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C.I.D.E. Panel Data Course
June 15-20, 1998
Bertinoro, Italy

Required Text:

1. Baltagi, Badi H., *Econometric Analysis of Panel Data*, John Wiley & Sons, 1995.

Recommended Texts:

1. Hsiao, Cheng, *Analysis of Panel Data*, Cambridge University Press, 1986.
2. Matyas, L. and P. Sevestre, editors, *The Econometrics of Panel Data: A Handbook of Theory and Applications*, Kluwer Academic Publishers, 1996.
3. Baltagi, Badi H. and Baldev Raj, editors, *Panel Data Analysis*, Physica-Verlag, Heidelberg, 1992.
4. Maddala, G.S., editor, *The Econometrics of Panel Data*, Volumes I and II, Edward Elgar Publishing, Cheltenham, 1993.
5. Dielman, T.E., *Pooled Cross-Sectional and Time-Series Data Analysis*, Marcel Dekker, 1989.

Other Texts:

1. Judge, Griffiths, Hill, et. al., *The Theory and Practice of Econometrics*, Wiley, 2nd ed., 1985.
2. Fomby, Hill and Johnson, *Advanced Econometric Methods*, Springer-Verlag, 1984.
3. Griliches and Intrilligator, editors, *Handbook of Econometrics*, vol. I, II, III, 1983, 1984, 1986.
4. Johnston, *Econometric Methods*, 3rd ed., McGraw-Hill, 1984.
5. Kmenta, *Elements of Econometrics*, 2nd ed., Macmillan, 1986.
6. Greene, *Econometric Analysis*, Macmillan, 1992.
7. Davidson, Russell and James G. MacKinnon, *Estimation and Inference in Econometrics*, Oxford University Press, 1992.

C.I.D.E. Course Outline on Panel Data
June 15-20, 1998
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Lecture 1: (3 hours)

Benefits and Limitations of Panels (½ hour)
Baltagi, *Econometric Analysis of Panel Data*, Chapter 1.
Hsiao, *Analysis of Panel Data*, Chapters 1 and 9.
Matyas and Sevestre, Chapter 1.

The One-Way Error Component Model (2½ hours)
Baltagi, Chapter 2
Hsiao, Chapters 2,3

Lecture 2: (3 hours)

The One-Way and Two-Way Error Component Model (3 hours)
Baltagi, Chapters 2 and 3
Hsiao, Chapters 2 and 3
Matyas and Sevestre, Chapters 2-4

Lecture 3: (3 hours)

Test of Hypotheses with Panel Data (2½ hours)
Baltagi, Chapter 4
Hsiao, Chapter 3
Matyas and Sevestre, Chapter 4 and Section 12.3

Heteroskedasticity and Serial Correlation (½ hour)
Baltagi, Chapter 5
Hsiao, Section 3.7

Lecture 4: (3 hours)

Seemingly Unrelated Regression (½ hour)
Baltagi, Chapter 6

Simultaneous Equation Models (2½ hours)
Baltagi, Chapter 7
Hsiao, Chapter 5
Matyas and Sevestre, Chapter 9

Lecure 5: (3 hours)

Dynamic Panel Data Models (2½ hours)
Baltagi, Chapter 8
Hsiao, Chapter 4
Matyas and Sevestre, Chapters 7 and 8

Unbalanced Panel Data (½ hour)
Baltagi, Chapter 9

Lecture 6: Further Topics (3 hours)

Measurement Error, Rotating Panels, Pseudo-Panels,
Limited Dependent Variables, Selection Bias
Baltagi, Chapter 10.
Hsiao, Section 3.9, Chapters 7 and 8.
Matyas and Sevestre, Chapters 10,11, 16, and 18.

Additional Readings

Handbook of Econometrics: Chapter 22 - "Panel Data" by Gary Chamberlin. Ch. 29 - "Econometric Analysis of Longitudinal Data" by Heckman and Singer.

Applications: see Baltagi and Raj (1992): Part III, and Matyas and Sevestre (1996): Part III.

Two recent special issues of the *Journal of Econometrics* one edited by Carraro, Peracchi and Weber (1993), Volume 59, pp. 1-211. and the other edited by Baltagi (1995), Volume 68, pp. 1-268.