



BANCO DE PORTUGAL  
EUROSISTEMA

# Advanced Stata

**Lisbon, September 26-28, 2017**

**3 days Course**

Miguel Portela (DEE - BPLIM)

## Training schedule

10:00 – 13:00

13:00 – 14:00 – Lunch

14:00 – 17:00

## Training Program

### DAY 1 | Regression analysis & causality (Miguel Portela)

- From Stata to LaTeX, Word and Excel: efficient procedures to export descriptive statistics, graphs and regression tables
- Econometric concepts: Regression analysis — OLS & GLS
- Basic issues in program evaluation; Causality and the problem of selection bias
- Regression and causality
- Instrumental variables (two stage least squares (2SLS); weak instruments; overidentification tests)
- Longitudinal data: Differences-in-differences (DD)

### DAY 2 | Panel data (Miguel Portela)

- Panel data regression: dealing with endogeneity issues
- Data structure & formulation of the model
- Fixed and Random Effects in Static Models
- Hausman test for the validity of the random effects model
- Hypothesis testing, Test for the presence of fixed effects, Wald tests, testing multiple hypothesis
- Heteroscedasticity, Autocorrelation, Robust Estimation



BANCO DE PORTUGAL  
EUROSISTEMA

# Advanced Stata

## DAY 3 | Advanced Topics in Panel data (Miguel Portela)

- Dynamic Panel Data: endogeneity & GMM - First-differences & the System GMM estimator
- Models with High Dimensional Fixed Effects