



The **SEACEN** Centre



SEACEN – CBSL Online Course on Forecasting for Monetary Policy and Financial Stability

20 – 24 JULY 2020

12:00 – 18:00 (Kuala Lumpur Time)

09:30 – 15:30 (Colombo Time)

ONLINE

WWW.SEACEN.ORG



The Online Course

INTRODUCTION/OBJECTIVES

Forecasting is a crucial part of central banks not only from a monetary stability perspective but also from the perspectives of financial stability, liquidity policy and cash management perspectives. Regardless of the end objective, all central banks/monetary authorities must forecast several macroeconomic, financial and prudential variables to make a timely assessment of the economy. In this course, we will combine lectures on forecasting theory with hands-on computer-based illustrations to key macroeconomic variables. External presenters will be Massimiliano Marcellino from Bocconi University in Milan, and Romain Lafarguette and Changchun Wang from the IMF.

At the end of the course, participants will be able to: (1) identify the best forecasting models for macroeconomic, financial and prudential variables; (2) gain experience in forecasting with univariate and multivariate models; (3) be able to perform nowcasts as well as mixed-frequency forecasting; (4) generate fan charts to convey forecast uncertainty; (5) combine forecasts; and (6) evaluate forecasting accuracy and other forecast performance measures.

The Course Programme is shown from pages 4 to 6.

TARGET PARTICIPANTS

Economists working in the monetary policy, financial stability, liquidity policy and research departments of central banks who are interested in learning about cutting edge statistical and econometric methods that can be used in nowcasting, forecasting, and scenario analysis. In addition to producing forecasts how to interpret and communicate forecasts will also be covered.



SOFTWARE REQUIREMENTS

Participants will need a laptop or a desktop computer. Participants will also need Eviews for most of the empirical illustrations. Some of the Eviews exercises would require the most recent versions of the Eviews as the earlier versions might not be handle certain functionalities. Ideally you have the Eviews version 11, if not versions 9.5 or above.

For the Empirical Illustration in Session 13 the participants need to follow the instructions attached and download the IMF' GaR Toolbox, which is an Excel interfaced Python program. The guideline provided by the IMF. Click Here: [GaR Toolbox](#)

If you require any clarification about the software requirements please contact Mr. Ozer Karagedikli at oz@seacen.org or Dr. Ole Rummel at orummel@seacen.org.

Only participants who complete 80% of the sessions will receive a certificate of completion.



Course Agenda

Day 1, Monday 20 July

09.30 – 11.00 (C)*

Session 1

12.00 – 13.30 (KL)*

An Overview of Macroeconomic Forecasting

Özer Karagedikli, The SEACEN Centre

12.00 – 13.30 (C)

Session 2

14.30 – 16.00 (KL)

Forecasting with MIDAS

Massimiliano Marcellino, Bocconi University

14.00 – 15.30 (C)

Session 3

16.30 – 18.00 (KL)

Empirical Illustration - MIDAS

Massimiliano Marcellino, Bocconi University

Day 2, Tuesday 21 July

09.30 – 11.00 (C)

Session 4

12.00 – 13.30 (KL)

Forecasting with VARs and BVARs

Victor Pontines, The SEACEN Centre

12.00 – 13.30 (C)

Session 5

14.30 – 16.00 (KL)

Forecasting - Dynamic Factor Models

Massimiliano Marcellino, Bocconi University

14.00 – 15.30 (C)

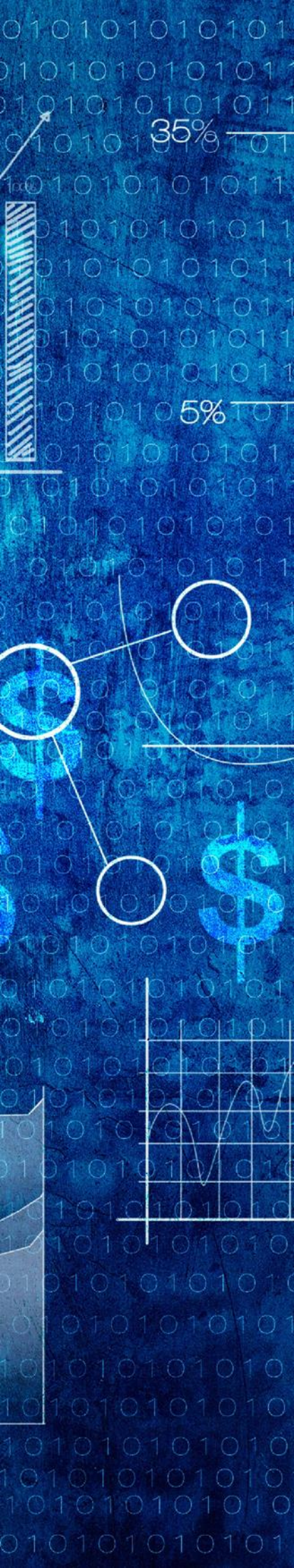
Session 6

16.30 – 18.00 (KL)

Empirical Illustration - Dynamic Factor Models

Massimiliano Marcellino, Bocconi University

(*) C and KL refer to the times in Colombo and Kuala Lumpur, respectively.



Day 3, Wednesday 22 July

09.30 – 11.00 (C)
12.00 – 13.30 (KL)

Session 7

Empirical Illustration - VARs and BVARs
Victor Pontines, The SEACEN Centre

12.00 – 13.30 (C)
14.30 – 16.00 (KL)

Session 8

Forecasting - Mixed Frequency VARs
Özer Karagedikli, The SEACEN Centre

14.00 – 15.30 (C)
16.30 – 18.00 (KL)

Session 9

Empirical Illustration - Mixed Frequency VARs
Özer Karagedikli, The SEACEN Centre

Day 4, Thursday 23 July

09.30 – 11.00 (C)
12.00 – 13.30 (KL)

Session 10

Forecasting Tails - Quantile Regressions
Romain Lafarguette, IMF
Changchun Wang, IMF

12.00 – 13.30 (C)
14.30 – 16.00 (KL)

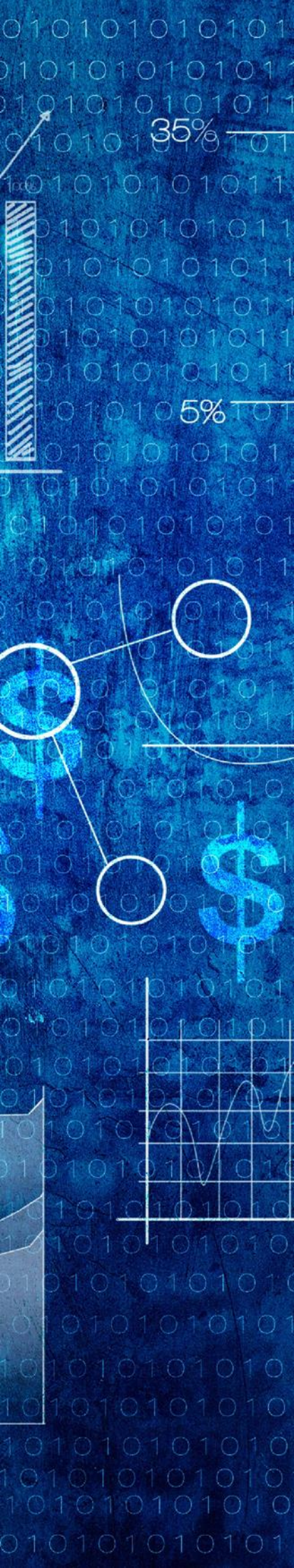
Session 11

Forecasting in the Presence of Breaks
Ole Rummel, The SEACEN Centre

14.00 – 15.30 (C)
16.30 – 18.00 (KL)

Session 12

Empirical Illustration - Forecasting in the Presence of Breaks
Ole Rummel, The SEACEN Centre



Day 5, Friday 24 July

09.30 – 11.00 (C)
12.00 – 13.30 (KL)

Session 13

Empirical Illustration - Quantile Regressions

Romain Lafarguette, IMF

Changchun Wang, IMF

12.00 – 13.30 (C)
14.30 – 16.00 (KL)

Session 14

Density Forecasting and Fancharts

Ole Rummel, The SEACEN Centre

14.00 – 15.30 (C)
16.30 – 18.00 (KL)

Session 15

Forecast Averaging and Combination

Özer Karagedikli, The SEACEN Centre

Guest Speakers



Professor Massimiliano Marcellino

Bocconi University

Massimiliano is a household name for macro forecasters, macroeconomists and central bankers. His research interests include econometrics, applied macroeconomics, and analysis of historical series. He has made significant contributions to the field of applied macroeconomics, macro econometrics and econometrics as well as forecasting. He has published in top journals including *Journal of Business & Economic Statistics*, *Journal of Applied Econometrics*, *Journal of the Royal Statistical Society*, *Journal of Econometrics*, *European Economic Review* and *Econometrics Journal*.

Professor Marcellino is a research fellow at the Centre for Economic Policy Research (CEPR) and at IGIER-Innocenzo Gasparini Institute for Economic Research. Previously he was an Associate Professor of Econometrics at Università Bocconi and Professor at the European University Institute in Florence. He has been visiting fellows at University of California San Diego and Harvard University. Massimiliano is also a member of the Euro Area Business Cycle Network. Professor Marcellino holds a BA in Economic and Social Sciences from Università Bocconi, and a PhD in Economics from the European University Institute in Florence.



Dr. Romain Lafarguette

Economist

Monetary and Capital Markets Department
International Monetary Fund

Romain Lafarguette is an economist in the Monetary and Capital Markets Department of the International Monetary Fund, where he works on issues related to central banking and statistical modeling.

He carried IMF missions to China, Hong Kong, India, Malaysia, the Philippines, Singapore, Israel, Morocco, the Democratic Republic of Congo, Albania, and Peru. He covered a wide range of topics, including technical assistance, Financial Sector Assessment Program (FSAP), IMF Article IV, and IMF program negotiations. He has also been teaching forecasting methods both at the Fund and outside.

Before joining the Fund, he was an economist at the European Central Bank. Among other assignments at the ECB, he has worked for the Directorate General Market Operations, where he built the Chinese RMB portfolio of the Eurosystem FX reserves and participated in the implementation of the ECB Quantitative Easing Program.

Romain Lafarguette holds a Ph.D. in financial economics from Peking University (CCER) and Paris School of Economics and graduated in applied mathematics and statistics from ENSAE and the Ecole Normale Supérieure Paris-Saclay (ENS).



Dr. Changchun Wang
Econometric Modeler
International Monetary Fund

Dr. Changchun Wang is an econometric modeller in the IMF. He holds a Ph.D. in Maths from Texas A&M University. Before joining IMF, he worked as a data scientist at CGG, a service company in the oil industry.

SEACEN Speakers



Mr. Özer Karagedikli

Senior Economist

Macroeconomics and Monetary Policy
Management

The SEACEN Centre

Özer joined The SEACEN Centre in January 2019 after 17 years in central banking. He worked as an economic adviser in the research, modelling, and forecasting teams at the Reserve Bank of New Zealand (RBNZ). He also had a stint at the Bank of England's International Economic Analysis Division between 2008 and 2009. In addition to his role as an adviser at the RBNZ, he served as the secretary to the Monetary Policy Committee in 2003-2004, managed the External Research Network Initiative, and served as the editor of the RBNZ Discussion Paper Series.

He also served as a council member of the New Zealand Association of Economists, a standing committee member of the Australasian Branch of Econometrics Society, an associate editor for the Journal of Economic Surveys, and as a board member for the Orchestra Wellington. He organised/co-organised several conferences, workshops, courses and conference sessions, as well as policy meetings. In 2014 he co-edited the special issue of the International Journal of Central Banking with John Williams and Gunes Kamber. In 2017, he spent a semester as a visitor at Bilkent University in Ankara. He completed his studies at Victoria University of Wellington in New Zealand. Özer's research interests are in the area of macroeconomics, monetary economics, forecasting, international linkages, housing and labour markets. His latest work includes forecast combinations for asymmetrically distributed variables, the effects of different types of forward guidance, housing supply and population growth, the role of job-to-job transitions and wage growth, and the role of different types of credit.



Dr. Victor Pontines

Senior Economist

Macroeconomics and Monetary Policy
Management

The SEACEN Centre

Dr. Victor Pontines joined the SEACEN Centre as Senior Economist on August 2016. Previous to this, he was Research Fellow at the Asian Development Bank Institute (ADBI) in Tokyo where he led the Institute's research programs in macroeconomics and finance, and as Senior Economist at the Asian Development Bank (ADB) in Manila where he served as focal point for the Bank's work on debt sustainability and graduation issues.

He was also in academia for a number of years, having taught at universities in Manila, Philippines as well as in Australia. For a time, he also worked at the Department of Economic Research of the Bangko Sentral ng Pilipinas (Central Bank of the Philippines).

He has built a portfolio of publications in scholarly journals that focus on macroeconomic and monetary policy issues with particular reference to the East Asian region. He obtained a Bachelor of Arts (BA) in Economics degree and a Master of Science (MSc) degree in Economics from De La Salle University in Manila, Philippines, a Master of Arts (MA) degree from University of Exeter, United Kingdom and a Doctorate in Economics from University of Adelaide in Australia.



Dr. Ole Jens Rummel

Director

Macroeconomics and Monetary Policy
Management

The SEACEN Centre

Dr. Ole Rummel joined The SEACEN Centre as Director of Macroeconomic and Monetary Policy Management in September 2016. From 1999 to 2006, he worked in the Financial Stability, Markets, and Monetary Analysis areas of the Bank of England. In 2006, Ole joined the Bank of England's Centre for Central Banking Studies and was its Adviser for econometric modelling, financial stability, and markets. Prior to the Bank of England, he worked in investment banking in Frankfurt and for the European Commission in Luxembourg.

He is interested in many aspects of economics and finance, particularly econometric modelling, open-economy macroeconomics, financial stability, and financial markets. Ole holds a PhD in Economics from the University of Strathclyde in Glasgow and an AB degree in Quantitative Economics from Stanford University.