TRAINING COURSE

FLORENCE SCHOOL OF BANKING AND FINANCE AND BARCELONA GRADUATE SCHOOL OF ECONOMICS

MEASURING AND FORECASTING VOLATILITY AND RISK

Course Instructors:
Christian Brownlees | Universitat Pompeu Fabra and Barcelona Graduate School of Economics
Fabio Canova | Florence School of Banking and Finance and Norwegian Business School

22-24 MAY 2018

PROGRAMME

22 MAY

08.45 - 09.00	Welcome and presentation of the Florence School of Banking and Finance and Barcelona Graduate School of Economics
09.00 - 10.30	**Session I: Dynamic Volatility Modelling**

- ARCH and GARCH: Definitions, Properties, Estimation, Forecasting and Extensions

10.30 -10.50	*Coffee break*
10.50 - 12.25	**Session II: Dynamic Correlation Modelling**

- DCC: Definitions, Properties, Estimation, Forecasting and Extensions

12.25 - 12.40	*Break*
12.40 - 14.00	**Practice Session I: Forecasting Volatility and Correlations**
14.00 - 15.00	*Lunch*

23 May

09.00 - 10.30   **Session III: Systemic Risk I**

- CoVaR: Definition, Estimation and Empirical Evidence

10.30 - 10.50   *Coffee break*

10.50 - 12.25   **Session IV: Systemic Risk II**

- MES and SRISK: Definition, Estimation and Empirical Evidence

12.25 - 12.40   *Break*

12.40 - 14.00   **Practice Session II: Systemic Risk in the US Financial System**

14.00 - 15.00   *Lunch*

24 May

09.00 - 10.30   **Session V: Networks**

- Connectedness and systemicness. VAR-based measures

10.30 - 10.50   *Coffee break*

10.50 - 12.25   **Session VI: Spillovers and connectedness in a large scale system**

- Shrinkage approaches and machine learning algorithms

12.25 - 12.40   *Break*

12.40 - 14.00   **Practice Session III: Using the BEAR toolbox**

14.00 - 15.00   *Lunch*