

VNiVERSiDAD DSALAMANCA

CAMPUS OF INTERNATIONAL EXCELLENCE

11th COURSE: Data Management and Panel Data Models

Prof. Julio Pindado and Dr. Ignacio Requejo Salamanca, from 10th to 14th July, 2017

Limited Places! A Maximum of 20 Students

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Introduction

The aim of this course is to communicate the skills necessary to understand and assess the applications of panel data analysis reported in the Business Economics literature, and to provide skills which could be applied to analyzing a variety of research and policy problems related to Business Economics. The course is intended as an introduction to the issues and opportunities arising when a panel data structure is available. In particular, the course covers the different structures of data and the advantages and limitations of panel data. Additionally, a new approach to modern econometric analysis is provided, highlighting the role of conditional expectations. Both static and dynamic models for panel data analysis are presented, with special attention to choosing the most suitable estimator for each model. As a result, the course focuses on the decisions that the researcher should make instead of the algebraic derivation of the models. Moreover, several cases on how to derive economic models combining panel data and Stata are discussed. Finally, the efficient research process using panel data and Stata is shown by analyzing a case.

Structure of the Course

PART I. ECONOMETRIC MODELS FOR PANEL DATA

Lesson 1. Estimation Methods: Endogeneity and Instrumental Variables

- 1.1. Data Structures
- 1.1. Role of Conditional Expectations in Econometrics
- 1.2. Linear Regression Framework
- 1.3. The endogeneity problem: Sources and Responses
- 1.4. Instrumental Variables Estimation
- 1.5. Generalized Method of Moments

Lesson 2. Introduction and Linear Static Models for Panel Data

- 2.1. Characterizing Panel Data Methods
- 2.2. Advantages and Limitations of Panel Data
- 2.3. Why is the Panel Data Methodology Needed?
- 2.4. Fixed Effects Models
- 2.5. Random Effects Models
- 2.6. Fixed Effects Models versus Random Effects Models
- 2.7. Limitations of Linear Static Panel Data

Lesson 3. Linear Dynamic Models for Panel Data

- 3.1. Autoregressive Models
- 3.2. Models with Endogenous Variables
- 3.3. Models with Predetermined Variables
- 3.4. Models with Strictly Exogenous Variables
- 3.5. System GMM
 - 3.5.1 System GMM for Autoregressive Models
 - 3.5.2 System GMM for Models with Predetermined Variables
- 3.6. Specification Tests
 - 3.6.1 Testing for Residual Serial Correlation
 - 3.6.2. Testing for Overidentifying Restrictions
 - 3.6.3. Incremental Sargan Tests



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Lesson 4. Nonlinear Panel Data Models

- 4.1. Introduction to Discrete Response Models
- 4.2. Fixed Effects Logit
- 4.3. Random Effects Logit
- 4.4. Censored Regression Models

PART II. PANEL DATA METHODS WITH Stata

Lesson 5. Introduction to Data Management with Stata

- 5.1. Basic Concepts
- 5.2. Format and Content of Data Files
- 5.3. Data Management
- 5.4. Stata Work Environment: Do Files and Output Files
- 5.5. Joining Data

Lesson 6. Managing Variables for Research

- 6.1. Types of Variables: Storage and Displaying Format
- 6.2. Management of Variables
- 6.3. Descriptive Analysis
- 6.4. Creating Variables for Research

Lesson 7. Advanced Operations with Stata

- 7.1. Using Matrices
- 7.2. Advanced Commands
- 7.3. Error Messages
- 7.4. Online Help

Lesson 8. Model Estimation with Stata

- 8.1. Introduction to Model Estimation with Stata
- 8.2. Estimation of Linear Static Models for Panel Data
- 8.3. Estimation of Linear Dynamic Models for Panel Data
 - 8.3.1. The Difference GMM Estimator
 - 8.3.2. The System GMM Estimator
- 8.4. Estimation of Nonlinear Panel Data Models

Lesson 9. Deriving Economic Models Combining Panel Data and Stata: Case Analyses

- 9.1. Improving Previous Models
- 9.2. Implementing New Research Strategies
- 9.3. Obtaining the Optimal Value of Parameters

Appendix A. Panel Data and Publication

- A.1. Explaining the Panel Data Methodology in the Paper
- A.2. How to Answer Referees' Questions on the Methodology
- A.3. Comparison between Estimators

Lesson 10. Efficient Research Process by Using Panel Data and Stata: A Case Analysis

- 10.1. Collecting the Data
- 10.2. Joining the Data
- 10.3. Constructing Variables
- 10.4. Constructing Variables by Using Estimation Results
- 10.5. Panel Data Structure and Variable Analysis
- 10.6. Estimation of the Model
- 10.7. Process of Incorporating New Ideas



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References

Main References

- Arellano, M. (2003): *Panel Data Econometrics (Advanced Texts in Econometrics)*, Oxford University Press.
- Baum, C., M. Schaffer and S. Stillman (2011): "Using Stata for Applied Research: Reviewing its Capabilities", *Journal of Economic Surveys*, 25 (2), 380-394.
- Bond, S.R. (2002): "Dynamic Panel Data Models: A Guide to Micro Data Methods and Practice". Cemmap Working Paper Series No. CWP09/02, *Institute for Fiscal Studies*, London.
- Greene, W. (2012): Econometric Analysis (7th Edition), Prentice Hall.
- Petersen, M.A. (2009): "Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches", *The Review of Financial Studies*, 22 (1), 436-480.
- Pindado, J. and I. Requejo (2015): "Panel Data: A Methodology for Model Specification and Testing". In: Paudyal, K. (Vol. Ed.), Volume 4, Finance, Cooper, C.L. (Editor-in-Chief), Wiley Encyclopedia of Management, 3rd Edition. John Wiley & Sons, Ltd., UK.
- Roodman, D. (2009): "How to do xtabond2: An Introduction to Difference and System GMM in Stata", *The Stata Journal*, 9 (1), 86-136.
- Roodman, D. (2009): "A Note on the Theme of Too Many Instruments", Oxford Bulletin of Economics and Statistics, 71 (1), 135-158.
- Wooldridge, J.M. (2010): *Econometric Analysis of Cross Section and Panel Data*, (2nd Edition), MIT Press.
- Wooldridge, J. M. (2009): Introductory Econometrics. A Modern Approach (4th *Edition*), South-Western Cengage Learning.

Additional References

- Ahn, S.C. and P. Schmidt (1995): "Efficient Estimation of Models for Dynamic Panel Data", *Journal of Econometrics*, 68, 5-28.
- Anderson, T.W. and C. Hsiao (1981): "Estimation of Dynamic Models with Error Components", *Journal of the American Statistical Association*, 76, 598-606.
- Anderson, T.W. and C. Hsiao (1982): "Formulation and Estimation of Dynamic Models using Panel Data", *Journal of Econometrics*, 18, 47-82.
- Arellano, M. and O. Bover (1995): "Another Look at the Instrumental Variable Estimation of Error-Components Models", *Journal of Econometrics*, 68, 29-51.
- Arellano, M. and S. Bond (1991): "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations", *Review of Economic Studies*, 58, 277-297.
- Baltagi, B.H. (2005): "Econometric Analysis of Panel Data", Wiley.
- Bennedsen, M., Nielsen, K.M., Perez-Gonzalez, F. and Wolfenzen, D., (2007). Inside the family firm: the role of families in succession decisions and performance. Quarterly Journal of Economics 122, 647–691.
- Blundell, R.W. and S.R. Bond (1998): "Initial Conditions and Moment Restrictions in Dynamic Panel Data Models", *Journal of Econometrics*, 87, 115-143.
- Bover, O. and M. Arellano (1997): "Estimating Dynamic Limited Dependent Variable Models from Panel Data", *Investigaciones Economicas*, 21, 141-165.



- Chamberlain, G. (1980): "Analysis of Covariance with Qualitative Data", *Review of Economic Studies*, 47, 225-238.
- Chamberlain, G. (1984): "Panel Data". In Griliches, Z. and M.D. Intriligator (comp.), Handbook of Econometrics Vol. 2, North-Holland, Amsterdam.
- Flannery, M.J., Hankins, K. W., (2013). Estimating dynamic panel models in corporate finance. Journal of Corporate Finance 19, 1–19.
- Giroud, X.; H. M. Mueller, A. Stomper and A. Westerkamp (2012): "Snow and Leverage". The Review of Financial Studies, 25 (3), 680-710.
- Hausman, J.A. (1978): "Specification Tests in Econometrics", *Econometrica*, 46, 1251-1272.
- Hillier, D., J. Pindado, V. de Queiroz and C. de la Torre (2011): "The Impact of Country-level Corporate Governance on Research and Development", *Journal of International Business Studies*, 42, 76-98.
- Hsiao, C. (1990): Analysis of Panel Data. Cambridge University Press, Cambridge.
- Larcker, D.F. and T.O. Rusticus (2010): "On the Use of Instrumental Variables in Accounting Research", *Journal of Accounting and Economics*, 49, 186-205.
- Miguel, A. and J. Pindado (2001): "Determinants of Capital Structure: New Evidence from Spanish Panel Data", *Journal of Corporate Finance*, 7, 77-99.
- Miguel, A., J. Pindado, and C. de la Torre (2004): "Ownership Structure and Firm Value: New Evidence from the Spanish Case", *Strategic Management Journal*, 25, 1199-1207.
- Miguel, A., J. Pindado and C. de la Torre (2005): "How do Entrenchment and Expropriation Phenomena Affect Control Mechanisms?", *Corporate Governance: An International Review*, 13, 505-516.
- Mundlak, Y. (1961): "Empirical Production Function Free of Management Bias", *Journal of Farm Economics*, 43, 44-56.
- Pindado, J., V. de Queiroz and C. de la Torre (2010): "How do Firm Characteristics Influence the Relationship between R&D and Firm Value?", *Financial Management*, 39 (2), 757-782.
- Pindado, J., I. Requejo and C. de la Torre (2011): "Family Control and Investment-Cash Flow Sensitivity: Empirical Evidence from the Euro Zone", *Journal of Corporate Finance*, 17 (2), 1389-1409.
- Pindado, J., I. Requejo and C. de la Torre (2012): "Do Family Firms Use Dividend Policy as a Governance Mechanism? Evidence from the Euro Zone", *Corporate Governance: An International Review, 20 (5): 413–431.*
- Pindado, J., I. Requejo and C. de la Torre (2014): "Family Control, Expropriation, and Investor Protection: A Panel Data Analysis of Western European Corporations", *Journal of Empirical Finance*, (in press).
- Pindado, J., L. Rodrigues and C. de la Torre (2008): "Estimating Financial Distress Likelihood", *Journal of Business Research*, 61 (9), 995-1003.
- Pindado, J. and L. Rodrigues (2005): "Determinants of financial distress costs", *Financial Markets and Portfolio Management,* 19 (4), 343-359.
- Windmeijer, F. (2005): "A Finite Sample Correction for the Variance of Linear Efficient Two-Step GMM Estimators", *Journal of Econometrics*, 126, 25-51.
- Wintoki, M.B., J.S. Linck and J.M. Netter (2012): "Endogeneity and the dynamics of internal corporate governance", Journal of Financial Economics, 105, 581-606.



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Timetable

Date	Time	Lesson	Lecturer	Room
10-07-2017 Monday	16-20	Lesson 1 Lesson 2	Julio Pindado	Lecture Room
11-07-2017 Tuesday	9-13	Lesson 3 (3.1-3.4)	Julio Pindado	Lecture Room
11-07-2017 Tuesday	15-18	Lesson 5 (5.1-5.4)	Ignacio Requejo	Computer Lab
12-07-2017 Wednesday	9-11	Lesson 3 (3.5) Lesson 4	Julio Pindado	Lecture Room
12-07-2017 Wednesday	11-13	Lesson (8.1-8.2)	Julio Pindado	Computer Lab
12-07-2017 Wednesday	15-18	Lesson 5 (5.5) Lesson 6	Ignacio Requejo	Computer Lab
13-07-2017 Thursday	9-13	Lesson (8.3-8.4)	Julio Pindado	Computer Lab
13-07-2017 Thursday	15-18	Lesson 7	Ignacio Requejo	Computer Lab
14-07-2017 Friday	9-11	Lesson 10 (10.1-10.3)	Ignacio Requejo	Computer Lab
14-07-2017 Friday	11-14	Lesson 9 Appendix A Lesson 10 (10.4-10.7)	Julio Pindado	Lecture Room

Brief Biographies

Julio Pindado is Professor of Accounting and Finance at Universidad de Salamanca (Spain) and Professorial Fellow of Accounting and Finance at the Division of Accounting and Finance at Leeds University Business School, University of Leeds (UK). He has published academic peer-reviewed articles on corporate finance and governance in several top journals ranked with a high impact factor in the Journal Citation Report, such as the Strategic Management Journal, Financial Management, Journal of International Business Studies, Journal of Corporate Finance and Corporate Governance: An International Review. Prof. Pindado is Advisory Editor of Frontiers in Finance and Economics, serves as a member of the Editorial Advisory Board of Journal of Financial Regulation and Compliance and Review of Behavioral Finance. Additionally, Prof. Pindado has served as a member of the Board of Directors of the European Financial Management Association (2003-2005). He has also served as instructor at the 2004 and 2007 "Merton H. Miller" Doctoral Seminar, organized by Prof. John Doukas, managing editor of European Financial Management. Prof. Pindado has also been Visiting Fellow at the Institute of Finance and Accounting at the London Business School.

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Ignacio Reguejo is Assistant Professor of Finance at Universidad de Salamanca (Spain). He holds a PhD degree in Business Economics with a "European Distinction" from this university. During his doctoral studies, he has stayed at Saïd Business School (University of Oxford) as a Visiting Doctoral Student and at the Centre for Corporate Governance at London Business School (University of London) as a Visiting Research Assistant. Ignacio's thesis on family firms was awarded the 2011 Best Doctoral Dissertation Award sponsored by the Family Firm Institute (FFI) and Relative Solutions. His work has been published in top finance and governance journals, including the Journal of Corporate Finance, Corporate Governance: An International Review, Journal of Business Finance and Accounting, and Journal of Empirical Finance. He has presented several papers in which the panel data methodology is used in numerous international conferences. including the Financial Management Association (FMA) International Annual Meeting, the European Financial Management Association (EFMA) Annual Conference and the Annual International Family Enterprise Research Academy (IFERA) Conference. He has also presented his work at research seminars held at Saïd Business School, London Business School, Leeds University Business School and University of Strathclyde Business School. Ignacio is Visiting Lecturer at the University of Strathclyde Business School and Associate Editor of the International Journal of Multivariate Data Analysis, which is published by Inderscience.

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Academic and Research Awards

- Lozano, B., Martinez, B. and Pindado, J.: IFERA Best Conference Paper Award at the **13th Annual IFERA Conference**, which took place between the 2nd and the 5th of July 2013 in St. Gallen (Switzerland), for the paper "Drivers of the effect of the main shareholder on firm value: The case of young family-owned businesses"
- Requejo, I.: 2011 Best Doctoral Dissertation Award sponsored by the Family Firm Institute (FFI) and Relative Solutions and awarded at the **2011 FFI Annual Conference** held in Boston (US) for the thesis entitled "Corporate Governance in Family Firms: Effects of Family Control on Firm Value and Corporate Financial Decisions"
- Pindado, J., Requejo I. and de la Torre, C.: "GEEF" Best Policy-oriented Research Paper Award at the **10th Annual IFERA Conference**, which took place between the 6th and the 9th of July 2010 in Lancaster (UK), for the paper "Family control and the investment–cash flow sensitivity: Empirical evidence from the Euro zone"
- Pindado, J., Requejo I. and de la Torre, C.: "University of Alberta" Best Family Business Research Paper Award at the **8th Annual IFERA Conference**, which took place between the 2nd and the 5th of July 2008 in Breukelen (The Netherlands), for the paper "Ownership concentration and firm value: Evidence from Western European family firms"
- Requejo, I.: Award for the Best Paper presented at the I International Accounting & Finance Doctoral Symposium, which took place on the 16th and 17th of April 2008 in Prato (Italy), for the paper "The effect of family control on corporate performance".



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- Pindado, J. and de la Torre, C.: Award for the Best Paper published in the **European Financial Management Journal** in 2006 for the paper "The Role of Investment, Financing and Dividend Decisions in Explaining Corporate Ownership Structure: Empirical Evidence from Spain".
- Pindado, J. and Rodrigues, L.: Award for the Best Paper published in the **Financial Markets and Portfolio Management Journal** in 2005 for the paper "Determinants of financial distress costs".

Publications using the Panel Data Methodology

- Martinez, B and **Requejo**, **I.**, "Does the type of family control affect the relationship between ownership structure and firm value?", *International Review of Finance*, 2017, Vol. 17, pp. 135-146.
- **Pindado, J., Requejo, I.** and de la Torre, C., "Does family control shape corporate capital structure? An empirical analysis of Eurozone firms", *Journal of Business Finance and Accounting*, 2015, Vol. 42, pp. 965-1006.
- **Pindado, J.**, Queiroz, V. and de la Torre, C., "How do country-level governance characteristics impact the relationship between R&D and firm value?", *R&D Management*, 2015, Vol. 45, pp. 515-526.
- Keasey, K., Pindado, J. and Rodrigues, L., "The determinants of the costs of financial distress in SMEs", *International Small Business Journal*, 2015, Vol. 33, pp. 862-881.
- Keasey, K., Martinez, B and Pindado, J., "Young family firms: Financing decisions and the willingness to dilute control", *Journal of Corporate Finance*, 2015, Vol. 34, pp. 47-63.
- Pindado, J. and Requejo, I., "Panel data: A methodology for model specification and testing", in: Paudyal, K. (Vol. Ed.), Volume 4, Finance, Cooper, C.L. (Editorin-Chief), *Wiley Encyclopedia of Management*, 3rd Edition. John Wiley & Sons, Ltd., UK, 2015.
- Pindado, J., Requejo, I. and de la Torre, C., "Family control, expropriation, and investor protection: A panel data analysis of Western European corporations", *Journal of Empirical Finance*, 2014, Vol. 27, pp. 58-74.
- Galván, A., **Pindado, J.** and de la Torre, C., "Diversification: A value-creating or value-destroying strategy? Evidence from the Eurozone countries", *Journal of Financial Management, Markets and Institutions*, 2014, Vol. 2, No. 1, pp. 43-64.
- Bastos, R. and **Pindado, J.**, "Trade Credit during a Financial Crisis: A Panel Data Analysis", *Journal of Business Research*, 2013, 66, pp. 614-620.
- **Pindado, J., Requejo, I.** and de la Torre, C., "Do family firms use dividend policy as a governance mechanism? Evidence from the Euro Zone", *Corporate Governance: An International Review*, 2012, Vol. 20, No. 5, pp. 413-431.
- **Pindado, J., Requejo, I.** and de la Torre, C., "Family control and investment–cash flow sensitivity: Empirical evidence from the Euro zone", *Journal of Corporate Finance*, 2011, Vol. 17, No. 2, pp. 1389-1409.
- Hillier, D., **Pindado, J.**, de Queiroz, V. and de la Torre, C., "The Impact of Countrylevel Corporate Governance on Research and Development", *Journal of International Business Studies*, 2011, Vol. 42, No. 1, pp. 76-98.
- Pindado, J. and de la Torre, C., "Capital structure: new evidence from the ownership structure", *International Review of Finance*, 2011, Vol. 11, No. 2, pp. 213-226.
- Pindado, J., de Queiroz, V. and de la Torre, C., "How do Firm Characteristics Influence the Relationship between R&D and Firm Value?", *Financial Management*, 2010, Vol. 39, No. 2, pp. 757-782.



- Pindado, J. and de la Torre, C., "The Effect of Ownership Structure on Underinvestment and Overinvestment: Empirical Evidence from Spain", *Accounting & Finance*, 2009, Vol. 49, No. 2, pp. 363-383.
- Bastos, R. and **Pindado, J.**, "Trade credit, creditor protection and accounting standards: evidence from an international sample", *Revista de Economia Financiera*, 2009, No. 17, pp. 10-33.
- **Pindado, J.**, Rodrigues, L. and de la Torre, C., "How do insolvency codes affect a firm's investment?", *International Review of Law and Economics*, 2008, Vol. 28, pp. 227-238.
- Pindado, J. and de la Torre, C., "Financial Decisions as Determinants of Ownership Structure: Evidence from Spanish Family Controlled Firms", *Managerial Finance*, 2008, Vol. 34, No. 12, pp. 868-885.
- **Pindado, J.**, Rodrigues, L. and de la Torre, C., "Estimating Financial Distress Likelihood", *Journal of Business Research*, 2008, Vol. 61, No. 9, pp. 995-1003.
- Bastos, R. and **Pindado**, **J.**, "An agency model to explain trade credit policy and empirical evidence", *Applied Economics*, 2007, Vol. 39, No. 2, pp. 2631-2642.
- **Pindado, J.** and de la Torre, C., "The Role of Investment, Financing and Dividend Decisions in Explaining Corporate Ownership Structure: Empirical Evidence from Spain", *European Financial Management*, 2006, Vol. 12, No. 5, pp. 661-687.
- Pindado, J., Rodrigues, L. and de la Torre, C., "How does financial distress affect small firms' financial structure?", *Small Business Economics: An International Journal*, 2006, Vol. 26, No. 4, pp. 377-391.
- Pindado, J. and Rodrigues, L., "Determinants of financial distress costs", *Financial Markets and Portfolio Management*, 2005, Vol. 19, No. 4, pp. 343-359.
- Miguel, A., **Pindado, J.** and de la Torre, C., "How do entrenchment and expropriation phenomena affect control mechanisms?", *Corporate Governance: An International* Review, 2005, Vol. 13, No. 4, pp. 505-516.
- Maestro, M. and **Pindado, J.**, "Capital structure and stock prices: Additional evidence", *Applied Financial Economics Letters*, 2005, Vol. 1, No. 6, pp. 355-360.
- Lozano, B., Miguel, A. and **Pindado, J.**, "Dividend policy in regulated firms: An analysis from two agency problems", *Eurasian Review of Economics and Finance*, 2005, Vol. 1, No. 1, pp. 9-22.
- Miguel, A., **Pindado, J.** and de la Torre, C., "Ownership structure and firm value: New evidence from Spain", *Strategic Management Journal*, 2004, Vol. 25, No. 12, pp. 1119-1207.
- Pindado, J. and de la Torre, C., "Why is ownership endogenous?", Applied Economics Letters, 2004, Vol. 11, No. 14, pp. 901-904.
- Morgado, A. and **Pindado**, J., "The underinvestment and overinvestment hypotheses: An analysis using panel data", *European Financial Management*, 2003, Vol. 9, No. 2, pp. 163-177.
- Del Brío, E., Miguel, A. and **Pindado, J.**, "Investment and firm value: An analysis using panel data", *Applied Financial Economics*, 2003, Vol.13, No. 12, pp. 893-903.
- Miguel, A. and **Pindado**, J., "Investment decisions: Lessons from Spanish firms", *The International Journal of Finance*, 2003, Vol. 15, No. 1, pp. 2537-2556.
- Miguel, A. and **Pindado**, **J.**, "Determinants of capital structure: New evidence from Spanish panel data", *Journal of Corporate Finance*, 2001, Vol. 7, No. 1, pp. 77-99.



Registration

Before registering online, acceptance to the course will be confirmed by the course organizers. To this aim, please, send an email to Dr. Ignacio Requejo (E-mail: irequejo@usal.es) with the following information:

- Name and Surname:
- Research Interests:
- Country:
- Brief Curriculum Vitae:

The information requested above should be sent, preferably, by May 15th. Acceptance to the course will be confirmed as soon as possible upon receipt of these details. To guarantee the quality of the course, only a maximum of 20 students will be accepted. The brief CV sent with your registration details will be the main acceptance criterion.

Participation Fee

The registration fee for the **course** is **EUR 330** and includes the course materials. In addition to a binder with the contents covered in the course, the Stata files (.do, .dta and .log) to be used during the classes will also be provided. The fee also includes a welcome coffee the first day of the course and a farewell Lunch that will take place on Friday, July 14th at Apartahotel Hall88:

www.exehall88apartahotel.com/Salamanca.

Special Price! Given that the 11th Course on "Data Management and Panel Data Models" will take place the week before the 5th Course on "Advanced Dynamic Panel Data Methods", which is also organized by Universidad de Salamanca, there is a special price for those interested in attending both courses. For participants that attend both events, the total fee is **EUR 495**.

Summary of Fees						
11 th Course on "Data Management and Panel Data Models" EUR 330	5 th Course on "Advanced Dynamic Panel Data Methods" EUR 220					
14 th Oscieta and "Deta Management and Devial Deta Madala" & 5 th Oscieta and						

11[™] Course on "Data Management and Panel Data Models" & 5[™] Course on "Advanced Dynamic Panel Data Methods" **EUR 495 (Save EUR 55!)**

For those accepted to the course, details on the method of payment will be provided upon notification of acceptance.

Accommodation

Colegio Cuenca: http://www.resa.es/Residencias/Colegio-de-Cuenca This hall of residence is only a two minute walk from the venue.

Colegio Oviedo: http://www.usal.es/webusal/node/4190 This hall of residence is only a two minute walk from the venue.



Colegio Mayor Arzobispo Fonseca: http://www.usal.es/node/4297 This hall of residence is just a ten minute walk from the venue.

Apartahotel Hall88: www.exehall88apartahotel.com/Salamanca This hotel is only a three minute walk from the venue.

Hotel Abba Fonseca: www.abbafonsecahotel.com/ This hotel is only a ten minute walk from the venue.

Hotel Artheus Carmelitas: www.artheushoteles.es This hotel is just a fourteen minute walk from the venue.

11

Course Venue

Universidad de Salamanca Facultad de Economia y Empresa Campus Miguel Unamuno, Edificio FES 37007, Salamanca (Spain) The exact location can be found in the following internet link: http://www.usal.es/node/19

The Facultad de Economía y Empresa is located in the new campus of Universidad de Salamanca, just some minutes away from the bus station. The main entrance to the Course Venue is from 'Paseo de Francisco Tomás y Valiente'.



Universidad de Salamanca – New Campus



Facultad de Economía y Empresa – Main Entrance

12

Brief Reference about Salamanca

Salamanca is a city in western Spain, in the region of Castilla and León. Because of its beautiful buildings and urban environment, the Old City was declared a UNESCO World Heritage Site in 1988. It is the most important University City in Spain and is known for its contributions to the teaching of the Spanish language. Salamanca attracts thousands of international students. generating а diverse multicultural environment.



Old Facade – Universidad de Salamanca





View of Salamanca – Cathedral and Roman Bridge

It is situated approximately 200 km (124 mi) west of Madrid and 80 km (50 mi) east of the Portuguese border. The University of Salamanca, which was founded in 1218, is the oldest university in Spain and the third oldest western university. With its 30,000 students, the university is, together with tourism, the economic engine of the city.

Travelling to Salamanca

Spanish Airports: http://www.aena.es

The commercial airports closest to Salamanca are Adolfo Suárez Madrid-Barajas and Valladolid-Villanubla. Adolfo Suárez Madrid-Barajas is the largest Spanish airport and there are regular flights from/to most national/ international destinations.

Bus: http://www.venta.avanzabus.com

There is a direct bus from Madrid airport to Salamanca. There are two bus stops to travel to Salamanca. The Avanzabus/AutoRes bus departs from the bus stop located in Terminal T1 of Madrid-Barajas airport (ground floor, opposite baggage reclaim hall 2):

http://www.aena-

aeropuertos.es/csee/Satellite?Language=ES_ES&ca=MAD&pagename=cartografia&poi= 1237555933611&ps=t&swidth=873&sheight=533

And then it stops in the bus stop located in Terminal T4 of Madrid-Barajas airport (ground floor) before beginning the journey to Salamanca:

http://www.aena.es/csee/Satellite?Language=ES_ES&ca=MAD&pagename=cartogr afia&poi=1184831194719&ps=t

Alternatively, you can take the underground/a taxi to travel to the central bus station in Madrid (Estación de Autobuses de Madrid – Estación Sur) and take a bus from Madrid city centre to Salamanca. You can buy the bus ticket online in advance. The bus journey from Madrid to Salamanca takes approximately 2 hours and 40 minutes.

Train: https://venta.renfe.com/vol/index.do

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Experience from Past Alumni

"I found the GMM course very useful, interesting and applicable for all researchers in the areas of accounting and finance. Prof. Pindado created the right balance of theory and application such that we understood the benefits and superiority over other cross-sectional and time-series frameworks and also its limitations.

Individuals unfamiliar with Stata are not disadvantaged as Dr. Requejo and Dr. De La Torre taught the class the basics of using Stata and useful tips and tools from their experience. The program included more advanced Stata material and the best sites/forums to search for help in the future when required. Any participant of this course virtually has no impediments not to use the GMM methodology as Prof. Pindado provides the GMM Stata code, example datasets and expected results. Prof. Pindado walks you through the entire process of loading the data, applying the functions and interpretation of results.



I highly recommend this course to PhD students and early career researchers who wish to use GMM in their research as they will be able to apply the principles, tools and technology immediately upon completion of the workshop. Salamanca is a beautiful city with the 3rd oldest university in the world and an abundance of cultural and historical heritage to engage any visitor. I have to admit, one of the factors that led to my application to the workshop was the opportunity to visit Salamanca itself."

I very much enjoyed the time spent in Salamanca, since the course was very useful for me. As a researcher focusing on research fields such as Corporate Governance, GMM estimation is a very powerful methodological tool, but complicated. Thanks to the course, I acquired both strong theoretical background and practical help in the sense of how to apply it in Stata.

The course is well structured and it is a truly good use of time because you can learn so many useful things from an experienced professor within several days. Besides, the material provided is a good collection of valuable information you can refer to even after you finish the course when you try to apply panel data analysis in your own project. I highly recommend this course to PhD students who would like to master their panel data modelling skills.



Kwong Yew (Rand) Low



Jingsi Leng Hull University Business School (United Kingdom)



Additional Information

For additional details on the course, please, go to the following link: Research Methods Courses

For further information, please, contact: Ignacio Requejo E-mail: irequejo@usal.es Tel: +34 923 294763 Fax: +34 923 294715





VNiVERSiDAD DSALAMANCA

CAMPUS OF INTERNATIONAL EXCELLENCE

5th COURSE: Advanced Dynamic Panel Data Methods

Salamanca, from 17th to 19th July, 2017

Speaker:

Prof. Jan F. Kiviet

Emeritus Professor of Econometrics at University of Amsterdam Visiting Professor at University of Salamanca, Spain Visiting Professor at Nanyang Technological University, Singapore

Organizers:

Prof. Julio Pindado and Dr. Ignacio Requejo *Universidad de Salamanca, Spain*

Limited Places! A Maximum of 20 Students

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For further information, please contact:

Ignacio Requejo E-mail: irequejo@usal.es Tel: +34 923 294763 Fax: +34 923 294715

Introduction

This course provides a thorough analytical and experimental analysis of the qualities of inference when modeling dynamic and possibly simultaneous relationships on the basis of panel data. The focus is on establishing causal relationships for nondiscrete dependent variables on the basis of short balanced panels of independent individual cross-section units (small *T*, moderate or large *N*). For such microeconometric panels the (non)stationarity of the time-series is not an issue, but certain aspects of the initial conditions of the involved dynamic processes certainly are. Special attention will be paid to specializing GMM (generalized method of moments) inference methods for this type of model, leading to a methodology to classify transformations of both explanatory and non-explanatory variables as either endogenous or potential instruments. The course is supplemented by computer illustrations on the basis of actual empirical data using Stata. In addition, relevant simulation results will be discussed to acquire insights in the contrasts between the limiting and the actual finite sample distributions of parameter estimators and test statistics on the tenability of parametric restrictions and of moment conditions.

Topics Covered

- 1. Perils of unobserved heterogeneity; scope and limitations of panel data analysis
- 2. GMM: estimation and inference; dynamic panel implementations
- 3. Weakness, validity and optimality of instruments in GMM context
- 4. Implementations in Stata; relevant simulation results
- 5. Some possible extensions: heterogeneous panels, cross-section dependence

Entry Requirements

Any researcher interested in the topic of the course, and especially researchers working in the various business and economics fields, is very welcome. However, to make the most of participating in the course, we recommend potential participants some reading upon receipt of the registration information indicated in Section 6. The recommendation will depend on the previous knowledge of econometric methods, in general, and panel data models, in particular. Therefore, it is **very important** that you provide the information requested in the final point of Section 6 when applying for a place in the course.

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Timetable

All three days the lectures will start at 9.15 am and last until about 13.30 pm with one or two 15-minute breaks. Apart from theory, the lectures will also involve life computer demonstrations. The participants will be provided with the data and further instructions to practice by themselves during the afternoon, and they can ask for personal feedback the next morning, or later by email.



Dynamic Panel Data Methods Universidad de Salamanca - Salamanca, Spain

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Brief Biography

Jan F. Kiviet is Professor of Econometrics at Nanyang Technological University (Singapore) and he is Emeritus Professor at the University of Amsterdam (The Netherlands). He has published academic peer-reviewed articles on econometrics and applied economics in several top journals ranked with a high impact factor in the Journal Citation Report, such as Review of Economic Studies, Econometrica, Review of Economics and Statistics, Journal of Econometrics, Oxford Bulletin of Economics and Statistics, The Econometrics Journal and Econometric Theory. His research interests include Dynamic Models, Panel Data Analysis, Endogenous Interventions, Monte Carlo Testing and Simulation, Finite Sample Issues, Asymptotic Expansions, Exact Inference, Bootstrap, History of Statistics and Econometrics. You can check Jan's vast teaching and research experience in these and other related field by going to his personal webpage: https://sites.google.com/site/homepagejfk/home

Registration and Participation Fee

Before registering online, acceptance to the course will be confirmed by the course organizers. To this aim, please, send an email to Dr. Ignacio Requejo (E-mail: irequejo@usal.es) with the following information:

- Name and Surname
- Research Interests
- Country
- Brief Curriculum Vitae
- A brief summary explaining previous knowledge of econometric methods in general and panel data models in particular and how you learnt these topics.

The information requested above should be sent, preferably, by May 15th. Acceptance to the course will be confirmed as soon as possible upon receipt of these details. To guarantee the quality of the course, only a maximum of 20 students will be accepted. The brief CV sent with your registration details will be the main acceptance criterion.

The registration fee for the **course** is **EUR 220**.

Special Price! Given that the 5th Course on "Advanced Dynamic Panel Data Methods" will take place the week after the 11th Course on "Data Management and Panel Data Models", which is also organized by Universidad de Salamanca, there is a special price for those interested in attending both courses. For participants that attend both events, the total fee is **EUR 495**.

Summary of Fees

11th Course on "Data Management and Panel Data Models" **EUR 330**

5th Course on "Advanced Dynamic Panel Data Methods" **EUR 220**

11th Course on "Data Management and Panel Data Models" & 5th Course on "Advanced Dynamic Panel Data Methods" **EUR 495 (Save EUR 55!)**

For those accepted to the course, details on the method of payment will be provided upon notification of acceptance.



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Accommodation

Colegio Cuenca: http://www.resa.es/Residencias/Colegio-de-Cuenca This hall of residence is only a two minute walk from the venue.

Colegio Oviedo: http://www.usal.es/webusal/node/4190 This hall of residence is only a two minute walk from the venue.

Colegio Mayor Arzobispo Fonseca: http://www.usal.es/node/4297 This hall of residence is just a ten minute walk from the venue.

Apartahotel Hall88: www.exehall88apartahotel.com/Salamanca This hotel is only a three minute walk from the venue.

Hotel Abba Fonseca: www.abbafonsecahotel.com/ This hotel is only a ten minute walk from the venue.

Hotel Artheus Carmelitas: www.artheushoteles.es This hotel is just a fourteen minute walk from the venue.

Course Venue

Universidad de Salamanca Facultad de Economia y Empresa Campus Miguel Unamuno, Edificio FES 37007, Salamanca (Spain) The exact location can be found in the following internet link: http://www.usal.es/node/19

The Facultad de Economía y Empresa is located in the new campus of Universidad de Salamanca, just some minutes away from the bus station. The main entrance to the Course Venue is from 'Paseo de Francisco Tomás y Valiente'.



Uni. de Salamanca – Campus Miguel Unamuno



Facultad de Economía y Empresa – Main Entrance



Dynamic Panel Data Methods Universidad de Salamanca - Salamanca, Spain

Brief Reference about Salamanca

Salamanca is a city in western Spain, in the region of Castilla and León. Because of its beautiful buildings and urban environment, the Old City was declared a UNESCO World Heritage Site in 1988. It is the most important University City in Spain and is known for its contributions to the teaching of the Spanish language. Salamanca attracts thousands of international students, generating a diverse multicultural environment.



View of Salamanca - Cathedral and Roman Bridge



Old Facade – Universidad de Salamanca

It is situated approximately 200 km (124 mi) west of Madrid and 80 km (50 mi) east of the Portuguese border. The University of Salamanca, which was founded in 1218, is the oldest university in Spain and the third oldest western university. With its 30,000 students, the university is, together with tourism, the economic engine of the city.

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Travelling to Salamanca

Spanish Airports: http://www.aena.es

The commercial airports closest to Salamanca are Adolfo Suárez Madrid-Barajas and Valladolid-Villanubla. Adolfo Suárez Madrid-Barajas is the largest Spanish airport and there are regular flights from/to most national/ international destinations.

Bus: http://www.venta.avanzabus.com

There is a direct bus from Madrid airport to Salamanca. There are two bus stops to travel to Salamanca. The Avanzabus/AutoRes bus departs from the bus stop located in Terminal T1 of Madrid-Barajas airport (ground floor, opposite baggage reclaim hall 2):

http://www.aena-

aeropuertos.es/csee/Satellite?Language=ES_ES&ca=MAD&pagename=cartografia&poi= 1237555933611&ps=t&swidth=873&sheight=533

And then it stops in the bus stop located in Terminal T4 of Madrid-Barajas airport (ground floor) before beginning the journey to Salamanca:

http://www.aena.es/csee/Satellite?Language=ES_ES&ca=MAD&pagename=cartogr afia&poi=1184831194719&ps=t



Dynamic Panel Data Methods Universidad de Salamanca - Salamanca, Spain

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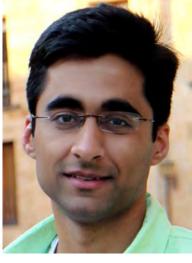
Experience from Past Alumni

The course "Advanced Dynamic Panel Data Methods" was a course of three days. It was extremely well organized and the course had a very useful structure. We had a great lecturer who knew how to include plenty of applicatory examples in his lectures in order to give us a complete understanding of the advanced panel data models. Since attending this course I was able to apply some of the models in my own study and give my research a stronger focus. I had a great time in Salamanca and can only recommend attending the research methods courses.



Universität Hamburg (Germany)

Meike Ahrends



Sushil Sainani University of Liverpool (United Kingdom)

As a former participant in the "Advanced dynamic panel data methods" course, I would recommend it to anyone who has a strong understanding of GMM estimators and want to further broaden their knowledge. The course was supported with some examples demonstrating its implementation in STATA. It suits best to experienced researchers working with dynamic panel data models.

Overall, what a positive surprise this course proved to be! It was an opportunity to meet international researchers indulging in discussion on current research projects and experiencing the culture, food, evening ambience at Plaza Mayor and architecture of Salamanca. All together was totally worth it. The course is filled with valuable information and you will learn everything you need to know about static and dynamic panel data models.



Dynamic Panel Data Methods Universidad de Salamanca - Salamanca, Spain **Additional Information**

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For additional details on the course, please, go to the following link: Research Methods Courses

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