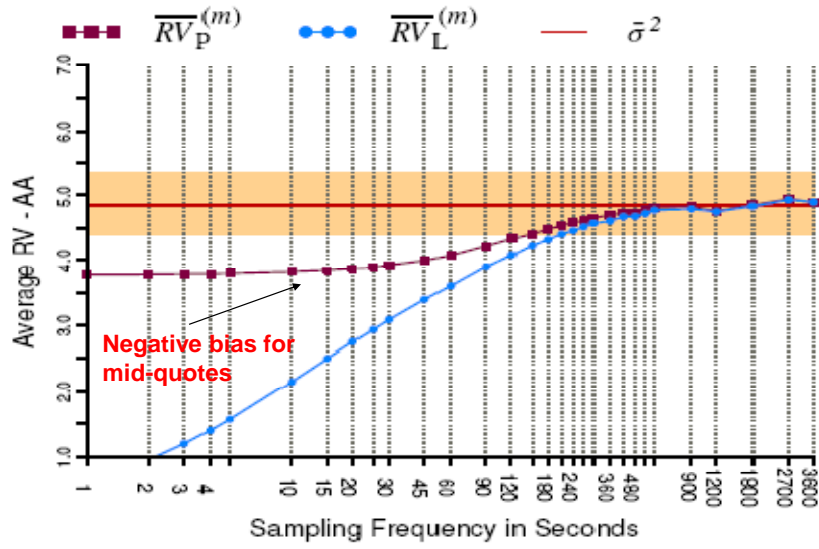
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Volatility Signature Plot for AA: Transactions Prices



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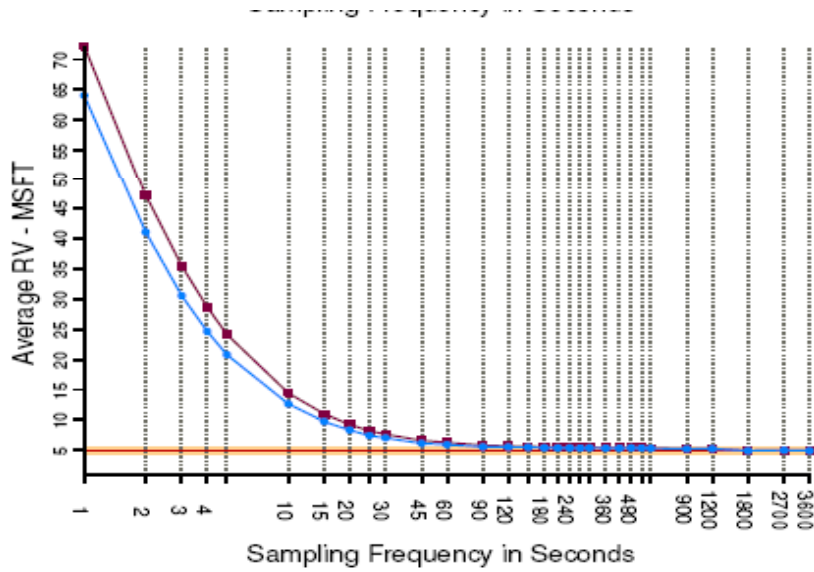
Volatility Signature Plot for AA: Mid-quotes



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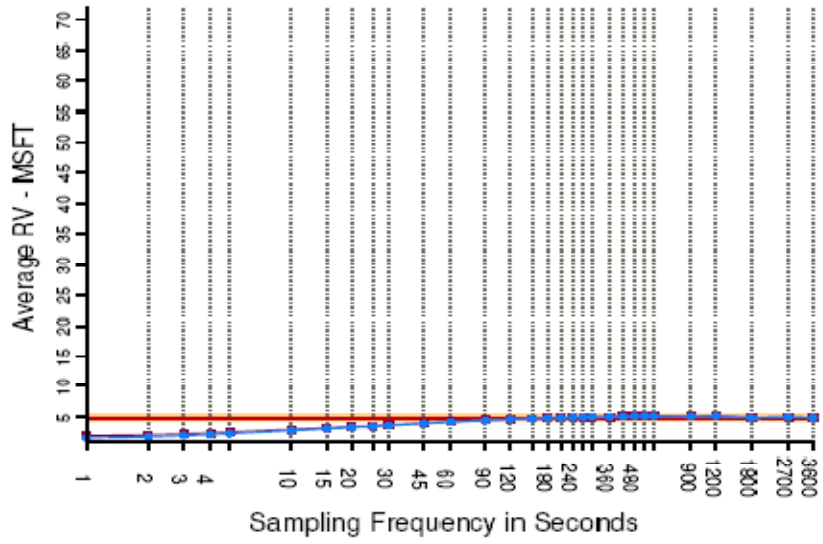
Volatility Signature Plot for MSFT: Transactions Prices



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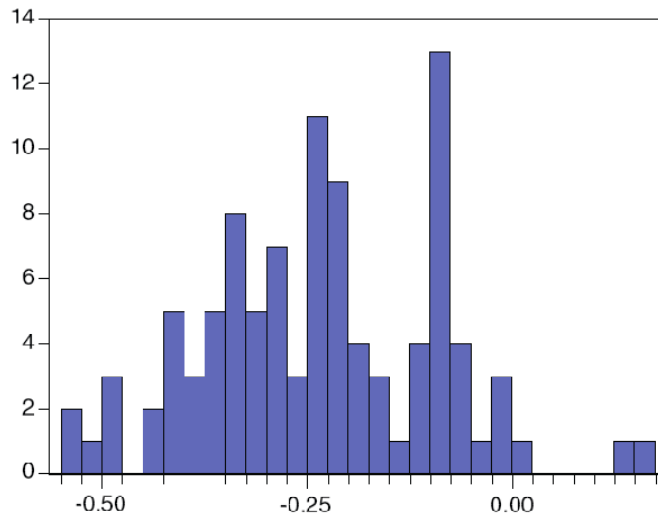
Volatility Signature Plot for MSFT: Mid-quotes



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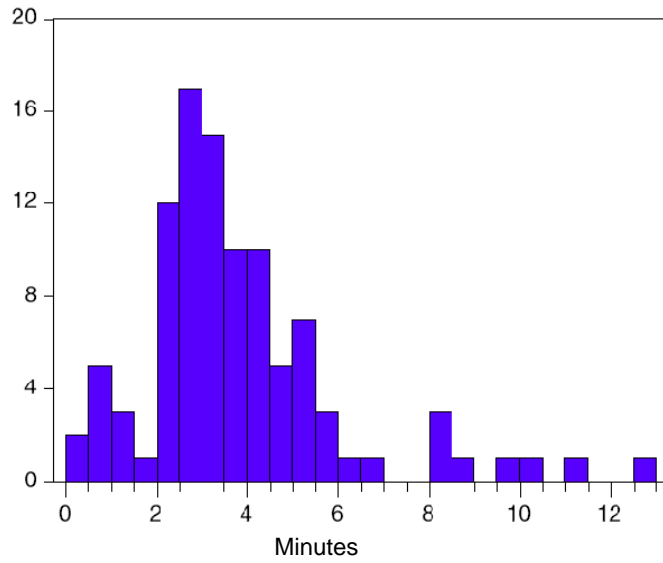
First Order Autocorrelations of S&P 100 Stocks



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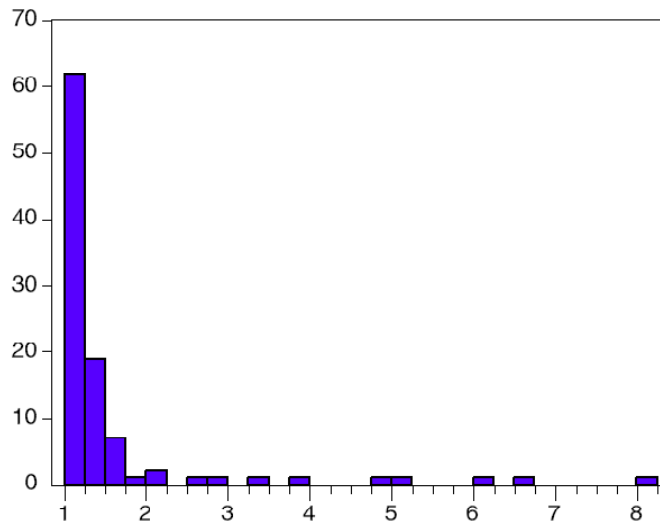
Approximate Optimal Sampling Frequencies of S&P 100 Stocks



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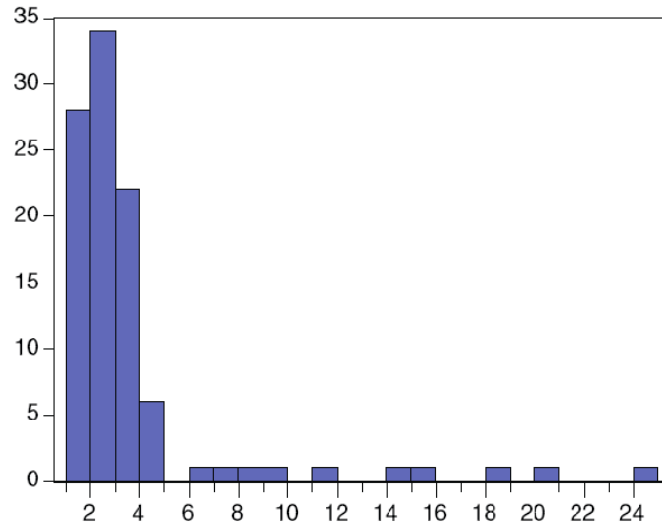
Ratios of 5-min MSE to Optimal Sampling MSE



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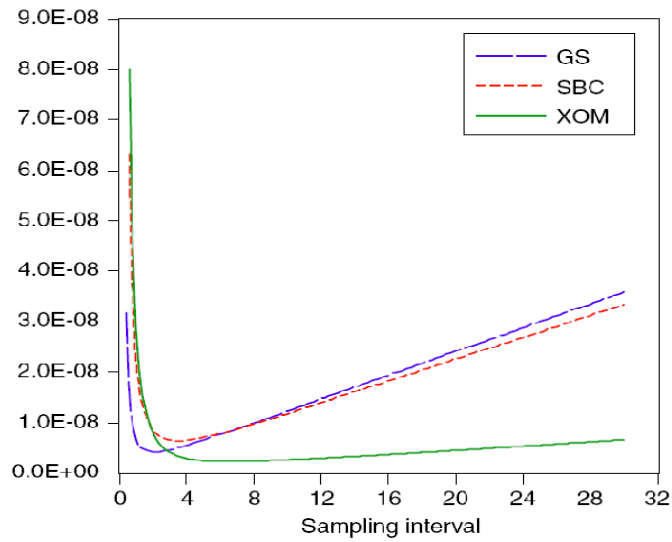
Ratios of 15-min MSE to Optimal Sampling MSE



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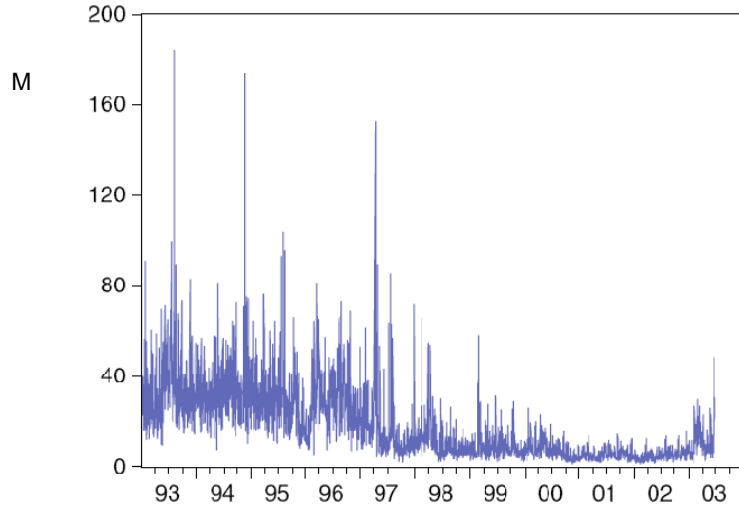
Estimated MSE for GS, SBC and XOM



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10

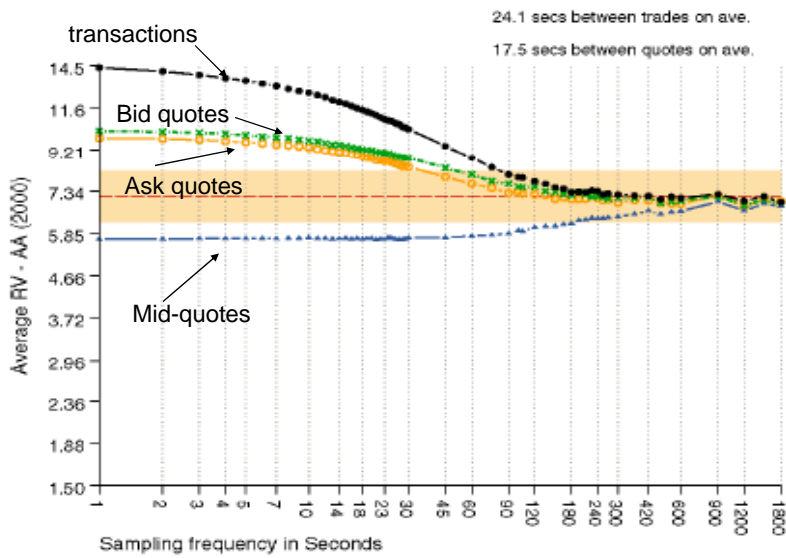
SBC Optimal Sampling Intervals (minutes)



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11

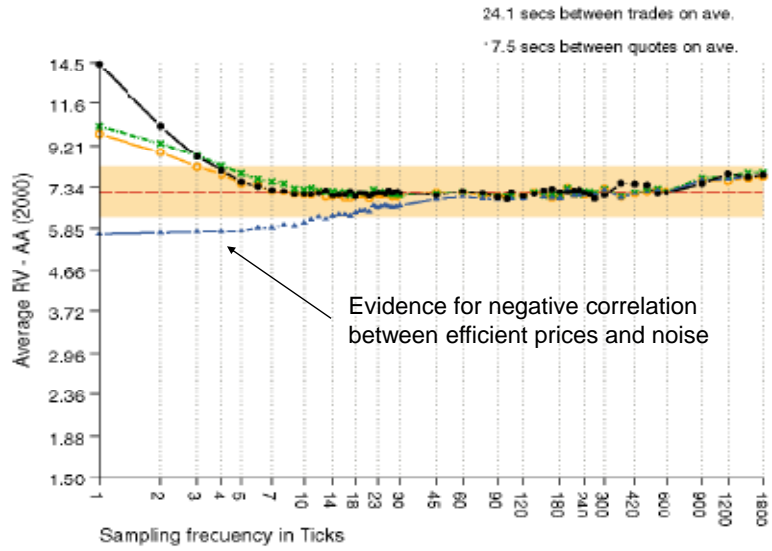
Volatility Signature Plot for AA: CTS



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12

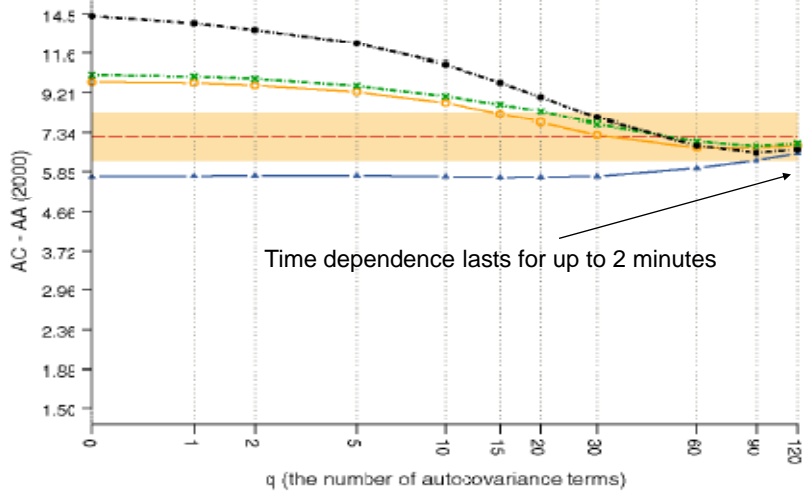
Volatility Signature Plot for AA: TTS



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13

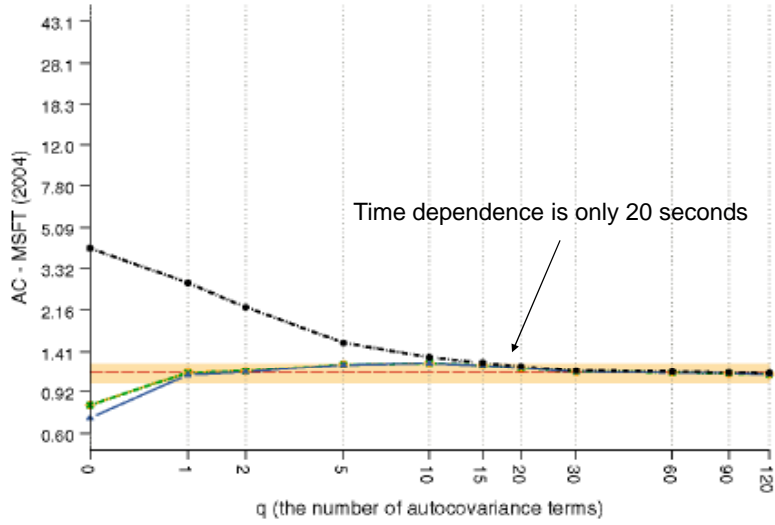
Volatility Signature Plot for Bias Corrected RV



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14

Volatility Signature Plot for Bias Corrected RV



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15

Kernel Functions

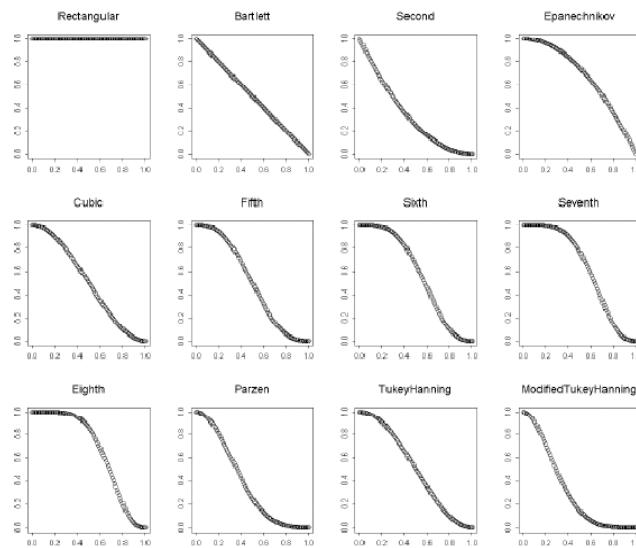
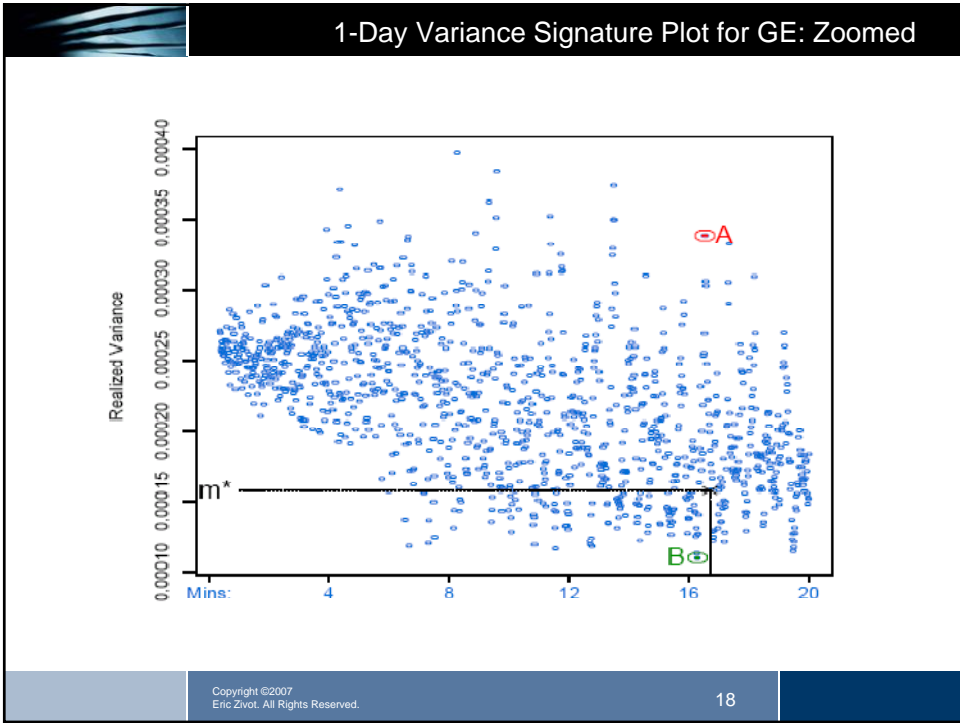
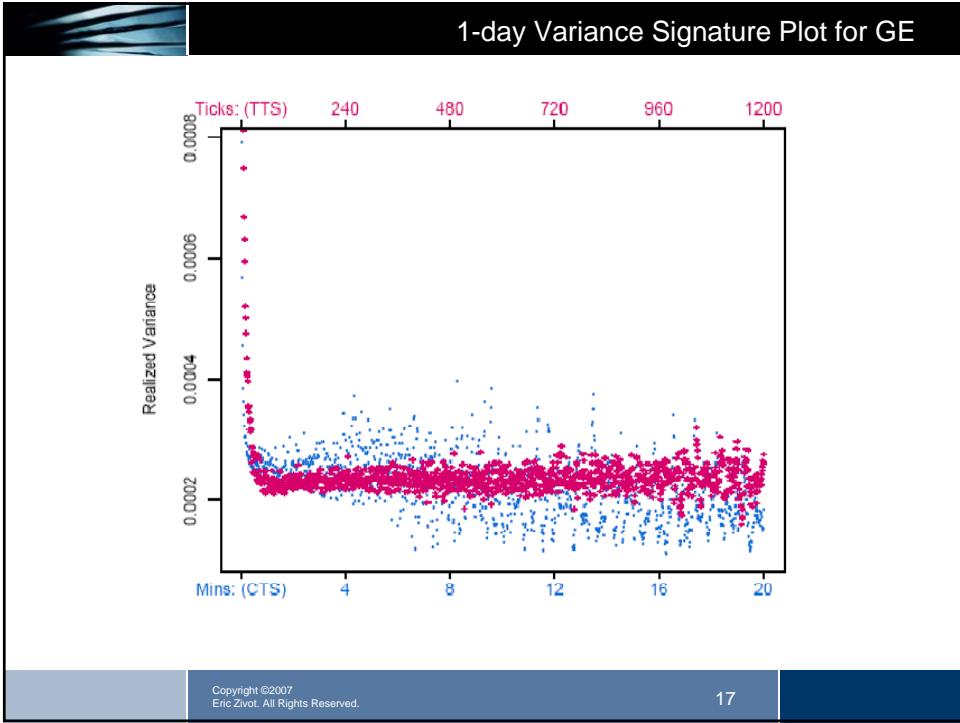


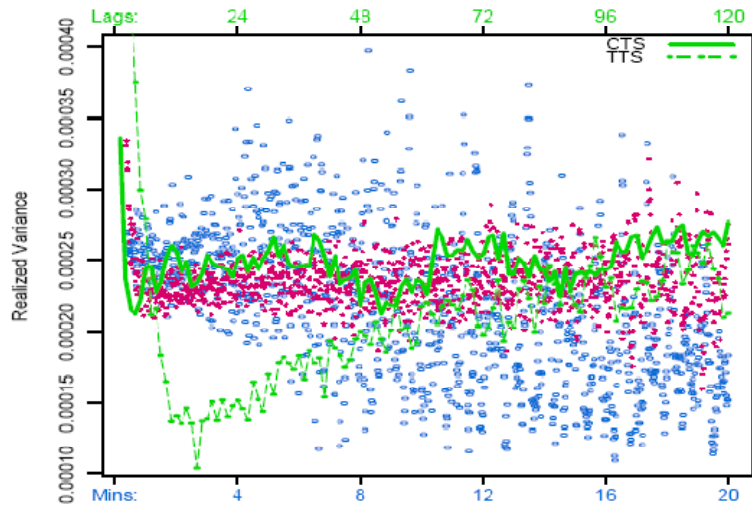
Figure 5: Available Kernels

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16



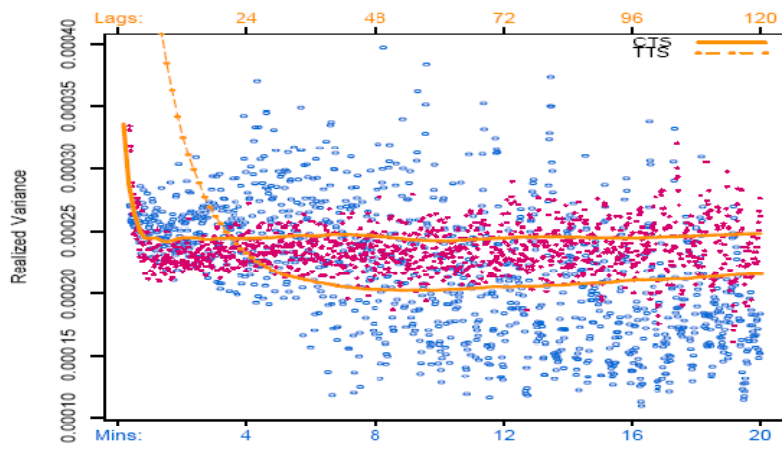
1-Day Variance Signature Plot: Rectangular Kernel Estimator



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19

1-Day Variance Signature Plot: Bartlett Kernel Estimator



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20

Implication of Non-synchronous Trading

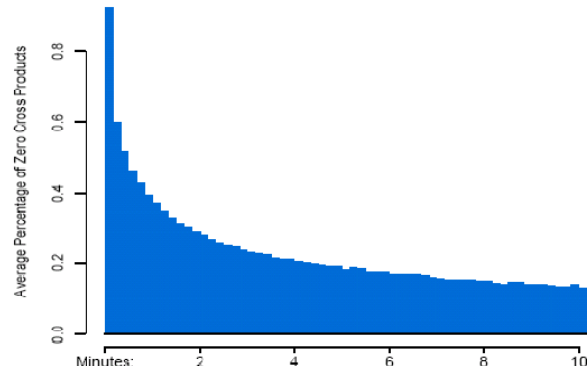


Figure 1.8: Cozero Returns: Average percentage of cozero returns for GE and MSFT, 2004.

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21

Covariance Signature Plot for GE and MSFT

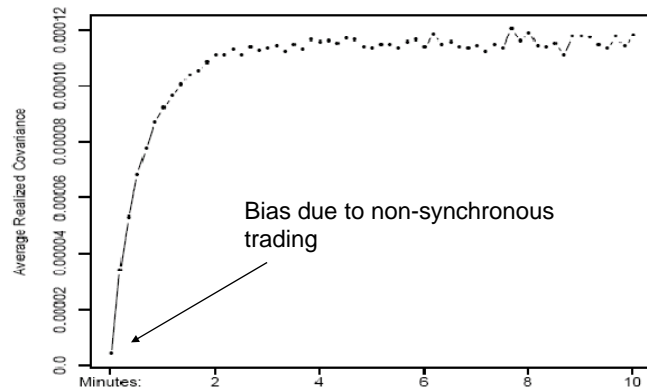
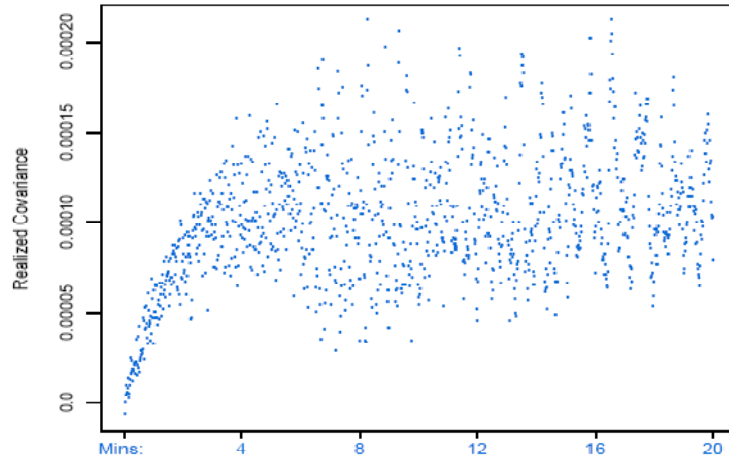


Figure 1.9: Average Covariance Signature Plot: Average covariance signature plot for GE and MSFT, 2004.

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22

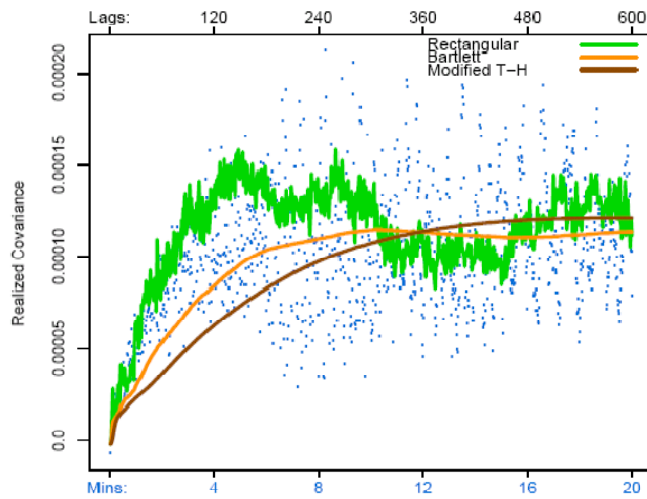
1-Day Covariance Signature Plot: GE and MSFT



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1-Day Covariance Signature Plot: Kernel Estimators



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24