References

- Abel, Andrew B., and Janice C. Eberly, Optimal Investment with Costly Reversibility, *Review of Economic Studies* Vol. 63 (1996), 581-593.
- Abel, Andrew B., and Janice C. Eberly, *Q Theory without Adjustment Costs and Cash Flow Effects without Financing Constraints*, Unpublished manuscript, October 2001, revised October 2003.
- Abel, Andrew B., Avinash Dixit, Janice C. Eberly and Robert S. Pindyck, Options, The Value of Capital and Investment, *Quarterly Journal of Economics* Vol. 111 (1996), 753-777.
- Aghion, Phillippe, Stephen Bond, Alexander Klemm and Iona Marinescu, *Technology* and Financial Structure: Are Innovative Firms Different? Paper presented at the 6th Bundesbank Spring Conference "Financing Innovation", 30 April 1 May 2004 in Eltville, Germany.
- Allen, Franklin, and Douglas Gale, *Comparing Financial Systems*. The MIT Press, Cambridge, MA and London, 2000.
- Álvarez-Lois, Pedro P., Capacity Constraints, Idiosyncratic Demand Uncertainty and the Dynamics of Inflation, *Economics Letters* Vol. 83 (2004), 15-21.
- Anderson, T.W., and Cheng Hsiao, Formulation and Estimation of Dynamic Models Using Panel Data, *Journal of Econometrics* Vol. 18 (1982), 47-82.
- Arellano, Manuel, and Olympia Bover, Another Look at the Instrumental Variable Estimation of Error Component Models, *Journal of Econometrics* Vol. 68 (1995), 29-51.
- Arellano, Manuel, and Stephen Bond, Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations, *Review of Economic Studies* Vol. 58 (1991), 277-297.
- Arrow, Kenneth, Economic Welfare and the Allocation of Resources for Invention, in Richard R. Nelson (ed), *The Rate and Direction of Incentive Activity*, Princeton, New Jersey, Princeton University Press for the National Bureau of Economic Research, 1962, 609-625.
- Bank of England (2004), Finance for small firms an eleventh report.
- Basu, Parantab, and Alexandra Guariglia, Liquidity Constraints and Firms' Investment Returns Behaviour, *Economica* Vol. 69 (2002), 563-81.
- Bayer, Christian, On the Interaction of Financial Frictions and Fixed Capital Adjustment Costs. Evidence from a Panel of German Firms. Mimeo, October 2004.
- Bayer, Christian, Investment Dynamics with Fixed Adjustment Costs and Capital Market Imperfections, *Journal of Monetary Economics* Vol. 53 (2006), 1909-1947.
- Bean, Charles R., An Econometric Model of Manufacturing Investment in the UK, *The Economic Journal* Vol. 91 (1981), 106-121.
- Benito, Andrew and Garry Young, Financial Pressure and Balance Sheet Adjustment by Firms, *Oxford Bulletin of Economics and Statistics* Vol. 69 (2007), 581-602.

- Bentolila, Samuel and Guiseppe Bertola, Firing Costs and Labour Demand: How Bad is Eurosclerosis? *Review of Economic Studies* Vol. 57 (1990), 381-402.
- Bernanke, Ben S., and Mark Gertler, Agency Costs, Net Worth, and Business Fluctuations, *The American Economic Review* Vol. 79 (1989), 14-31.
- Bernanke, Ben S., and Mark Gertler, Inside the Black Box: The Credit Channel of Monetary Transmission, *The Journal of Economic Perspectives* Vol. 9 (1995), 27-48.
- Bernanke, Ben S., Mark Gertler, and Simon Gilchrist, The Financial Accelerator and the Flight to Quality, *The Review of Economics and Statistics* Vol. 78 (1999), 1-15.
- Bernanke, Ben S., Mark Gertler, and Simon Gilchrist, The Financial Accelerator in a Quantitative Business Cycle Framework, in Taylor, John B, and Michael Woodford (eds), *Handbook of Macroeconomics* Vol. 1 (Amsterdam, New York, etc.: North Holland, 1999), Ch. 21, 1341-1393.
- Bloom, Nicholas, Stephen Bond and John van Reenen, Uncertainty and Investment Dynamics, *Review of Economic Studies* Vol. 74 (2007), 391-415.
- Blundell, Richard, and Stephen Bond, Initial Conditions and Moment Restrictions in Dynamic Panel Data Models. *Journal of Econometrics* Vol. 87 (1998), 115-143.
- Bond, Stephen, and Domenico Lombardi, To Buy or Not to Buy? Uncertainty, Irreversibility and Heterogeneous Investment Dynamics in Italian Company Data. *IMF Staff Papers* Vol. 53 (2007), 375-400.
- Bond, Stephen, and Jason G. Cummins, *Noisy Share Prices and the Q Model of Investment*, Working Paper W01/22, The Institute for Fiscal Studies, London, September 2001.
- Bond, Stephen, Alexander Klemm, Rain Newton-Smith, Murtaza Syed and Gertjan Vlieghe, *The Roles of Expected Profitability, Tobin's Q and Cash Flow in Econometric Models of Company Investment*, Bank of England Working Paper No. 222, June 2004.
- Bond, Stephen, Dietmar Harhoff and John van Reenen, *Investment, Financial Constraints and R&D in Britain and Germany*, Working Paper W99/05, The Institute for Fiscal Studies, London, February 1999 (Revised version, October 2003).
- Bond, Stephen, Julie Ann Elston, Jaques Mairesse and Benoît Mulkay, Financial Factors and Investment in Belgium, France, Germany, and the United Kingdom: A Comparison Using Company Panel Data. *The Review of Economics and Statistics* Vol. 85 (2003), 153-165.
- Breitung, Jörg, Robert S. Chirinko, and Ulf von Kalckreuth, *A vectorautoregressive investment model (VIM) and monetary policy transmission: Panel evidence from German firms*, Economic Research Centre of the Deutsche Bundesbank Discussion Paper No. 06/2003.
- Büning, Herbert and Götz Trenkler, *Nichtparametrische statistische Methoden* (Non-parametric statistical methods), 2. ed., Berlin, New York, Walther de Gruyter, 1994.

- Caballero, Ricardo J., and Eduardo M.R.A. Engel, Explaining Investment Dynamics in U.S. Manufacturing: A Generalised (S,s) Approach, *Econometrica* Vol. 67 (1999), 783-826.
- Caballero, Ricardo J., and Eduardo M.R.A. Engel, *Three Strikes and You're Out: Reply to Cooper and Willis*, NBER Working Paper No. 10368 (2004).
- Caballero, Ricardo J., Eduardo M.R.A. Engel and John C. Haltiwanger, Plant Level Adjustment and Aggregate Investment Dynamics, *Brookings Papers on Economic Activity*, 1995:2, 1-39.
- Caballero, Ricardo J., Eduardo M.R.A. Engel and John C. Haltiwanger, Aggregate Employment Dynamics: Building from Microeconomic Evidence, *The American Economic Review* Vol. 87 (1997), 115-137.
- Chatelain, Jean-Bernard, Ignacio Hernando, Andrea Generale, Ulf von Kalckreuth, and Philip Vermeulen, New Findings on Firm Investment and Monetary Transmission in the Euro Area, *Oxford Review of Economic Policy* Vol. 19 (2003), 73-83.
- Chatelain, Jean-Bernard, Ignacio Hernando, Andrea Generale, Ulf von Kalckreuth, and Philip Vermeulen, Firm Investment and Monetary Transmission in the Euro Area, in: Ignazio Angeloni, Anil Kashyp, Benoit Mojon (eds), *Monetary Policy Transmission in the Euro Area*, Cambridge, Cambridge University Press, 2003, 133-161.
- Chiang, Alpha C: *Elements of Dynamic Optimisation*, New York et al, McGraw-Hill, 1992.
- Chirinko, Robert S., and Ulf von Kalckreuth, *On the German Monetary Transmission Mechanism: Interest Rate and Credit Channel for Investment Spending*, CESifo Working Paper 838, January 2003.
- Chirinko, Robert S., and Ulf von Kalckreuth, Further Evidence on the Relationship between Firm Investment and Financial Status, Discussion Paper 28/02, Economic Research Centre of the Deutsche Bundesbank, November 2002.
- Cooper, Russell, and João Ejarque, Exhuming Q: Market Power vs. Capital Market Imperfections, NBER Working Paper No W8182, March 2001.
- Cooper, Russell, and Jonathan L. Willis, A Comment on the Economics of Labor Adjustment: Mind the Gap, *American Economic Review* Vol. 94 (2004), 1223-1237.
- Cox, D. R., Regression Models and Life Tables, *Journal of the Royal Statistical Society*, *Series B (Methodological)* Vol. 34:2 (1972), 187-220.
- Davidson, Russell, and James G. MacKinnon, *Estimation and Inference in Econometrics*, New York, Oxford, Oxford University Press, 1993.
- Doornik, Jurgen A., Ox 3.0. An Object-Oriented Matrix Programming Language. 4th ed., Timberlake Consultants, London, 2001.
- Eisner, Robert, and M. Ishaq Nadiri, Investment Behavior and Neo-Classical Theory, *The Review of Economics and Statistics* Vol. 50 (1968), 369-382.
- Fazzari, Steven M., R. Glenn Hubbard, and Bruce C. Petersen, Investment-Cash Flow Sensitivities are Useful: A Comment on Kaplan and Zingales, *Quarterly Journal of Economics* Vol. 115 (2000), 695-705.

- Fazzari, Steven M., R., Glenn Hubbard, and Bruce C. Petersen, Financing Constraints and Corporate Investment, *Brookings Papers on Economic Activity* 1988:1, 141-195.
- Funke, Michael, Wolf Maurer, Sikandar Siddiqui, and Holger Strulik, Investment under Financial Constraints: Theory and Tests with West German Micro Data. *Ifo-Studien* Vol. 44 (1998), 291-306.
- Gomes, João, Financing Investment, *American Economic Review* Vol. 91 (2001), 1263-1285.
- Hall, Bronwyn, The Financing of Research and Development, Oxford Review of Economic Policy Vol. 18 (2002), 35-51.
- Hall, Robert E., and Dale W. Jorgenson, Tax Policy and Investment Behavior, *American Economic Review* Vol. 57 (1967), 391-414.
- Hansen, Lars, Large Sample Properties of Generalized Method of Moments Estimators, *Econometrica* Vol. 50 (1982), 1029-1054.
- Hayashi, Fumio, Tobin's Marginal Q and Average Q: A Neoclassical Interpretation, *Econometrica*, Vol. 50 (1982), 213-224.
- Hayashi, Fumio, Econometrics, Princeton University Press, Princeton, 2000.
- Heckman, James J., and Burton Singer, Econometric Duration Analysis, *Journal of Econometrics* Vol. 24 (1984), 63-132.
- Holtz-Eakin, Douglas, Whitney Newey, and Harvey S. Rosen, Estimating Vector Autoregressions with Panel Data, *Econometrica* Vol. 56 (1988), 1371-1395.
- Jorgenson, Dale W., Capital Theory and Investment Behaviour, *American Economic Review* Vol. 53 (1963), 247-259.
- Judge, George G., William E. Griffith, R. Carter Hill, Helmut Lütkepohl, and Tsoung-Chao Lee, *The Theory and Practice of Econometrics*, 2nd ed., New York, Wiley, 1985.
- Kalbfleisch, John D., and Prentice, Ross L., *The Statistical Analysis of Failure Time Data*, 2. ed., New York, Wiley, 2002.
- Kamien, Morton I., and Nancy L. Schwartz, *Dynamic Optimization. The Calculus of Variations and Optimal Control in Economics and Management*, New York et al, North Holland, 1991.
- Kaplan, Steven N., and Luigi Zingales, Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints? *Quarterly Journal of Economics* Vol. 112 (1997), 169-215.
- Kaplan, Steven N., and Luigi Zingales, Investment-Cash Flow Sensitivities Are Not Valid Measures of Financing Constraints, *Quarterly Journal of Economics* Vol. 115 (2000), 707-712.
- Kiefer, Nicholas M., Economic Duration Data and Hazard Functions, *Journal of Economic Literature*, Vol. 26 (1988), 646-679.
- Mitchell, James, Richard J. Smith, and Martin R. Weale, Quantification of Qualitative Firm-level Survey Data, *The Economic Journal*, Vol. 112 (2002a), C117-C135.

- Mitchell, James, Richard J. Smith, and Martin R. Weale, 'Aggregate versus disaggregate survey-based indicators of economic activity', *NIESR Discussion Paper 194* (2002b).
- Modigliani, Franco, and Merton H. Miller, The Cost of Capital, Corporation Finance and the Theory of Investment, *American Economic Review* Vol. 48 (1958), 261-297.
- Oppenländer, Karl Heinrich, and Günter Poser (eds), Handbuch der Ifo-Umfragen. Vierzig Jahre Unternehmensbefragungen des Ifo-Instituts für Wirtschaftsforschung, München [The Handbook of Ifo Surveys. Forty Years of Business Surveys by the Ifo Institute of Economic Research in Munich], Berlin, Munich, Duncker und Humblodt, 1989.
- Plötscher, Claudia, and Horst Rottmann, Investment Behaviour and Financing Constraints in German Manufacturing and Construction Firms. A Bivariate Probit Estimation, *Ifo Studien Zeitschrift für empirische Wirtschaftsforschung* Vol. 48 (2002), 383-400.
- Plötscher, Claudia, *Finanzierungsrestriktionen bei Unternehmen. Ursachen und Auswirkungen in Deutschland* [Financial Restrictions of Firms. Causes and Consequences in Germany], Wiesbaden, Dt. Universitätsverlag, 2001.
- Sargan, John D., The Estimation of Economic Relationships Using Instrumental Variables. *Econometrica* Vol. 26 (1958), 393-415.
- Schworm, William E., Financial Constraints and Capital Accumulation, *International Economic Review* Vol. 21 (1980), 643-661.
- Searle, Shayle R., Matrix Algebra Useful for Statistics. New York, Wiley, 1982.
- Seierstad, Atle, and Knut Sydsaeter, *Optimal Control Theory with Economic Applications*, New York et al, North Holland, 1987.
- Smolny, Werner, and Peter Winker, *Employment Adjustment and Financing Constraints*. A Theoretical and Empirical Analysis at the Micro Level, Discussion Paper No 573-99, Institute of Economics and Statistics, University of Mannheim, 1999.
- Smolny, Werner, Endogenous Innovations in a Model of the Firm. Theory and Empirical Application for West-German Manufacturing Firms, Center for International Labor Economics, Working Paper No 39, June 1999.
- Stiglitz, Joseph E., and Andrew Weiss, Credit Rationing in Markets with Imperfect Information, *American Economic Review* Vol. 71 (1981), 393-410.
- von Kalckreuth, Ulf, Exploring the Role of Uncertainty for Corporate Investment Decisions in Germany, *Swiss Journal of Economics* Vol. 139 (2003a), 173-206.
- von Kalckreuth, Ulf, Investment and Monetary Transmission in Germany: A Microeconometric Investigation, in: Ignazio Angeloni, Anil Kashyap, Benoit Mojon (eds), *Monetary Policy Transmission in the Euro Area*, Cambridge, Cambridge University Press, 2003b, 163-186.
- Windmeijer, Frank, A Finite Sample Correction for the Variance of Linear Two-Step GMM Estimators", *Journal of Econometrics* Vol. 126 (2005), 25-51.

Wood, Jonathan, A Technical Guide to CBI Business Surveys, CBI, London, 2001.

Woodford, Michael, *Interest and Prices. Foundations of a Theory of Monetary Policy*, Princeton University Press, Princeton and Oxford, 2003.