IMF INSTITUTE

ECONOMICS TRAINING PROGRAM

SEMINAR

Speaker: **Peter C. B. Phillips**
Yale University

Date: September 29, 2003

Time: 10:00 a.m.–12:30 p.m.

Place: HQ lecture room 5-502

Topic: **New Methods for Time Series and Panel Econometrics II**

An earlier IMF talk in 2002 outlined some limitations of the econometric approach. This seminar follows up that discussion by considering two specific topics in panel econometric modeling:

• *Panel Models, Cointegration, Incidental Trends and Unit Root Tests*: some recent research on panel models with incidental trends, heterogeneous cointegration, near unit roots, and unit root testing will be reviewed. Some implications for practical work will be explored.

• *Panel Data and Cross Section Dependence*: an overview will be given of some recent work dealing with cross section dependence, homogeneity testing and bias issues in dynamic panel regression. Some empirical applications to growth convergence will be discussed.

Readings:

Moon, Hyungsik, R. and Peter C.B. Phillips, 1999, "Maximum Likelihood Estimation in Panels with Incidental Trends," *Oxford Bulletin of Economics and Statistics*, Vol. 61, pp. 711–48. Available at: http://cowles.econ.yale.edu/P/cd/d12a/d1246.pdf

Phillips, Peter C.B., and Hyungsik R. Moon, 1999, “Linear Regression Limit Theory for Nonstationary Panel Data,” *Econometrica*, Vol. 67, pp. 1057–1111. Available at: http://cowles.econ.yale.edu/P/cd/d12a/d1222.pdf

Phillips, Peter C.B. and Donggyu Sul, 2002, “Dynamic Panel Estimation and Homogeneity Testing Under Cross Section Dependence,” *Econometrics Journal,* 6, 217-259. Available at: http://cowles.econ.yale.edu/P/cd/d13b/d1362.pdf

Phillips, P. C. B. and Donggyu Sul (2003). "Bias in Dynamic Panel Estimation with Fixed Effects, Incidental Trends and Cross Section Dependence". Mimeographed, Yale University. Available at: http://korora.econ.yale.edu/phillips/papers/tbias19.pdf

Phillips, P. C. B. and Donggyu Sul (2003). “The Elusive Empirical Shadow of Growth Convergence” mimeographed, Yale University. Available via the Internet: http://cowles.econ.yale.edu/P/cd/d13b/d1398.pdf

Additional Readings:

Phillips, Peter C.B., and Hyungsik R. Moon (2000), "Nonstationary Panel Data Analysis: An Overview of Some Recent Developments", *Econometric Reviews*, Vol. 19, No. 3, August 2000, pp. 263-286.

Moon, Hyungsik, R. and Peter C.B. Phillips (2000), “"Estimation of Autoregressive Roots near Unity using Panel Data", *Econometric Theory*, Vol. 16, No. 6, December, 2000, pp 927-998.

Moon, Hyungsik, R. and Peter C.B. Phillips (2004), “GMM Estimation of Autoregressive Roots Near Unity with Panel Data” *Econometrica* (forthcoming). Available on the internet: http://cowles.econ.yale.edu/P/cd/d13b/d1390.pdf

Moon, Hyungsik, R., Benoit Perron and Peter C.B. Phillips (2003), “Incidental Trends and the Power of Unit Root Tests”. Mimeographed, Yale University. Available via the Internet: http://korora.econ.yale.edu/phillips/papers/efpunit4.pdf