

## MFE elective: Forecasting and Financial Time Series

### Reading list for Part 1 High-Frequency Forecasting by Ryoko Ito

#### Main textbooks and articles

- A. C. Harvey. *Dynamic Models for Volatility and Heavy Tails: With Applications to Financial and Economic Time Series*. Econometric Society Monograph. Cambridge University Press, 2013
- Nikolaus Hautsch. *Econometrics of Financial High-Frequency Data*. Springer: Berlin, 2012
- C. T. Brownlees, F. Cipollini, and G. M. Gallo. Intra-daily volume modelling and prediction for algorithmic trading. *Journal of Financial Econometrics*, 9(3):489–518, 2011
- A. C. Harvey and Siem Jan Koopman. Forecasting hourly electricity demand using time-varying splines. *Journal of the American Statistical Association*, 88(424):1228–1236, 1993
- R. Ito. Spline-dcs for forecasting trade volume in high-frequency financial data. Cambridge Working Papers in Economics CWPE1606, University of Cambridge, 2016

#### Supplementary textbooks and articles

##### Time series econometrics and finance

- J. D. Hamilton. *Time Series Analysis*. Princeton University Press, 1994
- A. C. Harvey. *Forecasting, Structural Time Series Models and the Kalman Filter*. Cambridge University Press, 1991
- A. C. Harvey. *Time Series Models*. Harvester: Wheatsheaf, 2nd edition, 1993
- Oliver Linton. *Probability, Statistics and Econometrics*. Academic Press, 2017
- S. J. Taylor. *Asset Price Dynamics, Volatility, and Prediction*. Princeton University Press, Princeton, N.J., 2005
- Ruey S. Tsay. *Analysis of Financial Time Series*. Wiley, Cambridge, Mass., 3rd edition, 2010

Some discussions on high-frequency models in finance

- T. G. Andersen and T. Bollerslev. Deutsche mark-dollar volatility: Intraday activity patterns, macroeconomic announcements, and longer run dependencies. *Journal of Finance*, 53(1):219–265, 1998
- S. Alizadeh, M. W. Brandt, and F. X. Diebold. Range-based estimation of stochastic volatility models. *Journal of Finance*, 57(3):1047–1091, 2002
- T. Bollerslev. Generalized Autoregressive Conditional Heteroskedasticity. *Journal of Econometrics*, 31(3):307–327, 1986
- S. D. Campbell and F. X. Diebold. Weather forecasting for weather derivatives. *Journal of American Statistical Association*, 100(469):6–16, 2005
- D. D. Creal, S. J. Koopman, and A. Lucas. Generalized autoregressive score models with applications. *Journal of Applied Econometrics*, 28:777–795, 2013
- Robert F. Engle and Jose Gonzalo Rangel. The spline-GARCH model for low-frequency volatility and its global macroeconomic causes. *Review of Financial Studies*, 21(3):1187–1222, May 2008
- R. F. Engle and J. R. Russell. Autoregressive conditional duration: A new model for irregularly spaced transaction data. *Econometrica*, 66(5):1127–1162, 1998
- P. Hall and Q. Yao. Inference in arch and garch models with heavy-tailed errors. *Econometrica*, 71(1):285–317, 2003
- N. Hautsch, P. Malec, and M. Schienle. Capturing the zero: A new class of zero-augmented distributions and multiplicative error processes. *Journal of Financial Econometrics*, 12:89–121, 2014
- M. Ibragimov, R. Ibragimov, and P. Kattuman. Emerging markets and heavy tails. *Journal of Banking and Finance*, 37:2546–2559, 2013
- R. Ito. Modeling dynamic diurnal patterns in high frequency financial data. Cambridge Working Papers in Economics CWPE1315, University of Cambridge, 2013

- A. W. Lo and J. Wang. Stock market trading volume. In Y. Aït-Sahalia and L. Hansen, editors, *Handbook of Financial Econometrics*, volume 2. North-Holland: New York, 2010
- N. Muler and V. J. Yohai. Robust estimates for garch models. *Journal of Statistical Planning and Inference*, 138:2918–2940, 2008
- T. H. Rydberg and N. Shephard. Dynamics of trade-by-trade price movements: Decomposition and models. *Journal of Financial Econometrics*, 1(1):2–25, 2003
- M. Y. Zhang, J. R. Russell, and R. S. Tsay. A nonlinear autoregressive conditional duration model with applications to financial transaction data. *Journal of Econometrics*, 104(1):179–207, 2001

Mathematical and statistical topics

- C. Kleiber and S. Kotz. *Statistical Size Distributions in Economics and Actuarial Sciences*. Wiley: New York, 2003
- J. B. McDonald and Y. J. Xu. A generalization of the beta distribution with applications. *Journal of Econometrics*, 66:133–152, 1995
- D. Poirier. *The Econometrics of Structural Change: With Special Emphasis on Spline Functions*. North-Holland, 1976

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- [4] C. T. Brownlees, F. Cipollini, and G. M. Gallo. Intra-daily volume modelling and prediction for algorithmic trading. *Journal of Financial Econometrics*, 9(3):489–518, 2011.
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- [13] A. C. Harvey. *Dynamic Models for Volatility and Heavy Tails: With Applications to Financial and Economic Time Series*. Econometric Society Monograph. Cambridge University Press, 2013.
- [14] A. C. Harvey and Siem Jan Koopman. Forecasting hourly electricity demand using time-varying splines. *Journal of the American Statistical Association*, 88(424):1228–1236, 1993.
- [15] N. Hautsch, P. Malec, and M. Schienle. Capturing the zero: A new class of zero-augmented distributions and multiplicative error processes. *Journal of Financial Econometrics*, 12:89–121, 2014.
- [16] Nikolaus Hautsch. *Econometrics of Financial High-Frequency Data*. Springer: Berlin, 2012.
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- [18] R. Ito. Modeling dynamic diurnal patterns in high frequency financial data. Cambridge Working Papers in Economics CWPE1315, University of Cambridge, 2013.
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- [20] C. Kleiber and S. Kotz. *Statistical Size Distributions in Economics and Actuarial Sciences*. Wiley: New York, 2003.
- [21] Oliver Linton. *Probability, Statistics and Econometrics*. Academic Press, 2017.
- [22] A. W. Lo and J. Wang. Stock market trading volume. In Y. Aït-Sahalia and L. Hansen, editors, *Handbook of Financial Econometrics*, volume 2. North-Holland: New York, 2010.
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