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**INTERNATIONAL MONETARY FUND**

**IMF Institute for Capacity Development (ICD)**

**Joint Vienna Institute (JVI)**

**Course on Vulnerability Diagnostics (JV 17.33)**

**Vienna, Austria**

**December 4-15, 2017**

**Program<sup>1</sup>**

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***Monday, December 4***

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8:30 a.m. – 9:00 a.m.		<b>Administrative Briefing</b> <i>Ms. Tamara Tsikhistavi</i>
9:00 a.m. – 10:00 a.m.		<b>Opening Session/Initial Test</b>
10:15 a.m. – 12:15 p.m.	L-0	<b>Vulnerabilities and Crises</b> <i>Ms. Beidas-Strom</i> 1. Theoretical overview 2. Vulnerabilities and crises 3. Structure of the course
2:00 p.m. – 5:15 p.m.	<b>Unit 1</b>	<b>Forecasting Methods for Tail Risks</b> <i>Mr. Lama</i>
	L-1	1. Defining tail risks 2. VaR measures of tail risks 3. Logit/Probit models 4. The signal approach: threshold methods
	W-1	Predicting Currency Crises via Probit/Logit Regressions

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***Tuesday, Dec 5***

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9:00 a.m. – 12:15 p.m.	<b>Unit 2</b>	<b>Fiscal Vulnerabilities I: Assessing Debt Sustainability</b> <i>Ms. Isakova</i>
	L-2	1. Debt sustainability, debt crisis, and growth 2. Deterministic DSA in closed and open economies
	W-2	Assessing debt sustainability: debt-stabilizing primary balance, IMF's approach to DSA
2:00 p.m. – 5:15 p.m.	<b>Unit 3</b>	<b>Financial Vulnerabilities I: Taxonomy and Measurement of Financial Risks</b> <i>Ms. Beidas-Strom</i>

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<sup>1</sup> Unless otherwise stated, coffee breaks will be held from 10:30 a.m.–10:45 a.m. and from 3:30 p.m.–3:45 p.m.

- L-3 1. Taxonomy of financial risks  
2. Measurement of financial risks
- W-3 Measurement of risks and introduction to stress testing

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**Wednesday, Dec 6**

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| 9:00 a.m. – 12:15 p.m. | <b>Unit 4</b> | <b>External Vulnerabilities I: Bond Yields and Sovereign Default Risk</b><br><i>Ms. Isakova</i>                               |
|                        | L-4           | 1. From fiscal distress to external crisis<br>2. Theory of sovereign default risk<br>3. Assessing risks in practice           |
|                        | W-4           | Explaining Sovereign Bond Interest Rates  |
| 2:00 p.m. – 5:15 p.m.  | <b>Unit 5</b> | <b>Financial Vulnerabilities II: Detecting Financial Fragility</b><br><i>Ms. Isakova</i>                                      |
|                        | L-5           | 1. Overview of stress testing<br>2. Single-factor sensitivity analysis<br>3. Identifying stress-testing scenarios: Case study |
|                        | W-5           | Bank Stress Test  |

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**Thursday, Dec 7**

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| 9:00 a.m. – 12:15p.m. | <b>Unit 6</b> | <b>Fiscal Vulnerability II: Short-term risks</b><br><i>Mr. Lama</i>   |
|                       | L-6           | 1. Risk-based DSA<br>2. Interest rate growth differential and public debt<br>3. Refined analysis of growth and interest rate shocks |
|                       | W-6           | Risk-based DSA, refined analysis of growth and interest rate shocks   |
| 2:00 p.m. – 5:15 p.m. | <b>Unit 7</b> | <b>External Vulnerabilities II: Current Account Imbalances</b><br><i>Ms. Beidas-Strom</i>   |
|                       | L-7           | 1. Current account imbalances<br>2. External balance assessment (EBA)   |
|                       | W-7           | External Balance Assessment (EBA)   |
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<b>Friday, Dec 8</b>		
9:00 a.m. – 12:15 p.m.	<b>Unit 8</b>	<b>Financial Vulnerabilities III: Financial Cycles, Business Cycles and Systemic Risk</b> <i>Mr. Lama</i>
	L-8	1. Business cycles and financial cycles 2. Systemic risk
	W-8	Financial cycles and banking distress
2:00 p.m. – 5:15p.m.	<b>Unit 9</b>	<b>Fiscal Vulnerability III: Stochastic DSA</b> <i>Ms. Isakova</i>
	L-9	1. Stochastic DSA vs. deterministic DSA 2. Main steps of stochastic DSA: estimating relationship between DSA inputs, fiscal reaction function, simulations
	W-9	Stochastic DSA
<b>Monday, Dec 11</b>		
9:00 a.m. – 12:15p.m.	<b>Unit 10</b>	<b>External Vulnerability III: Reserve Adequacy</b> <i>Ms. Beidas-Strom</i>
	L-10	1. FX Reserves: definition, composition and trends 2. Analytics of reserve holdings 3. Normative assessments of reserve holdings
	W-10	International Reserves Adequacy
2:00 p.m. – 5:15p.m.	<b>Unit 11</b>	<b>Financial Vulnerability IV: Spillovers and Contagion</b> <i>Mr. Isakova</i>
	L-11	1. Indicators of spillovers 2. Network analysis 3. Systemic risk measurement: VaR, CoVaR
	W-11	VaR, CoVaR, and $\Delta$ CoVaR
<b>Tuesday, Dec 12</b>		
9:00 a.m. – 12:15 p.m.	<b>Unit 12</b>	<b>Fiscal Vulnerabilities IV: Long-term Risks</b> <i>Mr. Lama</i>
	L-12	1. Debt level and fiscal space 2. Fiscal gaps: full account of government assets and liabilities 3. Medium- and long-term fiscal adjustment needs
	W-12	Debt level thresholds; arithmetic of fiscal gaps and long-term adjustment needs
2:00 p.m. – 3:30 p.m.	<b>GW</b>	<b>Preparation for Participants' Presentations</b>
3:45 p.m. – 5:15 p.m.	<b>GW</b>	<b>Preparation for Participants' Presentations</b>

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**Wednesday, Dec 13**

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9:00 a.m. – 12:15p.m.	<b>Unit 13</b>	<b>The IMF's Vulnerability Exercises</b> <i>Ms. Beidas-Strom</i>
	L-13	1. Overview of the VEE 2. Key indicators and methodologies 3. Putting it all together
	W-13	Constructing a Vulnerability Index
2:00 p.m. – 5:15 p.m.	<b>GW</b>	<b>Preparation for Participants' Presentations</b>

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**Thursday, Dec 14**

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9:00 a.m. – 12:15 p.m.	<b>GW</b>	<b>Preparation for Participants' Presentations</b>
2:00 p.m. – 3:30 p.m.	<b>GW</b>	<b>Preparation for Participants' Presentations</b>
3:45p.m.-5.15p.m.	<b>GW</b>	<b>Case Studies: Participant Presentations</b>

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**Friday, Dec 15**

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9:30 a.m. – 11:00 a.m.		<b>Final Test and Course Evaluation</b>
11:00 a.m. – 12:00 p.m.		Closing Session and Presentation of Certificates

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