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## INTERNATIONAL MONETARY FUND

Joint Vienna Institute / IMF Institute for Capacity Development – European and Middle Eastern Division

### Course on Macroeconomic Forecasting (JV14.10MF)

Vienna, Austria

April 21–May 2, 2014

#### PROGRAM<sup>1</sup>

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##### *Monday, April 21*

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8:30 a.m. – 9:00 a.m.		<b>Administrative Briefing</b>
9:00 a.m. – 9:30 a.m.		<b>Opening Session</b> Mr. Norbert Funke, Director, JVI; and  Mr. Charis Christofides Senior Economist, European and Middle Eastern Division, IMF Institute for Capacity Development (ICD)
9:30 a.m. – 12:30 p.m.	L-1	<b>Overview of Macroeconomic Forecasting</b> Mr. Charis Christofides
2:00 p.m. – 5:30 p.m.	W-1	<b>Workshop: Introduction to Forecasting Using EViews</b> Dmitry Plotnikov, Economist, ICD; and Professor Kaddour Hadri Consultant, European and Middle Eastern Division, ICD

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##### *Tuesday, April 22*

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9:00 a.m. – 11:00 a.m.	L-2	<b>Properties of Time Series Data I: Stationarity, Box Jenkins ARIMA Models</b> Mr. Charis Christofides
11:30 a.m. – 12:30 p.m.	W-2	<b>Workshop: Estimating and Forecasting ARIMA Models using EViews</b> Messrs. Charis Christofides and Dmitry Plotnikov
2:00 p.m. – 4:00 p.m.	L-3	<b>Properties of Time Series Data II: Nonstationarity and Unit Roots</b> Mr. Dmitry Plotnikov
4:30 p.m. – 5:30 p.m.	W-3	<b>Workshop: Testing for Nonstationarity using EViews</b> Mr. Dmitry Plotnikov and Mr. Charis Christofides

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<sup>1</sup> Unless otherwise stated, coffee breaks are held from 11:00 a.m. – 11:30 a.m. and from 4:00 p.m. – 4:30 p.m. Lunch breaks will be from 12:30 p.m. – 2:00 p.m.

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***Wednesday, April 23***

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9:00 a.m. – 11:00 a.m.	L-4	<b>Cointegration I – Single Equation Estimation, Error Correction Models, and Forecasting</b> Mr. Kaddour Hadri
11:30 a.m. – 12:30 p.m.	W-4	<b>Workshop: Forecasting using Single Equation Estimation Methods and ECM Models</b> Mr. Kaddour Hadri and Mr. Dmitry Plotnikov
2:00 p.m. – 4:00 p.m.	L-5	<b>Evaluating Regression Models</b> Mr. Dmitry Plotnikov and Mr. Kaddour Hadri
4:30 p.m. – 5:30 p.m.	W-5	<b>Workshop: Evaluating Regression Models</b> Mr. Dmitry Plotnikov and Mr. Kaddour Hadri

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***Thursday, April 24***

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9:00 a.m. – 11:00 a.m.	L-6	<b>Forecast Uncertainty and Forecast Evaluation</b> Mr. Dmitry Plotnikov
11:30 a.m. – 12:30 p.m.	W-6	<b>Workshop: Approaches to Forecasting for Policy Analysis</b> Messrs. Dmitry Plotnikov and Charis Christofides
2:00 p.m. – 5:30 p.m.	O-1	<b>Preparation for Participant Presentations</b>

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***Friday, April 25***

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9:00 a.m. – 11:00 a.m.	L-7	<b>Vector Autoregression (VAR), Structural VAR Models, Impulse Response Functions (IRFs)</b> Mr. Kaddour Hadri
11:30 a.m. – 12:30 p.m.	W-7	<b>Workshop: VAR and IRF Application: UK Money Demand – Part I</b> Mr. Kaddour Hadri and Mr. Dmitry Plotnikov
2:00 p.m. – 4:00 p.m.	L-8	<b>Cointegration II: Johansen Methodology</b> Mr. Dmitry Plotnikov
4:30 p.m. – 5:30 p.m.	W-8	<b>Workshop: UK Money Demand – Part II</b> Mr. Dmitry Plotnikov and Kaddour Hadri

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***Monday, April 28***

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9:00 a.m. – 11:00 a.m.	L-9	<b>Vector Error Correction Models: Formulation, Hypothesis Testing, and Forecasting</b> Mr. Kaddour Hadri
11:30 a.m. – 12:30 p.m.	W-9	<b>Workshop: Forecasting using a VECM</b> Mr. Kaddour Hadri and Mr. Dmitry Plotnikov

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***Monday, April 28 (continued)***

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| 2:00 p.m. – 3:30 p.m. | L-10 | <b>State Space Representation of Dynamic Models</b><br>Mr. Charis Christofides      |
| 4:00 p.m. – 5:30 p.m. | L-11 | <b>Forecasting and Smoothing Using the Kalman Filter</b><br>Mr. Charis Christofides |

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***Tuesday, April 29***

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| 9:00 a.m. – 10:30 a.m.  | W-10 | <b>Workshop: Selected Kalman Filter Applications</b><br>Mr. Charis Christofides and Mr. Kaddour Hadri                       |
| 11:00 a.m. – 12:30 p.m. | W-11 | <b>Workshop: Applying the Kalman Filter to the Signal Extraction Model</b><br>Mr. Charis Christofides and Mr. Kaddour Hadri |
| 2:00 p.m. – 4:00 p.m.   | L-12 | <b>Combining Forecasts from Different Sources</b><br>Mr. Mikhail Pranovich (Economist, JVI)                                 |
| 4:30 p.m. – 5:30 p.m.   | W-12 | <b>Workshop: Combining Forecasts</b><br>Mr. Mikhail Pranovich and Mr. Charis Christofides                                   |

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***Wednesday, April 30***

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| 9:00 a.m. – 11:00 a.m.  | L-13 | <b>Modeling and Forecasting Volatility: The ARCH model and its Descendants</b><br>Mr. Charis Christofides |
| 11:30 a.m. – 12:30 p.m. | W-13 | <b>Workshop: Forecasting Macroeconomic Volatility</b><br>Mr. Charis Christofides and Mr. Kaddour Hadri    |
| 2:00 p.m. – 5:30 p.m.   | L-14 | <b>Modeling Strategies and Policy Analysis: Inflation in Australia</b><br>Mr. Kaddour Hadri               |

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***Thursday, May 1***

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| 9:00 a.m. – 12:30 p.m. | L-15 | <b>Practical Considerations for Implementing Macro Forecasting Procedures</b><br>Mr. Charis Christofides |
| 2:00 p.m. – 5:30 p.m.  | O-1  | <b>Preparation for Participant Presentations (concluded)</b>   |

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***Friday, May 2***

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| 9:00 a.m. – 11:30 a.m.  | O-2 | <b>Participant Presentations</b>                        |
| 11:30 a.m. – 12:30 p.m. |     | <b>Closing Session and Presentation of Certificates</b> |
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