I.S.E.O SUMMER SCHOOL, 14-21 June 2014

LECTURERS' BIOGRAPHIES

ROBERT ENGLE

Robert Engle, the Michael Armellino Professor of Management and Financial Services at New York University Stern School of Business, was awarded the 2003 Nobel Prize in Economics for his research on the concept of autoregressive conditional heteroskedasticity (ARCH). He developed this method for statistical modeling of time-varying volatility and demonstrated that these techniques accurately capture the properties of many time series. Professor Engle shared the prize with Clive W. J. Granger of the University of California at San Diego.

Professor Engle is an expert in time series analysis with a long-standing interest in the analysis of financial markets. His ARCH model and its generalizations have become indispensable tools not only for researchers, but also for analysts of financial markets. Many of these methods are now featured in the innovative public web site, V-LAB, where daily estimates of volatilities and correlations for more than a thousand assets can be found. These forecasts use both traditional and state of the art statistical methods. These computations are used in evaluating portfolio risk, asset allocation, derivative pricing and systemic risk measures now incorporated in the NYU Stern Systemic Risk Rankings. His research has produced such innovative statistical methods as cointegration, common features, autoregressive conditional duration (ACD), CAViaR, and DCC models. Now multiplicative error models (MEM) and factor spline garch (FSG) combine these into ever more powerful statistical tools.

Professor Engle is the Director of the NYU Stern Volatility Institute and a co-founding president of the Society for Financial Econometrics (SoFiE), a global non-profit organization housed at NYU. Before joining NYU Stern in 2000, he was Chancellor's Associates Professor and Economics Department Chair at the University of California, San Diego and Associate Professor of Economics at MIT. He is a member of the National Academy of Science.

He received his Bachelor of Science from Williams College and his MS in Physics and PhD in Economics from Cornell University. He grew up in Media, Pennsylvania, spent 25 years in San Diego and now lives in New York City.

JAMES MIRRLEES

James Mirrlees was born in 1936, grew up in Scotland, and went to the University of Edinburgh, where he graduated in mathematics in 1957. At Cambridge University, in the next two years, he did Parts 2 and 3 of the Mathematical Tripos, and then changed to economics, finishing his Ph.D. in 1963 with a thesis on "Optimal Planning Under Uncertainty". He spent most of the year 1962-3 in India on an MIT project assisting the Planning Commission.

From 1963 to 1968 he was a lecturer in economics in Cambridge, and a teaching fellow of Trinity College. He worked on the theory of planning, development economics, and public finance. He began the first of two books with Ian Little on methods of cost-benefit analysis for developing countries. He also began working with Peter Diamond. They began their collaboration with a two-paper piece on the theory of optimal taxation and public production, which is apparently still read. His best known paper, on optimal income taxation, was begun while on leave at MIT in 1968. It was published in 1971.

In 1968, he went to a Chair in mathematical economics at Oxford, and became a Fellow of Nuffield College. He continued work in development economics (with Little), taxation theory (often with Diamond), economic growth (with Nicholas Stern, Avinash Dixit and Peter Hammond), principal/agent problems, and welfare economics.

He became Professor of Political Economy in Cambridge in 1995. He retired from that in 2003, and remains a Fellow of Trinity College, Cambridge. Since 2002, he has been Distinguished Professor-at-large of The Chinese University of Hong Kong, initially for four months in the year, now full time. In 2009, he became Master of Morningside College, newly established in the Chinese University of Hong Kong. At various times he has been a visiting professor at MIT, Berkeley, Yale, the University of Melbourne and Peking University.

He is a Fellow of the Econometric Society (of which he was President in 1983) of the British Academy, and the Royal Society of Edinburgh, and a Foreign (Honorary) Member of the US National Academy of Sciences and the American Economic Association. In 1996 he was awarded a Nobel Prize in economics, for contributions to the theory of incentives under asymmetric information. He was knighted in 1997. He received the Royal Medal of the Royal Society of Edinburgh in 2009.

A selection of his papers has been published by Oxford University Press as *Welfare Incentives and Taxation*. He chaired a group that produced the *Mirrlees Review of Taxation* in 2010-11. He is on the Council of Economic Advisers of the Scottish Government. He now lectures frequently (in English) at universities and conferences in China.

MICHAEL SPENCE

Michael Spence, born November 7, 1943, is an American-born and Canadian-raised world-renowned economist. Spence earned his undergraduate degree summa cum laude in philosophy at Princeton University in 1966 and was selected for a Rhodes scholarship. Two years later he was awarded a B.S. -M.A. in mathematics from Oxford and in 1972 he earned his Ph.D. in economics at Harvard University.

From 1973 to 1975, he was an Associate Professor of Economics at Stanford. At Harvard, he served as professor of Economics and Business Administration from 1975 to 1990. There he also held a joint appointment in the Business School and the Faculty of Arts and Sciences. He was appointed both chairman of the Economics Department and George Gund Professor of Economics and Business Administration in 1983. From 1984 to 1990 Spence served as the Dean of the Faculty of Arts and Sciences at Harvard and from 1990 to 1999 he served as dean of the Stanford Business School. In addition, Spence has also for example been Chairman of an Independent Commission on Growth in Developing Countries and Professor of Economics at the Stern School of Business at New York University. He has been Professor Emeritus at Stanford since 2000.

In 2001, Spence received, along with George A. Akerlof and Joseph E. Stiglitz, the Nobel Prize in Economic Sciences. It was awarded to them for their work on the dynamics of information flows and market development. Spence has furthermore been awarded the John Kenneth Galbraith Prize for excellence in teaching and the John Bates Clark medal for "significant contribution to economic thought and knowledge." The Clark Medal, awarded every two years to an economist under the age of 40, is one of the most prestigious awards in the field of economics.

Amongst his other achievements, Spence is the author of the book, 'The Next Convergence: The Future of Economic Growth in a Multispeed World,' (Ferrar, Straus and Giroux, May 2011). Spence writes monthly columns for Project Syndicate, a prestigious forum that publishes commentaries by thinkers and world leaders. In addition, he also writes occasional op-ed pieces in the Financial Times and other major newspapers and forums. The governments of China and India rely on Spence as an advisor on matters related to growth, development and structural change. He is a known lecturer on the developing countries, their evolving structure and prospects for the global economy. Furthermore, Spence serves on the boards of Genpact and Mercadolibre and a number of private companies.

Taking into consideration all of his achievements, Michael Spence is most probably best known for his job-market signaling model. In 'Job Market Signaling', originally published in The Quarterly Journal of Economics in 1973, Spence demonstrated how a college degree signals a job seeker's intelligence and ability to a prospective employer. In other words, employers will pay higher wages to employees with a higher education. Spence's work in the field essentially triggered the enormous amount of literature in the branch of contract theory.

EMANUELE FERRAGINA

Emanuele Ferragina is departmental lecturer in comparative social policy at the department of social policy and intervention at the University of Oxford, where he also completed his doctoral thesis.

Prior to his PhD, Emanuele received a double BA in international politics from Science Po Bordeaux and Turin University. Following this he received an MPhil in International Politics from the University of Turin while he completed a double Masters in Management from ESCP Paris and London City University.

Emanuele is interested in the political economy of the welfare state, the individual and macro determinants of social and political participation, and the innovative use of the comparative method. He has mainly focused on: (a) the political economy of welfare state systems across 18 OECD countries; (b) the study of the determinants of social and political participation across 85 European regions and the United Kingdom. Furthermore he is currently evaluating the impact of skills and labour market conditions on social and political participation in Britain, Germany, France, Italy and Spain.

He has established (with a group of Italian researchers) the think tank *Fonderia Oxford*, which has the objective of raising public awareness about important societal issues, such as the rigidity of the Italian labour market, the lack of social cohesion in the Mezzogiorno, and the Italian brain drain. He also regularly writes for an italian newspaper, *Il Fatto Quotidiano.*
His research has attracted the attention of the Italian media and his work has been discussed in TV, radio programmes, and the by the main Italian newspapers. His book "*Chi Troppo, Chi Niente"* (2013) (translation: *who gets too much, who gets nothing*) is a national best-seller.

CAMILLA TOULMIN

Dr Camilla Toulmin is Director of the International Institute for Environment and Development based in London (IIED).

An economist by training, she has worked mainly in Africa on agriculture, land, climate and livelihoods. This has combined field research, policy analysis and advocacy.
Her work has aimed at understanding how environmental, economic and political change impact on people's lives, and how policy reform can bring real change on the ground.

As Director of IIED since 2004, Camilla has focused on developing the institute's strategy and communications. IIED's current strategy 2009-14 focuses on adaptation to climate change, building cities that work for poor people, addressing the natural resource squeeze, and designing sustainable market mechanisms.

Camilla studied Economics at Cambridge and London, before gaining her doctorate in Economics at Oxford. She is Chair of ICARDA's Board, a trustee of the Franco-British Council and a number of other boards. She is currently a member of the Royal Society's Working Group on Resilience.

RICHARD TOL

Richard S.J. Tol is a Professor at the Department of Economics, University of Sussex, the Professor of the Economics of Climate Change, Institute for Environmental Studies and Department of Spatial Economics, Vrije Universiteit, Amsterdam, the Netherlands, and a Research Fellow of the Tinbergen Institute.

Formerly, he was a Research Professor at the Economic and Social Research Institute, Dublin, the Michael Otto Professor of Sustainability and Global Change at Hamburg University and an Adjunct Professor, Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, PA, USA.

He has had visiting appointments at the Canadian Centre for Climate Research, University of Victoria, British Colombia, at the Centre for Social and Economic Research on the Global Environment, University College London, and at the Princeton Environmental Institute and the Department of Economics, Princeton University. He received an M.Sc. in econometrics (1992) and a Ph.D. in economics (1997) from the Vrije Universiteit Amsterdam.

He is ranked among the top 100 economists in the world, and has 227 publications in learned journals (with 100+ co-authors), 3 books, 5 major reports, 37 book chapters, and many minor publications.

He specialises in the economics of energy, environment, and climate, and is interested in integrated assessment modelling.

He is an editor for *Energy Economics*, and an associate editor of *economics the e-journal*.

He is advisor and referee of national and international policy and research.

He is an author (contributing, lead, principal and convening) of Working Groups I, II and III of the Intergovernmental Panel on Climate Change, shared winner of the Nobel Peace Prize for 2007; an author and editor of the UNEP Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies; a GTAP Research Fellow; and a member of the Academia Europaea.

He is actively involved in the European Climate Forum, the European Forum on Integrated Environmental Assessment, and the Energy Modeling Forum.