

## VITAE

### JOHANNES M. BAUER

(June 2005)

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**Home Address:** 510 Kedzie Street, East Lansing, Michigan 48823, USA

**Personal data:** Austrian citizen, U.S. permanent resident (since 1990), married, two children

#### I. EDUCATION

- 1989            Ph.D. in Economics, University of Economics and Business Administration, Vienna, Austria (summa cum laude)
- 1982            M.A. in Economics, University of Economics and Business Administration, Vienna and University of Vienna, Austria (summa cum laude)
- 1975            Engineer in Precision Mechanics, Federal Secondary College of Engineering, Mödling, Austria (summa cum laude)

#### II. PROFESSIONAL EXPERIENCE

- 2005-present    Founder, CEO and President, Synthesys, Inc.
- 2005-present    Co-Director, Quello Center for Telecommunication Management and Law
- 2003-present    Professor, Department of Telecommunication, Information Studies, and Media
- 2003-2005        Executive Director, Quello Center for Telecommunication Management and Law
- 2003-present    Senior Fellow, Institute of Public Utilities
- 2001-2003        Associate Director, Quello Center for Telecommunications Management and Law, Michigan State University
- 2002 (May)        Visiting Professor, University of International Business and Economics, Beijing, China
- 1998-2003        Research Associate, Institute of Public Utilities, Michigan State University
- 1994-2003        Associate Professor with tenure, Department of Telecommunication, Michigan State University

2000-2001	Visiting Professor, Delft University of Technology, Faculty of Technology, Policy and Management, Delft, The Netherlands
1997-2000	Director of Graduate Studies, Department of Telecommunication, Michigan State University
1993-1998	Director, Institute of Public Utilities, The Eli Broad Graduate School of Management, Michigan State University
1990-1994	Assistant Professor, Department of Telecommunication, Michigan State University
1985-1990	Lecturer in Economics, University of Economics and Business Administration, Vienna, Austria
1982-1984	Research Assistant, Department of Economic Theory, University of Economics and Business Administration, Vienna, Austria
1980-1981	Social worker, Austrian Red Cross, Schwechat, Austria
1978-1979	Free lance researcher, Institute for Social Design, Vienna, Austria

### III. HONORARY POSITIONS

2005-	Co-editor, <i>Journal of Media Economics</i>
2004-	Member, Editorial Board, <i>Information Economics and Policy</i>
1998-present	Member, International Scientific Advisory Board, Interfaculty Center Design and Management of Infrastructures, Delft University of Technology, Delft, The Netherlands
2001-2005	Member, Executive Committee, Transportation and Public Utilities Group, American Economic Association
2000-2001	Chairman, Transportation and Public Utilities Group, American Economic Association
1999-2000	Chairman Elect, Transportation and Public Utilities Group, American Economic Association
1995-1997	Member, Board of Directors, National Regulatory Research Institute, Ohio State University, Columbus, Ohio

### IV. PUBLICATIONS

Bauer, Johannes M. (forthcoming), "Broadband in the United States," in: M. Fransman (ed.), *Broadband, information society and national systems*, Stanford, CA: Stanford University Press

Bauer, Johannes M. (forthcoming), "Regulated mixed firms: the case of European telecommunications," in R. Künneke, J. Groenewegen and A. Correlje (eds.), *Reforming Network Industries: Between market dynamics and public interests*, Cheltenham, UK and Northampton, MA: Edward Elgar

Wildman, Steven S., Bauer, Johannes M. and Ting, Carol (forthcoming), "Modeling the efficiency properties of spectrum governance regimes," *Info*

Ting, Carol F., Wildman, Steven S. and Bauer, Johannes M. (forthcoming), "A welfare comparison of spectrum property and spectrum commons governance regimes," *Telecommunications Policy*

Bauer, Johannes M. (2005) "Regulation and state ownership: conflicts and complementarities in EU telecommunications", *Annals of Public and Cooperative Economics* **76**(2), 151-177

Bauer, Johannes M. (2005), "Unbundling policy in the United States: players, outcomes and effects," *Communications & Strategies* **57**, 59-82

Bauer, Johannes M., Kim, Junghyun, and Wildman, Steven S. (2005), "Towards an integrative framework for assessing broadband policy options," *Michigan State Law Review*, Spring, Issue 1, pp. 21-50

Lacy, Stephen and Bauer, Johannes M. (2005), "The future of media economics research," forthcoming in: A. B. Albarran, M. O. Wirth and S. Chan-Olmsted (eds.), *Handbook of Media Economics*, pp. 653-672, Mahwah, NJ: Lawrence Erlbaum

Bauer, Johannes M. (2004), "Harnessing the swarm: communications policy in an era of ubiquitous networks and disruptive technologies," *Communications & Strategies*, 54, 2<sup>nd</sup> quarter, 19-43.

Bauer, Johannes M.(2004), „Privatisierung von Infrastruktursektoren aus wirtschaftswissenschaftlicher Sicht,“ in: V. Schneider and M. Tenbücken (eds.), *Der Staat auf dem Rückzug: Die Privatisierung öffentlicher Infrastrukturen*, pp. 53-84, Frankfurt am Main: Campus Verlag

Bauer, Johannes M. (2004), "Spectrum management and the evolution of the mobile services industry," in: R. Cooper and G. Madden (eds.) *Frontiers of broadband, electronic and mobile commerce*, pp. 245-265, Heidelberg: Physica Verlag

Bauer, Johannes M. and Berne, Michel (2004), "E-commerce and internet access in the European Union and the United States," in: B. Preissl, H. Bouwman, and C. Steinfield (eds), *E-life after the dot com bust*, pp. 223-248, Heidelberg: Physica Verlag

Bauer, Johannes M., Häge, Frank and Schneider, Volker (2004), „Vetospiele oder Institutionen: Zum Politikwandel in der Telekommunikation,“ in: M. Tenbücken and V. Schneider (eds.), *Der Staat auf dem Rückzug: Die Privatisierung öffentlicher Infrastrukturen*, pp. 241-279, Frankfurt am Main: Campus Verlag

Bauer, Johannes M. (2003), "Impact of license fees on the prices of mobile service," *Telecommunications Policy* **27**, 417-434

Bauer, Johannes M. (2003), "The role of regulation in an era of partial competition", in E.F.M. Wubben and W. Hulsink (eds.), *On creating competition and strategic restructuring: regulatory reform in public utilities*, pp. 35-66, Cheltenham, UK: Edward Elgar

Bauer, Johannes M., Kim, Junghyun, and Wildman, Steven S. (2003), "Broadband deployment: toward a more fully integrated policy perspective," in: A. L. Shampine (ed.) *Down to the wire: studies in the diffusion and regulation of telecommunications technologies*, Hauppauge, NY: Nova Science Publishers.

Bauer, Johannes M., Vesperini, Paola and Wildman, Steven S. (2003), "The state of telecommunications:

realities, regulation, restructuring,” *Michigan State DCL Law Review*, Issue 3, 531-561

Bauer, Johannes M., Weijnen, Margot P. C., Turk, Adam L. and Herder, Paulien M. (2003), “Delineating the scope of convergence in infrastructures: new frontiers for competition,” in. W.A.H. Thissen and P.M. Herder (eds.), *Critical Infrastructures - State of the Art in Research and Application*, pp. 209-231, Boston/Dordrecht/London: Kluwer.

Heuvelhof, Ernst ten, Kuit, Martijn, Stout, Helen D., and Bauer, Johannes M. (2003), “Capacity management in infrastructure sectors: lessons from the Dutch experience,” W.A.H. Thissen and P.M. Herder (eds.), *Critical Infrastructures - State of the Art in Research and Application*, pp. 265-279, Boston/Dordrecht/London: Kluwer.

Bauer, Johannes M. (2002), “Normative foundations of electronic communications policy in the European Union,” in: J. Jordana (ed.) *Governing telecommunications and the new information society in Europe*, pp. 110-133, Cheltenham, UK: Edward Elgar

Bauer, Johannes M. (2002), “Public utilities in the perspective of the ‘Gemeinwirtschaftslehre’,” in: W. Samuels, and E. Miller (eds.) *An institutionalist approach to public utilities regulation*, pp 82-94, East Lansing: Michigan State University Press

Bauer, Johannes M. (2002), “Spectrum management: private property or commons?” in: R. E. Mansell, R. A. Samarajiva, and A. K. Mahan (eds.), *Networking knowledge for information societies: institutions and intervention*, pp. 118-126, Delft, The Netherlands: Delft University Press

Cherry, Barbara A., and Bauer, Johannes M. (2002), “Institutional arrangements and price rebalancing: evidence from the U.S. and the European Union”, *Information Economics and Policy* **14**, 495-517

Bauer, Johannes M. and Wildman, Steven S. (2002), “Rethinking access: toward a conceptual framework,” *The Law Review of Michigan State University – Detroit College of Law* **4**, 605-616

Maitland, Carleen F., Bauer, Johannes M., and Westerveld, Rudi (2002), “The European market for mobile data: evolving value chains and industry structure, *Telecommunications Policy* **26**, 535-554

Bauer, Johannes M., Berne, Michel, and Maitland, Carleen F. (2002), “Internet access in the European Union and in the United States,” *Telematics and Informatics* **19**, 117-137

Bauer, Johannes M. (2001), “Fundamentos normativos de la política telecomunicaciones en la sociedad de la información Europea”, in R. Máiz (ed.), *Construcción de Europa, democracia y globalización*, Santiago de Compostela: Servicio de Publicacións e Intercambio Científico, pp. 411-430

Maitland, Carleen F. and Bauer, Johannes M. (2001), “National level culture and global diffusion: the case of the Internet,” in C. Ess (ed.) *Culture, technology, communication: towards an intercultural global village*, pp.87-128, Albany, NY: SUNY Press

Weijnen, Margot P. C., Bauer, Johannes M., Chamoux, Jean-Pierre, Ehrenfeld, John, & Jones, Douglas N. (eds.) (2001), *Walking a thin line in infrastructures: balancing short term goals and long term nature*, Proceedings of the Third Annual Symposium of the Delft Interfaculty Research Center Design and Management of Infrastructures, Delft: Delft University Press

Steinfeld, Charles, Mahler, Alwin and Bauer, Johannes M. (2000), “Electronic commerce and the local

merchant: opportunities for synergies between physical and web presence," in E. Bohlin, K. Brodin, A. Lundgren, and B. Thorngren (eds.) *Convergence in communications and beyond*, pp. 269-280, Amsterdam: Elsevier

Bauer, Johannes M. (1999), "Universal service in Europe," *Government Information Quarterly* **16**, 329-343

Steinfeld, Charles, Mahler, Alwin, and Bauer, Johannes M. (1999), "Strategies for physically-based retailers competing in a global virtual environment," *Electronic Markets* **9**, 51-57

Bauer, Johannes M. (1997), "Market power, technical change and efficiency in telecommunications: Schumpeter reconsidered," *Journal of Economic Issues* **31**, 557-565

Bauer, Johannes M. (1996), "The role of national policy in an era of global networks," in: *Harnessing Telecommunications Convergence*, Proceedings of the 18<sup>th</sup> Annual Conference of the Pacific Telecommunications Council, Honolulu, Hawaii: PTC

Bauer, Johannes M. (1995), "Alternatives to privatization", in: B. Mody, J. M. Bauer, J. D. Straubhaar (eds.) *Telecommunication politics: ownership and control of the information highway in developing countries*, pp. 261-285. Mahwah, NJ: Lawrence Erlbaum Associates

Bauer, Johannes M. (1995), "The regulatory treatment of utility diversification," *Land Economics* **33**, 386-400

Mody, Bella, Bauer, Johannes M., and Straubhaar, Joseph D. (eds.) (1995), *Telecommunication politics: ownership and control of the information highway in developing countries*. Mahwah, NJ: Lawrence Erlbaum Associates

Bauer, Johannes M., Straubhaar, Joseph D., McCormick, Patricia, and Campbell, Consuelo (1995), "Telecommunications restructuring: the experience of eight countries", in: B. Mody, J. M. Bauer, J. D. Straubhaar (eds.) *Telecommunication politics: ownership and control of the information highway in developing countries*, pp. 225-245. Mahwah, NJ: Lawrence Erlbaum Associates

Bauer, Johannes M. (1994), "Globalization of telecommunications operators under conditions of asymmetric national regulation", in G. Pogorel (ed.) *Global telecommunications strategies and technical change*, pp. 287-303. Amsterdam: North-Holland

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Bauer, Johannes M. (1994), "Restructuring of public utilities in a global perspective", *NRRI Quarterly Bulletin*, Spring

Bauer, Johannes M. (1994), "The anatomy and regulatory repercussions of telecommunications globalization", in G. W. Brock (ed.), *Towards competition in telecommunications policy*, pp. 179-202, Mahwah, NJ: Lawrence Erlbaum

Bauer, Johannes M. (1994), "The emergence of global networks in telecommunications: transcending national regulation and market constraints," *Journal of Economic Issues* **28**, 109-124

Bauer, Johannes M. and Steinfeld, Charles (1994), "Telecommunications initiatives of the European

Communities", in: C. Steinfield, J. M. Bauer and L. Caby (eds.) *Telecommunications in transition*, pp. 51-70. Thousand Oaks: Sage Publications

Bauer, Johannes M. and Straubhaar, Joseph D. (1994), "Telecommunications in Central and Eastern Europe", in: C. Steinfield, J. M. Bauer and L. Caby (eds.) *Telecommunications in transition*, pp. 255-271. Thousand Oaks: Sage Publications

Steinfeld, Charles, Bauer, Johannes M., and Caby, Laurence (eds.) (1994), *Telecommunications in transition: policies, services, and technologies in the European Community*. Thousand Oaks, CA: Sage Publications

Bauer, Johannes M. (1993), "Telecommunications in post-1992 Europe", *International Review of Comparative Public Policy* **5**, 109-135

Bauer, Johannes M. and Latzer, Michael (eds.) (1993), *Nützliche Verbindungen: Neue Telekommunikationsdienste in Europa*, Vienna-Munich: R. Oldenbourg Publishers

Bauer, Johannes M. and Marterbauer, Markus (eds.) (1991), *Ende des Protektionismus: Ökonomische Auswirkungen einer Liberalisierung des öffentlichen Beschaffungswesens*. Vienna, Austria: Verlag der Wirtschaftsuniversität

Bauer, Johannes M., Marterbauer, Markus, and Walther, Herbert (1993), "Ökonomische Effekte einer Angleichung des österreichischen Beschaffungswesens an die EG-Bedingungen", in: F. Schneider and R. Neck, eds., *Europäische Integration aus der Sicht kleiner offener Volkswirtschaften*, pp. 183-206, Vienna, Austria: Manz

Bauer, Johannes M. (1991), "Europäische Integration und Gemeinwirtschaft", in: St. Griller, E. Lavric, and R. Neck (eds.), *Europäische Integration aus österreichischer Sicht*, pp. 49-71. Wien: Orac

Bauer, Johannes M. (1990), "Die Reorganisation der öffentlichen Wirtschaft in Österreich und ihre Effizienzwirkungen", *Der öffentliche Sektor* **16**, 44-73

Bauer, Johannes M. (1989), "De-Regulierung als wirtschaftspolitisches Instrument: eine kritische Evaluation", in: K. S. Althaler, M. Marterbauer (eds.), *Steuerungsprobleme der Wirtschaftspolitik auf dem Weg in eine andere Moderne*, pp. 29-46, Vienna, Austria: BEIGEWUM

Bauer, Johannes M. (1989), "Ökonomische Rahmenbedingungen und die Auswirkungen des Telekommunikationsrechtes", in: K. Korinek and E. Stampfl-Blaha (eds.), *Beiträge zum Telekommunikationsrecht*, p. 25-50, Vienna, Austria: Orac

Bauer, Johannes M. (1989), "Organisationsform und Effizienz in der Versorgungswirtschaft," *Der öffentliche Sektor* **15**, 133-152

Bauer, Johannes M. (1988), "Deregulierung der Europäischen Gemeinschaft - Chance und Herausforderung für Österreich", in: F. Schneider/M. Hofreither, eds., *Privatisierung und Deregulierung öffentlicher Unternehmen in westeuropäischen Ländern: Erste Erfahrungen und Analysen*, pp. 165-191, Vienna, Austria: Manz

Bauer, Johannes M. and Latzer, Michael (1988), "Telecommunications in Austria", in: J. Foreman-Peck, & J. Müller (eds.), *European Telecommunication Organisations*, pp. 43-71. Baden-Baden: Nomos Verlagsgesellschaft

Bauer, Johannes M. (1987), "Öffentliche Wirtschaft im Wandel", in: H. Tieber, ed., *Zurück in die Zukunft. Die öffentliche Wirtschaft in Österreich*, pp. 29-78, Vienna, Austria: Jugend und Volk

Bauer, Johannes M. (1987), "Privatisierung. Ein internationaler Vergleich", *Gemeinwirtschaft*, 3, 7-18

Bauer, Johannes M. (1987), "Privatisierung und Effizienz," *Wirtschaftspolitische Blätter* **34**, 584-593

Bauer, Johannes M. (1987), "Telekommunikation zwischen Regulierung und Deregulierung", *Gemeinwirtschaft* **3**, 85-96

Nowotny, Ewald and Bauer, Johannes M. (1987), "Steuerungsmechanismen der Abfallwirtschaft", *Gemeinwirtschaft*, 1, pp. 15-22

Bauer, Johannes and Latzer, Michael (1987), "Impact and Policy-Challenge of Telecommunications Liberalisation for a Small and Open Economy: A Case Study of Austria", in: *World Telecommunications Forum* 87, pp. 37-41, Geneva: International Telecommunications Union

Bauer, Johannes M. et.al. (1987), "A technology assessment of new telecommunications services," *Telecommunications Policy* **11**, 334-346

Bauer, Johannes M. (1986), "Grenzverschiebungen zwischen öffentlicher und privater Wirtschaft in Österreich 1970-1985," *Journal für Sozialforschung* **26**, 283-318

Bauer, Johannes M. (1986), "Telekommunikation in Österreich. Innovationspolitik in einem dynamischen Infrastrukturbereich", in: M. Scherb and I. Morawetz (eds.), *Stahl und Eisen bricht. Industrie und staatliche Politik in Österreich*, pp. 81-107, Vienna, Austria: Verlag für Gesellschaftskritik

Bauer, Johannes M. (1986), "Zwischen Wettbewerb und Monopolisierung: Wieviel Wettbewerb verträgt der Telekommunikationsbereich?", in: W. Kabelka and M. Chloupek (eds.), *Wirtschaftliche Aspekte neuer Informationstechnologien*, pp. 79-99 Vienna, Austria: Linde

Abele, Hanns and Bauer, Johannes M. (1984), *Die Bundestheater in der österreichischen Wirtschaft*. Vienna: Ueberreuter

## **V. PRESENTATIONS AT ACADEMIC CONFERENCES AND MEETINGS**

With Sungjoong Kim, Bella Mody and Steven S. Wildman, "The role of research in communications policy: theory and evidence," to be presented at the 55<sup>th</sup> Annual Conference of the International Communications Association, New York, May 26-30, 2005.

With Volker Schneider, "The organization of ICT business interests in the United States," presented at the 63rd Midwest Political Science Association Annual Conference, Chicago, Illinois, April 7-10, 2005

With Junghyun Kim and Steven S. Wildman, "Regulation and the diffusion of broadband in the OECD," presented at the University of Florida-London Business School joint conference, Gainesville, FL, February 24-25, 2005.

With Yu-Chieh Lin, Carleen F. Maitland and Ankur Tarnaka, "Transition paths to next-generation

wireless services,” presented at the 32<sup>nd</sup> Research Conference on Communication, Information and Internet Policy, Alexandria, VA, October 1-3, 2004

With Carol Ting and Steven S. Wildman, “Welfare comparison of spectrum property and spectrum commons governance regimes,” presented at the 32<sup>nd</sup> Research Conference on Communication, Information and Internet Policy, Alexandria, VA, October 1-3, 2004

With Barbara A. Cherry, “Adaptive regulation: contours of a policy model for the Internet economy,” presented at the 15<sup>th</sup> Biennial conference of the International Telecommunications Society, Berlin, Germany, September 4-7, 2004

With Carol Ting and Steven S. Wildman, “Modeling the efficiency properties of spectrum management regimes,” presented at the 15<sup>th</sup> Biennial conference of the International Telecommunications Society, Berlin, Germany, September 4-7, 2004

With Yu-Chieh Lin, Carleen F. Maitland and Ankur Tarnaka, “Mobile communications policy and the transition to next-generation wireless services,” presented at the 15<sup>th</sup> Biennial conference of the International Telecommunications Society, Berlin, Germany, September 4-7, 2004

With Fang Liu and Zhongxiu Zhao, "Unleashing telecommunications in a socialist market economy: China's path reconciling domestic conditions and international obligations," 54th Annual Conference of the International Communications Association, New Orleans, May 27-31, 2004

With Volker Schneider, “Networks of political action and socio-technical coordination: business associations in the U.S. information and communication sector,” International Sunbelt Social Network Conference XXIV, Portorož, Slovenia, May 12-16, 2004

With Frank Häge and Volker Schneider, “Political and societal veto players and regulatory reform: the transformation of telecommunications in OECD countries,” 62<sup>nd</sup> Midwest Political Science Association Annual Conference, Chicago, Illinois, April 15-18, 2004

“Harnessing the swarm: communications policy in an era of ubiquitous networks and disruptive technologies,” presented at the European Communications Policy Research Conference, Barcelona, Spain, March 28-30, 2004

With Jung Hyun Kim and Steven S. Wildman, “Broadband diffusion: a framework for policy,” presented at the conference “Understanding the Dynamics of the Information Ecosystem,” Michigan State University – DCL College of Law, East Lansing, Michigan, March 26-27, 2004

With Volker Schneider, “The organization of business interests in the US ICT sector: adapting to competition, convergence, and globalization,” International workshop on Organized Business Interests in Changing Environments, University of Konstanz, Germany, January 16-17, 2004

With Thomas Adelaar, “E-commerce, competitiveness and the spatial structure of markets,” prepared for presentation at WeB 2003 Workshop on e-Business, Seattle, WA, December 13-14, 2003

“Governing the networks of the information society: Prospects and limits of policy in a complex technical system,” Conference of the European Association for Evolutionary Political Economy (EAEPE), Maastricht, Netherlands, November 8-10, 2003



“Prospects and limits of comparative research in communications policy-making,” 31st Research Conference on Communication, Information and Internet Policy, Arlington, VA, September 19-21, 2003

with Jung Hyun Kim and Steven S. Wildman, “Broadband uptake in OECD countries: policy lessons from comparative statistical analysis,” 31st Research Conference on Communication, Information and Internet Policy, Arlington, VA, September 19-21, 2003

with Carol Ting and Steven S. Wildman, “The experience with non-traditional forms of spectrum management: tragedies of the commons and other myths reconsidered,” 31st Research Conference on Communication, Information and Internet Policy, Arlington, VA, September 19-21, 2003

“Die Privatisierung von Infrastrukturen aus wirtschaftswissenschaftlicher Sicht,” Konstanz, Germany, June 28, 2003

“Spectrum policy and the evolution of the mobile internet,” 53<sup>rd</sup> Conference of the International Communications Association, San Diego, May 26, 2003

“Zur Steuerung komplexer technischer Systeme am Beispiel der Telekommunikation,” Institute for Technology Assessment, Vienna, Austria, January 22, 2003

“A comparative analysis of spectrum management regimes,” 30<sup>th</sup> Research Conference on Communication, Information and Internet Policy, Alexandria, VA, September 28-30, 2002

With Ping Gai, Junghyun Kim, Thomas A. Muth and Steven S. Wildman, “Whither broadband policy?,” 30<sup>th</sup> Communications and Internet Research Conference, Alexandria, VA, September 28-30, 2002

“Regulated mixed firms: the state in European telecommunications,” 13<sup>th</sup> Regional European Conference of the International Telecommunications Society, Madrid, Spain, September 8-10, 2002

With Ping Gai, Junghyun Kim, Thomas A. Muth and Steven S. Wildman, “Foundations of broadband policy,” 13<sup>th</sup> Regional European Conference of the International Telecommunications Society, Madrid, Spain, September 8-10, 2002

With Carleen F. Maitland and Rudi Westerveld, “The European Market for mobile data,” 14th Biennial Conference of the International Telecommunications Society, Seoul, Korea, July 18-21, 2002

„Spectrum management and the evolution of the mobile communications industry,“ 14th Biennial Conference of the International Telecommunications Society, Seoul, Korea, July 18-21, 2002

With Volker Schneider, “Die Rolle von Interessenverbänden in der amerikanischen Informations- und Kommunikationspolitik“, Meersburg, Germany, June 6-8, 2002

With Harry M. Trebing, “Liberalized infrastructure: regulation and performance”, Delft, The Netherlands, May 30, 2002

“The Impact of entry cost on the evolution of the market for mobile services,” University of Florida and London Business School Conference on Competition in Wireless: Spectrum, Service, and Technology Wars, Gainesville, Florida, February 19-20, 2002

With Eli M. Noam, “Wireless liberalization policies: the problem of the second-best”, Annual Conference

of the American Economic Association, Atlanta, Georgia, January 2-6, 2002

“Spectrum auctions, prices and network expansion in mobile communications”, 29<sup>th</sup> Telecommunications Policy Research Conference, Alexandria, Virginia, October 27-29, 2001

With Carleen F. Maitland and Rudi Westerveld, "Advanced wireless communications infrastructure: technical, economic, and regulatory conditions of UMTS rollout", European Conference of the International Telecommunications Society, Dublin Ireland, September 3-5, 2001

“The changing role of the state in U.S. infrastructure policy”, Arbeitskreis Politik und Technik des Deutschen Vereins für Politikwissenschaft, University of Konstanz, Germany, June 15-16, 2001

With Margot P. C. Weijnen, Adam L. Turk, and Paulien M. Herder, “Delineating the scope of convergence in infrastructures: new frontiers for competition,” 5<sup>th</sup> International Conference on Technology, Policy and Innovation, The Hague, Netherlands, June 26-29, 2001

With Ernst van ten Heuvelhof, Martijn Kuit, and Helen D. Stout, “Capacity management in infrastructure sectors: the Dutch experience,” 5<sup>th</sup> International Conference on Technology, Policy and Innovation, The Hague, Netherlands, June 26-29, 2001

“The economics of Internet flat rates – comment”, European Communications Policy Research Conference, Venice, Italy, March 26-27, 2001

With Barbara A. Cherry, “Institutional arrangements and rate rebalancing: evidence from the U.S. and Europe,” XIII Biennial Conference of the International Telecommunications Society, Buenos Aires, Argentina, July 2-5, 2000

“Universal service policy in the European Union,” 50th Annual Conference of the International Communications Association, Acapulco, Mexico, June 1-5, 2000

With Michel Berne and Carleen Maitland, “Internet access in the European Union and in the United States”, International conference on Internet regulation, Seattle, University of Washington, April 25-28, 2000

“Normative foundations of telecommunications policy in the European Union,” Santiago de Compostela, Spain, April 12, 2000

“Policy competition and footloose utilities,” 2nd Annual DIOC Symposium, Delft University of Technology, Delft, The Netherlands, December 9, 1999

“Competition as a turbulent process: lessons for telecommunications regulation,” 27th Telecommunications Policy Research Conference, Alexandria, Virginia, September 25-27, 1999

With Hyun-Oh Yoo, “Competition and the pricing of telecommunications services in the European Union,” 27th Telecommunications Policy Research Conference, Alexandria, Virginia, September 25-27, 1999

With Carleen Maitland, “Global diffusion of the Internet: driving forces and critical mass,” presented at the European Regional Conference of the International Telecommunications Society, Torino, Italy, September 2-4, 1999

“Regulation and convergence in the United States,” presented at the 49th Annual Conference of the International Communications Association, San Francisco, CA, May 27-31, 1999

“Universal service in Europe,” Annual conference of the American Society for Information Scientists, Pittsburgh, October 27, 1998

With Charles Steinfield & Alwin Mahler "Electronic Commerce and the Local Merchant: Opportunities for Synergies Between Physical and Web Presence," 12<sup>th</sup> Biennial Conference of the International Telecommunications Society, Stockholm, Sweden, June 21-24, 1998

"Telecom privatization in Europe: has it worked?" Columbia University, New York, June 12, 1998

With Alwin Mahler "Strategies for physically-based retailers competing in a global virtual environment", CRTPS Conference, Ann Arbor, Michigan, June 5-6, 1998

With Hyunoh Yoo "Incentive regulation, economic activity, and the deployment of advanced telecommunications infrastructure," CRTPS Conference, Ann Arbor, Michigan, June 5-6, 1998

“Competition in network industries: an evolutionary perspective,” presented at the Annual Conference of the Transportation and Public Utilities Group of the American Economic Association, New Orleans, Louisiana, January 4-7, 1997

“Market power, technical change and efficiency in telecommunications: Schumpeter reconsidered,” presented at the Annual Conference of the American Economic Association, New Orleans, Louisiana, January 4-7, 1997

With Patricia K. McCormick, “Diversification and stock market valuation of telephone companies,” presented at the 11<sup>th</sup> Biannual Conference of the International Telecommunications Society, Seville, Spain, June 1996

With Michela Cimattoribus, “The evolution of local telephone competition in the United States,” presented at the 11<sup>th</sup> Biannual Conference of the International Telecommunications Society, Seville, Spain, June 1996

“National information infrastructure policy in an era of global networks,” presented at the 18th Annual Conference of the Pacific Telecommunications Council, Honolulu, Hawaii, January 14-18, 1996

“The anatomy and regulatory repercussions of global telecommunications strategies”, paper presented at the 22nd Telecommunications Policy Research Conference, Solomons, Maryland, October 1-3, 1994

"The emergence of global networks in telecommunications: transcending national regulation and market constraints", paper presented at the Annual Conference of the Association for Evolutionary Economics, Boston, Massachusetts, January 3-5, 1994

"Models for infrastructure modernization", paper presented at the conference "Telecommunications Restructuring in Developing Countries and Eastern Europe", East Lansing, Michigan, April 30-May 1, 1993

"Globalization of telecommunications operators under conditions of asymmetric national regulation", paper presented at the 9th Conference of the International Telecommunications Society, Sophia-Antipolis, France, 14-17 June 1992

"Network investment and the dynamics of telecommunications infrastructure development", intermediate

research presented at the 9th Conference of the International Telecommunications Society, Sophia-Antipolis, France, 14-17 June 1992

"Institutional arrangements and performance of the telecommunications industry", presentation at the workshop on "The Global Restructuring of Telecommunications", organized by the Department of Telecommunication and CASID, Michigan State University, 28 May 1992

"European integration and the changing 'mix' of the mixed economy", Annual Conference of the European Association for Evolutionary Political Economy, Vienna, November 8-9, 1991

"Value-added networks and services in Europe: governance approaches and industry dynamics", 41st Annual Conference of the International Communication Association", Chicago, IL, May 23-27, 1991

"Die Reorganisation der öffentlichen Wirtschaft in Österreich und ihre Effizienzwirkungen", International Symposium on Efficiency in the Public Sector, Bratislava, Czechoslovakia, 18 May, 1990 [Efficiency implications of the reorganization of the Austrian state-owned enterprise sector]

"Alternative governance structures for infrastructure sectors", Conference on Regulatory Reform and the Completion of the Internal Market at the European University Institute, Florence, Italy, 21-22 November, 1988

"Institutional change in "mixed" economies", Guest Lecture at the European University Institute, Florence, Italy, 3 November 1987

## **VI. TECHNICAL REPORTS AND WORKING PAPERS**

With Sungjoong Kim, Bella Mody, and Steven S. Wildman, U.S. "Telecommunications Policy-Making: Who Participates and Who is Heard?" Report for the Ford Foundation, May 2005.

With Carol Ting and Steven S. Wildman, "The U.S. experience with non-traditional approaches to spectrum management: tragedies of the commons and other myths reconsidered," Quello Center Working Paper 05-03, 2003.

With Ping Gai, Junghyun Kim, Thomas A. Muth and Steven S. Wildman, "Benefits and public policy challenges of broadband communications," Report prepared for the Michigan Economic Development Corporation and MERIT, East Lansing, Michigan, October 2002

With Michael Latzer, Stefan Schmitz, Natascha Just, and Peter-Paul Sint, *Regionale Auswirkungen des e-commerce in Wien*, Vienna: Austrian Academy of Sciences, July 2002 [Regional economic effects of e-commerce: the case of Vienna]

With Carleen F. Maitland and Rudi Westerveld, *Advanced wireless communications infrastructure: technical, economic, and regulatory conditions of UMTS network deployment*, Delft, The Netherlands: Delft University of Technology, August 2001

With Michelle F. Wilsey, *The Telecommunications Act of 1996 and its Implications for Canada*, prepared for the Canadian Radio-Television and Telecommunications Commission (CRTC), Ottawa, September 1996

## VII. BOOK REVIEWS

Bauer Johannes M. "Technology policy and democratic society," review of recent books on information and communications policy, *Journal of Communication* **51**(2), 2001, pp. 413-417

Bauer, Johannes M. Review of "Communications policy and the public interest: the Telecommunications Act of 1996" by Patricia Aufderheide, *Journal of Communication* **50**(1), 2000, pp. 154-158

Bauer, Johannes M. Review of "The liberalisation of telecommunications in Sweden: technology and regime change from the 1960s to 1993" by Magnus Karlsson, *Technology and Culture* **40**, October 1999, pp. 926-927

## VIII. SERVICE AS REFEREE

### a. Journals

Information Economics and Policy  
International Journal of Media Management  
Journal of Media Economics  
Telecommunications Policy  
The Information Society  
Utilities Policy

### b. Publishers

Edward Elgar (UK)  
MIT Press (US)  
Oxford University Press (US)  
Routledge (UK)

### c. Foundations

Economic and Social Research Council (UK)  
National Science Foundation (US)  
Netherlands Organization for Scientific Research (Netherlands)  
Social Sciences and Humanities Research Council (Canada)

## IX. RESEARCH EXPERIENCE AND COMMISSIONED RESEARCH

2005-2007      Principal investigator of "Using complexity theory to improve the performance and governance of infrastructure systems (\$160,000, funded by the Next Generation Infrastructure Foundation, The Netherlands; awarded, final details in negotiation)

2003-2004      Co-principal investigator of "U.S. Telecommunications Policy-Making: Who Participates and Who is Heard: The Role of Research and Ideas" (\$100,000, Ford Foundation)

- 2002-2005 Co-principal investigator of “Achieving innovative and reliable services in unlicensed spectrum” (\$1,514,000, funded by the U.S. National Science Foundation, collaborative research with Rutgers University and Cornell University)
- 2002 Co-principal investigator of a project studying benefits and policy challenges of broadband communications (\$31,500, Michigan Economic Development Corporation and MERIT)
- 2001-present Co-principal investigator of the U.S. segment of a study on the role of business associations on information and communications policy in the G7 countries (multi-year collaborative project coordinated by Jürgen Grote and Volker Schneider, University of Constance, Germany, funded by the German Society for Research)
- 2000-2002 Co-investigator of a project on the regional impacts of e-commerce (funded by the Austrian Academy of Sciences and the City of Vienna)
- 2001 Co-principal investigator of a study on the technical, economic, and regulatory aspects of UMTS wireless infrastructure development (\$35,000, funded by Ben Nederlands/T-Mobile, The Netherlands)
- 1998-1999 Principal investigator of a study on the role of competition in network industries (sponsored by the Institute of Public Utilities at Michigan State University)
- 1996 Principal investigator in a project on “Design Options for Market Operators” (\$10,000, funded by Ontario Hydro, Toronto)
- 1995-1996 Principal investigator of a study on “Cost allocation and rate design in a more competitive electric utility industry” (\$6,000, funded by Ontario Hydro, Toronto)
- 1994-1995 Principal investigator of a study on “Effects of regulatory reform in the U.S. and in Canada” (funded by Ontario Hydro)
- 1994-1995 Principal investigator of a study on "State and federal regulatory repercussions of the globalization of network-based industries in energy and telecommunications" (\$10,000 AURIG grant from Michigan State University)
- 1993-1998 Multiple grants from the private sector in support of the research and training activities of the Institute of Public Utilities (approximately \$180,000-200,000 per year)
- 1988-1990 Principal investigator of a study on the deregulation potentials in Austrian professional services industries (\$38,000, funded by the Austrian Ministry of Finance)

## **X. TEACHING EXPERIENCE**

### **A. Undergraduate courses**

#### *1. Vienna University of Economics and Business Administration*

- Microeconomics
- Macroeconomics

- National Accounting

2. *Michigan State University*

- Comparative and International Telecommunication
- Basic Telecommunication Policy
- Economics of Telecommunications and Information Industries
- Global Media

**B. Graduate courses**

1. *Vienna University of Economics and Business Administration*

- Microeconomics
- Macroeconomics
- Public Utility Regulation
- Industrial Organization
- Economics and Politics of Regulation and Deregulation
- Public Enterprise Economics
- Public Finance

2. *University of Technology, Vienna*

- Economics of Telecommunications

3. *Michigan State University*

- Telecommunications Policy Analysis
- Comparative Telecommunications Systems and Policies
- Communications Law and Policy
- The Economics of Information Industries

4. *Institut National des Télécommunications, Evry, France*

- Telecommunications in Europe

5. *University of International Business and Economics (UIBE), Beijing, China*

- Principles of Information and Communication Policy

**C. Professional Education**

Numerous lectures on: Information and Communications Policy; Mobile Communications; Comparative Approaches to Information Policy (especially U.S. and EU); Economic and Legal Principles of Regulation; Costing and Rate-Design in Regulated Industries; Alternatives to Traditional Rate Base/Rate-of-Return Regulation, Incentive Regulation, Regulatory Treatment of Foreign Utility Investment, Deregulation as a Policy Strategy

## **XI. SELECTED PRESENTATIONS AT PROFESSIONAL MEETINGS**

“Advanced telecommunication network economics,” Advanced Regulatory Studies Program, April 25, 2005, Michigan State University, East Lansing, Michigan.

“Frameworks for telecommunication reform,” 2005 Michigan Forum, January 21, 2005, East Lansing, Michigan.

“Studies of broadband adoption,” Workshop Formulating a Research Agenda for Communications Policy, Federal Communications Commission, Washington, D.C., December 10, 2004.

“Unlicensed wireless services,” Workshop Policy Responses to VoIP, Unlicensed Wireless, Powerline and other Competitive Telecommunication Technologies, Charleston, SC, December 5, 2004.

“Telecommunications: economics, structure, regulation,” 46<sup>th</sup> NARUC Annual Regulatory Studies Program, East Lansing, Michigan, August 2, 2004

“Comparative regulatory theory and practice,” International Regulatory Studies Workshop, Michigan State University, July 31, 2004

“Competition, next generation networks, and cooperative federalism,” Michigan Forum 2004, East Lansing, Michigan, February 6, 2004

“Emerging alternatives to regulation,” 45<sup>th</sup> NARUC Annual Regulatory Studies Program, East Lansing, Michigan, August 15, 2003

“Unbundling public utility functions and services,” 45<sup>th</sup> NARUC Annual Regulatory Studies Program, East Lansing, Michigan, August 12, 2003

“Telecommunications: economics, structure, regulation,” 45<sup>th</sup> NARUC Annual Regulatory Studies Program, East Lansing, Michigan, August 4, 2003

“Theoretical and practical developments in regulation and their role in privatization and globalization,” International Regulatory Studies Workshop, Michigan State University, August 2, 2003

“Alternative methods of public utility regulation,” 44<sup>th</sup> NARUC Annual Regulatory Studies Program, East Lansing, Michigan, August 9, 2002

“Public utility regulation, privatization, and globalization,” 44<sup>th</sup> NARUC Annual Regulatory Studies Program, East Lansing, Michigan, August 3, 2002

“Telecommunications reform in Europe: lessons for the United States?”, 30<sup>th</sup> Annual Conference of the Public Utilities Research Center (PURC), University of Florida, Gainesville, Florida, February 21-22, 2002

“Concepts of public utility regulation for developing countries”, 41<sup>st</sup> NARUC Annual Regulatory Studies Program, East Lansing, Michigan, August 4, 1999

“Principles of performance-based regulation,” Ontario Energy Board, Toronto, September 22-23, 1998

“Electric utility restructuring in the United States,” Jerusalem, Israel, December 15, 1997



“Market power and competition in the emerging energy industries,” Conference of the Canadian Energy Research Institute, Banff, Canada, October 30, 1997

“Energy mergers and restructuring”, presented at the Mid-American Regulators Conference, Des Moines, Iowa, June 16, 1997

“Incentive regulation for natural gas utilities,” Conference of the Ente Nacional Regulator del Gas (ENARGAS), Buenos Aires, Argentina, May 17, 1997

“Performance-based regulation,” CAMPUT, Niagara-on-the-Lake, Canada, April 22, 1997

“Price-cap regulation for telecommunications”, La Paz, Bolivia, January 12, 1996

“Potential pitfalls of performance-based regulation”, 107th Annual Conference of the National Association of Regulatory Utility Commissioners, New Orleans, Louisiana, November 17, 1995

“Current challenges to public utility regulation,” 18th Annual Conference of Regulatory Attorneys, Phoenix, Arizona, May 15, 1995

“Who will own the information superhighway?” 7th Minnesota Telecommunications Conference, Minneapolis, Minnesota, May 18, 1995

“Performance-based regulation for the electric utility industry”, Alberta Conference on Restructuring the Electric Utility Industry, Edmonton, Alberta, January 26, 1995

"Today's regulatory environment", presented at the 17th Annual Conference of Regulatory Attorneys, Gulf Shores, Alabama, May 23-25, 1994

“Restructuring the natural gas industry”, presented to the Ontario Energy Board, Toronto, Ontario, September 26-27, 1994

"The diversifying utility", paper presented at the 9th Conference of the Canadian Association of Members of Public Utility Tribunals, Banff, Alberta, Canada, May 9-11, 1994

"Trans-nationalization of public utilities: implications for state regulators", paper presented at the 38th Great Lakes Conference of Public Utility Commissioners, White Sulphur Springs, West Virginia, July 1-14, 1993

Numerous presentations on issues of public utility regulation to national and international audiences, addressing strategies of regulatory reform in electricity, natural gas, and communications, privatization, institution-building and creation of regulatory frameworks, performance-based regulation, globalization of utilities and the establishment of an international regulatory framework

## **XII. CONSULTING AND APPEARANCES**

2004 Consultant for the Consumer Groups in the review of Voice over Internet Protocol (VoIP) policy, Canadian Radio-Television and Telecommunications Commission, Ottawa, Canada

2004 Consultant for the Consumer Groups in the review of price cap deferral accounts, Canadian

- Radio-Television and Telecommunications Commission, Ottawa, Canada
- 2003 Expert witness for the Consumers' Association of Canada, the Industrial Gas Users Association (IGUA) and the Vulnerable Energy Consumers Coalition (VECC), Ontario Energy Board, Toronto
- 2000 Expert witness for the Consumers' Association of Canada in the application of Union Gas for a performance-based regulatory regime, Toronto, Ontario
- 1999 Expert witness for the Industrial Gas Users Association in the design of performance based regulation for Gazifère, Montreal, Canada
- 1999 Expert for the Consumer's Gas Association in the design of a performance-based regulatory framework for electricity distribution companies in Ontario, Toronto, Ontario
- 1998 Expert witness on behalf of the Industrial Gas Users Association, Ontario Coalition against Poverty, The Consumers' Association of Canada, and HVAC-Coalition in the separation of competitive and monopoly businesses of Union Gas (E.B.O. 177-17) at the Ontario Energy Board, Ontario, Canada
- 1997 Consultant to Northwestern Utilities, Edmonton, Canada, on performance-based regulation
- Consultant to Ontario Hydro on performance-based regulation and electricity restructuring issues
- Consultant to the governments of Bolivia and Brazil on telecommunications and energy reform
- Consultant to The World Bank on international utility diversification, incentive regulation, and pricing of services
- 1996 Expert to the Ontario Energy Board during the open hearing on utility diversification.
- Consultant to ENARGAS (Argentina) on incentive regulation and the regulatory treatment of investment projects
- Consultant to the Canadian Radio-Television and Telecommunications Commission (C.R.T.C.) on the Telecommunications Act of 1996
- Consultant to Ontario Hydro on incentive regulation for electricity transmission
- 1995 Consultant to Alberta Power, Edmonton, Alberta, on performance-based regulation
- Consultant to the Canadian Radio-Television and Telecommunications Commission C.R.T.C. on price cap regulation
- 1994 Expert witness during the Ontario Energy Board hearing on international investment by Ontario Hydro International

### **XIII. MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS**

American Economic Association (AEA)  
European Association for Evolutionary Political Economy (EAEPE)  
International Communication Association (ICA)  
International Telecommunications Society (ITS)  
Midwest Political Science Association (MPSA)  
Transportation and Public Utilities Group (TPUG)