

CURRICULUM VITAE

Name Michael (Mick) Silver
Nationality British – wife and children U.S. citizens.
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International Monetary Fund
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Washington D.C. 20431

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EDUCATION

1973 to 1976

University of Leeds PhD Economic Statistics. Visited Tanzania between July 1974 and January 1975 for data collection. Attached to the Bureau of Statistics, Tanzania and, as a Research Associate, to the University of Dar es Salaam.

1969 to 1973

University of Leeds B.A. (Hons.) Economics.

PROFESSIONAL POSITIONS

February 2005 to present

Senior Economist, International Monetary Fund,
Washington D.C.

October 1988 to January 2005

Professor of Economic Statistics, Head of Quantitative Methods Group, (School Deputy Director), Cardiff University, U.K.

August 2001 to January 2002

Visiting Scholar, International Monetary Fund, Washington D.C.

January 2001 to August 2001

National Science Foundation/American Statistical Association

Senior Research Fellow, Bureau of Labor Statistics, Division of
Price and Index Number Research, Washington D.C.

October 1982 to June 1988

Lecturer in Industrial Economics and Statistics and

Director of Postgraduate Research Studies, University of Bath, U.K.

July 1986 to January 1987

Consultant to the International Monetary Fund, Washington D.C.

October 1976 to September 1982

Lecturer in Applied Statistics, University of Aston, U.K.

Ongoing: Member of the NBER Conference on Research in Income and Wealth

PUBLICATIONS

Refereed papers and chapters in books

NB: A star (*) denotes senior authorship by Mick Silver out of alphabetical order.

"IMF applications of purchasing power parity estimates" IMF Working Paper Series, WP/10/253, Washington DC, November 2010. Forthcoming as Chapter 27 in: In: D.S. Prasada Rao and Fred Vogel (Editors), *Measuring the Size of the World Economy: A Framework, Methodology and Results from the International Comparison Program (ICP)*, World Bank: Washington DC.

"An index number formula problem: the aggregation of broadly comparable items," Journal of Official Statistics, accepted subject to revision. Currently available as IMF Working Paper Series, WP/09/19, Washington DC, January 2009.

"The rights and wrongs of unit value indices." Review of Income and Wealth, 56, 777, 206–223, June 2010.

"The hedonic country product dummy method and quality adjustments for purchasing power parity calculations" IMF Working Paper Series, WP/09/271, Washington DC, December 2009.

"A summary of XMPI methodology," chapter 1 (joint author) "pages 1-70; "Unit value indices," chapter 2, pages 71-90; Treatment of quality change," chapter 8, pages 166-211; "Item substitution, sample space, and new goods," chapter 9, pages 212-229; "Errors and bias in XMPis," chapter 12, pages 287-297; "Elementary indices," chapter 21 pages 501-518; "Quality change and hedonics," chapter 22, pages 519- 545 (chapters 21 and 22 joint author with W. Erwin Diewert). In ILO, IMF, OECD, Eurostat, UN ECE, and World Bank, Mick Silver (ed.), Export and Import Price Index Manual: Theory and Practice, Washington D.C: IMF, 2009.

"Do unit value export, import, and terms of trade indices represent or misrepresent price indices?" IMF Staff Papers, 56, 2, 297–322, June 2009.

"Comment on CPI bias from Supercentres" by Jerry Hausman and Ephraim Leibtag. In W. Erwin Diewert, John Greenlees, and Charles R. Hulten (eds.) Price Index Concepts and Measurement, National Bureau of Economic Research (NBER), Chicago: University of Chicago Press, 408–413, 2009.

"Hedonic imputation indexes versus time dummy hedonic indexes", (with Erwin Diewert and Saeed Heravi), In W. Erwin Diewert, John Greenlees, and Charles R. Hulten (eds.) Price Index Concepts and Measurement, NBER, Chicago: University of Chicago Press, 278–337, 2009. Also NBER Working Paper 14018, 2008.

"Hedonic indexes: a study of alternative methods." (with S. Heravi). In Ernst R. Berndt and Charles R. Hulten (eds.) Hard-to-Measure Goods and Services: Essays in Honour of Zvi Griliches, NBER, Chicago: University of Chicago Press, 235-268, 2007.*

"Core inflation: measures and statistical issues in choosing among them." IMF Staff Papers, 54, 1, 163–190, May 2007.

"Why elementary price index number formulas differ: price dispersion and product heterogeneity." (with S. Heravi), Journal of Econometrics, 140, 2, 874–83, October 2007.*

"The difference between hedonic imputation indexes and time dummy hedonic indexes." (with S. Heravi), Journal of Business and Economic Statistics, 25, 2, 239-246, April 2007.*

"Purchasing power parity measurement and bias from inappropriate item selection and quality comparisons: principles and an empirical study." (with S. Heravi). Journal of Official Statistics, 21, 3, 436–487, 2005.*

"A failure in the measurement of inflation: results from a hedonic and matched experiment using scanner data." (with S. Heravi), Journal of Business and Economic Statistics, 23, 3, 269–281, July 2005.*

"Treatment of quality change" chapter 7 pages 140-196; "Item substitution, sample space, and new goods", chapter 8, pages 197-212; "Errors and bias in the PPI", chapter 11, pages 295-304; "Quality change and hedonics", chapter 21, pages 525- 546 (chapter 21 jointly with W. Erwin Diewert). * International Monetary Fund (IMF), Producer Price Index Manual: Theory and Practice, Washington D.C: IMF, 2004. <http://www.imf.org/np/sta/teggpi/index.htm>

"Treatment of quality change" chapter 7 pages 99-135; "Item substitution, sample space, and new goods", chapter 8, pages 137-152; "Quality change and hedonics", chapter 21, pages 373-389. International Labour Office (ILO), Consumer Price Index Manual: Theory and Practice, Geneva: ILO, 2004. Republished 2007 in Spanish and French; Russian in Print and Chinese forthcoming.: <http://www.ilo.org/public/english/bureau/stat/guides/cpi/index.htm>

"Hedonic price indexes and the matched models approach: a comparison of different methods of adjusting for quality when measuring the price changes of durables." (with S. Heravi), The Manchester School, 72, 1, 24–49, January 2004.*

"Chained, exact and superlative hedonic price changes: estimates from micro data." (with C. Ioannidis), Applied Economics, 35, 9, 1005–1014, June 2003.

"Using scanner data to estimate country price parities: an exploratory study." (with S. Heravi and A. Heston), Review of Income and Wealth, 49, 1, 1–22, March 2003.

"Some Proposed Methodological Developments for the U.K. Retail Prices Index." World Economics, 4, 1, 153-175, January-March 2003.

"Scanner data in official statistics: advancing the art of the science: Roundtable discussion." In Mathew Shapiro and Rob Feenstra (eds.), Scanner Data and Price Indexes, National Bureau of

Economic Research, Studies in Income and Wealth, Vol. 61, Chicago: University of Chicago Press, 119-120, 2003.

"Price collection and quality assurance of item selection in the Retail Prices Index: how can scanner data help?" (with D. Fenwick, A. Ball and P. Morgan). In Mathew Shapiro and Rob Feenstra (eds.), Scanner Data and Price Indexes, National Bureau of Economic Research, Studies in Income and Wealth, Vol. 61, Chicago: University of Chicago Press, 77-89, 2003.

"The measurement of quality-adjusted price changes." (with S. Heravi). In Mathew Shapiro and Rob Feenstra (eds.), Scanner Data and Price Indexes, National Bureau of Economic Research, Studies in Income and Wealth, Vol. 61, Chicago: University of Chicago Press, , 277-317, 2003.*

"Why the CPI matched models method may fail us: results from an hedonic and matched experiment using scanner data." (with S. Heravi), European Central Bank Working Paper Series, 144, 2002.*

"Neural networks and Non-linear statistical methods: an application to the modelling of price quality relationships." (with B. Curry and P. Morgan). Computers and Operations Research, 29, 951-969, 2002.

"The measurement of inflation: aggregation at the basic level." (with B. Webb), Journal of Economic and Social Measurement, 28, 1-2, 21-36, 2002.*

"Inter-country differences in the relationship between relative price variability and average prices." (with Christos Ioannidis), Journal of Political Economy, 109, 2, 355-374, April 2001.*

"The measurement of inflation: editorial Note." The Economic Journal, 111, 472, 309-310, June 2001.

"Scanner data and the measurement of inflation." (with S. Heravi), The Economic Journal, 111, 472, 383-404, June 2001.*

"The influence of inflation on differential price changes across European markets." (with Christos Ioannidis), Atlantic Economic Journal, 29, 1, March 2001.

"Hedonic regressions, misspecification and neural networks." (with B. Curry and P. Morgan), Applied Economics , 33, 5, 659-671, 2001.

"Using scanner data to estimate quality-adjusted price changes: an application to VCRs." (with C. Ioannidis and B. Webb), Scottish Journal of Political Economy, 109, 2, 355-374, April 2001.

"Bias in the compilation of consumer price indices when different models of an item coexist." Statistical Journal of the United Nations Economic Commission for Europe, 17, 1, 2000.

"Hedonic Regressions: An Application to VCRs Using Scanner Data." OMEGA - International Journal of Management Science, 28, 4, 1-10, 1999.

"Modelling market share by segments using Volatility." (with S. Aidid), Journal of Applied Statistics, 26, 5, 643-660, 1999.

"Modelling the volatility of purchase behaviour." (with Sharifah Aidid), The Statistician, Journal of the Royal Statistical Society, Series D, 48, 2, 203-213, 1999.*

"Estimating exact hedonic indexes: an application to U.K. television sets." (with C. Ioannidis), Journal of Economics, Zeitschrift Für Nationalökonomie, 69, 1, 71-94, 1999.*

"An evaluation of the use of hedonic regression for basic components of consumer price indices." Review of Income and Wealth, 45, 1, 1999.

"Disparities in the prices of new and old models when they coexist in the market: some econometric estimates." OMEGA, International Journal of Management Science, 27, 1, 13-24, 1999.

"Estimating the worth of a product's characteristics." (with C. Ioannidis), Journal of the Market Research Society, 39, 4, 1997.

"Quality, prices and hedonics." International Journal of the Economics of Business, 3, 3, 1996.

"Inflation, relative prices and their skewness." (with Christos Ioannidis), Applied Economics, 28, 577-584, 1996.*

"Elementary aggregates, micro-indices and scanner data; some issues in the compilation of consumer price indices." Review of Income and Wealth, 41, 4, 427-438, 1995.

"European inflation and its variability." (with Christos Ioannidis), Journal of the Royal Statistical Society, Series D, The Statistician, 44, 3, 1995.*

"Scales of measurement, cluster analysis and market segmentation: a study of the baby food market" Journal of the Royal Statistical Society, Series D, The Statistician, 44, 1, 101-112, 1995.

"The measurement of inflation; alternative formulae and untimely weights: European evidence." (with Christos Ioannidis), Journal of the Royal Statistical Society, Series D, The Statistician, 43, 4, 551-562, 1994.*

"The role of footnotes in a statistical meta-information system." Statistical Journal of the United Nations Economic Commission for Europe, 10, 2, 153-170, 1993.

"The measurement of the gains or losses to an enterprise through relative price changes: the terms-of-trade effect." Managerial and Decision Economics, 13, 5, 399-408, 1992.

"The measurement of a nation's terms of trade effect and real national disposable income within a national accounting framework" (with Mahdavy, K.) . Reprinted in Vicente Galbis (ed.), The IMF's

Statistical Systems in Context of the Revision of the United Nations' A System of National Accounts, Washington DC: IMF, 1991

"Econometric forecasting model for rents in the British retail property market." (with M. Goode), OMEGA - International Journal of Management Science, 18, 5, 1990.

"Managerial efficiency and management training: estimating the marginal productivity of management training in the U.K." Total Quality Management, 1, 2, 1990.

"Value added and data services: from Tesco to Bingo." (jointly as part of Vanguard Education Team), International Journal of Information Resource Management, 1990

"Overview of the crisis;" "The extent of management training and attitudes of managers;" "Defining and delivering the product;" and "Breaking down barriers." Four chapters in Mick Silver (ed.), Competent to Manage, London: Routledge 1990..

"Consumer price indices and parallel markets." The Statistician, (Journal of the Royal Statistical Society, Series D), 38, 4, 297-304, 1989.

"Sampling frames and non-response problems in survey of U.K. companies." The Statistician, (Journal of the Royal Statistical Society, Series D), 38, 1, 47-60, 1989.

"The measurement of a nation's terms of trade effect and real national disposable income within a national accounting framework." (with Mahdavy, K.), Journal of the Royal Statistical Society, Series A, Vol. 152, part 1, March 1989 – reprinted in IMF volume 1999 above.

"An appraisal of the performance of manufacturing industry in Wales." (with Lowe, J.) , Journal of Economic Studies, 16, 1, 31-46, 20-29, 1989.

"Average prices, unanticipated prices and price variability in the U.K. for individual products." Applied Economics, 20, 5, May 1988.

"The development and performance of Tanzania's manufacturing industries." In Hodd M (editor), Tanzania After Nyerere, London: Francis Pinter (1988).

"Estimating the marginal productivity of hours worked for British manufacturing industries." (with Baillie, R.T.). In D. Bosworth and D.F. Heathfield, Working Below Capacity, London: Macmillan, 1987.

"A framework for productivity measurement at the organisational level." (with Bennett, A.J. and Hui, J.), Engineering Costs and Production Economics, 12, 1987.

"The costs of learning from experience with respect to the firm." Personnel Review, 16, 1, 1987.

"Pricing and the flat maximum principle." (with Tull, D.), Managerial and Decision Economics, 7, 1986.

"R & D strategies and variable demand." (with Lowe, J.), R & D Management, 16, 4, 325-334, 1986.

"Potential productivity : concepts and applications." (with Bennett, A.J.), OMEGA, The International Journal of Management Science, 14, 6, 443-452, 1986.

"Nachfrageerwartungen und preisverhalten deutscher unternehmen." (with Tull, D.S. and Kohler, R.), Marketing - Zeitschrift fur Forschung und Praxis, 4, November 1986.

"The economic implications of rising food prices: Friedman and the price of steaks." Journal of Agricultural Economics, 37, 3, 1986.

"On the measurement of changes in overall concentration, market concentration and diversification." Journal of Industrial Economics, 33, 2, 349-352, March 1985.

"Parameter stability and normative market segmentation." Journal of Applied Statistics, 12, 1, 1985.

"Overall concentration, regional concentration and the growth of the parastatal sector in Tanzanian manufacturing industry." Industry and Development, Journal of the United Nations Industry and Development Organisation (UNIDO), 1985.

"Research and development strategies and business performance." (with Lowe, J.F.). In Peter Lawrence, Introducing Management, Penguin, 1985.

"Criteria for choosing between alternative consumer price index number formulae with special reference to chain price indices." The Statistician, (Journal of the Royal Statistical Society, Series D), 33, 2, 229-238, June 1984.

"Some problems in the construction of indices of industrial production for developing countries: the case of Tanzania 1965 - 1972." (with Kmietowicz, Z.), Journal of Developing Areas, 18, 4, 481-500, June 1984.

"Government popularity, by-elections and cycles." (with Stray, S.), Parliamentary Affairs, XXXVI, 1, 49-55, 1983.

"The art of designing a manpower strategy." (with Edwards, J.); "Technical contributions to manpower planning: An introduction" (with Edwards, J.); "The demand for and supply of labour services" (with Mangan, J.); and "Forecasting the demand for labour using labour productivity trends." Three chapters in John Edwards *et al.* (editors), Manpower Planning: Strategies and Techniques in an Organisational Context. Chichester : J. Wiley and Sons, 1983.

"The effects on income and inflation on personal satisfaction: functional measurement in Economic psychology: a comment." Journal of Economic Psychology, 3, June 1983.

"Why growth rates do differ." (with Bell, M. and Stray, S.), Journal of Economic Studies, 9, 2, 51-57, 1982.

"Bilateral and multilateral cost-of-living comparisons." Journal of Economic Studies, Vol. 9, No. 3, 1982.

"Appropriate index number formulae for measuring productivity at the plant/organisational level." Managerial and Decision Economics, 3, 4, 1982.

"On an awareness of alternative approaches to index numbers." Teaching Statistics, Vol. 4, No. 3, September 1982.

"The popularity of governments in United Kingdom by-elections." (with Stray, S.), Political Methodology. Winter 1982.

"Negative value added and the measurement of production changes." (with Golder, P.), Journal of Economic Studies, 8, 1, April 1981.

"Ownership indices of industrial production for Tanzania, 1965 to 1972." Studies in Comparative International Development, 15, 1, 61-78, 1980.

"Do by-elections demonstrate a government's unpopularity." (with Stray, S.), Parliamentary Affairs, XXX111, 3, 264-270, May 1980.

"A regional analysis of industrial production and labour productivity trends in Tanzania, 1965 to 1972." Canadian Journal of African Studies, 13, 3, 1980.

"New products and the index of industrial production." (with Kmietowicz, Z.W.), Journal of Development Studies, 16, 4, July 1980.

"Alternative financial incentive schemes based on value added." Journal of the American Management Association: Compensation Review, 11, 3, 20-29, 1979.

Books and Monographs

ILO, IMF, OECD, Eurostat, UN ECE, and World Bank, Editor, Export and Import Price Index Manual: Theory and Practice, Washington D.C: IMF, 2009.

"Proceedings of a Conference on the Measurement of Inflation." (with Fenwick, D.) Editors. Eurostat/Office for National Statistics/Cardiff University, Cardiff, 2000.

"The Measurement of Gross Fixed Capital Formation and the Treatment of VAT in National Accounts." (with McNabb, R.), Department of Statistics and Research, Ministry of Finance, Cyprus, Research and Report Series II No. 25, 1993.

"Business Statistics." London: McGraw-Hill, first edition (1992); second edition, (1997).

"Competent to Manage." (editor), London: Routledge 1990.

"Management Training: Context and Practice." (with Mangham, I.L.), Department of Trade and Industry, Economic and Social Research Council and Bath University, September 1986.

"The Growth of Manufacturing Industry in Tanzania : An Economic History." Colorado : Westview Press, 1984.

"Productivity Indices: Method and Applications." Aldershot : Gower Publishing House, 1984.

"Manpower Planning: Strategies and Techniques in an Organisational Context." (joint editor), Chichester : J. Wiley and Sons, 1983.

"Statistical Techniques and Data Analysis for University Administrators." (with Yeomans, K.A.) - a series of seven monographs published by the Administrative Training Committee, Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom, March 1982.

"Mathematical Analysis for Management and Economics;" "Index Numbers : Theory, Practice and Applications;" and "Algebra without Tears (with Bell, M.W.)." Numbers 1, 5, and 7 in Series in Information Analysis and Management Services, University of Aston Management Centre, September 1982.

Non-refereed articles, invited and other conference/seminar presentations and proceedings

Selected Non-refereed articles

- "Accurate Trade Data Key to Understanding Depth of Crisis," IMF Survey Online, March 10, 2010. At: <http://www.imf.org/external/pubs/ft/survey/so/2010/BOK031010A.htm>.
- "Inflation Drops to Negative Territory" IMF Finance and Development (with Kim Zieschang) 46, 4, December 2009.
- "Measuring Inflation," IMF Research Bulletin, 7, 3, September, 2006.
- "The CPI Manual and IMF statistical capacity building" and "Adjustments for quality change and new goods." Bank for International Settlements' IFC Bulletin, No. 24, August 2006, pages 17-18 and 91-92.
- "ICP- Sampling: objectives, pre-survey, sampling of outlets and prices," World Bank, International Comparisons Program, Published on World Bank website under: ICP/Methodology and Research/Survey Frames, 2004.
- "Quality Adjustment for PPP: Principles and an empirical study," World Bank, International Comparisons Program, Published on World Bank website under: ICP/Methodology and Research/Survey Frames, 2002.
- "Price indices revisited." Royal Economic Society Newsletter, 102, , 10-11, July 1998.
- "The Francis System: creating a community with VADS." (with G. Jenkins). In Department of Trade and Industry, Profiting From Electronic Trading: The Case Study Package, London: H.M.S.O. 1990.
- "Implementing VADS at Trebor U.K. Ltd.: keeping your sales ordering system in mint condition." (with G Jenkins) In Department of Trade and Industry, Profiting from Electronic Trading: The Case Study Package, London: H.M.S.O. 1990.
- "Management training in U.K. industry: Part 2." Modern Management, Spring 1988.
- "At the touch of a few keys" The Times Higher Educational Supplement, No. 3, November 1989.
- "Management training in U.K. industry: Part I." Modern Management, (Winter 1987).

Conferences: invited papers presented at:

- "An Index Number Formula Problem: the Aggregation of Broadly Comparable Items," Paper presented at The 2008 World Congress on National Accounts and Economic Performance Measures for Nations, May 12–17, 2008, Washington DC, available at: <http://www.indexmeasures.com/dc2008/finalprogram.htm>.
- Bureau of Economic Analysis, the rights and wrongs of unit value indices, November 2008.
- Bank of International Settlements Workshop on CPI Measurement, 20-21 April 2006.
- Joint UNECE/ILO Meeting on Consumer Price Indices, Geneva, May 10-12, 2006, United Nations Economic and Social Council, paper ref. ECE/CES/GE.22/2006/6.
- Centre for Applied Economic Research, Economic Measurement Group Workshop, University of New South Wales Workshop on Economic Measurement, Sydney, December 2003. <http://www.caer.unsw.edu.au/Caerpub.htm>
- Workshop on the Use of Scanner Data in Policy Analysis, Economic Research Service, United States Department of Agriculture, proceedings, Washington D.C., 9th June 2003. http://www.farmfoundation.org/projects/documents/ScannerDataWorkshopSummaries2_000.pdf
- Paper presented at the Federal Reserve Bank New York, February 2003
- Symposium on Hedonic Methods, Statistics Netherlands, October 2002..
- International Conference and Expert Group Meeting on the International Comparison Program, World Bank, Washington, D.C. March 2002. <http://www.worldbank.org/data/icp/documents/wbreport.doc>.

- Brookings Institution Workshop, Washington D.C. February 2002.
- European Central Bank, paper on Quality Adjustment Methods, Frankfurt, November 2001.
<http://www.ecb.int/pub/wp/ecbwp144.pdf>.
- UNECE/ILO Geneva, Intersecretariat Technical Expert Group on CPI and PPI, October 2001.
- Bureau of Labor Statistics, Washington D.C., September 2001.
- Symposium on Hedonic Methods, Deutsches Bundesbank and German Federal Statistical Office, Wiesbaden, June 2001.
- Paper presented at the University of New South Wales Workshop on Economic Measurement, Sydney, March 2001.
- International Workshop on Meta-information systems organised by Eurostat, Luxembourg, 1993.
- Conference held by the Management Charter Initiative, Edinburgh, 1992.

Conferences: other papers presented at:

- Tenth Meeting of the (UN) International Working Group on Price Indices - Ottawa Group, Ottawa, October 9-12, 2007. http://www.ottawagroup2007.ca/ogo_r003_e.htm
- IMF Seminar on XMPI Manual, Washington DC, IMF, September 23-29, 2006.
- Ninth Meeting of the (UN) International Working Group on Price Indices - Ottawa Group, London, May 14-16, 2006.
- SSHRC International Conference on Index Number Theory and the Measurement of Prices and Productivity, Vancouver, Canada, June 28-29, 2004.
- Eighth meeting of the (U.N.) International Working Group on Price Indices (Ottawa Group), Helsinki - August 2004. http://stat.fi/tup/julkaisut/isbn_952-467-530-7_en.html.
- NBER/CRIW conference on Price Index Concepts and Measurement, Vancouver, Canada, June 28-29, 2004. <http://www.ipeer.ca/CRIW.htm>.
- NBER-CRIW conference on Measurement Issues in Economics - The Paths Ahead, Essays in Honour of Zvi Griliches, Bethesda, MD, September 2003.
<http://www.nber.org/~confer/2003/CRIWf03/silver.pdf>
- IMF International Users Seminar on PPI construction, Pretoria, South Africa, 23rd to 27th June, 2003.
- International Conference on Producer Price Index Manual, IMF, Helsinki, Finland, August 2004.
- Seventh Meeting of the (U.N.) International Working Group on Price Indices (Ottawa Group), Paris 27-29, May 2003, 175-212, Paris: INSEE.
http://www.insee.fr/en/nom_def_met/colloques/ottawa/pdf/paper_silver.pdf
- Participant at the National Academies of Science Symposium on Deconstructing the Computer, Washington D.C., February 2003.
- NBER Summer Institute, Cambridge, Mass, July 2002.
<http://www.nber.org/~confer/2002/si2002/prpmprg.html>.
- Intersecretariat (OECD, UN ECE, World Bank, Eurostat, IMF, ILO) Technical Expert Group Meeting on the Consumer/Producer Price Indices, Office for National Statistics, London, March 2002.
- Sixth Meeting of the (Ottawa Group) International Working Group on Price Indices, Canberra, Australian Bureau of Statistics, March 2001.
<http://www.abs.gov.au/websitedbs/D3110122.NSF/>.
- NBER/CRIW conference, Scanner Data and Price Indexes, Washington D.C. NBER, September 2000.* <http://www.nber.org/~confer/2000/criwf00/silver.pdf>.
- The Measurement of Inflation, Eurostat/Office for National Statistics/Cardiff University, Cardiff, 2000.* <http://www.cf.ac.uk/carbs/conferences/past/mick.pdf>.
- Fourth Meeting of the International Working Group on Price Indices, Washington DC: Bureau of Labor Statistics, 21-38, 2000.
<http://www.ottawagroup.org/articles.shtml>.
- Fifth Meeting of the International Working Group on Price Indices, Iceland 1999 and at the Econometric Society, ERASMUS University, Rotterdam, 1999.*

- <http://www.ottawagroup.org/articles.shtml>.
- Third Meeting of the International Working Group on Price Indices, Research Paper 9806, 203-214, 1998. <http://www.ottawagroup.org/articles.shtml>.
- International Seminar published by Eurostat, Luxembourg, 1996, University of Florence, December, 1995; also presented to the 24th Annual Conference of the Association for Research in Income and Wealth, Lilihammer, 1996.
- Royal Economic Society Conference, University of Kent, 1995.
- Ninth World Congress of the Econometric Society, Tokyo, 1995
- European Association for Research in Industrial Economics, Tel Aviv, 1993.
- European Association for Research in Industrial Economics, Lisbon, Portugal, 1990.
- Atlantic School of Business Conference, St. John's, Newfoundland, October 1987.
- Under the aegis of the International Monetary Fund, paper presented to the United Nations Expert Group on the System of National Accounts Review, Luxembourg, November 1986.
- Fourth International Working Seminar on Production Economics, Austria, 1986.
- International Conference on Tanzania, School of Oriental and African Studies, University of London, July, 1986.
- Statistical Office of the European Communities on External Trade Indices, Luxembourg, November 1985.
- EFMD European Case Development Workshop, Netherlands School of Business, July 1985.
- Administrative Sciences Association of Canada, Annual Conference, Guelph, Canada, May 1984.
- Marketing Education Group Annual Conference, Cranfield, July 1983.
- Journées du Statistique, Université Libre de Bruxelles, Brussel, May 1982.
- Annual Conference of the Development Studies Association, Dublin, 1982.
- Annual conference of the Political Studies Association, 1981.

PROFESSIONAL ACTIVITIES

Professional Committees

- Statistics Canada's Price Measurement Advisory Committee (since 2009).
- United States' Federal Housing Finance Agency's Technical Review Committee to advise on planned modifications to their house price index (since 2009).
- Member of Interim Technical Advisory Group for the World Bank's International Comparisons Programme, 2011/12 round.
- Chair United Nations Inter-secretariat Working Group on Price Statistics, 2006-07: member since 2001 and currently.
- UN "Ottawa" International Working Group on Price Statistics, member last 12 years and currently.
- Member of Technical Expert Groups for ILO and IMF Manuals on CPI, PPI and XMPI methodology.
- Member of the Organising Committee of the Joint UNECE/ILO meetings on Consumer Price Indices.
- Member of International Monetary Fund: Panel of Experts.
- Technical expert to ILO: short-term missions in Egypt and Cyprus.
- Technical expert to United Nations Industrial Development Organisation (UNIDO): short-term missions in Russia.
- Office for National Statistics, UK, favoured consultant status for tenders.

- Official Statistics Section Committee of the Royal Statistical Society. Also a member of advisory group on RSS Guides.
- Australian Research Council (ARC) College of Experts, nominated as an “expert of international standing.

Consultancy Reports

Consultancy work over the last 10 years have exclusively been technical reports to government departments and international organisations, primarily:

U.K. Office for National Statistics
 U.K. Department of Trade and Industry
 International Monetary Fund – working in Austria, Caribbean, China, S. Africa, and Washington DC
 World Bank

Prior to that there was a mix of work on marketing and forecasting to private companies and economic consultancy to international organisations including:

U.K. Office for National Statistics
 International Monetary Fund
 United Nations International Labour Office – working in Egypt and Cyprus
 United Nations Industrial Development Organisation – working in Russia
 The Aubrey Jones Governmental Consultancy Services Ltd – working in Iran
 Welsh Development Agency (WINtech)

Mothercare and Mothercare Europe plc
 ARC Properties Ltd.
 Cow and Gate Baby Foods Ltd.
 GSI Systems Ltd.
 New York Sugar Trade Laboratory Inc.
 Coopers & Lybrand plc

External examining/moderator

PhDs and DPhils in several Universities in the U.K. and abroad, the latter including Erasmus University, the Netherlands and the University of New South Wales, Australia.

Moderator and external examiner to undergraduate and Masters courses at several British universities and to institutions in South Africa and Spain.

Journal editor

Founding (Joint) Editor of the International Journal of the Economics of Business, 1994 to 2000. Now on Editorial Board.

The IJEB benefits from a highly respected Editorial Board and North American Editor. Contributors have included William Baumol, Michael Porter, Dennis Mueller, Richard Caves, John Sutton, Oliver

Williamson, Mark Casson, F. Scherer, William Comanor, Richard Schmalensee, Richard Nelson, Sharon Oster, and Harold Demsetz.

Book Reviews

Economic Journal
Journal of Development Studies
Journal of Economic Literature
Journal of Economic Psychology
Journal of Modern African Studies
Journal of the Royal Statistical Society
Studies in Comparative International Development

Examples include:

Economic Journal, 108, 450, September 1998, "The Economics of New Goods." Edited by Timothy Bresnahan and Robert Gordon. Studies in Income and Wealth, Vol.58, 375-396, NBER Chicago and London: University of Chicago Press, 1997.

Journal of Economic Literature, December 2002, "At What Price? Conceptualizing and Measuring Cost-of-Living and Price Indexes." Edited by Charles L. Schultze and Christopher Mackie. Washington DC: National Academy of Sciences, National Academy Press, 2002.

Refereeing

American Economic Review
Applied Economics
British Journal of Management
Bulletin of Economic Research
Canadian Journal of Economics
E.S.R.C. awards
Economic Journal
Economics of Innovation and New Technology
International Journal of Contemporary Hospitality Management
International Journal of Logistics Research and Applications
International Statistical Review
Journal of Applied Statistics
Journal of Industrial Economics
Journal of International Development Studies
Journal of Macroeconomics
Journal of Mathematics Applied in Business and Industry
Journal of Modern African Studies
Journal of Money Credit and Banking
Journal of Official Statistics
Journal of Political Economy
Journal of the Royal Statistical Society, Series A

Journal of the Royal Statistical Society, Series C
Journal of the Royal Statistical Society, Series D
Journal of Transport Studies and Policy
Management Learning
Managerial and Decision Economics
OMEGA – International Journal for Research in Management Science
Review of Economics and Statistics
Review of Income and Wealth
Review of Official Statistics
Review of World Economics
Studies in Comparative International Development

Awards

National Science Foundation/American Statistical Association – January 2001 to July 2001; award equal to 6 months salary plus cost-of-living adjustment and expenses. Senior Research Fellowship at the US Bureau of Labor Statistics, Washington D.C.

Statistical Office of the European Communities (Eurostat) - November 1998, 'The Measurement of Inflation' jointly with the U.K. Office for National Statistics, 31Sept. to 1 Oct., 30,000 euros.

Bondsecure – January 1992 (with Ioannidis, C. and Mathews, K.), Market for Contract Guarantee Bonds £28,000).

U.K. Department of Trade and Industry - October 1989, Use of Value Added and Data Services in Industry, £20,000.

Economic and Social Research Council and Department of Trade and Industry - October 1985, "Survey of In-Company Management Training." joint with I.L. Mangham, £40,000.

Economic and Social Research Council - June 1986. "Management Training in the U.K." joint award with I.L. Mangham, £5,000.

The above ESRC awards (1985 and 1986) were for conducting a survey of Management Training in the U.K. The survey results were based on a postal response of 2,400 companies drawn at random and stratified by industry and size as well as personal interviews in 250 companies, again drawn at random. In both cases the results were linked to a company database on their financial accounts to help expand the analysis. The data were subjected to extensive multivariate analysis, the results of which were published in September 1986 having received extensive media coverage (Sunday Times, Financial Times, Times Higher Educational Supplement, The Economist, New York Times, BBC Radio etc.).

Economic and Social Research Council (ESRC) - April 1984, "Current and Potential Productivity : Meaning, Measurement and Application." joint award with A.J. Bennett, £9,000.

Other professional activities

Lecturer (external)

- Committee of Vice-Chancellors and Principals of United Kingdom Universities.
- Universities of Warwick and Nottingham, UK.
- UK Department of Education and Science.
- Staff Development Programme, Business School, Plymouth University, UK.
- As expert teaching on IMF courses on price statistics and national accounts in China, the Caribbean and Austria.

TEACHING AND ADMINISTRATION

University of Aston, Management Centre

Teaching at undergraduate, postgraduate, and post-experience level in statistics and microeconomics.

Administrative responsibilities:

Faculty Tutor for combined honours

Chairman of Senate Long-term Planning Committee for Combined Honours

University of Bath, School of Management

Teaching at undergraduate and postgraduate level in courses including research methods (for Ph.D. students), industrial economics, market analysis and forecasting, business and economic statistics. Supervision of PhD and Masters' dissertations.

Administrative responsibilities:

Director of postgraduate research.

Cardiff University, Cardiff Business School

Teaching responsibilities over the years at undergraduate and postgraduate level has mainly been a business statistics course to 400 MBA students and an econometrics course to a small PhD group. Supervision of M.B.A., M.Sc. and PhD theses. The MBA student appraisals **average 4.5** on a scale of 1-5 (1-very poor, 5-very good).

Administrative responsibilities:

Head of the Quantitative Analysis Group (about 10 members) over last 16 years - responsible for academic staff in the quantitative, operations and computing area (organising teaching/help promoting research etc). Other posts held include Deputy Director of School (250 staff); Chairman of the Quantitative Methods and Computing Committee; serving on the School's Policy and Resources Committee; Chairman of Working Party on restructuring the school's MBA; Chairman of the School's Research Committee and member of Senate's Standing Computer Committee; responsible for

developing and implementing the School's I.T. strategy; Chairman of Board of Examiners, Director of the Part-time MBA.

International Monetary Fund

Teaching responsibilities which included organising, preparing material for, and taking courses on price statistics and national accounts in Austria, the Caribbean, China, Vienna, Singapore, and Washington DC. Overall course evaluations were in the range 4.5 to 4.7 on a scale of 1-5. **Data ROSC** missions to Japan and Finland; many **technical assistance** missions including Azerbaijan, Vietnam, and Zambia; technical **meetings** on methodology to Geneva (ILO), Paris (OECD), Rome (FAO), Basel (BIS) and more. Much work on country queries, backstopping and methodology and contributing to manuals on international standards. Responsible for overseeing technical assistance on inflation-related issues to many developing countries.

Software I am fully conversant with a range of software including word processing, spreadsheets, graphics, statistics and econometrics.

Community work in Bath included a very active involvement with Wiltshire Social Services in work relating to children in care. In Cardiff one of the founding Directors of PACT, a registered charity working closely with the South Glamorgan Probation Services to help support their work and the victims of crime.

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