University of Pretoria Yearbook 2023

Econometrics 814 (EKT 814)

Qualification	Postgraduate
Faculty	Faculty of Economic and Management Sciences
Module credits	10.00
NQF Level	09
Programmes	MCom (Econometrics) (Coursework)
	MCom (Economics) (Coursework)
	MPhil (Economics) (Coursework)
Prerequisites	Only for students in relevant programme
Contact time	1 lecture and/or practical per week
Language of tuition	Module is presented in English
Department	Economics
Period of presentation	Semester 1 or Semester 2

Module content

In this module, "panel data" refers to the pooling of observations on a cross-section of countries, households, firms, etc. over a number of time periods. We use panel data techniques for example to control for individual heterogeneity or to study the dynamics of adjustment. Panel data allows for more informative results, more variability, more degrees of freedom and more efficiency. This module focuses on statistical theory and empirical estimation, interpretation and evaluation of economic relationships, within a panel data context. The module covers both techniques applicable to stationary and non-stationary panel data sets, and begins with an introduction to one-way error component models (either including individual-specific or period-specific (time) effects), followed by two-way error component models (including individual-specific and time effects simultaneously). Estimation techniques include fixed effects (LSDV or "Within" estimation) and random effects estimation. Hypothesis testing includes tests for poolability (pooled vs. individual regressions), tests for fixed effects, random effects, and specification (exogeneity of the X-regressors). It also includes various tests for serial correlation and heteroscedasticity and the correction thereof. The section on stationary panel data techniques concludes with a discussion of seemingly unrelated regression (SUR) models. In the non-stationary panel data section we discuss unit root testing in the panel context, estimation of non-stationary panels and tests for co integration.

The General Academic Regulations (G Regulations) and General Student Rules apply to all faculties and registered students of the University, as well as all prospective students who have accepted an offer of a place at the University of Pretoria. On registering for a programme, the student bears the responsibility of ensuring that they familiarise themselves with the General Academic Regulations applicable to their registration, as well as the relevant faculty-specific and programme-specific regulations and information as stipulated in the relevant yearbook. Ignorance concerning these regulations will not be accepted as an excuse for any transgression, or basis for an exception to any of the aforementioned regulations.

University of Pretoria Programme Qualification Mix (PQM) verification project

The higher education sector has undergone an extensive alignment to the Higher Education Qualification Sub-Framework (HEQF) across all institutions in South Africa. In order to comply with the HEQSF, all institutions are legally required to participate in a national initiative led by regulatory bodies such as the Department of Higher Education and Training (DHET), the Council on Higher Education (CHE), and the South African Qualifications Authority (SAQA). The University of Pretoria is presently engaged in an ongoing effort to align its qualifications and programmes with the HEQSF criteria. Current and prospective students should take note that changes to UP qualification and programme names, may occur as a result of the HEQSF initiative. Students are advised to contact their faculties if they have any questions.