INTERNATIONAL MONETARY FUND

Institute for Capacity Development (ICD)—Joint Vienna Institute (JVI)

Course on Financial Markets and Instruments (JV18.21)

Vienna, Austria

July 23 – August 3, 2018

PROGRAM[*]

Monday, July 23

8:30 a.m.–9:00 a.m.		**Administrative Briefing**
9:00 a.m.–9:15 a.m.		Opening Session Mr. Thomas Richardson, Director, JVI Mr. Christian Johnson, Senior Economist, IMF ICD Mr. Charis Christofides, Senior Economist, IMF ICD Mr. Marco Rodriguez, Senior Economist, IMF ICD
9:15 a.m. – 10:15 a.m.		**Quiz Session**
10:30 a.m.–11:30 p.m.	L–1	**Introductory Lecture** Mr. Johnson • Markets: their functions and participants • Market structures and liquidity provision
11:45 a.m.–12:45 p.m.	L–2	**Financial Markets and the Macroeconomy** Mr. Rodriguez • The nature of financial markets: The allocation of resources across time and under uncertainty
2:00 p.m.–3:30 p.m.	L–3	**Basic Valuation of Bonds and Stocks** Mr. Rodriguez • Valuation of fixed income securities • Term Structure and Duration
4:00 p.m.–5:30 p.m.	L–4	**Portfolios: Analysis and Valuation** Mr. Johnson • Portfolio analysis and diversification • Capital Asset Pricing Model (CAPM)

[*] *Coffee breaks will be held from 10:30 a.m.–11:00 a.m. and from 3:30 p.m.–4:00 p.m., unless otherwise indicated. Lunch breaks will be from 12:30 p.m.–2:00 p.m.*

Tuesday, July 24		
9:00 a.m.–12:30 p.m.	L–5	**Value-at-Risk: Measuring Risk and Forecasting Volatilities** Mr. Johnson • Nature and mechanics of computing VaR • Historical and Montecarlo simulation • Forecasting volatilities: EWMA and GARCH models
	W–1	**Workshop:** Applications of Value-at-Risk for market risk
2:00 p.m.–5:30 p.m.	L–6	**Forwards and Futures** Mr. Rodriguez • Futures and forward contracts defined • Market structures: default risk, margin/collateral accounts, and role of centralized counterparts (CCPs) • Pricing forwards and futures • Hedging and speculating

Wednesday, July 25		
9:00 a.m.–12:30 p.m.	W–2	**Workshop:** Case study and exercises on forward and futures contracts
2:00 p.m.–5:30 p.m.	L–7	**Swaps** Mr. Christofides • Forward rate agreements (FRAs) • Interest rate swaps: definition, valuation and pricing • Exchange rate swaps • Dynamics of swap spreads
	W–3	**Workshop:** Exercises to understand the mechanics and properties of swaps

Thursday, July 26		
9:00 a.m.–12:30 p.m.	L–8	**Options Basics** Mr. Rodriguez • Definitions, types of options contracts • Payoff diagrams and options strategies • Put-Call parity
	W–4	**Workshop:** Exercises on the operation of options

2:00 p.m.–5:30 p.m.	L–9	**Options Pricing** Mr. Rodriguez • Variables affecting options values • Binomial options pricing model • Risk-neutral pricing and American options
	W–5	**Workshop:** Exercises on the operation of options

Friday, July 27

9:00 a.m.–12:30 p.m.	L–10	**Methods for Evaluating Credit Risk** Mr. Christofides • The transition matrix • Expected loss (EL) and Loss Given Default (LGD) • Merton and KMV models: an introduction to measuring default
	W–6	**Workshop:** Application of methods for evaluating credit risk
2:00 p.m.–5:30 p.m.	L–11	**Taking stock: Review and Workshop** Messrs. Christofides, Johnson, Rodriguez

Monday, July 30

9:00 a.m.–12:30 p.m.	L–12	**Repo Market and Collateral Management** Mr. Johnson • Definition of a repo • Examples • Collateral management
	W–7	**Workshop:** Case study on the repo market
2:00 p.m.–5:30 p.m.	L–13	**Credit Derivatives** Mr. Christofides • Credit default swaps • CDS Indices and their uses • Global credit derivatives market • Implications for financial stability
	W–8	**Workshop:** Case Study on the CDS fallout of the Lehman failure and AIG

Tuesday, July 31

9:00 a.m.–12:30 p.m.	L–14	**Securitization and Structured Finance** Mr. Johnson • Securitization, covered bonds and structured finance • CDOs and other instruments (off-balance sheet vehicles) • Policy issues
	W–9	**Workshop:** The good and bad of securitization
2:00 p.m.–5:30 p.m.	O–1	**Preparation for Participants' Presentations** Messrs. Christofides, Johnson, Rodriguez

Wednesday, August 1

9:00 a.m.–10:30 a.m.	L–15	**Invited Lecture I: Motivation and Current Issues for Regulation of Securities Markets and Derivatives** Mag. Roman Bitter Markets and Exchanges Supervision Austrian Financial Market Authority (FMA) • Objectives of securities regulation • Regulation of OTC derivatives
11:00 a.m.–12:30 p.m.	W–10	**Workshop:** Case studies on Bear Stearns and on LTCM Mr. Christofides
2:00 p.m.–5:30 p.m.	L–16	**Invited Lecture II: Data on Securities and Derivative Instruments** Mr. Andreas Schmidt and Mr. Igor Levin (Bloomberg) • Trends, FX Forecasts, Key Policy Rates and Economic Analysis • Volatility Analytics, Options Screenings, and Scenarios and Risk of EQD

Thursday, August 2

9:00 a.m.–12:30 a.m.	O–2	**Preparation for Participants' Presentations (cont.)** Messrs. Christofides, Johnson, Rodriguez
2:00 p.m.–3:30 p.m.	O–3	**Preparation for Participants' Presentations (cont.)** Messrs. Christofides, Johnson, Rodriguez
3:45 p.m.–5:30 p.m.	O–4	**Participants' Presentations** Messrs. Christofides, Johnson, Rodriguez

Friday, August 3

9:00 a.m.–10:30 a.m.		**Final Quiz Session and Course Evaluation**
11:00 a.m.–12:00 p.m.		**Closing Session and Presentation of Certificates**